



RuralMED Mobility

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RuralMED Mobility

Adopting electric mobility in underserved rural and remote MED areas

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D2.4.1 SUSTAINABLE MOBILITY STRATEGY IN RURALMED REGIONS





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Project identification

Project full title	Adopting electric mobility in underserved rural and remote MED areas
Mission	Promoting green living areas
Programme priority	Greener MED
Specific objective	RSO2.4: Promoting climate change adaptation and disaster risk prevention, resilience, taking into account eco-system based approaches
Deliverable number and title	D2.4.1 Sustainable Mobility Strategy in RuralMED Regions
Work package number and name	Work package 2: Preparation and fine-tuning for launching pilot activities
Activity number and name	Activity 2.4: Development or upgrade of mobility strategies and roadmap for implementation
Partner in charge	CIMNE/REAN/AGENEX
Partners involved	AGENEX, AREANATejo, BSC KRANJ, CERTH, CIMAA, CIMNE, COM, JUNTAEX, KCKZ County, RAUSK, RDFWM, REAN, SZ REDA
Status	Final
Distribution	Internal
Date(s) of production	14/07/2025 (template) 30/01/2026 (final) 30/06/2026 (reviewed version)

Previous steps/deliverables	Reported deliverable	Further steps/deliverables
D.2.3.1, D.3.1.1	D2.4.1 Sustainable Mobility Strategy in RuralMED Regions	D4.1.1.



1 List of abbreviations

ADRs - Agreements for the Development of Regions

AFIR - Alternative Fuels Infrastructure Regulation

AGENEX - Consortium Extremadura Energy Agency

ANFAC - Spanish Car Industry Association

AREANATejo - Regional Energy and Environment Agency from North Alentejo

BSC KRANJ - Business support centre L.t.d., Kranj

CERTH - Centre for Research and Technology Hellas

CIMAA - Intermunicipal Community of Alto Alentejo

CIMNE - International Centre for Numerical Methods in Engineering

CO₂ - Carbon Dioxide

COM - Consortium Oltrepò Mantovano

EED - Energy Efficiency Directive

EEMS - Spanish Strategy for Sustainable Mobility

EPBIH - Public Enterprise Electric Utility of Bosnia and Herzegovina

EPEEF - Environmental Protection and Energy Efficiency Fund

ERDF - European Regional Development Fund

EU - European Union

EV - Electric Vehicle

HEV - Hybrid Electric Vehicle

ISV - Vehicle Tax

IUC – Vehicle Circulation Tax

JUNTAEX - Directorate-General for Transport of the Government of Extremadura

KCKZ – Koprivnica-Krizevci County

MaaS - Mobility as a Service

MITE - Ministry for Ecological Transition

MOBI.E - Portugal's National Electric Mobility System

MOVEM - Electric Vehicle Mobility Plan in Municipalities

NAP - National Action Plan

PACES - Action Plan for Sustainable Energy and Climate

PAMUS-AA - Action Plan for Sustainable Urban Mobility in Alto Alentejo

PHEV - Plug-in Hybrid Electric Vehicle



PNRR - National Recovery and Resilience Plan

POSEUR - Operational Programme for Sustainability and Efficiency in the Use of Resources

PRMT - Regional Mobility and Transport Programme

PRR - Recovery and Resilience Plan

PTE - Plan for the Ecological Transition

RAUSK - Development Agency of Una-Sana Canton

RDFWM - Regional Development Fund of Western Macedonia

REAN - Regional Energy Agency North

RED - Renewable Energy Directive

RES - Renewable Energy Sources

SECAP - Sustainable Energy and Climate Action Plan

SNSvS - National Strategy for Sustainable Development

SUMP - Sustainable Urban Mobility Plan

SZ REDA - Stara Zagora Regional Economic Development Agency

TEN-T - Trans-European Transport Network

VEA - Alternative Energy Vehicle Promotion Strategy (Spain)

2 Background

The RuralMED Mobility project aims to address the challenges of sustainable multimodal mobility in rural areas of Mediterranean Europe. With 30% of the EU's population residing in rural regions, but covering 83% of the total EU area, rural mobility presents a significant challenge for local authorities. One of the key issues is the lack of electric vehicle (EV) charging infrastructure in rural areas, leading to "range anxiety" among drivers and a reliance on conventional transport options.

The project seeks to reduce the environmental impact of transportation in rural areas by facilitating the adoption of EV technology and supporting the integrated planning and financing of EV charging infrastructure. By promoting low carbon mobility solutions and enhancing the connection between urban and remote rural areas, the project aims to contribute to energy goals and carbon neutrality objectives.

Key objectives of the RuralMED Mobility project include:

1. Reducing CO₂ emissions by promoting the use of EV technology in rural areas,
2. Supporting the planning and financing of EV charging infrastructure and public shared EV rental schemes,
3. Promoting low carbon mobility solutions to meet energy goals and achieve carbon neutrality,
4. Improving connectivity between urban and remote rural areas through sustainable multimodal mobility initiatives.

Through capacity building, policy development, and strategic coordination, the project aims to empower rural and remote local authorities to address the challenges of sustainable mobility effectively. By enhancing awareness, expertise, and policy frameworks, the project seeks to create a more sustainable and connected transportation system in rural Mediterranean Europe.

It is essential to analyse the local policy frameworks and assess the specific needs of each region to identify opportunities for improvement in sustainable mobility. This joint self-assessment study aims to provide insights into the current situation regarding mobility in each participating territory, both from individual and collective perspectives. By examining local policy frameworks and understanding the unique challenges and potential of each region, we can identify innovative solutions that may be suitable for implementation. These findings will inform the development or enhancement of sustainable mobility plans.

This report seeks to highlight the common challenges while identifying the different approaches adopted by the participating regions to promote sustainable mobility and electric transport. By analysing territories with varying levels of development and policy maturity, the document demonstrates that many rural regions face similar mobility needs and can benefit from the exchange of experiences, knowledge and solutions. The comparative perspective adopted throughout the report supports the transferability of successful practices and contributes to a better understanding of how sustainable mobility strategies can be adapted to diverse rural contexts.



The report also examines the relationship between regional and national mobility frameworks and the pilot investments implemented within RuralMED Mobility. In doing so, it identifies opportunities for improving existing strategies and provides practical roadmaps to support future sustainable mobility actions. In this way, it is expected that the future lessons learned from the pilots operation will offer valuable evidence for decision-makers seeking to accelerate the transition towards low-carbon mobility systems in rural and remote areas.

Beyond its analytical value, this document serves a dual purpose within the project. It constitutes the official Deliverable D2.4.1 Sustainable Mobility Strategy in RuralMED Regions and, at the same time, represents a key Output of Activity A2.4 – Development or Upgrade of Mobility Strategies and Roadmap for Implementation. As such, it provides both a strategic framework for participating regions and a practical reference for future planning, investment and replication activities across the Euro-Mediterranean area.

The document was created by RuralMED Mobility project (Adopting electric mobility in underserved rural and remote MED areas), financed by the Interreg EURO-MED Programme.



3 Analysis of the current regional strategy for sustainable mobility

This section is written from the perspective of the project's pilot activities, focusing on an analysis of the current regional strategy for sustainable mobility.

The analysis focus on the activities or measures related to the pilot investment that RuralMED project is developing in the region. In case there is not a regional strategy for sustainable mobility, partners refer to the relevant national strategy instead. Should both regional and national strategies be absent, partners reflect on the need to create a strategy, based on their experience with the implementation of the project pilot.

The information included in this deliverable is different to the information sent in the deliverables from WP1. Focus is set on the impact from the pilot(s) into the regional strategy on sustainable mobility.

3.1 Analysis of the current strategy for sustainable mobility in Spain

The Region of Extremadura has developed a comprehensive strategic framework to guide the transition towards a more efficient, safer and environmentally sustainable mobility system. This framework is structured primarily around the [Extremadura Sustainable Mobility Plan \(PEMS\)](#), which is the reference planning instrument for the 2030 horizon. The document presents a coherent structure —**5 strategic axes, 13 programmes, 27 sub-programmes and 77 measures**— aimed at reorganising, modernising and decarbonising the entire regional transport system.

The PEMS defines a new mobility model based on ensuring **accessibility**, improving **territorial cohesion** and promoting **low- or zero-emission modes of transport**. The Plan emphasises adapting the mobility system to territorial dispersion and population ageing, strengthening rural-urban connectivity to prevent rural depopulation, especially in a community with more than 350 municipalities facing demographic challenges, improving interurban public transport and promoting active and sustainable mobility.

Added to this framework is the [Strategy for the Promotion of Electric Vehicles in Extremadura \(2018–2030\)](#). This strategy sets out objectives that converge with the PEMS, as its main function is to provide the technical and operational elements necessary for the progressive electrification of transport, through quantified objectives relating to charging points, public and private fleets, renewable integration and electric vehicle penetration. To this end, its tactical objectives are to achieve **9,200 electric vehicles** in the region, deploy **189 publicly accessible charging points**, integrate renewables with the aim of $\approx 10\%$ of charging points including photovoltaic self-consumption, and ensure that a minimum of **200 municipalities** adopt measures to promote electric vehicles.

In rural areas, the convergence between the two documents is particularly relevant. The PEMS recognises that rural areas require specific solutions to maintain accessibility to essential services, while the Electric Vehicle Strategy identifies the balanced territorial deployment of infrastructure as a prerequisite for ensuring electric mobility throughout the autonomous community.

Relationship between the actions of the Extremadura Sustainable Mobility Plan (PEMS) and the objectives of the Regional Strategy for the Promotion of Electric Vehicles in Extremadura (ERIVEE)

The actions included in the PEMS contribute to the fulfilment of the strategic and tactical objectives of the ERIVEE, especially with regard to the deployment of charging infrastructure, the electrification of the vehicle fleet, the promotion of low-emission mobility and the improvement of accessibility to electric mobility in rural areas. Below is a qualitative relationship between the main lines and actions of the PEMS and the ERIVEE objectives to which they contribute, in order to clarify the points of connection between the two planning instruments.



