

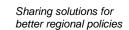




# ACTION PLAN ON THE PROMOTING ELECTRIC MOBILITY IN THE PREŠOV SELF-GOVERNING REGION

















# Action plan on promoting electric mobility in the Prešov self-governing region



Implemented within the project:
Prometeus (PROMotion of Emobility in EU regionS)

Project Prometeus is co-financed by the European Regional Development Fund under the Interreg Europe program.





# **PART I – GENERAL INFORMATION**

Project: Prometeus - PROMotion of EmobiliTy in EU regionS

Partner organisation: (PP5) Prešov Self-Governing Region

Country: Slovakia

NUTS2 region: Prešov Self-Governing Region

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# **PART II – POLICY CONTEXT**

#### THE ACTION PLAN AIMS TO IMPACT:

| ☑ Investment for Growth and Jobs programme     |
|--|
| ☐ European Territorial Cooperation programme   |
| ☐ Other regional development policy instrument |

#### NAME OF THE POLICY INSTRUMENT ADDRESSED:

#### 2014-2020 Integrated regional operational program

- PRIORITY AXIS I
- SAFE AND ENVIROMENTALY FRIENDLY TRANSPORT IN REGIONS
- IP 1.1 (Enhancing regional mobility through connecting secondary and tertiary nodes to TEN-T infrastructure, including multimodal nodes)

The Integrated Regional Operational Programme (hereinafter "IROP") is the Slovak Republic's programme document for the programming period 2014 – 2020. Its global objective is:

"to contribute to the promotion of the quality of life and to ensure sustainable provision of public services with impact on balanced and sustainable regional development; as well as economic, territorial and social cohesion of regions, cities and municipalities."

The strategy of the IROP builds upon the Europe 2020 Strategy, contributing to the achievement of its priorities, that is in particular sustainable and inclusive growth; reflecting the territorial needs and challenges of particular regions. The strategy leads to:

- Development of selected dimensions/components affecting the quality of life and regional competitiveness, and
- Development/reinforcement of economic, social and territorial cohesion at regional and sub-regional levels as a precondition for the reduction of growing disparities between and within regions.





These targets are to be achieved by:

- Effective and sustainable public services and goods provided at the local and regional level,
   and
- Effective utilizing internal resources of regions in order to enhance regional competitiveness and the quality of life of residents.

Taking into account the underlying principles of the Europe 2020 Strategy and the existing national reform programmes of Slovakia (hereinafter referred to as the "NRP SR"), the Integrated Regional Operational Programme has to be viewed in the context of promoting a higher quality of life, i.e. as a contribution to the development of objective conditions of sustainable or gradually improving the selected life quality dimensions. The NRP 2013 states the prioritized areas of sustainable development of Slovakia, which, at the same time, create pre-conditions for growing quality of life.

The internal strategy of the iROP is based on the development of regional competitiveness with complementary support of four competitive areas within Slovak regions: infrastructure, accessible and efficient public services, business sup. and jobs creation, local communities in towns and villages.

The Regional Integrated Territorial Strategy (RIUS) is an implementation tool of the iROP, and its ambition is to channel investment priorities (IP) in specific area that has the highest potential for development of a priority and become the engine for further growth.

In PROMETEUS regional action plan we focus on the role of emobility in:

- Priority axis 1 (Safe and environmentallyfriendly transport in regions),
- IP 1.1 (Enhancing regional mobility through connecting secondary and tertiary nodes to TENT infrastructure, including multimodal nodes).

In particular, specific obj. 1.1 will be attained by implementing the following activities:

 Development of local/regional sustainable mobility plans (SMP), as the precondition for all the following proposed interventions in the transport system.

The SMP will be the basic tool to guarantee a balanced development of the transport system. We believe that that emobility should be integrated into this framework, by supporting its promotion within the RIUS measures. Although in Slovakia emobility is not directly supported by any legally binding document, a variety of strategies and plans are on the rise and it is important to incorporate them into existing OPs.





# PART III – EXECUTIVE SUMMARY

In 2014, the Prešov self-governing region signed a memorandum on the promotion of electromobility and, through its participation in the international project PROMETEUS (Promotion of Electromobility in EU Regions) under the Interreg Europe scheme, it seeks to further promote activities in this area. The aim of the project is to improve the policy instruments associated with the structural funds, focusing on e-mobility promotion, as e-mobility is a more sustainable, low-carbon alternative to conventional means of transport.

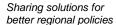
Prešov self-governing region has entered the project consortium upon signing the contract in the first quarter of 2017 (signed by the main statutory executive). The aim of the project is to improve the policy instruments associated with the structural funds in order to promote electromobility, which is a more sustainable, low-carbon alternative to the conventional transport. As already stated, the Prešov self-governing region's instrument in this regard is the Integrated Regional Operational Program (hereinafter referred to as "IROP").

The promotion of e-mobility in the conditions of the Prešov self-governing region must overcome two main obstacles, namely the difficult availability of infrastructure and low public awareness. In order to overcome them, PROMETEUS will support actions and / or activities which are suitable to be implemented into the policy instruments.

The submitted action plan is a decision support tool primarily intended for a) management of the Prešov self-governing region; b) management of affected organizations in the Prešov self-governing region; c) municipal / city authorities in the Prešov self-governing region, and secondarily as a supporting information tool for a) stakeholders in the Prešov self-governing region (commercial sphere, education ...); b) affected and interested bodies of the SR, other self-governments in the SR, interested EU bodies; (c) professionals and the general public.

Thus, the declared goals and activities will require a high degree of mobilization of stakeholders in the implementation process itself, which is crucial as it can facilitate and direct public and private investments, contribute to raising awareness of low-emission transport among the general population, business sector and other potential parties, as well as contribute to the development of electromobility itself.

The presented regional action plan implemented within the PROMETEUS (Promotion of electromobility in EU regions) project is a key strategic output of the first implementation phase of the project.







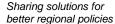
The regional action plan aims at improving the chosen policy instrument and the related creation of regional sustainable mobility plans. Previous analysis of the baseline resulted in the formulation of the following set of activities the aim of which is to deal with the issue of electromobility specifically in the conditions of the Prešov region.

The action plan implementation process was supported by the regional activities as well as the events organized over the past five semesters, namely five Regional Co-Design Stakeholder Workshops and three Regional Dissemination Events. The Exchange of experience was carried out in connection with the organization of the above-mentioned events. Within the meetings, the stakeholders got familiar with the progress of the project, the discussion continued with discussion and networking itself. The exchange of knowledge and experience was supported by the fact that the stakeholders are represented by research institutions, public authorities and associations. The main topic was the current state of support for electromobility in the conditions of the Prešov region. Practical examples and current status as well as opportunities for the development of electromobility in the Prešov region were discussed. In the final phase, these inputs led to the identification and subsequent design of individual activities.

The following activities were formulated to contribute to the development of electromobility in the Prešov self-governing region with an emphasis on the quality of life of its visitors and residents:

- Activity no. 1 Popularization and raising awareness of electromobility and related trends in the Prešov region
- Activity no. 2 Parking place reservation by zones
- Activity no. 3 Creating a regional micro-grants subsidy scheme for e-mobility
- Activity no. 4 e-vehicle sharing (concept)
- Activity no. 5 Public e-transport for specific protected landscape areas in Prešov region

As far as individual activities are concerned, **the Activity no. 1** is the starting point for the success of all activities related to electromobility. One of the key actions under this activity is the building of an Information center, followed by the involvement of individual stakeholders with an emphasis on the young generation and support of electromobility from key stakeholders. An important stakeholder is the public administration that should set an







example with regard to electromobility and educate the public. The aim of the Activity no. 1 is to reach out to and inform the professional as well as the general public, the corporate sector (B2B) and public administration through conferences and training on electromobility as part of sustainable transport of the 21st century.

The aim of **the Activity no. 2** is to create a dynamic zoning parking system using state-of-theart information and communication technologies to improve the use of parking spaces. Pedestrian zones, parking policy and the relationships between pedestrians, cyclists and vehicles need to be reassessed and interconnected with the charging infrastructure for evehicles.

**The Activity no. 3** addresses the promotion of electromobility through microgrant schemes because electric vehicles are still relatively expensive, and, therefore, a real microgrant policy that addresses the type, nature and form of aid must be considered.

**The Activity no. 4** addresses the issues of e-vehicle sharing, which can significantly boost the interest in electromobility. One of the goals of a shared economy is to reduce the number of vehicles needed and promote their efficient use.

**The Activity no. 5** underlines the importance of national parks, protected areas and specific landscape units in the context of transport and electromobility. It focuses on mitigating the negative impacts of transport on nature and landscape in protected and culturally important localities.

Current global trends and their negative impact on the quality of life, in particular the climate change, polluted air and the related unprecedented increase in the number of premature deaths and economic costs for society make the issue of electromobility more pressing than ever. These challenges also include widespread urbanization, which puts pressure on the systemic reorganization of cities and urban areas. The fact is that nowadays, the automotive industry finds itself in a breakthrough phase which reflects the demands of the European Union and industrial policies that govern the current consumerism. In relation to the subject, terms such as the environment, the green economy, emissions reduction, and carbon footprint are frequently discussed. The increasing pressure placed by society on innovativeness and creativity in the implementation of solutions give rise to solutions tackling low-emission or emission-free forms of transport. Thus, an effective solution seems to be electromobility, a trend or a challenge of the 21st century which largely polarizes the society.

The above facts lead us to believe that the PROMETEUS project, as one of the key activities in the region with regard to electromobility, will also bring the expected improvements in the form of new projects aimed at the quality of life of individuals, the environment and the related infrastructure.





