



**PROMETEUS**   
Interreg Europe



## **REGIONAL ACTION PLAN ON PROMOTING ELECTRIC MOBILITY IN THE FEDERAL REGION OF CARINTHIA:**

**LAND  KÄRNTEN**



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## 1. General context of Interreg Europe Prometeus

Project: **\_PROMETEUS – PROMotion of EmobiliTY in EU regionS\_**

Partner organisation: **\_Regional Government Carinthia**

Country: **\_Austria\_**

NUTS2 region: **Kärnten**

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*A zero emission mobility system is the future for Carinthia and the rest of Europe; this is out of question but how will a future mobility system look like and what does this mean for our region?*

*Autonomous full electric mobility is the near future; if we change our mobility system what does this mean for our infrastructure also considering the charging infrastructure?*

In order to find a sustainable, low carbon alternative for transport, electro-mobility has been identified as a priority within EU policies. Low user awareness and a poor availability of dedicated infrastructure are considered the main barriers to overcome in order to effect an actual behavioral change in the transport sector and in mobility issues.



In the five partner regions of Malta (Lead Partner Transport Malta), Carinthia (Austria), Lazio (Italy), Prešov (Slovakia) and Castile and Leon (Spain), and with the advisory partner role of Poliedra (Milan, Italy), PROMETEUS aims at overcoming such barriers and promoting electro-mobility. Coherent with specific objective 3.1 of the Interreg Europe programme the change to a low-carbon economy is happening through the improvement of policy instruments linked to the specific Structural funds addressed in the five partner regions.

In every policy instrument there is at least one investment priority suitable to be improved integrating the promotion of electro-mobility. Depending on the instrument, such investment priorities are linked to one of the following thematic objectives: “TO4. Supporting the shift towards a low-carbon economy in all sectors” (ROP of Lazio, M13 of Carinthia), “TO7. Promoting sustainable transport and improving network infrastructures” (OP of Malta, iROP of Slovakia), “TO1. Strengthening research, technological development and innovation” (OP of Castile and Leon).

Research and innovation, awareness raising activities and the integration of electro-mobility in strategic plans and programs, in particular if related to urban and transport planning, are three of the main actions which can be performed to improve the policy instruments and to direct them to more sustainable forms of mobility. Those actions can be performed through funding new projects or by fostering a more effective governance system.

The five regional action plans have been co-designed by the partners and groups of regional stakeholders, which have been involved in the life of the project, via a structured interregional learning process composed of Regional Co-Design Stakeholder Workshops, Regional Dissemination Events, as well as Interregional Workshops, Field Visits and Focused Meetings.

At first the territorial electro mobility preparedness and needs have been analyzed. After this the good practices have been identified and benchmarked to be exchanged among partners and to be presented by the partners to their respective Regional Co-Design Stakeholder Workshops and Dissemination Events. This Regional Action Plan and the Action Plans from the other four regions for the improvement of the policy instruments in reference to each region have been created as the logical next step, and have been formed and informed thanks to the interregional knowledge exchange and learning process, in a dynamic exchange between each partner, informed by the others, and the respective regional stakeholders. A web-based monitoring tool, where the progresses of the implementation of



the Regional Action Plans are recorded and monitored, is being developed together with final version of the 5 Prometheus Action Plans.

## **2. Carinthia- Region, Background, Mobility Masterplan**

### **2.1. Some basic facts about Carinthia and transport in Carinthia**

The federal region of Carinthia covers an area of more than 9500 km<sup>2</sup>, with 560.000 inhabitants. Carinthia is a rural area with a capital city of 100.000 inhabitants, Klagenfurt am Wörthersee. As a rural area with few sizeable urban centres, Carinthia is facing the challenge of losing inhabitants due to the economic situation in comparison to the neighbouring federal regions in Austria. The car stock in the federal region is about 300.000 units. Air and Noise pollution emitted by traffic are also some of the main challenges Carinthia has to cope with.