PEMS actions	ERIVEE Strategic Objectives (SO)	ERIVEE Tactical Objectives (TO)	Type of impact
1.2.2 Development of sectoral mobility plans. Integration of electric vehicles into sectoral mobility planning. (AXIS 1. Functional mobility. Programme 1. Regulations and planning.)	SO.4. "Implement good governance of electric vehicles in Extremadura"	OT4.2. Achieve 50 administrative and regulatory changes in public administrations.	Direct
		OT.4.3. Create a structure for monitoring and coordinating the Strategy (working meetings, platform and Electric Mobility round table).	
1.2.3 Development or updating of SUMP in municipalities with >20,000 inhabitants. Inclusion of transport electrification measures and planning of urban charging points. (AXIS 1. Functional mobility. Programme 1. Regulations and planning)	SO.1. "Create a regional, interoperable charging infrastructure powered by renewable energy."	OT1.1. Create a network of publicly accessible charging stations to ensure the mobility of electric vehicles in the region. OE.2 Promote demand for electric vehicles and reduce GHG emissions associated with road transport.	Direct
	SO.2. "Promote demand for electric vehicles and reduce GHG emissions associated with road transport."	OT2.3. Ensure that at least 200 municipalities in Extremadura develop at least one measure to promote and encourage the purchase of electric vehicles.	
1.2.4 Development of sustainable mobility plans in rural areas. Planning of electric mobility solutions adapted to rural contexts. (AXIS 1. Functional mobility. Programme 1. Regulations and planning.)	SO.1. "Create a regional, interoperable charging infrastructure powered by renewable energy."	OT1.1. Create a network of publicly accessible charging stations to ensure the mobility of electric vehicles in the region.	Direct
	SO.2. "Promote demand for electric vehicles and reduce GHG emissions associated with road transport."	OT2.3. Ensure that at least 200 municipalities in Extremadura develop at least one measure to promote and encourage the purchase of electric vehicles.	
6.2.1 Promotion of shared mobility in rural areas. Integration of electric vehicles into shared mobility models. (AXIS 2. Sustainable mobility. Programme 6. Efficient mobility.)	SO.2. "Promote demand for electric vehicles and reduce GHG emissions associated with road transport."	OT2.1 Increase the vehicle fleet to 9,200 vehicles in the region, reducing emissions from the transport sector by 23,000 tCO ₂ /year.	Indirect

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6.3.1 Transport on Demand (TOD) pilot projects. Efficient, low-emission mobility solutions. (AXIS 2. Sustainable mobility. Programme 6. Efficient mobility.)	SO.2. “Promote demand for electric vehicles and reduce GHG emissions associated with road transport.”	OT2.1 Increase the vehicle fleet to 9,200 vehicles in the region, reducing emissions from the transport sector by 23,000 tCO ₂ /year.	Indirect
9.1.1 Promotion of the acquisition of low-emission vehicles and vehicle renewal. Incentives for the replacement of the combustion vehicle fleet. (AXIS 2. Sustainable mobility. Programme 9. Low-emission mobility.)	SO.2. “Promote demand for electric vehicles and reduce GHG emissions associated with road transport”	OT2.1 Increase the vehicle fleet to 9,200 vehicles in the region, reducing emissions from the transport sector by 23,000 tCO ₂ /year.	Direct
9.1.2 Introduction of environmental criteria in public vehicle procurement policy. Electrification of public fleets and exemplary role of public administrations. (AXIS 2. Sustainable mobility. Programme 9. Low-emission mobility.)	SO.1. “Create a regional, interoperable charging infrastructure powered by renewable energy”	OT1.4. Install 71 linked charging points for electric vehicles belonging to the public administration or public services.	Direct
	SO.2. “Promote demand for electric vehicles and reduce GHG emissions associated with road transport.”	OT2.1. Increase the vehicle fleet to 9,200 vehicles in the region, reducing emissions from the transport sector by 23,000 tCO ₂ /year.	
9.1.3 Network of charging points and other alternative propulsion systems. Deployment of public and linked charging infrastructure. (AXIS 2. Sustainable mobility. Programme 9. Low-emission mobility.)	OE.1. “Create a regional, interoperable charging infrastructure powered by renewable energy.”	OT1.1. Create a network of publicly accessible charging stations to ensure the mobility of electric vehicles in the region.	Direct
		OT1.2. Integrate renewable energies into direct vehicle charging, stipulating that 10% of charging stations in 2030 must have self-consumption support with renewable energies.	
		OT1.3. Ensure that publicly accessible charging points or stations installed in Extremadura are interoperable.	



12.2.1 Promotion of mobile applications for mobility as a service (MaaS). Digital integration of electric mobility services. (AXIS 4. Connected mobility. Programme 12. Innovation and digitalisation.)	SO.4. 'Implement good governance of electric vehicles in Extremadura'.	OT4.3. Create a structure for monitoring and coordinating the Strategy (working meetings, platform and Electric Mobility round table).	Indirect
13.1.1 Communication campaigns to raise awareness of the new mobility model. Raising public awareness of the benefits of electric vehicles. (AXIS 5. Mobility education. Programme 13. Awareness-raising, education and training.)	OE.2 'Promote demand for electric vehicles and reduce GHG emissions associated with road transport'	OT2.2. Inform and raise awareness among 50,000 citizens.	Direct
13.1.2 Participation in projects related to sustainable mobility. (AXIS 5. Education for mobility. Programme 13. Awareness-raising, education and training.)	SO.3. 'Promote the economic sector linked to electric vehicles through specialisation and R&D&I.'	OT3.1. Mobilise at least €3 million in business projects linked to the electric mobility sector.	Indirect
		OT3.3. Support the development of at least six R&D&I projects on energy efficiency in mobility and/or clean and sustainable transport.	
13.3.1 Training public employees in new mobility management methods. Technical training for administrations in electric mobility. (AXIS 5. Education for mobility. Programme 13. Awareness, education and training.)	SO.4. 'Implement good governance of electric vehicles in Extremadura'.	OT4.1. Provide technical advice on electric mobility to at least 200 public bodies.	Direct
13.2.1 Dissemination of good practices and specialised training. Development of technical skills and knowledge in electric mobility. (AXIS 5. Education for mobility. Programme 13. Awareness raising, education and training.)	SO.3. 'Promote the economic sector linked to electric vehicles through specialisation and R&D&I.'	OT3.2. Train at least 1,000 students through specialised courses in electric mobility.	Direct

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Initial proposal for measures under the Regional Strategy for the Promotion of Electric Vehicles in Extremadura (ERIVEE) with a horizon of 2030–2050

In order to strengthen the alignment between the Extremadura Sustainable Mobility Plan (PEMS) and the Regional Strategy for the Promotion of Electric Vehicles in Extremadura (ERIVEE), and with a view to developing the strategy beyond the 2030 horizon, a preliminary qualitative outline of potential ERIVEE measures for the period 2030–2050 is presented below. These measures are proposed as an initial proposal, aimed at anticipating future lines of action consistent with the regional objectives of decarbonisation, sustainable mobility and territorial cohesion.

The measures proposed for the Regional Strategy for the Promotion of Electric Vehicles in Extremadura (ERIVEE) 2030-2050 are:

AXIS E1. Charging infrastructure

M1.1 - Development of the charging infrastructure aid programme (2030-2050)

- Upgrading of existing stations (high power, ultra-fast).
- Technological replacement and updating of obsolete equipment.
- Prioritisation criteria based on use, strategic location and rural coverage.
- Systematic integration of intelligent management and usage monitoring systems.

Expected impact: ensuring the operability, interoperability and suitability of the network for a majority of electric vehicles.

M1.2 - Coordinated rural charging network

Creation of supra-municipal or shared management models for charging points in rural municipalities, facilitating:

- Integration into common platforms.
- Reduction of operating costs for small municipalities.
- Improved user experience.
- Technical and administrative support to municipalities for network management.

Expected impact: greater economic viability and continuity of service in rural areas.

M1.3 - Incentives for smart, bidirectional connected charging

- Advanced self-consumption.
- V2G/V2B systems where technology and regulations permit.
- Initial implementation through pilot projects and demonstrations.

Expected impact: integration of electric vehicles into the regional energy system.

AXIS E2. Market and demand for electric vehicles

**M2.1 - Transition from subsidies to structural incentives**

- Direct subsidies → stable tax incentives.
- Priority for rural communities, professionals and shared fleets.
- Stable and predictable incentive framework in the medium and long term.

Expected impact: market consolidation without permanent dependence on subsidies.

M2.2 - Regional rural electric car sharing programmes

Extension of the RuralMED pilot model through:

- Support for electric car sharing services in small municipalities.
- Use of common digital platforms.
- Integration with on-demand transport.
- Involvement of local operators and periodic evaluation of social impact.

Expected impact: access to electric vehicles without the need for individual ownership.

M2.3 - Flexible post-pilot municipal incentives

Regional framework to make it easier for municipalities to apply:

- Temporary charging rebates.
- Discounts for residents.
- Local tax incentives (IVTM, parking, etc.).
- Regional catalogue of recommended municipal incentives.

Expected impact: greater local autonomy and adaptation to the reality of each municipality.

AXIS E3. Specialisation, economy and R&D&I**M3.1 - Circular economy of electric vehicles and batteries**

- Reuse of batteries in stationary applications.
- Advanced recycling and second life.
- Coordination with regional energy and industry strategies.

Expected impact: positioning Extremadura in the EV value chain.

M3.2 - Living labs and scalable pilot projects

- Regional and cross-border replicability.
- Replicability and scaling requirements as selection criteria.

Expected impact: reduced technological risk and greater adoption.

AXIS E4. Governance and coordination**M4.1 - Single regional electric mobility data platform**



Create a platform that:

- Integrates charging, car sharing and usage data.
- Acts as an interoperable aggregator.
- Available data for planning and evaluation.
- Data compatibilization with national and European mobility data systems.

Expected impact: data-driven decision-making and improved system efficiency.

M4.2 - Stable post-project management framework

Development of guidelines and standard models for:

- Transfer of infrastructure to municipalities.
- Definition of tariffs.
- Prevention of misuse.
- Periodic review of management models and tariffs.

Expected impact: long-term sustainability of public investments.

AXIS E5. Awareness raising and training

M5.1 - Advanced technical training programmes

- Infrastructure management.
- Digitalisation and data.
- Operation of shared services.
- Coordination with the regional education and training system.

Expected impact: qualified personnel for the new deployment phase.

M5.2 - Communication focused on tourism and rural mobility

- Attracting visitors in EVs.
- Rural connectivity.
- Image of a sustainable territory.
- Communication strategies differentiated by target audiences.

Expected impact: positive economic impact and social acceptance.