# PART IV – DETAILS OF THE ACTIONS ENVISAGED

#### **ACTION NO. 1:**

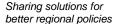
# Popularizing and raising awareness of the phenomenon of electromobility and related trends in the Prešov region

#### 1. The background

The Master plan of Prešov is a document outlining how public transport in the city needs to be addressed. The Master plan is a very important starting point for the development of electromobility, especially since it contains all the key directions and objectives in that respect. The Master plan contains key elements of the city's transport service, with the starting point being the intensity of traffic in the various parts of the city and the associated pollution. The Master plan focuses mainly on passenger transport and related optimization of public transport routes and lines from the perspective of efficient movement of people and mass transport. Considering the development of electromobility and the tendency to use smaller buses (microbuses), it may be appropriate to consider harmonizing the movement of public and private vehicles in the city (zoning, parking system, charging stations) with passenger transport.

Prešov, the center of Šariš, is the third largest city in Slovakia, and together with Košice it is the second most important agglomeration with a high concentration of industry, schools, health facilities and cultural events. Thanks to its location and its proximity to Košice, Prešov is the target destination of commuters from Horný Zemplín and Spiš and ten other municipalities. There are currently more than 86,000 inhabitants living in Prešov, 18,400 live in close vicinity of the city area and a projection for 2045 foresees decline in the population of the city to 81,500 inhabitants, while population living in close vicinity of the city is to rise to 27,900 inhabitants. The share of the population over the age of 65, which has doubled in the last 25 years, will grow to 27% by 2040. People living in close vicinity of the city make 171,000 trips a day by car to the city, and by 2040 the number is expected to rise to 212,000. This commution affects pollution (smog and noise) and traffic jams in the city during the day. The share of transit traffic for passenger cars is 35%, the share of external traffic is 35% and by 2040 its share will rise to 49%. During the day, around 115,380 people are present in Prešov, and there are 15,000 parking places. The number of passenger cars is 3,400 and this number is to increase to 50,000.

In this respect, it is important to note that in order to increase the quality of the urban environment and its vicinity, it is necessary to pay attention to electromobility in terms of passenger transport (passenger electric cars, electro-minibuses and electro-buses). Electromobility, thanks to savings in emissions, particulate matter and greenhouse gases as well as reduced noise levels in traffic, has a significant positive impact on the quality of the environment. With regard to the quality of the environment, electromobility shows the best results in densely populated urban areas with intensive traffic, as the use of alternative sources removes the source of pollutant







in the air at local level.

The Prešov region is pursuing the path of developing the concept electromobility, given that it is interested in reducing city pollution and improving the environment of its inhabitants. A key prerequisite for the success of this plan is the effective promotion of electromobility.

Based on the survey, we propose that the Prešov self-governing region focuses mainly on raising the awareness of the benefits and possibilities provided by electromobility through communication activities listed below. Young people of school age appear to be a priority segment to focus on. In particular, primary school students, grammar school students and secondary vocational school students who are more likely to be influenced towards a low-cost economy and environmental care and can thus effectively influence their parents and older family members who are often not as progressive and fast in adapting. Particular attention should be paid to those areas students' expertise that are directly related to electromobility and that would affect their professional careers (e.g. car mechanics, electricians, and professions oriented towards environmental care). It goes without saying that communication should be always tailored to the given segment.

Raising awareness of electromobility should be gradual, systemica and strategical, and should focus, in particular, on the young generation who will enter the early productive age within a decade. As part of the PROMETEUS consortium, the project partner Transfer Malta in cooperation with the Foundation for Educational Services carried out promotional interviews under the Skolasajf Promotional Talks on sustainable mobility. Interactive interviews took place as part of the European Mobility Week on "Education Moves you Forward". In this way, school classes got involved in discussions on the benefits of car sharing and pooling. The "Skolasajf" Practice was Regional Co-Design Stakeholder Workshops. the representatives as well as the heads of the Secondary School of Electrical Engineering were impressed by the workshop. This endeavor led to the formation of the underlying idea of the plan: to raise awareness on the issue of electromobility. Since the Prešov region is in charge of secondary schools, it was natural for it to implement the project on the grounds of these schools as well. In this way, the endeavor will positively influence the decision-making of young people and raise awareness of the issue. That was also a goal of the partner Transport Malta. The establishment of the information center was inspired by the practice of "The Castilla y León Electromobility Guide", which provides stakeholders with information regarding electromobility.

#### Read more about the best practice here:

https://www.interregeurope.eu/policylearning/good-practices/item/1710/skolasajf-promotional-talks-2017-on-sustainable-mobility/





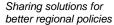
# 2. Action description and implementation method

In order to promote electromobility in the region, it is now necessary, above all, to raise awareness of the need and opportunities for e-mobility, with an emphasis on the younger generation and the students. The regional e-mobility development plan is based on the Master plan, Smart City approach and the analysis of the overall e-mobility situation and provides a basis for follow-up activities. A key role in this situation is the awareness of the benefits of e-mobility for individual stakeholders.

- 1. Information center an important element in ensuring long-term awareness and support for e-mobility is the creation of a permanent organizational unit an information center with the support of the Prešov Region. The center will gather all the important information needed to develop the concept of e-mobility, current information on subsidy programs offered by the state, region and car importers. From the marketing point of view, the center will work closely with suppliers to organize workshops and communication and marketing events for citizens as well as for businesses. Later, this center can function as a central authority for electromobility management, which will contribute to the efficient development of electro-mobility of Prešov region, while providing new job opportunities.
- 2. "Roadshow" electric cars are technologically attractive and people tend to be more interested in them not only for the technology but also for the sustainable development they bring. Educational and informative activities should be combined with practical demonstrations of these cars, ideally with the possibility to try such cars (combination of professional lecture and practical experience). The technical section of such the roadshow shall present alarming data on the global climate, environmental pollution and human health impacts. Electromobility seems to be a partial solution to the problem. However, it is necessary to be able to react to the negative aspects it brings (eg the non-organic production of batteries and their disposal, or the origin of electricity from non-renewable sources).

These roadshows should feature primarily importers of individual car brands and their dealers who offer electric passenger cars. We recommend Nissan, whose Leaf model is extremely competitive as well as Tesla (e.g. through the Tesla Club and other organizations), whose cars are seen as premium cars and arouse a strong natural interest. The possibility of seeing the cars of this brand attracts many people. Hyundai / Kia and other brands can also be addressed. Škoda Auto announced its own models of electric cars. The Škoda brand has a particularly strong position in Slovakia and lecture under its auspices (or their importer) will be attractive for the audience.

It is necessary to support the "Roadshow" in the regional media. Environmental organizations in the region can also provide information support. As part of the "Roadshow", workshops and meetings with those interested in the issue of electromobility should be organized. Important target groups of the "Roadshow" include young people - students of primary and secondary schools, university students, professionals, journalists, bloggers, representatives of major regional players from public and private organizations. This activity can be done as a stand-alone event, or, for example, in combination with other activities under the SmartCity initiative that







also addresses smart electromobility.

3. Students and schools - in addition to these activities, it is very important to attract students of primary and especially at secondary schools. Since July 2002, the Prešov self-governing region has taken over the competence of 75 secondary schools, 2 language schools, a boarding school and a residential outdoor school. Its competences include the establishment and abolition of schools, creation of conditions for education and training in secondary schools and the execution of state administration in the second stage. The Education Office and the Education Department of the Prešov self-governing region can be very helpful in popularizing and disseminating information on electromobility and thus influence the preparation of students also in areas that are important for the promotion of electromobility under the concept of SmartCity.

It is necessary to support the study of environmental aspects and possibilities of alternative energy sources (photovoltaics, wind resources and alternative sources of drives...). There is also a need to educate population on e-mobility and its impact on citizens' health, the environment and its sustainability. In addition to lectures, workshops are preferred form of conveying knowledge to broad masses. Students are young people and their relationships with the environment, sustainable development and the quality of the environment in which they live will influence their lives and the lives of people around them. It is also very important to emphasize that e-mobility may create new jobs.

Regarding the competencies of the Prešov self-governing region in the field of education, it is necessary to state that the region will play crucial role in adapting the study programs to the current environmental situation with regard to electromobility. We talk about the following study programmes: car repair, automotive electrician, electrician mechanic, mechatronic, electrician, electrical engineer for power distribution equipment, information and networking technologies, technical services in car maintenance, environment protection technology).

- 4. Practical examples electromobility awareness must also be supported by the real use of e-vehicles by the bodies of the Prešov region. Above all, people have to see that the county and its authorities are exemplary and that actions are worth thousand words. In addition to public institutions, key private companies in the region should join as well.
- 5. EUSEW Week EU Sustainable Energy Week (EUSEW) is the largest renewable energy and energy efficiency event in Europe. It consists of a three-day conference that offers a variety of networking opportunities, an EU Sustainable Energy Awards competition for citizens and local events. The 14th EUSEW will be held from 17 to 21 June 2019, with the conference taking place from 18 to 20 June in Brussels. Within this week, we propose to implement the Information Day a conference and accompanying workshops that would popularize the ideas of e-mobility and renewable energy sources. It would be a follow-up to the previous EUSEW week featuring key public and private actors operating in the field of electromobility, transport and sustainable development.