### **2.2. The Vision for the federal region of Carinthia**

The vision for the federal region of Carinthia is, in the long term, to increase the percentage of people using public transport to 20% of the overall traffic, to increase the percentage of cyclists and pedestrians to 40%, and to reduce motorised private transport from over 77% to 40%. By 2035, the percentage of people using public transport and cyclists should certainly double. Simultaneously, the accessibility of the federal region of Carinthia should be improved, and the environmental burden of the region reduced. The mobility needs of Carinthians are paramount and, for those who will not be able to change the mode of transport, it is the aim of Carinthia to change the drivetrain towards electric or other alternative solutions. The general plan for the implementation of full electric mobility technologies in our traffic system was proposed in late 2008 and it has been continually developed since then.

The special focus of the overall aim for a transition in transports in Carinthia is on the charging infrastructure. Interreg projects **ENEVATE** (European Network on Electric Vehicles



and Transferring Expertise) and **I-CVUE** (Incentives For Cleaner Vehicles In Urban Europe) have confirmed that the federal region of Carinthia was the best equipped region in the 28 EU countries in terms of presence and density of charging infrastructure, both within and outside urban areas.

The project **PROMETEUS** has therefore taken up the role of Carinthia's next logical step for the ongoing evolution towards electric mobility.

In the context of the commitment of the federal region of Carinthia towards the electric transition in mobility and transport, on 7th May 2015 the **Mobility Master Plan Kärnten (MoMaK 2035)** was launched. The basic principles of the **MoMaK 2035** are *avoiding, shifting and decarbonizing*.

This **MoMaK 2035** was developed in the frame of the same policy instrument Carinthia work with, in the **PROMETEUS** project: the Prometheus activities and the Prometheus Regional Action Plan, therefore, lie in the same policy context of the **MoMaK 2035** as the next logical step for the federal region in further focusing and directing the transition sustainable mobility, and electro-mobility in particular.

The guiding principles for the creation of the **Mobility Master Plan 2035** have been based on a comprehensive analysis of the traffic policy vision outlined by the federal region of Carinthia and the respective overarching strategies. 7 guiding principles have been defined, which include specific objectives for the following 20 years: *resource-friendly and efficient; achievable; fair and healthy; safe; cooperative; environment-friendly; and networked mobility*. These objectives specify the direction in which traffic policy and traffic planning should be going by 2035, by applying the guiding principles. In order to be able to evaluate the progress made towards the set objectives, accompanying indicators were specified. For each of the following guiding principles there are related objectives and indicators.

### **2.3. Areas of activity and measures**

In the next step of the **MoMaK 2035**, vision and strategy were used to derive 7 areas of activity (*better/more efficiently organised; infrastructure as the backbone of mobility; affordable mobility; comfortably and safely on the move; cooperative and alternatively*



mobile; for a better environment; fully informed) and the associated measures to implement the strategy. Fields of activity combine different measures pertaining to all transport modes, thus representing a topical classification of the individual measures. There is interaction and cross-linking between the individual measures. Each measure contributes to the



achievement of the defined goals and is prioritized accordingly.

The Actions foreseen in this Prometheus Regional Action Plan have been conceived also taking into account the guiding principles and areas of the **MoMaK 2035**, and will be declined according to those principles and areas of activity and measures, thus reinforcing the dynamic link between the policy context and the Prometheus Action Plan.



## 2.4. Monitoring and controlling the implementation of strategy

The **MoMaK 2035** is to be subjected to monitoring. For that purpose, the intention is to evaluate its objectives and its measures every five years. This evaluation is to be carried out internally by **Department 7 - Economics, Tourism and Mobility** with the support of other administrative divisions. In a world of constant change and super-rapid innovations, it makes sense to question and, if need be, adapt the guiding principles, goals and measures - perhaps also the indicators - on the basis of new economic, social and technical developments. For the consistent pursuit of this subject, supporting the uptake of electrical vehicles in the federal region Carinthia and the creation of a mobility centre of excellence on a federal-state level are recommended.