3.2 Analysis of the current strategy for sustainable mobility in Croatia

Croatia has adopted several national strategies and legal acts to decarbonise its transport system, yet implementation remains uneven between urban centres and rural areas. The **Transport Development Strategy 2017–2030** sets out nine general objectives and 45 specific objectives to modernise infrastructure, improve safety, and reduce environmental impacts. It calls for investment in public transport, greater modal integration and more sustainable modes.



National funding instruments align with this strategy: since 2016 Croatia has had a **Law on the Establishment of Infrastructure for Alternative Fuels** and the **National Policy Framework (NPF) on Alternative Fuels (NN 34/17)**, which transpose EU directives by requiring minimum coverage of recharging stations along the TEN-T network and classifying charging stations as simple structures to simplify permitting. The revised **National Energy and Climate Plan (NECP)** submitted in 2024/25 increases Croatia's ambition: the renewable share in final energy consumption is raised to **42.5 %**, and the renewable share in transport is nearly doubled from 13.2 % to **24.6 %**; greenhouse gas reductions must reach at least 62 % for ETS sectors and 16.7 % for non-ETS sectors by 2030. Croatia's **Hydrogen Strategy to 2050** targets 70 MW of green hydrogen production capacity by 2030 and 2,750 MW by 2050, with a 3.75 % share of hydrogen in energy consumption by 2030; the strategy notes that public transport in larger cities offers the most suitable pilot cases.

On the ground, however, progress is mixed. The national EV market is expanding, supported by public grants. By the second quarter of 2024 the number of public EV charging points surpassed **1,500**, two-thirds of which provide AC charging; high-power DC chargers are concentrated along motorways. The Environmental Protection and Energy Efficiency Fund (FZOEU) regularly opens subsidy calls: in December 2024 the Ministry of Economy launched a €50 million programme to co-finance at least **150 electric bus charging points**; the call runs from March to August 2025 and will underpin roughly €200 million of investment by 2030. Early 2025 saw 18 applicants requesting funding for 242 chargers, with installation required by June 2026. In August 2025, FZOEU introduced a €21.2 million subsidy scheme for companies purchasing zero-emission vehicles, offering grants of €2,500–9,000 per vehicle with project completion by 31 May 2026. These programmes demonstrate strong national support for alternative fuels and align with the EU's **Alternative Fuels Infrastructure Regulation (AFIR)**, which obliges member states to install EV chargers every 60 km on main roads by 2025 and high-power chargers for heavy vehicles by 2030.

Despite these efforts, rural and peri-urban areas are still underserved. Charging infrastructure is concentrated in cities and on motorways, leaving rural residents with limited access and persistent "range anxiety". Local transport plans are emerging but uneven: the City of Koprivnica adopted Croatia's first **Sustainable Urban Mobility Plan (SUMP)** in 2015. This pioneering SUMP emphasised walking, cycling and integrated public transport; initiatives such as *Town on the Move* built 73.5 km of walking and cycling routes and achieved a 36 % modal share of active mobility. Koprivnica and neighbouring Križevci remain national leaders, but most small municipalities lack SUMPs and rely on outdated sectoral plans. At national level the **National SUMP Support Programme (NSSP)** and EIB-JASPERS training courses (e.g. workshops held in Zagreb in April 2025) are building planning capacity, yet rural authorities often lack the technical expertise and budget to prepare mobility plans.

The RuralMED Croatia pilot addresses this structural gap. It installs four AC (22 kW) chargers at health centres in Gola, Kalnik, Ferdinandovac and Gornja Rijeka, selected for their roles in healthcare access, cross-border mobility, tourism and daily commuting. These villages currently have no charging points; the nearest DC chargers are 50–60 km away. By co-locating chargers with health services, the pilot promotes equitable access, supports cross-border trips into Slovenia, and showcases how small municipalities can implement sustainable mobility without extensive planning capacity. The pilot thus aligns with national strategies but localises them in the most underserved areas.



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3.3 Analysis of the current strategy for sustainable mobility in Portugal

At the national level, the strategy that broadly encompasses activities and measures aimed at decarbonizing mobility is the "Carbon Neutrality Roadmap 2050" (RNC2050). In the characterization of the mobility and transportation sector and its last decade at the national level, this same document cites pollution resulting from car use as representing 60% of emissions from road transportation. It also identifies the mobility and transportation sector as the most energy-intensive sector and, at the same time, the most significant indirect contributor to energy imports and related energy dependence. Additionally, the low occupancy of these vehicles is highlighted, both for private transport, with an average occupancy of 1.2 passengers, and for public transport, with an occupancy rate between 17% and 24%. Finally, the document cites shared mobility models as essential to leveraging the technological advances expected for mobility, giving them the potential to reduce emissions by up to 25% by 2050.

The resulting strategy, from the transposition of the mentioned RNC2050 to the current decade, is defined through the National Energy and Climate Plan 2030 (PNEC2030), which establishes national goals and measures within the framework of European commitments (Green Deal, Paris Agreement).

The measures directly related to the Pilot to be developed within the scope of RuralMED_MOBILITY in Portugal are:

Action Line 1.5 – Decarbonize Public Administration

1.5.4 – Promote the introduction and use of low-emission vehicles and sustainable state mobility - Promoting increasingly sustainable mobility should begin within state institutions, leading by example in the adoption of innovative and ambitious policies. Furthermore, mobility management should be promoted, including the use of public transportation and car sharing and carpooling initiatives, as well as behaviour change, including the development of eco-driving training. [Expected date: 2020-2025]

Action Line 5.3 – Promote and Support Electric Mobility

5.3.1 – Monitoring the electric mobility model: “reassess the model's benefits compared to other market models”... “monitoring the benefits it brings to the system and the results of promoting electric mobility.”

5.3.6 – Promote the development of the public charging network: (iii) “encourage/support investments so that the fast charging network reaches the entire territory, as provided for in the AFIR, while ensuring the necessary investments for these developments, particularly in capacity building of the electricity grid.” (Expected date 2020-2025)

5.4 – Promote Vehicle Sharing Services

5.4.1 – Promote shared mobility initiatives such as car sharing, bike sharing, and car pooling – (Expected date 2020-2025)

3.4 Analysis of the current strategy for sustainable mobility in Slovenia

Introduction



This chapter presents the alignment of the RuralMED Mobility pilot action implemented in the Municipality of Bohinj with the relevant Slovenian policy framework at national, regional, and local levels. The pilot action comprises the installation of one publicly accessible electric vehicle (EV) charging station equipped with two connectors (one 50 kW DC and one 22 kW AC) and the monitoring of a municipal electric transport-on-demand (ToD) service. The objective of the pilot is to generate evidence and operational experience to support the preparation of a strategy for scaling up public e-mobility services in a rural and environmentally sensitive context.

The alignment demonstrates how the pilot contributes to the achievement of Slovenia's transport decarbonisation, sustainable mobility, and rural accessibility objectives, while translating strategic policy commitments into concrete local action.

Alignment of the RuralMED Mobility pilot with the Slovenian National Policy Framework

National transport and climate objectives

Slovenian national strategies, including the Transport Development Strategy of the Republic of Slovenia and the Integrated National Energy and Climate Plan, identify the electrification of transport as a key measure for reducing greenhouse gas emissions and improving energy efficiency in the mobility sector. These documents emphasise the deployment of alternative fuels infrastructure, the promotion of low-emission vehicles, and the development of innovative mobility services, particularly in areas where conventional public transport provision is limited.

The RuralMED Mobility pilot in Bohinj directly contributes to these objectives through:

- The deployment of publicly accessible EV charging infrastructure, including fast-charging capability.
- The practical testing of electric vehicles within a municipally coordinated transport service.
- The promotion of low-emission mobility solutions adapted to rural conditions.

Alternative fuels and charging infrastructure policy

National policy related to alternative fuels infrastructure recognises the importance of a balanced charging network that combines fast chargers for on-route and operational needs with AC chargers for longer parking durations. The installation of a 50kW DC charger alongside a 22kW AC charger in Bohinj reflects this policy approach and ensures compatibility with both service vehicles and private users, including residents and visitors.

By providing open public access, the pilot supports national objectives related to interoperability, accessibility, and user confidence in electric mobility.

Support for innovative and demand-responsive mobility services

Slovenian transport policy increasingly promotes pilot-based testing of innovative mobility concepts, including demand-responsive transport, as a means of improving accessibility and



cost-efficiency in sparsely populated areas. The monitoring of an electric transport-on-demand service within the RuralMED Mobility pilot aligns with this approach and supports evidence-based decision-making for future policy and investment.

Alignment with the Regional Development Plan of Gorenjska 2021–2027

Sustainable and smart mobility priorities

The Regional Development Plan of Gorenjska 2021–2027 positions sustainable and smart mobility as a key development priority, with specific reference to the introduction of alternative fuels, improved regional mobility planning, and the establishment of regional mobility coordination mechanisms.

The Bohinj pilot contributes to these priorities by:

- Strengthening charging infrastructure coverage in a peripheral, rural, and tourist-intensive part of the region.
- Generating operational data that can inform regional mobility planning.
- Demonstrating the feasibility of electric and demand-responsive mobility solutions beyond urban centres.

Contribution to regional mobility systems

As a municipality with significant seasonal transport demand and environmental constraints, Bohinj represents a critical test case for the regional application of sustainable mobility solutions. The pilot complements existing and planned initiatives in more urbanised parts of Gorenjska by addressing rural and tourism-related mobility challenges, thereby enhancing overall regional cohesion and accessibility.

Alignment with Local Development Objectives of the Municipality of Bohinj

Local mobility challenges

The Municipality of Bohinj faces specific mobility challenges, including dispersed settlements, high seasonal tourism pressure, limited conventional public transport services, and the need to protect a sensitive natural environment. These challenges require flexible, low-emission mobility solutions that can adapt to varying demand levels throughout the year.

Local relevance of the pilot action

The RuralMED Mobility pilot responds directly to these challenges by:

- Providing charging infrastructure that supports municipal electric vehicles and enables broader EV uptake.
- Testing an electric transport-on-demand service tailored to local mobility needs.



- Reducing reliance on private car use and contributing to lower local emissions and noise.

The pilot supports the municipality's role as an active coordinator of sustainable mobility services, rather than solely an infrastructure provider.

Role of Monitoring and Data Collection

A central element of the pilot action is the systematic monitoring of the electric transport-on-demand service and charging station usage. Data collection focuses on user profiles, trip characteristics, vehicle utilisation, charging demand, and operational costs.