#### 3. Players involved

Prešov self-governing region

City of Prešov - municipal office – the Intermediary and Managing Authority of the Integrated Regional Operational Program (iROP), department of transport

Primary and secondary schools, universities

External organizations providing advisory and consultancy services

Electric car importers and dealers

Regional media

The above-mentioned stakeholders will be invited to the working groups, which will specify the schedule of activities as well as their content and the proposed network of stakeholders involved. The establishment of the "Information Center" as the permanent organizational unit in the structure of the Prešov region's Office will require close cooperation between the regional office and importers and sellers of electric vehicles, as well as external organizations providing advisory and consulting services in the area of electromobility, the City Office of Prešov and its specific departments, intermediary bodies, the managing authority and the transport department in order to have the most up-to-date data in the field of electromobility.

In case of "Roadshows", information support by regional media is needed in cooperation with importers and dealers of electric cars in the region in order to combine theoretical knowledge with practical demonstrations of these cars.

The dissemination of information will also be carried out through cooperation with secondary schools and universities which are under direct control of the regional bodies. We are talking about a series of professional lectures featuring practical examples carried out at secondary schools. We expect these activities to stimulate students' interest in environmental aspects. This will link school managements with the Prešov region, electric car importers and dealers and external organizations providing advisory and counseling services.

The activity "Practical examples" requires the involvement of electric car importers and dealers, as well as regional media and appropriate publicity.

The "Information Day" will build on the previous three Regional Dissemination Events. At the The "Information Day", all of the above-mentioned stakeholders are expected to participate and work together.

#### 4. Timetable

- 1. Information center project proposal (October 2019), establishing a functioning center no later than December 31, 2019
- 2. "Roadshow" in 2020, 2021
- 3. Students and schools continuously since 2019
- 4. Practical examples from 2019 with the ever-growing number of e-vehicles
- 5. Information day under EUSEW –2020, 2021





#### 5. Expected costs

Establishment of the Information center: provided that it will be established in the premises owned by the Prešov region, it will employ one employee and the cost will not exceed € 30,000 per year. When the Information center will be transformed into electromobility center, the requirements for the number of employees and their education as well as the provision of the necessary technical means will grow. When creating new jobs, the average annual cost per worker (excluding the use of a company car) would be around € 21,000 gross and the cost of creating the materials and promoting the work of the center among various stakeholders would range from € 3,000 up. The Information center will also need specific external assistance, such as sociological surveys or specific electromobility consultations. We expect to allocate around €15,000 during the first years of its activity to such services.

"Roadshow" is an activity that will be organized by the Information center. The expected costs associated with marketing, organizing the event, refreshment for selected guests, technical means for showing the vehicles, promotional stands and materials is expected at € 3,000. It is worth considering whether this event will take place once or twice a year, depending on the results achieved.

Students and schools – a long-term intensive cooperation with schools, founders and students on specialized workshops. The costs will include information materials, the study of best practices and their adaptation to the conditions of Prešov region. From this point of view, the only cost is the time spent on such activities by the responsible staff of the center, schools and founders. Not all these activities can be provided by the center itself, as it is primarily an organizational and information body and therefore cooperation with external contractors in disseminating important information among target audience will be crucial.

The costs of Practical examples also include the purchase of a suitable electric car and its daily use, for example, by the city police. In this case, the price of one electric car is approximately € 33,000 and possibly even more. Promotion activities in relation to the above, whether the design of the car or promo materials, will be provided by the Information center.

Info day under EUSEW - a one-day workshop for members of major interest groups and people interested in electromobility. Costs of such activity amount to € 3,000.

#### 6. Funding sources

Budget of the Prešov self-governing region Companies from the region EU funds Support by the state

#### 7. Transferability potential

All activities under the proposed activity, after verifying their effectiveness, can be disseminated across regions (e.g. Prešov and Košice) within the network of cooperating





offices. Prešov self-governing region, where these activities originate, is the body responsible for the above activities.

#### 8. Performance indicators

- 1. Functional Information center by 31 December, 2019
- 2. Number of organized "Roadshows"
- 3. Students and schools number of fields of study, number of students
- 4. Practical examples number of vehicles
- 5. Information day under EUSEW number of information days

#### 9. Quantification of results

- 1. Information Center number of served customer (10 per months)
- "Roadshow" one "Roadshow" per year
- 3. Students and schools number of students in new fields of study (20 students in the following fields of study: car repair, auto electrician, mechatronic, electrician)
- 4. Practical examples 8 e-vehicle
- 5. Information day under EUSEW 3 info days (2020), 3 info days (2021),

#### 10. Possible re-orientation actions

If the results are to be achieved more quickly, then the following may be appropriate:

- 1. Information center create more information centers in region's cities
- 2. "Roadshow" carry out several "Roadshows" to raise awareness
- 3. Students and schools more meetings with students 2019
- 4. Practical examples engage private businesses
- 5. Info day under EUSEW organize information days outside EUSEW

#### **ACTION NO. 2:**

# Reservation of parking spaces by zones

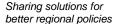
#### 1. The background

The Old Town of Prešov is a business and social center which attracts many people coming by car. The intention of the Master plan is to reduce the number of roads leading through the central zone of the city, thus changing the overall dynamics of the traffic in the central city zone. In connection with the intention of increased use of public transport and planned changes in the center, the zoning requirements for car entry need to be addressed, with the need to review pedestrian zones, parking policy and spaces shared by pedestrians, cyclists and vehicles.

In order to support the development of electromobility, it is necessary to significantly improve the city's parking system.

A dynamic parking system using information and communication technologies is crucial in locations with higher traffic.

This parking system should respond to the current situation, current needs as well as







future challenges and be able to work with modern information and communication technologies to meet the demands of the future.

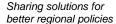
Prešov Region is the third most visited region of Slovakia. In 2018, accommodation facilities recorded 932,121 visitors, which represents a year-on-year increase of 4.2% (almost 38,000 visitors more than the previous year). The total number of overnight stays reached 2,901,080, a year-on-year increase of 6.5%. With regard to domestic tourists, the Prešov Region is the second most popular region (immediately after Žilina), accounting for 19.4% of domestic tourism in the Slovak Republic. In terms of the number of foreign visitors, the Prešov Region is the third most visited region in Slovakia (12.6%). The Bratislava region is the most popular with foreigners, followed by the Žilina region and Prešov region. 285,225 foreigners visited the Prešov region in 2018, a 3% increase when compared with the previous year. Foreign tourists spent 853,285 nights in the county. The largest number of tourists comes from the Czech Republic, followed by Poland, Hungary, Germany and Ukraine. As for Hungarian visitors, the Prešov region recorded an increase of up to 20.8%, as for Ukrainian visitors, the number increased about 11% when compared with the previous year. There was also an increase in sales of accommodation in 2018 in the total amount of EUR 71,497,528 (growth of 13.7%).

There are relatively few registered electric cars in Slovakia, however, it is necessary to prepare for their growth in the future. Currently, district towns should focus on creating parking places for electric vehicles (including charging infrastructure) in the centers. The number of reserved parking places for electric cars should be as follows: district towns 5-10, county town of Prešov 10-20, Poprad (due to its attractive position for tourists) 10-20. If the number of registered electric vehicles in the SR projected by MHSR (y. 2020 – 10,000, y. 2025 – 20,000, y. 2030 – 35,000 vehicles) is realistic, then the number of reserved parking places for electromobiles should be double than the above.

Transit through Prešov accounts for 9% of passenger cars and 35% of trucks. Roads outside Prešov account for even more (35% of passenger cars and 43% of trucks). The city offers a good public transport system serving also the surrounding settlements, yet 56% of all journeys are made by passenger cars as the public transport is mainly used by pupils, students and retirees, the vast majority of the working age passengers are women.

Connecting parking spaces to the charging infrastructure – electric cars charging should be available at all reserved parking spaces (suitable for all standards). The available electricity should be supplied from renewable sources. This can be guaranteed by the power supplier. Alternatively, a solar cell rechargeable battery cluster may be used.

Further parking and charging possibilities may be offered in cooperation with shopping centers, key city employers, landowners, etc. If the land for parking lots is provided by the municipality, then the municipality could be involved in the financing of construction works and the necessary technical infrastructure. If the land for parking lots is provided by the private sector, then the municipality could be involved in the financing of construction works and the necessary technical infrastructure. The







potential stakeholder involved in the above should be adequately rewarded, at least providing such parties with positive public relation (information board, materials and website of the self-government body, press releases and so on..).

Among the places where with a growing number of visitors are Ľubovňa Castle and Museum, Šariš Museum in Bardejov, Kežmarok Castle with around 40,000 (Vihorlat Museum) to 450,000 visitors (Ľubovňa Museum and Castle). Even in these cases, it will be necessary to deal with the parking infrastructure and charging stations.

Prešov has just launched its new parking policy. The first version of the proposal has already been discussed by the Transport Commission. In principle, the policy should limit the number of company cars and cars of non-residents. One of the goals of the planned generally binding regulation of the city of Prešov is to introduce the policy for parking of vehicles in the city center and at residential buildings on housing estates. Above all, the system should favor the city's inhabitants at the expense of company vehicles and motorists who come to the city for work or visit and occupy parking places of local residents to avoid paying parking fees, especially parking spaces near offices, hospitals or health care facilities, as well as housing estates. This approach of a dynamic zoning parking system using modern information and communication technologies is one of the most important elements of the Smart City policy. The above-mentioned policy is a part of the Smart Mobility (smart traffic organization and sustainable mobility) the aim of which is to manage and monitor all its connected activities (see project inputs). The policy goes in line with the trend of smart cities which is a rapidly expanding trend popular not only in Western European cities.