Having this vision was one of the reasons why the regional government of Carinthia has participated in the Interreg Europe project PROMETEUS: the Actions of the Action Plan are, in fact, intended to be dialogical and interactive with the **MoMaK 2035** and the overall vision for mobility in Carinthia, and an important step to frame the evolution of transport in the federal region to fulfill its transport objectives.

## 3. Policy context

- |                                 |                                     |  |
|---------------------------------|-------------------------------------|--|
| The Action Plan aims to impact: | <input checked="" type="checkbox"/> | Investment for Growth and Jobs programme     |
|                                 | <input type="checkbox"/>            | European Territorial Cooperation programme   |
|                                 | <input type="checkbox"/>            | Other regional development policy instrument |

Name of the policy instrument(s) addressed: Lokale und regionale Strategien für Energieeffizienz und nachhaltige Mobilität (Local and regional strategy energy efficiency and alternative mobility, M13\_CO2\_IP4e\_MN1)

Scope of the policy instrument(s) addressed:

Investment priority 4e promote policies to reduce CO2 emissions for all regions

specific objective 1: to contribute to reducing CO2 emissions by developing new local or regional strategies





## 4. Details of the actions envisaged

### 4.1. Supporting the uptake and the further development of electrical vehicles in the federal region Carinthia (Action 1)

#### 4.1.1. Influence by the project meetings and background

This action is motivated by the field visit in Spain hosted by the project partner of Castile-Leon. In particular, it has been inspired by the European project **Horizon 2020 REMOURBAN** (Regeneration Model for Smart Urban Transformation), aiming at facilitating the uptake of electric mobility in urban and rural areas of Europe. **REMOURBAN** is a lighthouse project whose ultimate goal is to design and validate a urban regeneration model in the cities of Nottingham (UK), Valladolid (Spain) and Tepebasi/Eskişehir (Turkey), while maximizing its replication potential in two follower cities, Seraing (Belgium) and Miskolc (Hungary). Especially the national smart city flagship by electric busses in Miskolc, with a population of 163,000 people, similar to Klagenfurt, has been deemed is inspiring for Carinthia. After reporting of the Valladolid meeting in one of Carinthia's Regional Co-design Stakeholder Workshops, and with the agreement of the stakeholders, we have commissioned a feasibility study regarding rearranging the public transport system in the city of Klagenfurt towards zero emissions. For further information the study written in German can be found on the PROMETEUS homepage (<https://www.interregeurope.eu/prometeus/>).

As described in the general background, the vision of the federal region Carinthia is to rearrange the regional mobility system towards electric mobility (including, where suitable, also hydrogen-electric systems). This action is framed in the **MoMaK 2035** areas of *affordable mobility, comfortably and safely on the move* and *infrastructure* as the backbone of mobility in the principles of fair & healthy, resource-friendly and efficient and environment-friendly mobility.

Furthermore this action is also in line with the “White Book of transport” published by the European Union which aims a reduction of CO2 emissions by 95% in 2050 in urban areas.



### **4.1.2. Activities**

With this background Action 1 “Supporting the uptake and the further development of electrical vehicles in the federal region Carinthia” plans to increase the share of zero-emission vessels on the roads of Carinthia. Charging infrastructure development is a crucial part of the development of this market. The regional Government of Carinthia will work with the inhabitants of Carinthia to raise public awareness during the dissemination events and with companies like the car retailers and the Carinthia chamber of commerce in stakeholder meetings to start the work on the specific strategy.

The reason for choosing this two target groups is that they are the main players in this upcoming market. Some of them were participating in our PROMETEUS Regional Co-Design Stakeholder Workshops (RCSW) and the Regional Dissemination Events, like the Carinthian Chamber of Commerce or some of the big companies like Glock and Infineon Technologies. Furthermore the regional government of Carinthia has already strong connections with them.