This monitoring approach is fully aligned with national and regional policy emphasis on:

- Pilot testing prior to large-scale investment.
- Evidence-based planning and optimisation of mobility services.
- Transparent justification for future public funding.

The collected data provides a robust foundation for evaluating service performance and identifying optimal conditions for scaling up public e-mobility services in Bohinj.

Contribution to Scaling-Up and Replicability

The RuralMED Mobility pilot serves as a preparatory step towards the development of a long-term public e-mobility strategy for the Municipality of Bohinj. By combining infrastructure deployment with service monitoring, the pilot enables:

- Informed decisions on future charging infrastructure expansion.
- Assessment of the viability of a permanent electric transport-on-demand service.
- Identification of governance, financing, and operational models suitable for rural contexts.

In line with Slovenian and regional policy objectives, the pilot also functions as a transferable model that can be replicated in other rural and alpine municipalities facing similar mobility challenges.

Conclusion

The RuralMED Mobility pilot action in the Municipality of Bohinj is strongly aligned with the Slovenian policy framework at national, regional, and local levels. It translates strategic objectives related to transport decarbonisation, alternative fuels, and sustainable rural mobility into concrete, locally adapted measures. Through its integrated approach to infrastructure deployment and service monitoring, the pilot provides a sound and policy-consistent basis for scaling up public e-mobility services and contributes to the broader transition towards sustainable mobility in Slovenia.



RuralMED Mobility

Interreg
Euro-MED



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3.5 Analysis of the current strategy for sustainable mobility in Bulgaria

The current strategy for sustainable mobility in Bulgaria within the RuralMED project context is reflected through the activities of the **Stara Zagora Regional Economic Development Agency (SZ REDA)** and its cooperation with the municipalities of **Galabovo and Radnevo**, which are particularly impacted by the coal transition.

1. Institutional Role and Focus:

- SZ REDA acts as a regional authority and innovation center supporting sustainable regional development.
- It focuses on helping local authorities address policy gaps and infrastructure needs for rural e-mobility.
- The agency coordinates with local governments and has experience in EU projects that influence national and regional strategies.

2. Activities Related to the RuralMED Pilot Investment:

SZ REDA, in cooperation with the municipalities of Galabovo and Radnevo, will:

- **Conduct pilot actions** to promote EV infrastructure in rural areas.
- Implement **selected use cases** for innovative e-mobility, such as public-private partnerships and shared EV charging networks.
- **Engage citizens** and raise awareness through campaigns—leveraging SZ REDA’s experience in citizen engagement from the DeCarb project.
- Integrate e-mobility concepts with energy services, such as **flexibility services to the grid**.

3. Strategic Contributions:

- **Data collection and analysis** on the rural EV infrastructure state-of-the-art.
- Development of **regional action plans** aligned with national and EU policies.
- Support in **capacity building** for local authorities and transfer of knowledge across regions.
- Drive policy changes leveraging their role in national networks and strategic councils.

In essence, Bulgaria’s contribution through SZ REDA addresses the challenge of low commercial interest in rural EV infrastructure by initiating public investments, developing local policies, and promoting community-level e-mobility adoption.



3.6 Analysis of the current strategy for sustainable mobility in Bosnia and Herzegovina

Bosnia and Herzegovina currently does not have an integrated national strategy specifically addressing sustainable mobility in rural and remote areas. While certain elements of sustainable transport are addressed through sectoral policies and Sustainable Urban Mobility Plans (SUMP) in some cities, rural regions remain largely outside a coherent strategic framework. As a result, the planning and implementation of sustainable mobility measures in rural areas are predominantly addressed at the regional and local levels, based on specific territorial needs and available institutional capacities.

At the entity level, the Strategy for the Development of the Federation of Bosnia and Herzegovina 2021–2027 recognises the need to reduce the environmental impact of the transport sector and explicitly promotes the electrification of transport, the development of electric vehicle charging infrastructure, and the implementation of sustainable urban mobility plans and smart mobility solutions in cities. However, these strategic directions are primarily oriented towards urban environments, while rural and remote areas are addressed only indirectly, leaving significant space for regional-level initiatives to operationalise these objectives in non-urban contexts.

Within this context, the RuralMED Mobility project has played a pivotal role in shaping the regional approach to sustainable mobility in the Una-Sana Canton. The development of the Sustainable Mobility Strategy for the Canton was directly informed by the project's pilot-oriented logic, ensuring that strategic objectives are grounded in practical implementation. The strategy explicitly incorporates low-carbon mobility solutions, with a particular focus on electric mobility as a response to long travel distances, dispersed settlements, and limited availability of public transport services in rural areas.

The pilot investment planned under the RuralMED Mobility project, the installation of an electric vehicle charging station in the Una-Sana Canton, represents a concrete operationalisation of the strategic direction set within the regional strategy. Rather than being treated as an isolated infrastructure measure, the EV charging station functions as a demonstrator of the feasibility and relevance of electric mobility solutions in a predominantly rural environment. From a strategic perspective, the pilot investment has influenced the regional sustainable mobility framework by reinforcing the need for scalable and context-sensitive solutions.

The experience gained through the planning of the EV charging infrastructure has highlighted key territorial challenges, such as spatial accessibility, energy supply considerations, and the integration of charging facilities with existing mobility patterns. These insights have directly contributed to a more realistic and implementable strategic approach, ensuring that



sustainable mobility objectives are aligned with actual rural conditions rather than urban-centric models.

Overall, the RuralMED pilot activity has acted as a catalyst for embedding electric mobility within the regional sustainable mobility strategy of the Una-Sana Canton. In the absence of a comprehensive national strategy for rural sustainable mobility, the project has demonstrated how pilot investments can translate higher-level strategic orientations into concrete regional actions, bridging the gap between policy intentions and on-the-ground implementation, and laying the groundwork for future replication and scaling of electric mobility solutions in rural areas.



3.7 Analysis of the current strategy for sustainable mobility in Italy

Italy has adopted a broad set of national and regional strategies to decarbonise its transport system, but implementation remains uneven between metropolitan centres and smaller municipalities. At the national level, the Piano Nazionale Integrato per l'Energia e il Clima (PNIEC) and the Piano Generale dei Trasporti e della Logistica (PGTL) provide the main frameworks. The PNIEC, revised in 2023/24, sets a 42.5 % renewable energy share in final consumption and foresees that transport must reach a 21–24 % renewable share by 2030.

Italy must reduce greenhouse gas emissions by 43.7 % in non-ETS sectors by 2030 compared to 2005 levels, with transport playing a decisive role. The national Hydrogen Strategy (2020) targets 5 GW of electrolyser capacity by 2030, prioritising mobility uses in freight, rail and public transport.

Legislative measures include the 2021 Decreto Legislativo on Alternative Fuels Infrastructure, which transposes EU directives by requiring minimum coverage of recharging stations along the TEN-T network and simplifying authorisations.

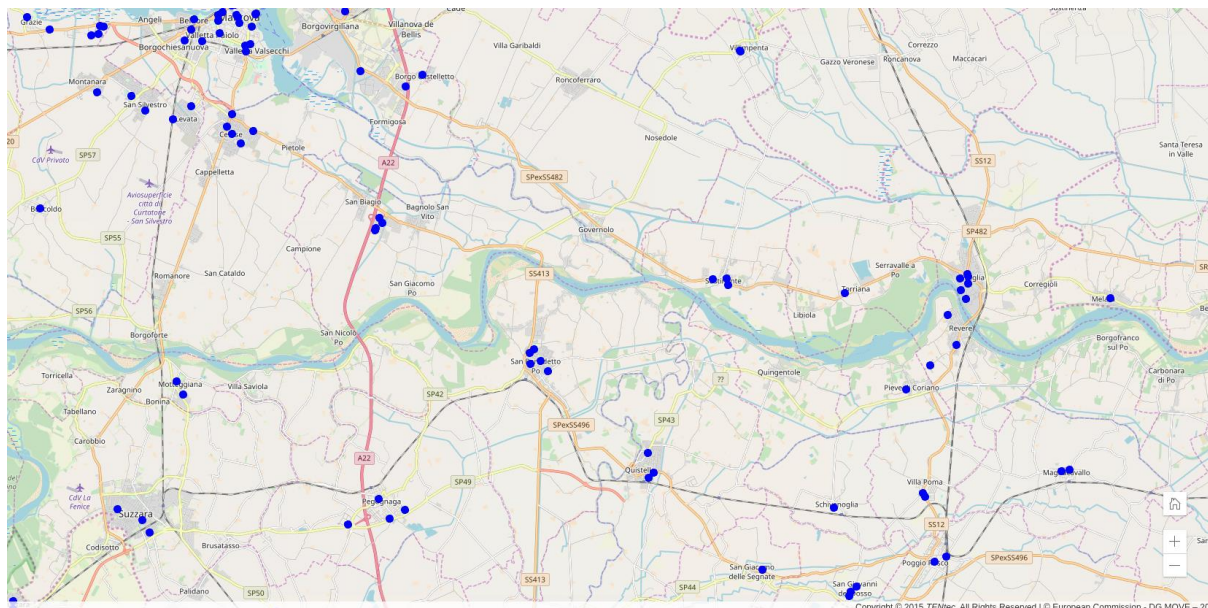
In Lombardia, these objectives are operationalised through the **Piano Regionale degli Interventi per la Qualità dell'Aria (PRIA 2023-2030)** and the **Piano Regionale della Mobilità e dei Trasporti (PRMT 2022-2030)**. Both documents emphasise modal shift, emissions reduction, and technological innovation. PRIA sets a regional target of cutting transport-related NOx emissions by 45 % by 2030, and encourages electrification of urban fleets.

The PRMT promotes rail freight corridors, the renewal of regional train fleets with hydrogen and electric units, and investments in multimodal hubs. Lombardia has also established incentives for municipalities to adopt Sustainable Urban Mobility Plans (PUMS), offering technical guidelines and co-financing.

The regional EV market is expanding rapidly. By mid-2025 Lombardia counted more than **20,000 public charging points**, roughly one quarter of Italy's total. However, distribution remains uneven: Milan and other metropolitan areas host dense networks of AC and high-power DC chargers, while provinces such as Sondrio or Mantova remain mainly underserved.



The following map show the charging stations active in the area of Oltrepo Mantovano.