The content of the focus meeting of the project partners Lazio and Prešov at the steering committee meeting in Lazio included examples of good practice, which were subsequently communicated at the Regional Co-Design Stakeholder Workshop in Prešov in December 2018. Electricity Networks (ELVITEN) under the Horizon 2020 scheme got attention of the stakeholders involved. This prompted the stakeholders to favor he owners or operators of electric vehicles by building parking spaces for them. Activity / practice adopted from the Lazio Region - this is an activity to promote or favor the owners of electric vehicles under the Horizon 2020 subsidy scheme. ELVITEN (Electrified L-Category Vehicles) is an advanced concept that, through its activities and measures, aims at creating the so-called e-world in European cities. These activities should contribute to convincing consumers to perceive e-mobility as hassle-free, and speed up the building of the relevant infrastructure, while motivating people to purchase electric vehicles. The infrastructure in question also includes parking and charging systems. The practice used in the Lazio region is the model for the proposed parking scheme. The activity is to be seen as a starting point for introducing future concepts, such as the Lazio region practice and the ELVITEN project implementation.

#### Read more about the best practice here:

https://www.interregeurope.eu/policylearning/good-practices/item/1963/electrified-l-category-vehicles-integrated-into-transport-and-electricity-networks/





#### 2. Action description and implementation method

1. The city parking system and zone setting must be carried out in line with the needs of the city, its inhabitants and visitors, depending on where they live and how they move around the city. The parking system framework will be created by an authorized body of the Prešov self-governing region together with expert advisory organizations, taking into account the required system dynamics, capacity and the resulting information requirements.

Zone setting - is a key element of the zoning parking system liked with price, payment methods and ensuring compliance with the parking rules in accordance with the city's parking regulations. The parking system, together with the zoning, must first and foremost deal with the parking of residents (parking cards per apartment and person). The price for parking shall depend on the resident's zone. It is also important to charge residents for the second and any other car they have a higher fee as well as to dermine time parking fees are collected (for example, from 8 AM to 7 PM). For places with dense traffic (High Tatras, Levoča, ...) it is very important to build new parking lots and streamline local public transport system. The importance of the above lies in the fact that they relieve the city (location) from traffic and the associated noise and smog. The importance of the zones is also growing in high-traffic parking lots (Tatras, PO, PP, LE, ..), if entry of cars to the pedestrian zone is not possible. Traffic restriction zones may be as follows:

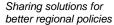
- pedestrian zone
- city center
- residential zone
- wider city center
- reserved parking spaces in the city center
- parking lots

Entry to the pedestrian zone - police, goods suppliers, all e-vehicles.

Entry to the central zone should be defined by specific policy (e-vehicles, vehicles of public and private interest and conditions for entering such zones). Another thing is to set price for visitors to the city - tourists and those who come to the city for work and their employer does not have a parking lot or a reserved place. Even in this case, the zones play an important role. As far as working days, holidays and weekends are concerned, it is possible to cooperate with companies and shopping centers.

Parking fees payment methods – the most popular are parking ticket machines, although SMS tickets are also being used. New info-communication technologies (smartphones) should also be taken into consideration. Such forms of parking fees payment are directed at visitors. As far as residents are concerned, parking fees are collected through subscription. In any case, payment option should be introduced.

2. The design of the intelligent parking system - new information and communication technologies together with a sophisticated transport system create modern parking systems and bring not only comfort, but also greater control over parking lots and spaces while minimizing the need for labor. We are heading for the so-called dynamic







parking, where the parking lot network is centralized thanks to a mobile application on a smart phone that can book a selected parking space and navigate the customer to a nearby free or reserved parking space. Customers are thus able to find a free parking space quickly. This smart dynamic system provides the city with statistical information, for example, which places are the most popular and how often they are used (usability and turnover), where additional parking spaces are needed and so on.

The city should propose such a system in cooperation with a consulting partner. Then, a SW company with experience with the reservation and parking system should be chosen to design the parking system, information system and mobile application and then also test the operation of the intelligent parking system.

Parking houses - in cooperation with developers and landowners, the city can build parking houses with appropriate charging infrastructure for both city visitors and city residents. This endeavor should improve the parking culture while ensuring the support for electromobility development.

The number of parking spaces will also affect the growth of the shared economy - ebicycles and electric cars. The increase in electric vehicle sharing is expected to reduce the need for parking spaces.

#### 3. Players involved

Prešov self-governing region
City of Prešov
Municipal police of Prešov
Shopping centers
External organizations providing advisory and consultancy services
Software companies
Universities
Regional media

Despite the fact that the Prešov self-governing region is starting with building charging stations infrastructure, it is positive that there are already several charging stations installed in the region. The established network will expand in the near future, as confirmed by one of the most important stakeholders – the provider of internet services. With the increasing number of charging stations, we can also expect an increase in the number of e-vehicles. The activity "Parking place reservation by zones" requires cooperation between the involved stakeholders - the region must be involved in the process of building these parking places. The municipal authority adopts generally binding regulation of the city of Prešov on parking of motor vehicles at defined sections of local roads in the territory of Prešov. The municipal police, administrated by the city or municipality, must be invited to discuss the implementation of such actions, as one of its competences is to impose and collect parking fines. The stakeholders are shopping centers as well as universities, as these are the places where people (customer) gather.





#### 4. Timeframe

- 1. City parking system and zones setting by October 31, 2019
- 2. Design of intelligent parking system by December 31, 2019
- 3. Implementation of the system and trial operation by June 2020
- 4. Routine operation from July 1, 2020

#### 5. Estimated costs

City parking system and zones setting is a creative process that is carried out by the Information center in collaboration with the Transport Department. In essence, it is a series of workshops led by an experienced host. When the host is not an internal employee, it is necessary to take into account the cost of his/ her work, otherwise the cost is "just" the time of the employee involved.

The design of the intelligent parking system builds on the created parking and zoning system. It is closely linked to the search for best practices in the SR, and the preparation of a study, which is then followed by the selection of the supplier (s) of the whole system or its parts. Costs include: the expertise of the company which will deliver the required study estimated at € 10,000. Subsequently, a technical and SW solution based on the results of the study is expected (one of the criteria is the cost of the system).

#### 6. Funding sources

Budget of the Prešov self-governing region Companies operating in the region EU funds Support from the state

#### 7. Transferability potential

All activities under the proposed activity, after verifying their effectiveness, can be disseminated across regions (e.g. Prešov and Košice) within the network of cooperating offices. Prešov self-governing region, where these activities originate, is the body responsible for the above activities.

#### 8. Performance indicators

- 1. City parking system and zones setting by October 31, 2019
- 2. Design of intelligent parking system by December 31, 2019
- 3. Trial operation from December 31, 2019 to June 2020
- 4. Routine operation from July 1, 2020
- 5. Increase in the number of parking spaces in the city
- 6. Increasing the satisfaction of city residents with parking

#### 9. Quantification of results

- 1. City parking system and parking zones
- 2. Intelligent parking system created
- 3. Trial operation
- 4. Routine operation of the system





- 5. Estimated increase in the number of parking spaces in the city: 20%
- 6. Estimated increase in the satisfaction of city residents with parking: 20%

#### 10. Possible re-orientation actions

The expected results are possible thanks to the above activities. If faster results are required, then some intelligent parking system requirements may be reduced.

#### **ACTION NO. 3:**

# Creating a regional subsidy microgrant scheme to promote e-mobility

#### 1. The background

Prices of electric cars are relatively high. The micro-subsidy scheme must, therefore, be thought out. It must be realistic in terms of the financial capacity of the self-government body. In the ideal case, a specific financial subsidy for the purchase of an electric passenger car (e.g. € 500, € 1000) is expected. Monetary subsidies may also be given to private companies wishing to promote the sustainable mobility of their employees or their corporate fleet (internal logistics, freight, passenger transport ...). "Nonmonetary" benefits could be attractive as well, such as tax incentives (certain percentage for a specific time), a reduction or cancellation of any fee or charge that companies are to pay.

Another option is to divide money based on a competition. The advantage is the possible PR effect and the link with the first point (education and information). There may be a competition under which certain criteria are set, jury is appointed etc. The winner would be rewarded according to the needs and set criteria (e.g. individuals would be given money; legal entities would be granted specific benefits mentioned above).

The project partner, the Junta of Castile and León, has implemented several measures to support the transition from internal combustion engines to electric vehicles, including the creation of a subsidy scheme. The aim was to promote the benefits of using electric vehicles. This scheme has provided funds to cover the initial cost of purchasing and installing electric vehicle charging stations for businesses, citizens and public sector organizations. The main requirement was that the power of the charging stations was below 40 kW.

This practice can be deployed in local regional conditions to create a regional subsidy microgrant scheme to promote e-mobility.

#### The proposed procedure:

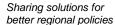
• Defining beneficiaries and scope: who will be eligible to apply for a grant. In principle, this is a decision-making process regarding natural and legal persons. The criteria should include restrictions on the beneficiary's competence in the Prešov region and on the actual practical use of the grant in the Prešov region. Benefits





from the grant should relate to the Prešov region.