For this action the decision has been to divide the vehicles in terms of the categories according to the European classification, in order to have separate objectives for separate categories in different market and service segments and also in order to better define different groups of players and stakeholders to involve. The three categories on which this action focuses are:

M1 Cars

N1 – N3 Duty vehicles

M2 and M3 Buses

#### **M1 Cars**

During the PROMETEUS stakeholder workshops some of the main discussions revolved around the market uptake for zero emission cars and how the federal region of Carinthia can support this market uptake. On the one hand the solution for the government is to increase



the number of charging facilities and on the other hand Carinthia will cooperate with the Carinthian Chamber of Commerce and the vehicle retailers in organizing awareness raising events and the strategical planning for the next steps.

One first meeting with these stakeholders is planned for autumn 2019, further two meetings will be planned for 2020, one in the first semester and the other in the second semester.

For the expansion of the charging infrastructure Carinthia has scheduled costs of € 200.000. 75% of these costs will be funded by the European Union in the **Interreg V/A** project "**BikeNat**" (Interreg Italia – Austria), that has been recently approved.

This project has the aim to enhance the cross-border territory of Friuli Venezia Giulia, Carinthia and Salzburg, increasing its external visibility and physical usability, preserving the environment and satisfying mobility needs, considering primarily the current situation regarding accessibility to major attractions, and facilitating incoming users by developing mobility knots including e-mobility infrastructure.

Beyond the **BikeNat** project, Carinthia also plans to participate in national and international projects to explore the issue of chargers and intraoperative systems as well as new technologies. For example this may happen in the frame of the programme "Horizon 2020" which includes the suitable call "Building a low-carbon, climate resilient future: Green Vehicles".

## **N1 – N3 Duty vehicles**

The availability of N1- N3 duty vehicles will be the most challenging part of action 1 because the first N1-N3 vehicles are entering the market only now: any improvement in the presence of N1-N3 duty vehicle on the Carinthian roads is of the utmost importance, considering the emissions produced by the equivalent internal combustion vehicles.

For N1-N3 duty vehicles, the federal region of Carinthia will involve the Chamber of Commerce and the logistic companies. Considering that N1-N3 vehicles directly concern logistics and freight transport, Carinthia will also involve the traffic managers of the larger cities and towns in Carinthia. Some of them were participating in the Prometheus workshops and the dissemination events in autumn 2017 and spring 2018 that were held in Klagenfurt.

The task is also to raise awareness in the logistic company segment to motivate them to fleet transition when the vehicles appear at the market.



The involvement will be in planning and strategical development as well as in supporting the writing of proposals for national and international projects. A first meeting is planned in the end of 2019. If it then will be expectable when the vehicles come to the market we will organize meetings every half year to sharpen the strategy. There is no budget at the moment foreseen for this part of the action, because it is not predictable when the duty vehicles will appear at the market.

## **M2 and M3 Buses**

As a first step, Carinthia commissioned an external feasibility study regarding the rearrangement the public transport system in the city of Klagenfurt via zero emission busses. In the spring 2019 the study was presented to the main Prometheus stakeholders, to the municipal authorities of the city of Klagenfurt and the public transport provider of Klagenfurt in a dedicated Prometheus Regional Co-Design Stakeholder Workshop: the convened stakeholders accepted the findings of the feasibility study and decided to proceed with the zero-emission rearrangement of the public transport in Klagenfurt. The public transport with the new zero-emission bus fleet will be rearranged with the implementation of five main corridor lines instead of the present 20 single lines.

This process will be managed thanks to cooperation of the city of Klagenfurt, the public transport provider (KMG) and the regional government of Carinthia.

The feasibility study about the rearrangement of the public bus fleet regarding zero emission, done in the Prometheus project, concluded that the costs to implement the whole new zero-emission bus system in the city of Klagenfurt (5 main corridors) is of about 200 million Euro. During the timeframe of the Prometheus' second phase Carinthia is planning to start the implementation of the first out of five corridors. It will be the corridor from Annabichl (Airport) passing the city centre to Ebenthal in the South East. The implementation of this corridor will cost about 60 Million Euro.