In the following we see the share of alternative fuels vehicles in Italy (source: <https://alternative-fuels-observatory.ec.europa.eu/transport-mode/road/italy>)

Italy

Summary Target tracker Vehicles and fleet Infrastructure Incentives & legislation Useful information

Summary

Population	Total land area	Highway (km)
59,257,566	302,073 km ²	10,707 km

Total Light-Duty Vehicles (M1+N1, 2024)

44,731,230

All alternative fuelled vehicles (Q2 2025)

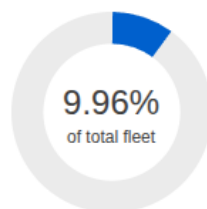
4,614,402

Data last updated

16 Sep 2025

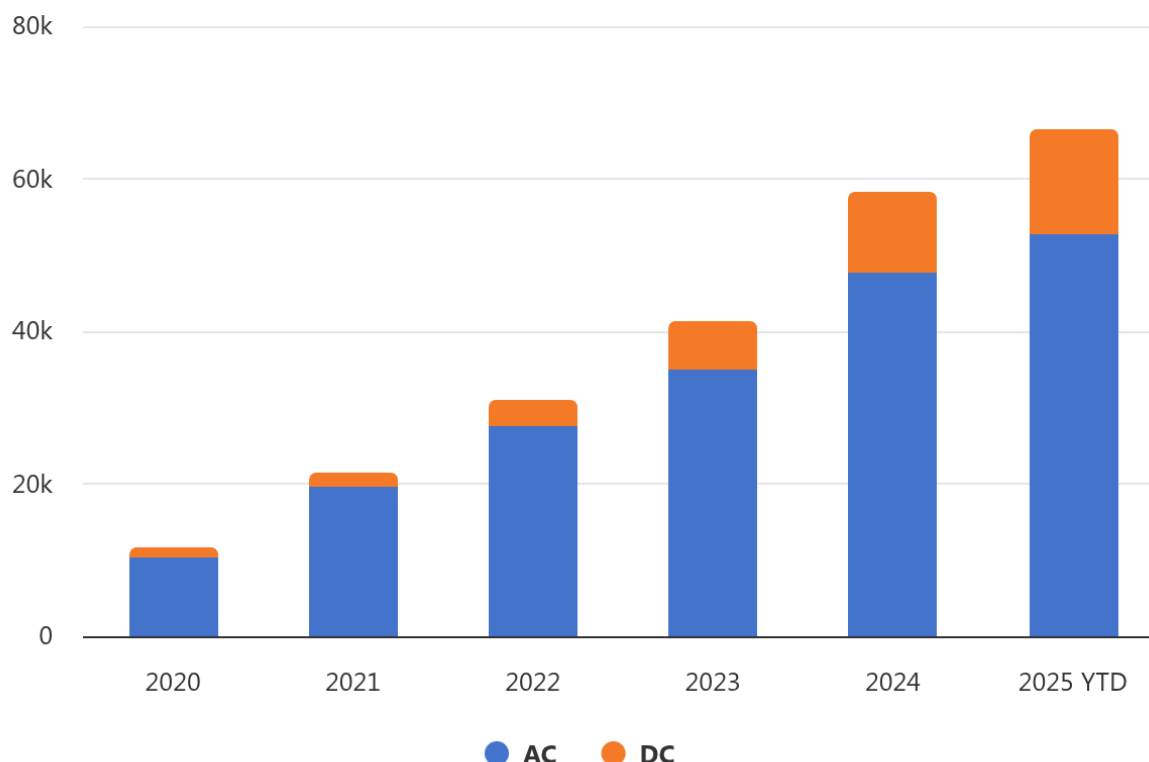
[Read more on the data sources](#)

Share of
alternative
fuelled light-duty
(M1 + N1)
vehicles in 2024





An the growth of charging station in the latest years



The national **PNRR (Piano Nazionale di Ripresa e Resilienza)** earmarks €740 million for recharging infrastructure, of which Lombardia is expected to receive around €100 million. Calls opened in 2023–2024 support private and public operators: in Milan alone, the 2024 municipal call funded 1,200 additional charging points, while in Brescia the local transport company is piloting 40 e-buses with depot chargers co-financed by regional funds.

Hydrogen pilots are also under way. The “Hydrogen Valley Lombardia” initiative, coordinated by Regione Lombardia and ENEA, aims for at least **30 MW of green hydrogen production capacity by 2030**, with demonstration projects in Valcamonica and Valtellina. The first hydrogen refuelling station for buses and trains is being developed in Brescia, to serve the future hydrogen-powered fleet on the non-electrified Brescia–Iseo–Edolo line. These pilots position Lombardia as one of the leading Italian regions for hydrogen in transport.

Despite this strong momentum, disparities persist. Rural and peri-urban areas, especially in the provinces of Lodi, Cremona and Sondrio, have limited access to charging infrastructure. While Milan, Bergamo and Brescia adopted ambitious PUMS between 2018 and 2021, many small municipalities rely on outdated traffic plans and lack the technical and financial capacity to develop integrated strategies. To address this, the national **Osservatorio PUMS** and Regione Lombardia co-finance training and feasibility studies: in 2024, a joint programme with Politecnico di Milano trained 120 municipal officers on sustainable mobility planning.

The province of Mantova illustrates these challenges clearly. With around 400,000 inhabitants spread across a predominantly rural and peri-urban territory, Mantova combines industrial clusters (notably in chemicals and manufacturing) with small municipalities where



car dependency remains high. According to Motus-E data, Mantova had fewer than 250 public charging points in mid-2025, most of them concentrated in Mantova city and along the A22 motorway corridor. Smaller municipalities such as Suzzara, Viadana and Castel Goffredo remain underserved. At the same time, Mantova has launched significant sustainable mobility efforts: the **PUMS di Mantova (2020)** prioritises cycling and low-emission zones, while the province participates in the **Move-In Lombardia programme**, which incentivises reduced private car mileage. Pilot projects include the “Mantova Hydrogen Valley”, announced in 2024 with €25 million of co-financing from Regione Lombardia and private partners, aiming to supply hydrogen for local logistics fleets and public buses by 2027. Yet the lack of widespread charging infrastructure and integrated rural transport services continues to limit modal shift, highlighting the province as a priority area for regional intervention.

Pilot projects are emerging to bridge the rural gap. The **RuralEV Lombardia** initiative, launched in 2025 with EU Interreg Alpine Space funds, is installing 22 kW AC chargers in villages such as Tirano, Bormio and Chiavenna, where tourism and cross-border mobility to Switzerland are significant. By co-locating chargers at hospitals, schools and municipal buildings, the project ensures equitable access and strengthens resilience of peripheral communities. This localised approach mirrors national strategies but tailors them to the needs of underserved areas, helping Regione Lombardia advance towards decarbonisation while ensuring territorial cohesion.

An interesting area of intervention concerns the National Law about **Company Mobility Management**

Article 229, paragraph 4, of Decree-Law No. 34 of May 19, 2020, converted, with amendments, by Law No. 77 of July 17, 2020, provided that companies and public administrations referred to in Article 1, paragraph 2, of Legislative Decree No. 165 of March 30, 2001, with individual local units with more than 100 employees located in a regional capital, in a metropolitan city, in a provincial capital or in a municipality with a population of more than 50,000 inhabitants, must adopt a PSCL for their employees aimed at reducing the use of private individual means of transport, as well as appointing a Mobility Manager with the role of providing ongoing professional support for decision-making, planning, programming, management, and promotion of optimal sustainable mobility solutions.

The aim of the regulation is to enable a structural and permanent reduction in the environmental impact of vehicular traffic in urban and metropolitan areas by promoting the implementation of measures to organize and manage people's mobility needs, thereby reducing the use of private motorized vehicles for regular commutes between home and work and helping to ease traffic congestion.

In implementation of Article 229, paragraph 4, of Decree Law 34/2020, the Ministry of Ecological Transition, in agreement with the Ministry of Sustainable Infrastructure and Mobility, signed Interministerial Decree No. 179 of May 12, 2021 - pdf, published in the General Series of the Official Gazette No. 124 of May 26, 2021.

Article 3, paragraph 5 of the aforementioned Decree 179/2021 provided for the adoption, by subsequent directorate decree of the Ministry of Ecological Transition and the Ministry of Sustainable Infrastructure and Mobility, of the ‘Guidelines for the drafting and implementation of home-work travel plans (PSCL)’.



These Guidelines were approved with the signing of Interdepartmental Decree No. 209 of August 4, 2021. The Guidelines are a useful tool for entities and companies required to adopt PSCLs and contain operational and methodological guidance on the procedures to be followed and implemented so that the analysis of the context, both inside and outside the company in question, allows for the planning and implementation of measures deemed necessary to enable a structural and permanent reduction in systematic home-work mobility.

Some key initiatives are summarized in the following:

Indicator	Data / Value
Public Transit Fleet Renewal (Zero-emission buses, etc.)	Mantova has committed € 5,390,855 under the PNRR for purchase of 8 new zero-emission buses (electric or hydrogen) with supporting infrastructure in the period January 2024 – June 2026. (Altra Mantova) Of these 8: 4 will be electric buses and 4 hydrogen buses, plus the corresponding refuelling / recharging infrastructure. (Prima Mantova) The plan includes building/upgrading charging and hydrogen refuelling stations, and an energy storage system linked to solar generation (photovoltaic) at the depot “Via dei Toscani”. (Mantovauno.it)
Electric Buses in Operation / Coming Online	Already in operation: <i>2 fully electric buses</i> on the “CC circolare” (centre city circulator) line; more to come (2 additional electric short buses by 2026; 4 hydrogen units) (Mantovauno.it)
Cycling Infrastructure	The province has 68 km of dedicated bike paths (“piste ciclabili”) open exclusively to bikes (e.g. Mantova-Peschiera etc.). In addition, there are about 1,200 km of paths along river embankments or multipurpose corridors which may also allow limited motor vehicle access (arginali etc.).
Growth of Cycling Infrastructure	Piste ciclabili (in capoluoghi di provincia) in Lombardia: Mantova saw an increase of around +101.2 % in km of dedicated bike paths between 2008-2015. (Milleunadonna)
Regional Funding for Cycling	Regione Lombardia allocated € 425,000 in early 2024 to three municipalities of the Mantova province (Volta Mantovana, San Benedetto Po, Rodigo) for creation or safety upgrades of bike paths. (Prima Mantova)
Modal Shares / Alternative Fuels in Vehicle Fleet	Among public transport / urban buses: the share of electric in Mantova is still low. As of latest reports (2024–25), “trasporto pubblico locale” initiatives show some growth, but the share of electric / alternative-fuel buses is still a small percentage overall. (la Voce Di Mantova)



Indicator	Data / Value
Vehicle Fleet by Type	In the Comune di Mantova: according to ACI / PRA data, in recent years the number of cars, motorcycles, commercial vehicles, autobus etc. are tracked; for example, auto + moto + autobus + veicoli speciali etc totalled about ~40,000 vehicles in earlier years. (Comuni Italiani)
Safety / Road Incidents	In 2021, the province recorded 820 road accidents (+16.1% over previous year), 1,151 injured (+18.2%), deaths 21 (-16%) compared to the prior year.