- Type, nature and form of assistance:
- a) Financial grants: in particular, the amount in € according to the region's options; it may be different amounts (levels), all depending on the applicant and the intention.
- b) Non-financial grants: tax relief, fee waiver, administrative assistance, partner assistance.
- c) Combination of financial and non-financial grants.
- Terms of Assistance: specification of the conditions under which it is possible a) apply for a grant;
- b) the conditions laying down the rules for using the grant;
- c) the terms and conditions of the grantor's control mechanisms (what will or may be controlled and the consequences thereof);
- d) reporting obligations in terms of sustainability of the solution and the benefits of the solution after grant is granted.
- Grant scheme mechanism: method of drawing, using and acquiring a grant. Time horizons that determine when it is possible to start and stop drawing the funds, when and how to apply for the grant. Only framework categories (timeframe, method of transferring funds, etc.) can be specified, and details will then be agreed in a separate agreement.
- Cumulation of aid: it is necessary to determine how many projects an applicant can submit and how many can be supported (by one applicant). If there are more grant applicants under one project, it is necessary to identify who can participate and in how many applications. If necessary, links to other grant schemes (primarily the Prešov region, secondarily municipalities in the Prešov region) should also be taken into account. We suggest that one applicant or a group of applicants can submit only one application. None of them may be part of other applications. The same goes for other forms of subsidies. It is also necessary to identify situations where potential applicants might be in conflict of interest. Such applications will then be disregarded. Specification of such requirements should be made public and included in the grant scheme mechanism.
- Monitoring and evaluation: it is necessary to establish the vision and objectives of the entire grant scheme. On their basis, individual applications can also be assessed in terms of their relevance to the stated objectives. Monitoring and evaluation mechanism should be based on the above as well. In principle, a system for evaluating applications (criteria, evaluation methodology, selection of evaluators, evaluation process and announcement of results) is needed. Monitoring should be: (a) ongoing during the entire grant implementation (if necessary) process; and (b) carried out upon completion of the grant, implementation of the project. Monitoring after the implementation of the project is crucial as it is necessary to check the compliance declared in the application with reality. To do this, it is necessary to create an assessment method and to entrust it to specific persons (evaluators). Care should be taken to ensure transparency of processes,







expertise and independence of evaluators, and to prevent or eliminate any conflicts of interest.

There are several ways to finance such an aid scheme. Private sector participation in the form of voluntary contributions to the grant scheme is desirable. The European Union and the Slovak Republic offer several attractive options. The current project calls are listed in the funding sources section.

The project partner, the Junta of Castile and León, has implemented several measures to support the transition from internal combustion engines to electric vehicles, including the creation of a subsidy scheme. The aim was to promote the benefits of using electric vehicles. This scheme has provided funds to cover the initial cost of purchasing and installing electric vehicle charging stations for businesses, citizens and public sector organizations. The main requirement was that the power of the charging stations was below 40 kW. This practice can be deployed in local regional conditions to create a regional subsidy microgrant scheme to promote e-mobility.

Read more about the best practice here:

https://www.interregeurope.eu/policylearning/good-practices/item/1965/irve-grant/

At the same time, the project partner the Junta of Castile and León inspired us to pursue this activity thanks to its Guide developed within the Regional Strategy for e-vehicles in Castilla y León, which provides stakeholders with information regarding electromobility. The practices of the project partner Castilla y León, which were presented at the regional workshops, aroused interest not only in the stakeholders from the private sector but also the public sector, like the University of Prešov, Žilina, Bratislava and science and research parks and centers (Prešov, Žilina).

Read more about the best practice here: https://www.interregeurope.eu/policylearning/good-practices/item/1711/the-castilla-y-leon-electromobility-guide/

#### 2. Action description and implementation method

Grant support options:

- Awareness of e-mobility and its relationship with the environment in line with the idea of the Activity no. 1. Educational and promotional actions. School events. Goal: raise awareness, disseminate information on the subject.
- Educational activities (again in line with Activity no. 1): support specific educational activities. Only for Prešov region: secondary schools, towns and municipalities, companies and organizations (for target groups in the Prešov region). Objective: specific learning objectives through structured learning activities (lectures, courses, seminars).





- Building and developing charging infrastructure. According to the draft of the new Building Act, it is possible that the builders of new residential buildings will be obliged to build a specific number of charging points for electric vehicles. Grants can support this. Restrictions apply only to the territory of the region. Objective: develop the charging infrastructure.
- Management and organization systems in e-mobility (sharing e-bikes and e-vehicles, charging stations, booking of charging stations and parking). Basically, ICT and organizational system solutions. Primarily for businesses and organizations. Practical outputs in the region. Objective: Effective management and organization of e-mobility.
- Sharing of e-vehicles. Specific systems for the public or for the internal environment of companies and organizations. Commercial and non-commercial purpose. Primary for municipalities and municipal authorities, secondarily for companies and organizations. Objective: to promote the sustainable transport of people. Focus on:
- o e-bicycles,
- o e-cars,
- o other e-vehicles (scooters...).
- Rental of e-vehicles (long term for small merchandise suppliers). For primary use in the region. Objective: to promote sustainable green transport.
- Purchase or long-term lease by organizations partially or fully managed by self-governments in the region: schools, kindergartens, others. Objective: to promote sustainable green transport.
- Purchase or long-term lease by entrepreneurs merchandise suppliers in shops and facilities in city centers. For primary use in the region. Objective: to promote sustainable green transport.
- Aid in the form of exemptions from the payment of local taxes and fees. For primary use in the region. Objective: to promote sustainable green transport.
- Support for "green cabs" e-vehicles. For primary use in the region. Objective: to promote sustainable green transport.
- Financial or non-financial support for the purchase of a private electric car by individuals only for fully electric cars suitable for use in the Slovak Republic. Objective: to promote the sustainable transport of people.

#### 3. Players involved

Cities and municipalities in the region: financial and non-financial possibilities. Commercial firms in the region: primary financial opportunities (sponsorship, philanthropy, partnership).

Non-commercial organizations: primary non-financial opportunities (partnership). Subsidies and support from SR's schemes: by scheme (partnership).

2% Income Tax: from businesses and private individuals.

Other: eg. volunteering (voluntary work), fundraising (voluntary donation).





The establishment of the regional subsidy microgrant scheme to support e-mobility expects a close link between the region and the applicants themselves, which means the cities and municipalities in the region. The subsidy may take both financial and non-financial form (certain advantages). Subsidies may be given to private companies wishing to promote the sustainable mobility with regard to their employees and theri corporate transport fleet (internal logistics, freight, passenger transport ...). Such companies may receive specific amounts of money. Also "non-financial" benefits could be attractive, too, such as tax benefits (in a certain percentage for a certain amount of time), reduction or cancellation of fees that companies have to pay, etc. Companies may be also offered cooperation or a barter under certain conditions (operators of charging stations, taxi services, energy clusters, etc.). In the case of non-commercial organizations, we talk about non-financial opportunities in the form of partnerships.

#### 4. Timeframe

- Preparatory phase. Agreement on grant scheme parameters financial possibilities, processes, legal aspects, target groups ... by January 2020 at the latest.
- Inspections and corrections. Expert assessment and project review. Not later than March 2020.
- Preparing the launch of the grant scheme, training and entrustment of stakeholders, information campaign. Approximately from April 2020 to August 2020.
- Launching the grant scheme. From September 2020 (time as needed).
- Evaluation of applications (time-limited: ongoing or set an exact closing date, e.g. by the end of November 2020).
- Drawing the grant around February 2021.
- Final inspection and evaluation December 2021.

#### 5. Expected costs

Subsidy scheme from the state budget of the SR and / or the EU heavily influences the costs. Exact costs can only be determined after selecting a specific grant scheme. Framework costs can be determined by an expert estimate that takes into account the situation on the Slovak market and in a particular region.

Labor costs. Remuneration of staff involved in the preparation and implementation of the grant scheme. Two administrative clerks and two experts is minimum during preparation phase. During execution phase one manager and one administrative employee is sufficient. Annual costs (gross):

- Administrative clerk (preparation phase): € 600 per month (gross). Two people: x2 = € 1,200.
- Expert ((preparation phase): € 800 a month (gross). Two people: x2 = € 1,600.
- Person responsible for grant scheme implementation: € 800 a month (gross).
- Administrative clerk (execution phase): € 600 a month (gross).





- Scheme preparation annual total remuneration (gross): € 33,600.
- Grant scheme (execution phase) annual total remuneration (gross): €16,800.

Operating costs. Travel, insurance, subsistence, office supplies, supplies and more. Standard operating and administrative support costs. € 3,000 per year (gross) for project preparation. € 2,000 per year for the project execution (gross).

The grant scheme should be as high as possible. The minimum amount in euros to be distributed among the applicants should be € 30 000.

#### 6. Funding sources

Budget of the Prešov self-governing region Companies operating in the region EU funds Support from the state

There are several ways to finance such an aid scheme. Private sector participation in the form of voluntary contributions to the grant scheme would be desirable. The European Union and the Slovak Republic offer several attractive options. The most important of these is the current EU call for projects H2020 Building and low-carbon, climate resilient future: Green Vehicles (Call ID: H2020-LC-GV-2018-2019-2020) - Smart, green and integrated transport.

Subsidies for the purchase of an electric car in the Slovak Republic and support for electromobility. In the framework of the pilot project, 831 applicants used the grant in 2016-2018. They bought 514 battery electric vehicles and 317 plug-in hybrid vehicles. However, one million euros have not been spent under the five million subsidy scheme.

Currently these subsidies are not available, but it is planned that this scheme will be renewed (very realistic according to available resources). In addition to the purchase of vehicles, the future scheme (Action Plan for the Development of Electromobility in the Slovak Republic) should also support:

- development and building of charging infrastructure;
- support for research, development and production of batteries;
- innovative electromobility solutions.