Carinthia is already in touch with the European Investment Bank to get 20 million of **ELENA** funding. The contract will be signed in autumn 2019. If this contract will be signed we will start immediately with the implementation and we will be in the building process of the infrastructure in 2021.



### 4.1.3. Indicators of result

The only useable indicators for the implementation of e-mobility in a certain region are licensed vehicles and in the case of the Regional Action Plan of Carinthia, the share of zero emission vehicles expressed in %.

Regarding the indicators of result described below, Action 1 uses the year 2017 as the reference year. The implementation of Action 1 starts with the second half 2019 and will end in 2024, following the official aims of the regional government of Carinthia. For the scopes of the Prometheus project, indicators of result have been interpolated to the first half of 2021.

#### **M1 Cars**

In the reference year 2017 Carinthia had 0,59% zero emission vehicles in this class; the target is to get 0,70% by 2019 and 0,90% by June 2021. These values are always expressed in % of the total vehicle stock in this class.

#### **N1-N3 Duty Vehicles**

In the reference year 2017 Carinthia had 0,29% zero emission vehicles in this class; the target is to get 0,40% by 2019 and 0,45% by June 2021. These values are always expressed in % of the total vehicle stock in this class.

#### **M2 and M3 Buses**

In the reference year 2017 Carinthia had 0,26% zero emission vehicles in this class; the target is to get 0,26% by 2019 and 0,30% by June 2021 This values are always expressed in % of the total vehicle stock in this class.

Carinthia plans to monitor this action by having milestones and relative indicators of performance at the end of 2019 and 2020.

M1: Dec. 2019 0,70%; Dec. 2020 0,85%

N1 – N3: Dec. 2019 0,40%; Dec. 2020 0,42%

M2 and M3: Dec. 2019 0,26%; Dec. 2020 0,28%



Notwithstanding the declared indicators of result and indicators of performance, it has been noted that the market values will not be linear and usually the sales increase at the end of the year and drop in the middle of the year. This will have a special impact for the class M1. It is therefore to be acknowledged that forecasts can be difficult and might be quiet of the mark, depending on the actual market uptake. Also, future possibilities of the implementation of this action will also depend on the new national government that will be in charge after the national election in the end of September 2019: changes and reorientation are, therefore, possible.



## 4.2. Developing the Competence Centre for Innovative Mobility (KIM) (Action 2)

### 4.2.1. Influence by the project meetings and background

This action lies in the context of the **MoMaK 2035** areas of *networking* and *fully informed* for a better environment and *better and more efficiently organized* mobility as well as *cooperative and alternatively* mobile. The Competence Centre for Innovative Mobility has already been foreseen in the **MoMaK 2035**, but for going one step further it was important for Carinthia to be part of the Prometheus project. In particular, this action has been motivated and strengthened by the partner meetings in Spain and Rome, with particular reference to two specific field visits in Rome and the Interregional Workshop in Valladolid, Spain, that were discussed and presented in Carinthia's Regional Co-Design Workshops.

The delivering service with e-vehicles in Rome and the car-sharing company in Rome inspired us to strengthen our links with private providers of e-services; during the international workshop in Spain, the companies presenting their ideas inspired us to uptake the development of the KIM, and the tour through the Renault production line and the subsequent workshop with the local retailer and the Focused Meeting with the Castilian partner, gave us ideas on how to create a fertile environment, with the cooperation of private and public actors, for the development of electric mobility.

### 4.2.2. Action 2

Action 2 plans to develop the Competence Centre for Innovative Mobility (**KIM**) to answer the questions on what a future mobility system will look like for Carinthia, and what a change in the mobility system will mean for the infrastructure of the federal region. It will also give our partners and stakeholder a space for doing real live testing, not only on the road, but also on the water and in the air.