Incentives for alternative fuels

updated source: <https://alternative-fuels-observatory.ec.europa.eu/transport-mode/road/italy/incentives-legislations>

Registration tax benefits

Registration Fee (IPT) – Italy has no CO₂-based car registration tax. Only a provincial registration fee (IPT) is due on new registrations, which in many provinces is fully waived for electric vehicles (or sharply reduced) as a local policy. (Any minor stamp duty or transit fee is often exempted for BEVs as well.)

Ownership tax benefits

- **Vehicle Circulation Tax (Bollo)** – Full exemption for 5 years from first registration for BEVs. Thereafter BEVs pay only 25% of the standard rate (75% reduction). The standard “bollo” is based on kW and emission class.
- Some regions grant additional relief – e.g. Lombardy and Piedmont permanently waive the annual tax for BEVs beyond 5 years. In Valle d'Aosta, the 5 year period is extended to 8 years.

Company tax benefits

Corporate Depreciation: No EV-specific super-depreciation in 2025 – standard tax rules apply (40% VAT deductibility and 20% cost deductibility of a car's cost up to €18,076 for mixed-use company cars)

Fringe Benefits (Company Cars): New rules from 2025 dramatically favor EVs – the taxable value of a company-provided EV for private use is only 10% of the standard amount (for PHEVs 20%), versus 50% for conventional cars. This makes EVs much cheaper as employee benefits.



Fleet Incentives: The government has earmarked €4.6 billion to support the domestic auto industry and fleet electrification, including future incentives for electric company fleets. (Details are being developed, aiming to spur business adoption of EVs.)

Purchase subsidies

As of 3rd March 2025, there are no national subsidies for the purchase of BEVs in Italy.

However, some regions have filled this void. For example, in Valle d'Aosta, private individuals who do not carry out economic activity can receive a contribution of up to 50% of the price (excluding VAT, road taxes and transcription) for new BEVs with emissions ≤ 20 g/km CO₂, with a maximum of €9,000 for over 35s and €12,700 for under 35s, for vehicles under €60,000. Bolzano confirmed incentives, but specific details for 2025 were not found, suggesting continuity with previous years. These regional incentives often include scrapping surcharges, such as a +10% for Euro 0-2 vehicles in Valle d'Aosta.

Until 2024, these were the purchase subsidies available, below.

- **Overall Budget:**
 - A total budget of €250 million allocated for BEVs for the years 2022, 2023, and 2024.
- **Regional Subsidy in Lombardy:**
 - Maximum subsidy amount: €4,000 (or €1,000 without vehicle scrapping).
 - Maximum net retail price of vehicle: €45,000.

VAT Benefits

There are no specific VAT benefits for BEVs in 2025.

- **VAT Rate:** Standard VAT 22% applies to electric vehicles – no VAT reduction or exemption at purchase.
- **VAT Deduction:** For businesses, input VAT on passenger cars is generally only 40% deductible (unless the vehicle is exclusively business-use). EVs follow the same rule – Italy has not introduced enhanced VAT deductibility for EVs. (Commercial vehicles are 100% deductible for VAT if truly used for business operations.)

Other Financial Benefits

- **Local Perks:** Electric cars enjoy local benefits such as free or discounted parking and access to restricted traffic zones (ZTL) in many cities. For example, Milan, Bologna, Rome, and others allow BEVs to park free in “blue zone” pay spaces and enter ZTLs without fees (typically via a free permit).
- **Public Transport:** Government programs (e.g. PNRR) are funding the rollout of electric buses and related infrastructure for transit fleets (with hundreds of millions € allocated to zero-emission buses by 2026).



Local incentives

- **Regional/Local Purchase Incentives:** Some regions offer stackable rebates. Lombardy (2024–25) provides up to €4,000 per electric car and €8,000 per van for local SMEs, in exchange for scrapping older vehicles.
- The autonomous province of **Bolzano (South Tyrol)** grants **€2,000 to private buyers** leasing or buying a new BEV (and €1,000 for PHEVs), often doubled via matching utility grants to total €4,000 for BEVs.
- **Other regions** (e.g. Trento, Piedmont, Veneto) have periodically offered rebates or scrapping bonuses for EVs when local air-quality funds permit.
- **Additional Tax Breaks:** Some regions permanently waive the annual road tax for EVs beyond the national 5-year period (notably Lombardy & Piedmont, as above).

AF infrastructure incentives

- **Bonus Colonnine – Private Use:** 80% grant on EV charger purchase & installation. Max: €1,500 (individuals), €8,000 (condominiums). Applies to installations completed in **2024**.
- **Business/Public Use:** 40% grant for companies/professionals. Max:
 - €2,500 per 7.4–22 kW AC point
 - €8,000 for dual-outlet AC
 - €50,000 (50–100 kW DC), €75,000 (>100 kW DC)
- **National Plan (PNRR):** €740M to deploy ~21,000 public chargers by 2025 via calls managed by Ministry of Environment & GSE.



3.8 Analysis of the current strategy for sustainable mobility in Greece

The Region of Western Macedonia is currently undergoing one of the most profound economic transitions in Greece, as it moves from a lignite-dependent development model toward a diversified, climate-neutral economy. Within this context, sustainable mobility – and especially e-mobility – is emerging as a structural pillar of the region’s development planning. Although Western Macedonia does not yet have a single consolidated “sustainable mobility strategy” in the traditional sense, the practical strategic framework is clearly defined through the investment priorities and funding instruments that operate in the region. These programmes shape what is possible in terms of infrastructure, fleets, logistics, public transport, and rural mobility solutions. They therefore constitute the de facto regional strategy for sustainable mobility, particularly in relation to charging infrastructure and the electrification of transport systems.

The most influential instrument is the Programme for Just Development Transition (PDAM 2021–2027), which functions as the backbone of the region’s mobility transformation. As Western Macedonia is the main Just Transition region of Greece, the PDAM directly determines the types of sustainable mobility interventions that can be implemented locally. The programme allocates significant resources to alternative fuel infrastructure, specifically through intervention field 086, which covers the development of electric vehicle charging stations and related installations. This support is embedded in two main priorities of the programme: the priority on “Energy Transition – Climate Neutrality”, which includes around 5.39 million euros for alternative fuel infrastructure, and the priority on “Integrated Small-Scale Interventions”, which adds approximately 1.28 million euros for e-mobility when it forms part of integrated territorial investments, local development plans, or sustainable mobility plans. The programme also sets measurable targets, such as the installation of at least 86 publicly accessible recharging points in Just Transition areas by 2029, a substantial portion of which is expected to be located in Western Macedonia. In this way, the PDAM creates a strategic orientation toward the widespread development of EV charging infrastructure in cities, towns, villages, and key service nodes across the region.

The updated Just Development Transition Plan (SDAM) positions e-mobility as an integral element of Western Macedonia’s shift away from lignite and its transition toward a diversified and climate-neutral regional economy. Although the SDAM is not a mobility-specific policy document, it embeds e-mobility within its broader transformation strategy, signalling that electric transport, charging infrastructure, and related industries will play a fundamental role in the region’s new development model. SDAM provides both explicit references to e-mobility and indirect strategic orientations that support its deployment, industrialisation, and integration into local development pathways.

A first and explicit reference appears in the SDAM’s review of national policy tools that directly benefit the lignite regions. As stated in the text, the national e-mobility law (LAW 4710/2020) includes enhanced incentives for the lignite areas, acknowledging the need for targeted support to accelerate the adoption of electric vehicles in regions undergoing structural transformation. the SDAM notes that the law “provides for enhanced coefficients in lignite regions”, demonstrating that Western Macedonia is recognised at national level as a priority beneficiary of e-mobility incentives designed to stimulate local demand for EVs and encourage investment in charging infrastructure. These enhanced conditions provide households,



professionals, and local authorities with a more favourable framework for transitioning to electric mobility.

Beyond consumer-level incentives, the SDAM also highlights e-mobility as part of a core technological and research ecosystem that Western Macedonia aims to develop in the post-lignite era. Within the strategic section describing the Research and Development Strategy, the document explicitly lists e-mobility alongside other advanced energy technologies such as hydrogen, alternative fuels, and energy storage. SDAM includes e-mobility in the set of innovative technological fields to be promoted in the region's emerging clean-energy cluster. This positioning indicates that e-mobility is not viewed merely as a transport solution, but rather as a forward-looking industrial and scientific domain where Western Macedonia can specialise, attract investment, and develop skilled human capital.

This strategic orientation is further reinforced by one of the most concrete elements of the SDAM: the plan for a “Electric Mobility Industrial Park”, located within the wider industrial restructuring of the region. In the industrial development, the SDAM refers to investment interest in establishing production facilities related to e-mobility, including a large-scale battery factory with an estimated budget of up to €200 million and the potential to create as many as 600 jobs. SDAM also mentions activities linked to the manufacturing of automotive components and charging equipment. The development of such facilities would position Western Macedonia as a national hub for e-mobility manufacturing and supply chains, contributing to economic diversification, job creation, and the formation of a new “green industry” base in the region. These references clearly demonstrate that e-mobility is part of the SDAM's industrial strategy and is considered essential for the long-term economic transformation of the territory.

E-mobility also intersects with several of the SDAM's broader priority areas, particularly those related to clean energy, innovation, and sustainable urban development. Even though the SDAM does not elaborate on charging infrastructure or transport planning in detail, it integrates e-mobility indirectly through investment categories that include green energy infrastructure, low-carbon technologies, and sustainable mobility actions. For example, the SDAM identifies investments in improved urban environments, inclusive mobility, and clean transport as components of the transition, allowing e-mobility infrastructure to be embedded into regeneration schemes, mobility plans, and urban resilience projects. The emphasis on energy storage technologies, renewable energy, and hydrogen ecosystems also has direct synergies with e-mobility, as these technologies underpin the efficient operation of smart charging networks and support the long-term integration of electric vehicles into the local energy system.