Other project calls available for the Slovak Republic that can potentially support the grant scheme are:

- OP EVS DOP-PO1-SC1.1-2019-1 Intelligent and Better Self-Governing Region, within the Operational Program Effective Public Administration.
- SC5-14-2019-Visionary and integrated solutions to improve well-being and health in cities, v rámci programu H2020
- SC5-20-2019 Transforming historic urban areas and/or cultural landscapes into hubs of entrepreneurship and social and cultural integration, under the program H2020





- LC-SC3-SCC-1-2018-2019-2020 Smart Cities and Communities, under the program H2020
- OPKZP-PO4-SC441-2018-39 39. CALL FOR SUBMISSION OF APPLICATIONS FOR THE PROVISION OF NON-REPAYABLE FINANCIAL CONTRIBUTION aimed at promoting low-carbon strategies for all types of territories, Operational Program Environment Quality.
- OPII-2018/7/3-DOP Call for applications for the provision of non-repayable financial contribution Data management of Public Administration Institutions, Operational Program Integrated Infrastructure
- OPKZP-PO4-SC411-2018-41 41. CALL FOR SUBMISSION OF APPLICATIONS FOR THE PROVISION OF NON-REPAYABLE FINANCIAL CONTRIBUTION Construction of facilities for: use of aerotherm. or geoterm. energy using heat pumps; direct use of geotherm. energy for heat production; production and energy use of gas from landfill and wastewater treatment plants, Operational Program Environment Quality.

#### 7. Transferability

In case of effective functioning of grant schemes and their real impact on improving the situation in the region, it is very likely that the solution would be used in other regions of the Slovak Republic as well. Based on the similarity of regional indicators, this would be possible without major modifications, especially in the Košice and Banská Bystrica regions. More serious modifications would be necessary for other regions of Slovakia. As the regions of Central Europe are relatively similar (in terms of regional development), it would be possible to use these solutions (modified) mainly in the neighboring countries of Slovakia, i.e. Poland, Hungary and the Czech Republic. After major modifications, these could also be used probably in Croatia, Romania and Hungary. In other EU countries, potential use is based on the concept of "best practice".

#### 8. Performance indicators

The indicators must be set by agreement on the specific functioning of the grant - its parameters. In principle, the focus will be placed on the following:

- Using allocated resources.
- Number of applications supported.
- Number of projects implemented in practice.
- Impact of implemented projects on the state of the environmental factors.
- Process transparency.

#### 9. Quantification of results

The following shows ways the above indicators are to be quantified. Again, this needs to be done on the basis of an agreement on the specific parameters of the grant scheme.

 Using allocated resources: balance of funds allocated to grants. The goal is to use up all the allocated resources. Basically, the smaller the balance the better the indicator.





- Number of applications supported: this is about identifying realistic quantitative indicators. We should take into account whether natural and / or legal entities are considered. With regard to the position of the Prešov region within Slovakia and the EU (development indicators) we propose 10 grants, however 20 is the ideal number.
- The number of implemented projects: the same as in the previous point.
- Impact of implemented projects on the improvement environmental factors: difficult to evaluate (time and expertise). It is about measuring the proven improvement.
- Process transparency: straightforward decision-making, straightforward criteria, publication of results including assessments, feedback from evaluators, expertise of evaluators.

#### 10. Possible re-orientation actions

In case of inadequate drawing of funds, involvement of less applicants then expected and the like, more funds can be allocated to individual grants. Support less grants, but more intensively. It is also possible to change the time horizons for the benefit of applicants. It is possible to create multi-round schemes.

Appropriate feedback from evaluators can better prepare applicants for their participation in potential future grants.

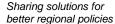
#### **ACTION NO. 4:**

### e-vehicle sharing (concept)

#### 1. The background

The support for subsidized and managed "individual electromobility" can be very effective. However, it is necessary to think about the experience from the places where such a concept was applied. When taking into account possible negatives, it is necessary to:

- Restrict entry to city centers, pedestrian zones and parks, and make places, lanes or corridors for this transport. In Prague, for example, electric scooters wreak havoc in the crowded city center. They also distract people in some mountain tourist destinations where there were records of collision with pedestrians. As we know about pitfalls, we have to do everything possible to avoid them. Similarly, there may be dangerous traffic encounters on the road.
- It is also important to think about charging, sustainability of charging and environmental friendliness. The aim should be to provide electricity from renewable sources, like solar power and battery clusters.
- In the Action plan for the development of electromobility, one of the measures is also "installing the charging station on the parking lots of state institutions" (measure 14). In principle, the measure strives to equip public, self-governing and state organizations and their premises with a charging infrastructure. Electric cars are generally defined. As this framework measure was developed in the form of a







recommendation, it is possible to negotiate all the particulars of joining the shared electromobility systems.

The e-vehicle sharing (concept) was inspired by the field visit in Rome, where we visited and were given a presentation on the concept of Share'n Go station with two-seater vehicles. Based on the positive experience of the project partner Lazio, we have decided to look for more information about this concept. This year, the concept of electric vehicle sharing via the mobile application has been put into use in the neighboring region in the Slovak Republic.

#### **Practical examples**

Project up! City in the center of Bratislava is about lending small city electric cars Volkswagen e-up! The whole activity is sponsored by VW SK and the finances it generates are used to develop the center of Bratislava. In two years, customers have driven more than 340,000 kilometers. The operator declares that people's interest in using these vehicles is constantly increasing. That is why they added two more cars. Overall, they consider this project to be successful. (more info at: https://www.aktuality.sk/clanok/697776/o-poziciavanie-malych-elektro-vozidiel-v-bratislave-je-velky-zaujem/) A similar but purely commercial concept has been available in Košice since the beginning of 2019. Under SHARE'Ngo, people can rent mainly small urban electric cars. (more info at: http://zhidou-kosice.sk/sharing)

**Flugs e-carsharing** is an Austrian project aimed at flexible and shared mobility. The aim of the project is to replace the second car in the household in rural areas. The project declares 60 regular users and 11 electric cars. Operators consider the project to be successful. (more info at: <a href="https://www.interregeurope.eu/policylearning/good-practices/item/942/flugs-e-carsharing/">https://www.interregeurope.eu/policylearning/good-practices/item/942/flugs-e-carsharing/</a>)

Since the concept has proven successful in comparable demographic conditions, the Prešov self-governing region with more than 820,000 inhabitants offers space to implement the concept.

#### 2. Action description and implementation method

An attractive option of using electromobility for the self-governing region is the purchase and operation of electric buses primarily in urban, secondarily in suburban or interurban passenger transport. It is a costly solution, however. With good project, it is possible to apply for financial subsidies from EU subsidy schemes or from the Slovak Republic. Self-government could operate ecological and sustainable public transport by gradually replacing its public transport fleet in favor of electric vehicles. In this respect, the following is important:

- a. it is essential to build good charging infrastructure in view of the future needs;
- b. to ensure, to the greatest extent possible, electricity from renewable sources;
- c. deploy electric buses with regard to their range;
- d. use modern technologies (fast-charging at stops, charging belts in dedicated lanes and so on).





With regard to the concepts of e-mobility sharing (e-bikes, e-car), the following information are important.

What needs to be included in the solution:

- have more vehicles at the disposal, a network of stations in appropriate locations (transport hubs, where people and businesses accumulate, etc.);
- develop and implement a vehicle booking model (e-mail, smartphone) to book a vehicle at a designated location;
- ensure the possibility of booking for any time periods;
- manage the self-service system in technical terms (reader card, RFID, mobile app).

#### Benefits of e-vehicle sharing:

- higher environmental performance than in the case of car ownership (newer vehicles);
- cost savings on operation and procurement costs are shared by more people and thus lower failure rate are achieved as cars are newer;
- fewer cars in the city and thus less need for parking lots;
- possibility of using different vehicles for different uses (car, bicycle);
- insurance, energy, maintenance are included in the price (transparency);
- the number of people in cities will not need to own cars (the next step).

The following should be taken into account when planning and implementing shared esolutions:

- operation the company that will own the vehicles in question will be in charge of maintenance, booking system and billing.
- it is necessary to decide on ownership of the whole system. Whether it will be a private business activity authorized and approved by self-government or co-ownership or exclusive ownership of self-governments.
- critical circles for system decision-making and planning: network system (infrastructure) organization, charging stations, public parking spaces, contractors (management system, charging stations, various forms of payment, subscription, charging, maintenance), moving vehicles to places where future need is expected (if they are more remote).
- clients natural or legal persons. Primary natural persons. Legal persons using various subscription options.
- main partners: local government, public administration, producers and transport companies.
- ICT support is needed. Website and applications that allow you to use the system: search for free vehicles, forms of payment, booking, car service.
- supporting "Uber-like" activities with e-vehicles.

# Important prerequisites for e-vehicle sharing include:

- increasing the efficiency and development of energy consumption management technologies along with the development of e-vehicles.
- significant improvement in batteries and associated operating costs, prolonging their life cycle, and reducing cost.





#### 3. Players involved

Prešov self-governing region

City of Prešov - municipal office - the Intermediary and Managing Authority of the Integrated Regional Operational Program (iROP), department of transport

Ministry of Environment

External organizations providing advisory and consultancy services

**Businesses** 

Regional media

The introduction of the concept of "sharing" into the everyday life of the population requires a series of negotiations, especially between the Prešov self-governing region and the city of Prešov, cooperation between the concerned regional departments, transport department, IROP intermediary body and private stakeholders who operate the concept. External entities providing advice on technical support and the potential implementation of the concept (eg Energy Cluster Prešov) are also expected to join the negotiations. The involvement of media is also required.

#### 4. Timeframe

- preparatory phase: choice of possible solutions, decision on preferred solutions, their supported and putting them into practice. By December 2019.
- feasibility study for selected solutions. By June 2020.
- implementation project for selected solutions (based on feasibility study). By December 2020.
- implementation of the project in practice. The steps of the implementation project. From January 2021.
- real functioning of the selected solution in practice. Test operation, corrections based on test results, real operation. From about March-April 2021.
- evaluation and inspection activities during and at the end of the project.

#### 5. Expected costs

Since it is first necessary to select and specify a solution, it is not possible to set costs accurately. However, here follows an expert estimate based on the current market situation.