Carinthia will build this competence centre on the **See:Port** open workspace and living lab, which is one of the outcomes of the nationally-funded and completed **SURAAA** project. The installation of such a competence centre was also one of the targets of the **MoMaK 2035**, and has found in Prometheus further impetus for its actual implementation, with the



agreement of the stakeholders involved in our Regional events, further inspired by the knowledge exchange with other project partners.

This competence centre will be one of the tools for the federal regional administration to get answers to questions regarding the future mobility system in Carinthia. The main target groups of the KIM are the researchers of Carinthia, most namely at the University of Applied Science Carinthia and Alpen Adria University Klagenfurt as well as the research segment of Carinthia's private economic environment, like CTR, Infineon, Kapsch and Skidata.

Also, thanks to the KIM and the activities within, Carinthia plans to get in contact with other regions and cities as well as with companies working abroad, in order to get a deeper view on what comes next for the mobility systems of Europe. The KIM will also allow Carinthia to be well placed to step in EU-funded projects thanks to the presence and possibilities belied by this innovative centre.

Beside all levels of the government of Carinthia, our entire research units from the Alpen Adria University Klagenfurt and the University of Applied Science Carinthia will be involved in the action, as well as the research segment of Carinthia's private economic environment like CTR or Infineon and Glock. Those very actors have already been taking part in the Carinthia's regional Prometheus stakeholder workshops and have been among the promoters in the construction of this Action of the Action Plan.

Carinthia also believes that it is not enough to work with local partners and so it is planned to look beyond the borders to set up strategical international partnerships; those partnerships have already been kick-started during Prometheus, in particular with the German Land of Rheinland-Pfalz, in order to get some insights of situation in the research for electric mobility in different playfields, like the city of Mainz. Rheinland-Pfalz and the city of Mainz as well as the passenger drone manufacture company EHANG and the taxi boat manufacture SEABUBBLE, which Carinthia also plans to involve in this action, have been participating in the Prometheus stakeholder workshops and have contributed in inspiring this action

To develop and improve the KIM Carinthia will invest 1,5 million Euro within 2021. In order to strengthen the KIM Carinthia plans to participate in national and European funded research projects in the field of communication technologies.

The developing of KIM will start within Prometheus second phase in 2019 with the installing of one office for the first organizational steps and with events and small projects. This will lead to a permanent and fully implemented competence centre.





For 2019 already 4 small events organized by the KIM and the government are planned:

2 events regarding to electric Fuel cell Busses and one expert meeting in July 2019 (including experts from South Tyrol, also within the aim of widening the scope of the KIM) one showcase with a fuel cell bus driving in Klagenfurt for one day in August 2019 one hydrogen conference is planned in 2020

2 events regarding full electric passenger drones both in September 2019. In 2020 at least one meeting is planned on how to step into a EU-project proposal.

### 4.2.3. Indicators

Development of the KIM:

One office is developed in 2021 in the facilities of the **SEE:Port**.

Improvement of the KIM:

-Creation of further partnerships and participation in EU-funded project proposals:

To monitor the process, we want to set a milestone with December 2019. By then we would like to have the contact, including a signed paper of cooperation and in December 2020 we already want the project consortium to write the project proposal.

This project proposal may be in the frame of "Horizon2020". The programme includes some suitable calls like "2018-2020 Mobility for Growth" (Chapter 3: Global leadership and competitiveness" and Chapter 4: "Accounting for the people"), "Building a low-carbon, climate resilient future: Green Vehicles" and "2018-2020 Digitising and Transforming European Industry and Services: Automated Road Transport". It is difficult to name indicators for the possible participation in EU-projects, but our goal is to have in June 2021 one submitted EU-project proposal.

Carinthia is looking forward to implement this action. But, as stated for Action 1, the future possibilities depend on the new national government after the national election in the end of September 2019.

Date: 27.06.2019

Signature: 

Stamp of the organisation (if available):

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