More broadly, SDAM seeks to create a favourable enabling environment for e-mobility by supporting the modernisation of infrastructure, upgrading of grids, and development of smart energy systems, all of which are foundational for widespread EV charging deployment. The plan outlines improvements to the region's energy infrastructure and promotes the expansion of renewable energy production, which can be directly paired with smart charging, public charging stations, and electrified transport services. Although not discussed explicitly, these elements together pave the way for the deployment of e-mobility solutions that are resilient, decentralised, and aligned with the region's clean-energy transition.



Importantly, the SDAM's strategic orientation toward e-mobility is consistent with and complementary to the more operational focus of the Programme for Just Development Transition (ΠΔΑΜ), which contains concrete funding lines for charging infrastructure and sustainable mobility. The SDAM functions as the overarching strategic vision, while the PDAM translates that vision into targeted investments and measurable outputs. This coherence strengthens the policy foundation for e-mobility in Western Macedonia and confirms that the region has both a strategic mandate (through SDAM) and a financing mechanism (through PDAM) to support electric mobility in urban, peri-urban, and rural areas.

Beyond general charging infrastructure, the PDAM enables a broad ecosystem of e-mobility actions, including chargers at public buildings such as health centres, administrative facilities, universities, social services, and municipal infrastructures. It also supports charging installations in industrial zones, business parks, and logistics hubs, together with smart charging systems, metering technologies, and energy management solutions designed to optimise the use of electric fleets and infrastructure. Importantly, e-mobility can also be funded within integrated mobility plans and urban regeneration initiatives, ensuring that public charging infrastructure can be combined with improvements to public spaces, walking routes, cycling infrastructure, and the general reorganisation of mobility patterns. Because RuralMED aims to address rural mobility gaps, the programme's flexibility and explicit focus on small-scale and community-level interventions align very well with the type of decentralised, equitable access to charging infrastructure promoted by the project.

Several other programmes operating under the new ESPA 2021–2027 framework also influence the region's mobility planning. The Operational Programme "Transport 2021–2027" finances national-level sustainable transport priorities that directly affect Western Macedonia, including the procurement of electric buses, the renewal of public transport fleets with zero-emission vehicles, and the development of charging systems at depot facilities or along national and interregional transport corridors. This means that Western Macedonia can combine funding tools: the PDAM primarily covers the charging infrastructure itself, while the national Transport Programme can fund the vehicles that will use this infrastructure. In practical terms, this opens the possibility of integrating rural charging networks with the introduction of small electric buses or electric vans for local transport services, thereby supporting more flexible and sustainable mobility solutions.

The Regional Operational Programme "Western Macedonia 2021–2027" plays a more supplementary role, focusing mainly on road safety and infrastructure upgrades. Nevertheless, it can support e-mobility actions when they form part of Sustainable Urban Mobility Plans (SUMP-SBAK) or Integrated Territorial Investments (OXE). Such interventions typically involve small-scale public charging stations, neighbourhood-level mobility nodes, or improvements in cycling and walking conditions that complement cleaner transport solutions. This completes a system where the PDAM delivers the core e-mobility infrastructure, the national programme finances vehicle fleets, and the regional programme supports local-scale improvements.

Another key characteristic of the region's emerging strategy is the increasing use of public–private partnerships (ΣΔΙΤ) and mixed financing models. Municipalities and the Region can collaborate with private operators for the installation and operation of charging stations, utilising PDAM support to cover part of the investment cost while allowing private providers to develop viable long-term business models. Similar models can be applied to electric municipal



fleets or logistics vehicles, where leasing or PPP solutions may prove more financially sustainable. Additional financing instruments from the Hellenic Development Bank or the Recovery and Resilience Facility create favourable conditions for private investment in charging infrastructure and green mobility services, increasing the region's capacity to scale up e-mobility even after public grants diminish.

The Territorial Plan incorporates e-mobility as a targeted intervention within the region's transition framework, recognising its role in reducing emissions, modernising public services and attracting new forms of green investment. While the document is primarily focused on the socio-economic restructuring of the territory following lignite phase-out, it contains several explicit references to e-mobility, both in terms of policy incentives and in terms of the investments that will be supported by the Just Transition Fund.

The enhanced incentives for e-mobility investments established under the national e-mobility law (LAW 4710/2020). The Territorial Plan highlights that this law includes favourable provisions specifically for lignite-affected regions, aiming to stimulate private investment in charging infrastructure, electric vehicle fleets, and associated services. These provisions include reduced corporate taxation, accelerated depreciation of fixed assets over three years, lower employer social contributions during the construction phase, and an accelerated permitting process for e-mobility-related facilities. By emphasising these enhanced incentives, the Territorial Plan acknowledges the need to create stronger market conditions for the adoption and production of e-mobility solutions in Western Macedonia.

A second, highly significant reference is the commitment of the Just Transition Fund (JTF) to directly finance e-mobility actions within the region. The Territorial Plan explicitly states that the JTF will support projects promoting e-mobility, including the electrification of the public vehicle fleet and the development of a regional network of charging and refuelling infrastructure for clean vehicles. This confirms that e-mobility is not only a policy aspiration but also a dedicated investment priority, aligned with the broader European objectives of clean, smart and accessible mobility. Through this funding orientation, the Plan positions Western Macedonia to develop the foundational infrastructure required to support the uptake of electric vehicles across municipalities, public services and strategic transport nodes.

The document also reiterates the importance of e-mobility in the context of national programmes aligned with the Just Transition process. In particular, it highlights again the provisions of LAW 4710/2020 as a driver for local investment attraction and economic diversification, reinforcing the notion that e-mobility should play a structural role in the region's transition to a low-carbon economy.

Overall, the Territorial Plan presents e-mobility as both an economic development opportunity—through incentives for private investment and the creation of new green economic activity—and a public infrastructure priority, through JTF-funded charging networks and the electrification of public fleets. Although the document does not elaborate on operational details or specific mobility plans, it clearly integrates e-mobility into the transition strategy, ensuring that sustainable mobility becomes part of Western Macedonia's new territorial development model.



Western Macedonia is one of the regions in Greece in which every municipality has prepared, an Electric Vehicle Charging Plan (EVCP - ΣΦΗΟ). These Electric Vehicles Charging Plans constitute the key operational instrument through which e-mobility is planned and deployed at municipal level. They form a legally required component of local mobility planning following the national e-mobility law (Law 4710/2020) and the amendments to the national framework for municipal responsibilities (Law 3852/2010). As a result, the EVCPs collectively define the territorial foundation of electric vehicle charging infrastructure across the region and play a central role in supporting Western Macedonia's transition away from lignite.

Each EVCP describes how the municipality will organise, install and manage publicly accessible charging stations for electric vehicles within its jurisdiction. The plans do not simply identify the number of chargers required but provide a structured framework that includes a comprehensive assessment of local mobility conditions, spatial analysis of urban and peri-urban areas, evaluation of land-use patterns, parking availability, traffic flows, and the technical capacity of the electricity network. Through this process, each municipality determines the precise locations for charging stations, their technical specifications, and the timeline for their installation. The national technical guidelines, set out in Government Gazette Issue (FEK) 4380/B/05-10-2020, specify that EVCPs must ensure interoperability, comply with European standards, and include both normal-power alternating current chargers and, where appropriate, high-power direct current chargers. These guidelines also establish the requirement for municipalities to develop a final implementation programme that can be completed within three years of the plan's approval.

The municipal EVCPs of Western Macedonia share a number of common characteristics. Each plan begins with an analysis of the existing situation, identifying the condition of the local vehicle fleet, the prevalence of electric vehicles, the current distribution of conventional fueling stations and the significant gaps that exist in alternative fuel infrastructure. This diagnostic phase is particularly important in Western Macedonia, where the fleet remains old and the penetration of electric vehicles is still minimal. The plans also develop a detailed mapping of the municipal territory using spatial analysis tools, recording public buildings, community services, commercial centres, transport hubs, schools, sports facilities and other nodes of activity where charging demand is likely to develop. At the same time, technical feasibility is assessed in collaboration with the grid operator, taking into account transformer locations, available power lines, and the potential need for capacity upgrades.

In the next phase, municipalities examine different development scenarios for the charging network. These scenarios consider short-, medium- and long-term projections for the adoption of electric vehicles and identify corresponding infrastructure needs. Based on these scenarios, each EVCP proposes a specific layout of charging stations distributed across the municipal area, covering central neighbourhoods, residential zones, public buildings, commercial districts, and, in the case of Western Macedonia, smaller rural communities and village centres. A participatory process involving local stakeholders—such as municipal departments, businesses, residents and professional associations—is integrated into the preparation of each plan, ensuring that the selected sites reflect real mobility needs and community priorities.

EVCPs also include a structured implementation plan. This plan outlines the sequence in which charging stations will be installed, the administrative and technical steps required for deployment, and the policy measures that municipalities will adopt to support the uptake of



electric vehicles, such as preferential parking for EVs or incentives for residents and businesses. The EVCPs are designed not merely as technical documents but as strategic tools that support broader urban mobility objectives and align with other municipal planning instruments such as Sustainable Urban Mobility Plans (SUMP-ΣBAK), operational development programmes and local environmental strategies.

In Western Macedonia, EVCPs carry particular strategic significance because the region is at the core of Greece's Just Transition policy. As a lignite region, it benefits from enhanced incentives for e-mobility under LAW 4710/2020 and receives substantial support from the Just Transition Fund for investments in low-emission mobility and charging infrastructure. The municipal EVCPs therefore act as the essential planning backbone that enables municipalities to tap into these resources. Given the dispersed settlement structure of the region, with numerous rural communities and significant distances between population centres, the EVCPs help ensure that the roll-out of electric mobility does not remain confined to major urban nodes but extends across the entire territory, improving accessibility and reducing mobility inequalities.

The EVCP of the Municipality of Kozani presents a comprehensive and technically robust framework for the organised development of public charging infrastructure within the city and its surrounding settlements. The plan begins by defining the strategic aim of creating a modern, functional and efficient charging network that will enable the gradual shift toward e-mobility in the municipality. As stated in the introductory section, the goal is to ensure that the municipality possesses the necessary infrastructure “for the promotion of e-mobility within its functional boundaries”.