Minimal variant: electro-scooters.

The cost of buying scooters. Min. 60 scooters in operation, min. 10 in reserve for possible replacement. It is necessary to choose a more durable model, eventually model with GPS sensor and other technologies for inclusion in the sharing system. Min. price per piece € 1,000. Funds needed for 70 pieces: € 70,000 (VAT included).

Static charging infrastructure installed in the city - one place for about 10 - 15 scooters. Charger costs: € 15,000. Scooter stands and material: €20,000. Professional installation and building modifications: €15 000. Total costs per one static place: € 50,000 (excluding VAT).





System operation. Electricity per year: based on the number of scooters and specific product parameters (scooter) and system usage. Maintenance: material needed, car operation (fuel, maintenance, amortization).

ICT system support. Application development and web interface: € 50,000. ICT infrastructure: GPS sensors (approx. € 200/ piece, 70 pieces = € 14,000); system monitoring and inspections (receiver, server, display devices, security ...) € 35,000. Total: € 85,000 (ex. VAT). Additional costs: installation, suitable premises, building modifications...

Remuneration for work. System maintenance: min. 3 employees. Monthly remuneration per person € 500 (gross). System monitoring and management (ICT), two people € 800 per month (gross). Total per year (gross): € 37,200.

In the case of an electric car system, the costs will be critical. The costs will depend on the price of the vehicle and the number of vehicles in the system. The above-mentioned Flugs e-carsharing system declares an initial cost of € 6,300 (advance payment for leasing, installation of a car sharing system and others) and a monthly operating cost of € 530 per vehicle (it's 11 cars). Initial costs total: € 69,300. Operating costs € 6,360 per year. Other costs are not listed.

How to reduce costs: work with a private system operator (investor, shareholder ...). An example is the above-mentioned SHARE'Ngo system available in Košice.

Since the electric vehicle sharing system should be a paid service, it is possible to count on revenues from its use.

### 6. Funding sources

Budget of the Prešov self-governing region Companies operating in the region/ operating nationally EU funds Support from the state

#### 7. Transferability

A successful solution has a great chance to be implemented in other regions of Slovakia as well. Solution procedure, selected system, operation and problems will be very similar across all regions of the SR. They will only require minor modifications. At the EU level, the 'best practice' study should be drawn up. The idea and some particular elements will be transferable without major modifications. In other countries, it will be necessary to take into account their specific situation. In such cases, the solution will have to be significantly adapted.

#### 8. Performance indicators

Specific indicators that focus on the effectiveness of the selected scheme will only be set after the final approval of the given scheme. Here, it is possible to offer framework indicators that can be subsequently used:

- number of system users. Natural or legal persons.
- the number of kilometers made: annually, monthly.





- most popular routes. Possibility to optimize the busiest sections
- most busy times. Possibility to optimize the busiest sections.
- observe whether the sharing system affects the number of individual internal combustion passenger cars
- air pollution measurement.

#### 9. Quantification of results

The above indicators can be quantified in the following ways:

- number of system users: how many people, natural or legal persons, use the system.
   Number at the beginning. Track trends. Promote growth and engagement. Track status after a year.
- the number of kilometers driven the total mileage per system (per day), average per user per day, week, month, year. Comprehensive statistics: the busiest and least busy days, weeks, months. The mileage is also a good indicator of the environmental performance of the system. It can be assumed that these kilometers would otherwise be driven with a conventional combustion engine.
- most popular routes and times: GPS and ICT tracking. Database creation. Profile of specific users and vehicles. Tracking: the busiest routes and times, average values per user and vehicle, values per day, week, month and year.
  - observe whether the sharing system affects the number of individual internal combustion passenger cars. Comparison by means of traffic counting.
- air pollution measurement. Expert measurement before system deployment, and every month after deployment or during the busiest times or periods.

#### 10. Possible re-orientation actions

Increase in the number of users: the need to gradually add more vehicles to the system; adding additional sensors to track driving parameters (route, mileage, vehicle usage, standstill times, major issues)

Insufficient use of the system: an information campaign, changing the price to motivate potential users.

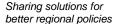
Improving service quality: a public question naire survey, a clear distinction between users (having an experience) and those not using the system (main reasons).

#### **ACTION NO. 5:**

# Public e-transport in specific protected landscape areas of Prešov region

#### 1. The background

Key aspect of assessing the health impact of transport are air pollution and noise levels. However, there are also other specific areas - protected areas - where it is necessary to pay attention to the effects of the negative impacts of transport on nature and animals living in it.







The Sustainable mobility plan of the Prešov self-governing region also covers the impact of mobility on protected areas (Sites of Community Importance, Natura 2000), national parks, protected landscape areas, protected water management areas.

The Act of the National Council of the Slovak Republic no. 543/2002 Coll. on Nature and Landscape Protection as amended, regulates the above to some extent. This Act regulates the competence of state administration bodies and municipalities, as well as the rights and obligations of legal entities and natural persons in the protection of nature and landscape, with the aim of ensuring the preservation of the natural balance and protection of the diversity of conditions and forms of life, natural values and beauties. Its aim is to create conditions for sustainable use of natural resources and the provision of ecosystem services, taking into account economic, social and cultural needs, as well as regional and local circumstances.

Territorial protection of nature and landscape means protection of nature and landscape in the territory of the Slovak Republic or its parts. There are 5 protection levels for nature and landscapes. The scope of the restrictions increases with each protection level.

In the territory of the Slovak Republic, the first level of protection applies (general nature and landscape protection). In the second protection level, the following is prohibited: entering and stopping with a motorized motor tricycle, four-wheeler, snow scooter or snowmobile, especially a car, a carriage or a sled, on lands beyond the built-up area of the village outside the motorway, roads and local roads, parking lot, gas station, garage, factory, station or airport area,"

The prohibition does not apply to the entry or stopping of a vehicle, including motor tricycles, four-wheeler and snowmobile

- serving the land or belonging to the landowner (landlord, tenant) of the land covered by this prohibition,
- to places the authority declared a protected area or protection zone by the generally binding legislation declaring the protected area and protection zone, the national park rules or the list of such places published on the official notice board of that authority/ official board of the affected municipality,
- if its entry or stopping has been permitted under a special regulation.

The scope of restrictions increases with increasing protection level, while territorial protection applies to the whole territory of the Slovak Republic, i.e. the first level of protection applies in the territory outside the specially declared protected areas.

Large-scale protected areas - in the territory of the Prešov self-governing region, there are 5 national parks - National Park (NP) Low Tatras, National Park (NP) PIENAP, National Park (NP) Poloniny, National Par (NP) Slovak Paradise, TANAP and 2 protected landscape areas - Protected Landscape Area (PLA) Vihorlat, Protected Landscape Area (PLA) of the Eastern Carpathians. The total area of the national parks in the region is 74,997 ha, which represents 8.3% of the region's area. Another 5.9% consists of their





protection zones. Protected landscape areas occupy 31,594 ha in the region, which means 3.5% of the total area of the region.

#### National parks in Prešov self-governing region

| Protected area     | Total area | Total area in the region | District                   | Protection level |
|--------------------|------------|--------------------------|----------------------------|------------------|
| NP Low Tatras      | 72 843 ha  | 5 736 ha                 | Poprad                     | 3                |
| Protection zone    | 110 162 ha | 1 584 ha                 | Poprad                     | 2                |
| NP PIENAP          | 3 794 ha   | 3.794 ha                 | Kežmarok,<br>Stará Ľubovňa | 3                |
| Protection zone    | 22 444 ha  | 22 444 ha                | Kežmarok,<br>Stará Ľubovňa | 2                |
| NP Poloniny        | 29 805 ha  | 29 805 ha                | Snina                      | 3                |
| Protection zone    | 10 975 ha  | 10 975 ha                | Snina                      | 2                |
| NP Slovak Paradise | 19 763 ha  | 5 004 ha                 | Poprad                     | 3                |
| Protection zone    | 13 011 ha  | 3 883 ha                 | Poprad                     | 2                |
| TANAP              | 73 800 ha  | 48 818 ha                | Poprad                     | 3                |
| Protection zone    | 17 485 ha  | 6 557 ha                 | Kežmarok                   | 2                |

[Source: State Nature Conservation, SR]

#### Protected landscape areas in Prešov region

| Protected landscape area                  |           |           | District  | Protection level |
|---|-----------|-----------|---|------------------|
|   |           | region    |   |                  |
| Vihorlat<br>(Vihorlat mountains)          | 17 485 ha | 6 557 ha  | Snina, Humenné  | 2                |
| Eatern Carpathians<br>(Laborec highlands) | 25 307 ha | 25 307 ha | Snina, Humenné,<br>Medzilaborce,<br>Stropkov, Svidník | 2                |

[Source: State Nature Conservation, SR]

#### Small-scale protected areas

In Prešov self-governing region there were registered 179 small-scale protected areas as of 31.12.2018, of which 9 in Bardejov, 11 in Humenné, 12 in Kežmarok, 11 in Levoča, 5 in Medzilaborce, 52 in Poprad, 21 in Prešov, 6 in Sabinov, 26 in Snina, 12 in Stará Ľubovňa, 1 in Stropkov, 5 in Svidník, 15 in Vranov nad Topľou (see Annex No. 1) districts. Of the total number of 179 small-scale protected areas (54 NNR - National Nature Reserve, 79 NR - Nature Reserve, 5 NNM - National Nature Monument, 34 NM - Natural Monument, 7 PA - Protected Area), 88 are part of large-scale protected areas (national parks and protected landscape areas) and their protection zones.

#### **Sites of Community Importance NATURA 2000**

NATURA 2000 Protected Areas Network is a comprehensive European system of territories designed to protect the rarest and most endangered species of wild plants,





wildlife and natural habitats on the territory of the European Union and to preserve biodiversity through conservation of these species and habitats. The NATURA 2000 system is a system of protected areas of EU member countries, consisting of two types of territory:

- Special Protection Areas (SPAs), which are declared under Council Directive no. 79/409 / EEC on the conservation of wild birds Directive on the Conservation of Wild Birds (also known as the Birds Directive), as amended (pursuant to Art. 26 of the Act of the National Council of the Slovak Republic no. 543/2002 Coll. as amended, these are Protected Bird Areas PBA),
- Special Areas of Conservation (SAC), which are designated under Council Directive no. 1/2006 / EC. 92/43 / EEC on the conservation of natural habitats of wild fauna and flora, as amended (pursuant to Art. 27 of the Act of the National Council of the Slovak Republic no. 543/2002 Coll. on Nature and Landscape Protection, as amended, the Territories of European Importance TEI).

# **Territories protected under international conventions**

In the framework of international conventions, several important treaties and conventions apply in the territory of Slovakia the aim of which is to preserve the world heritage. The conventions mark the protected areas and localities that are not declared protected areas under the Act of the National Council of the Slovak Republic no. 543/2002 Coll. on Nature and Landscape Protection, as amended, but form an important basis for the development of science and the presentation of nature conservation abroad. These territories may at the same time belong to the national system of protected areas or to the EU's protected areas under NATURA 2000.

According to the UNESCO World Heritage Convention, the territory of the Prešov self-governing region features the Carpathian Beech Forests of Slovakia and Ukraine and the old Beech Forests of Germany (proclaimed in 2007 and expanded in 2011), which form a part of a trilateral territory covering several locations in Slovakia, Ukraine and Germany.

#### Territorial system of ecological stability

The territorial system of ecological stability (TSES) is under the Act of the National Council of the Slovak Republic no. 543/2002 Coll. on Nature and Landscape Protection, as amended, defined as a structure of interconnected ecosystems, their constituents and elements, which ensures the diversity of conditions and forms of life in the country. The basis of this system is represented by biocentres, bio-corridors and interactive elements that may have supra-regional, regional or local significance.

#### Protected areas (historical importance)

The region of Prešov self-governing region, which basically covers the historical territory of central and upper Spiš, Šariš and upper Zemplín, is extremely rich in cultural and historical monuments. The territory of the region features two important areas





characterized by certain cultural elements, namely the lowland culture (clay and stone buildings in folk architecture) and mountain culture (log and wooden buildings). In addition to the legal provisions protecting the cultural heritage sites, such sites are also included in monument zones (MZ), monument reserves (MR) and protective zones PZ).

#### Historic reserves

- Bardejov, Kežmarok, Levoča, Spišská Sobota, Prešov, Spišská Kapitula, Podolínec
- Folk architecture conservation reserves Ždiar and Osturňa

#### Monument zones

- Hanušovce nad Topľou, Hniezdne, Lipovce – Lačnov, Ľubica, Nižné Repaše, Soľná Baňa, Sabinov, Spišská Belá, Spišské Podhradie, Stará Ľubovňa, Torysky, High Tatras - Tatranská Lomnica, Vrbov.

PROMETEUS project partner Transport Malta has invested in replacing internal combustion vehicles with electric vehicles, in line with its commitments as a promoter of sustainable mobility. In this sense, it is also necessary to take the same measures in the case of protected landscape areas in Prešov region, focusing on public transport.

As the region is home to a high number of protected landscape areas and attract the highest number of tourists, it is necessary to take this fact into consideration when planning not only personal but especially public transport. During the second "RDE", at the panel discussion "Economic Aspects of Electromobility" led by a professor of economics, a practice adopted from Malta "Subsidy Scheme for Scrappage of IC's and Purchase of EV's" was discussed in order to apply this practice in these protected landscape areas (with public transport in mind).

Read more about the best practice here:

https://www.interregeurope.eu/policylearning/good-practices/item/1957/subsidy-scheme-for-scrappage-of-ic-s-and-purchase-of-ev-s/

#### 2. Action description and implementation method

**Proposals for measures to mitigate the adverse effects of transport** - in the further development, it will be necessary to respect the following as much as possible:

National System of Protected Areas, established by the Act of the National Council of the SR no. 543/2002 Coll. on Nature and Landscape Protection, as amended,

Protected areas under the European NATURA 2000 system,

Protected sites and archaeological sites.

In order to mitigate the adverse effects of transport on nature and the landscape and with regard to its further development and use in protected and culturally important





localities, it is necessary to design an optimal transport service.

In addition to passenger cars, the use of electric propulsion is also very suitable for public transport, as it is highly ecological and environmentally-friendly:

- the bus (minibus) carries more passengers than a passenger car. Hybrid propulsion, or pure electric propulsion must have adequate performance without impacting protected areas (areas of European importance, Natura 2000), national parks, protected landscape areas, protected water management areas, and so on in a negative way.
- the intensity of classic bus transport contributes to pollution and the loss of non-renewable resources. Electric propulsion is an appropriate solution to this.
- in the protected areas in the region, only electric vehicles can be used for public transport purposes. For areas and routes that are not so popular, minibuses should be used.
- electric buses can run more often. The environmental burden is minimized thanks to the electric drive.
- areas with a high degree of protection may only be accessible to vehicles with electric propulsion (in terms of mass and individual transport).

The prerequisites of this proposal include:

- choosing and purchasing suitable vehicles according to current needs with a strategic future outlook (future needs, changes) currently hybrid and electric vehicles, for example.
- building remote parking lots for internal combustion engines, whether they are passenger cars, buses or minibuses.
- remote parking lots should feature charging stations for all types of electric vehicles.
- provide (rent) suitable environment-friendly means of transport for groups of persons and individuals (electric minibuses, electric passenger cars, electric bicycles ...) from the remote parking lots where combustion engines vehicles are parked.
- a system of checks to ensure that both the nature protection rules and the rules on the use of electrical means of transport that minimize negative impacts on nature are respected.

#### 3. Players involved

Prešov self-governing region

City of Prešov - municipal office - the Intermediary and Managing Authority of the Integrated Regional Operational Program (iROP), department of transport

Ministry of Environment

External organizations providing advisory and consultancy services

**Businesses** 

Regional media





In the case of this activity, it is necessary to involve public authorities and establish communication between the region, the city and representatives of the municipal authorities of the protected landscape areas concerned. It is expected that external entities providing advice on technical security and potential implementation of the concept, as well as operators of SAD Prešov or MT Troliga will join the negotiation. The involvement of media for promotional purposes is also required.

#### 4. Timeframe

- 1. The activity builds on the implementation of Master plan elements and moves them to a new level of environmental protection in specifically relevant areas. It builds on purchases of hybrid and electric public transport vehicles for transport in specific landscape areas.
- 2. This activity builds on the creation of the Information center (Activity no. 1) as an organizational unit of the Prešov region and its use in the area of protection of national parks and protected areas. In addition to caring for electromobility, the Information center must also take responsibility for coordinating transport in specific landscape areas.

#### 5. Estimated costs

Cost calculations for individual parts of this activity will be addressed for each activity individually.

In the case of focusing on limiting access to national parks and selected areas to vehicles that do not comply with the EURO 6 emission standard, the costs include: checks and remuneration of staff performing checks and adjustment of the parking lot (point 10). Adjustments to the guarded parking lot and the minimal technical equipment: estimated cost of  $\in$  10,000 and an annual cost per employee:  $\in$  20,000. These costs are returned over the course of two months of operation of the parking lot, with an incalculable benefit in favor of environmental protection. If we add the purchase of emission-free vehicles (8-12-seater minibus) that will provide shuttle services, we will get another source of revenue, despite the cost of the driver. Initial investment per vehicle starts at  $\in$  40,000. If it is an electric vehicle, then we must add a minimum of  $\in$  35,000 for the own charging station plus power grid connection.

Despite the simplicity of the basic solution mentioned above, the effect on the environment in the selected site is considerable.

After setting the above-mentioned basic measures, it is possible to proceed with more sophisticated approaches using modern info - communication technologies similar to the dynamic parking system.

#### 6. Funding sources

Budget of the Prešov self-governing region and affected municipalities Ministry of Environment Companies operating in the region EU funds





#### 7. Transferability

All activities under the proposed activity, after verifying their effectiveness, can be disseminated across regions (e.g. Prešov and Košice) within the network of cooperating offices. Prešov self-governing region, where these activities originate, is the body responsible for the above activities.

#### 8. Performance indicators

- 1. hybrid and electric buses and minibuses
- 2. information days on electromobility in protected landscape areas and national parks
- 4. remote parking lots
- 5. charging stations at remote parking lots

#### 9. Quantification of results

- 1. no. of hybrid and electric buses (1) and minibuses (1)
- 2. no. of information days on electromobility in protected landscape areas and national parks of Prešov region (1)
- 3. no. of remote parking lots (2)
- 4. no. of charging stations at remote parking lots (2)

#### 10. Possible re-orientation actions

Increase in the number of users: the need to gradually add more vehicles to the system. Insufficient use of the system: an information campaign, surveys among population. Improving service quality – survey among population using the service.





| DATE:                      |
|----------------------------|
| NAME:                      |
| POSITION:                  |
| SIGNATURE:                 |
| STAMP OF THE ORGANISATION: |



Please note that the information provided here will form the basis of the logbook for the monitoring of the implementation phase of the Action Plans.