The plan includes an extensive assessment of global, national and local market trends, highlighting the rapid growth of electric vehicles worldwide and the expected acceleration of their uptake in Greece. This market analysis emphasises that e-mobility in Kozani is still at an early stage, with very few electric vehicles currently in circulation, but with strong growth expected due to national incentives, declining technology costs and coordinated public policy support. The study incorporates predictive modelling to estimate EV penetration in Kozani up to 2030, projecting that the local electric vehicle fleet may rise to nearly 1,400 vehicles by the end of the decade, corresponding to roughly 30% of new registrations. These projections are depicted graphically in the cumulative EV fleet chart in the plan's market analysis section.

The demographic analysis of Kozani, including data at the level of each settlement and city block, provides the basis for understanding where future demand for public charging is expected to emerge. The plan notes that the municipality combines distinct urban and rural characteristics and anticipates differentiated patterns of EV adoption. Higher-density and higher-income neighbourhoods are expected to adopt e-mobility earlier, while rural households—many of which have private parking—may increasingly install home chargers, reducing pressure on the public network in those areas. At the same time, the overall lack of existing public charging points reinforces the need for a municipal charging network that ensures fair and geographically balanced access across all communities.

Central to the Kozani EVCP is the development of alternative siting scenarios for charging stations. Two main scenarios are examined. The first scenario prioritises commercial attractiveness by placing charging stations in areas with high traffic, strong economic activity, public services and major destinations such as health centres, schools and administrative



buildings. This scenario aims to support short-duration charging with high turnover, potentially including fast chargers, and to maximise visibility, economic viability and service to visiting users. Illustrative maps demonstrate proposed clusters of chargers around key commercial and civic nodes of the city, a strategy that enhances the reliability and recognisability of the charging network for residents and visitors alike.

The second scenario is based on the principle of equal spatial distribution, ensuring that residents across Kozani's neighbourhoods and rural communities have access to overnight charging near their homes. This scenario addresses the widespread lack of private parking in many urban areas, which limits residents' ability to install home chargers. As such, it proposes a dispersed network of mainly AC chargers (11–22 kW), which are suitable for long-duration night-time charging. The plan notes that this scenario directly supports social inclusiveness by preventing any neighbourhood from being disadvantaged due to insufficient access to infrastructure.

After evaluating the two approaches, the plan proposes a combined strategy that leverages the strengths of both models. It identifies specific final locations for different categories of chargers—private EVs, taxis, vehicles for persons with disabilities, delivery vehicles, tourist buses and micro-mobility devices—taking into account grid capacity, parking conditions, safety, accessibility and urban planning constraints. The final siting maps, tables and station cards in the annexes provide a clear territorial blueprint for implementation.

The Municipality of Amyntaio has formally adopted its EVCP through a municipal council decision issued in July 2021. The decision confirms that the municipality has completed its statutory obligation to prepare an Electric Vehicles Charging Plan under the national e-mobility law (N. 4710/2020) and the technical guidelines established by the Ministry of Environment and Energy.

EVCP of Amyntaio includes a proposed network of public charging stations across Amyntaio and its settlements, accompanied by the necessary maps, technical documentation, and implementation framework. The decision refers to multiple municipal units—including Filotas, Vegora, Aetos and Ag. Panteleimon—indicating that the plan covers the entire municipal territory rather than the town of Amyntaio alone. This is particularly important in a geographically dispersed area like Amyntaio, where rural households, agricultural activities and long-distance travel create distinct mobility needs. The approved plan therefore provides a coherent approach for deploying public charging points in both urban and rural areas.

The EVCP aligns with the national specifications for EVCPs by identifying appropriate locations for charging infrastructure, determining the types of chargers to be installed, and proposing a phased rollout schedule. Although the approval text does not include the technical details, it confirms that all required deliverables—a spatial analysis of the municipality, mapping of candidate charging sites, evaluation of the existing transport and parking environment, and a structured proposal for charging station placement.

With this decision, Amyntaio gains an officially endorsed planning framework for e-mobility. This framework ensures that any installation of public charging stations—whether through municipal funding, the Just Transition Fund, the Recovery and Resilience Facility (“Φορτίζω Πάντού”), or private-sector partnerships—can proceed in compliance with national legislation



and regional development goals. The approval of the EVCP also positions the municipality to access future funding programmes for sustainable mobility, which typically require an officially adopted charging plan as a prerequisite.

Thus, the relevance of EVCPs to the RuralMED project is immediate and substantial. RuralMED focuses on improving sustainable mobility in rural and semi-urban areas of the Mediterranean by installing and testing publicly accessible charging stations in underserved communities. The EVCP framework provides a clear policy and technical foundation for these actions. By aligning the project's pilot installations with the locations identified in the municipal EVCPs, RuralMED ensures that its interventions are both locally appropriate and fully compatible with municipal plans. Moreover, because the EVCPs are a prerequisite for municipalities seeking funding from the PDAM, the Recovery and Resilience Facility (“Φορτίζω Παντού”), and other ESPA-funded mobility programmes, the RuralMED pilot can be leveraged as an early catalyst for accelerating municipal implementation and attracting additional investment.

Sustainable Urban Mobility Plans (SUMP – ΣΒΑΚ) have become the central planning instrument for mobility policy in Greek municipalities. Introduced into the national legal system through Law 4784/2021 and aligned with the European SUMP Guidelines (ELTIS), they aim to reorient local mobility away from car-dependent models and toward a balanced, inclusive and environmentally sustainable transport system. SUMPs in Greece require municipalities to conduct a holistic assessment of current mobility conditions, define strategic priorities, develop measurable objectives, and propose combined packages of interventions covering walking, cycling, public transport, parking management, urban logistics, traffic calming, shared mobility and modern technologies. Public participation is mandatory, as is the integration of smart mobility measures, safety improvements and climate-oriented mobility policies. As a result, SUMPs now serve not only as mobility strategies but also as eligibility prerequisites for national and European funding in transport projects.

Within this national context, the Municipality of Kozani has developed one of the most detailed and methodologically structured SUMPs in Greece, reflecting both the city's size and its role as a regional centre in Western Macedonia. Its SUMP is organised into stages and includes extensive analysis, scenario development, public consultation and a coherent implementation framework.

The SUMP of Kozani begins with a comprehensive assessment of existing mobility conditions, identifying structural weaknesses such as limited pedestrian space, fragmented cycling infrastructure, insufficient public transport frequency and a persistent over-reliance on private cars. The documents emphasise that despite previous improvements—such as pedestrianising parts of the city centre and creating a peri-urban cycling corridor—Kozani still faces significant challenges related to accessibility, safety and environmental impact. These findings are presented early in the SUMP and serve as the basis for formulating strategic priorities and future measures.

Kozani's SUMP establishes ten overarching priorities rooted in environmental protection, public health, accessibility, social inclusion and urban quality. These priorities are linked to measurable strategic objectives, such as reducing emissions and energy consumption from mobility, improving pedestrian and cycling networks, supporting public transport, integrating new technologies and creating safer streets. The SUMP places particular emphasis on expanding active mobility, reorganising traffic circulation, and encouraging alternative fuels



and e-mobility—explicitly recognising the need to increase the share of electric vehicles in both public and private use as part of the city’s long-term decarbonisation goals. This integration appears clearly in the matrix connecting priorities, objectives and implementation targets, where the increase of electric vehicles is explicitly listed as a key objective for reducing pollution and shifting the modal split toward sustainable options .

The SUMP employs the ELTIS-recommended methodology, using international tools such as CH4LLENGE, KONSULT and CIVITAS resources to shape the selection of measures. It also includes participatory processes involving stakeholders and citizens, whose feedback influenced the structure of scenarios and the prioritisation of interventions. This methodological rigour ensures that the proposed measures are feasible within available resources and that they respond to local needs while following European best practices.

One of the defining features of the Kozani SUMP is its use of scenario-based mobility planning. Three scenarios are developed: a zero scenario, a conservative scenario and a more ambitious, “radical” scenario. These describe different pathways for the city depending on the level of investment and political commitment. The zero scenario sketches the consequences of maintaining current practices without new interventions, anticipating worsening congestion, poor accessibility and continued dominance of private cars. The conservative and radical scenarios differ mainly in scale and pace: both propose networks of traffic-calming zones, improvements to walking and cycling infrastructure, upgraded public transport and expanded bike-sharing, but the radical scenario accelerates implementation and increases coverage across more neighbourhoods.

Across all scenarios, the SUMP proposes a series of interconnected measures, many of which have a direct or indirect relationship with e-mobility. These include the redesign of street hierarchies to reduce through-traffic in the centre, the creation of extensive 30 km/h zones, the phased development of a peripheral ring road, and strategic expansions of controlled parking zones. The SUMP also foresees the strengthening of bike-sharing networks, the creation of green corridors, and the redesign of major intersections to improve safety. Importantly, it explicitly includes the installation and expansion of electric vehicle charging stations within its measure package catalogue. In the section devoted to the five-year horizon, the SUMP proposes both the utilisation of existing charging points and the installation of new ones across the city, with the maps in the document illustrating proposed locations integrated alongside other infrastructure interventions.

The SUMP proceeds with an extensive qualitative and quantitative evaluation of the proposed measures, linking them to strategic objectives and assessing feasibility, cost and expected impact. In later sections (particularly in the Action Plan), the measures are grouped into implementation packages with timelines, cost estimates and potential funding sources. This makes the SUMP a practical instrument for securing investment from national and European programmes. The Action Plan strengthens operational clarity by allocating responsibilities, identifying quick-win measures and outlining how monitoring and evaluation will occur throughout the SUMP’s implementation cycle.

SUMPs of Western Macedonia’s case are relevant to the RuralMED project because it provides the strategic mobility framework within which RuralMED’s e-mobility interventions can be meaningfully integrated. Although focused primarily on the urban area, the SUMP explicitly promotes cleaner transport technologies, reduced dependence on conventional vehicles, and



the adoption of innovative solutions, including electric mobility. Its objectives on reducing emissions, improving accessibility, and supporting alternative, low-carbon modes directly align with RuralMED's goal of deploying public charging infrastructure in underserved rural and semi-urban communities. By establishing a coherent, evidence-based approach to mobility planning, the SUMP ensures that RuralMED's pilot actions in Western Macedonia are compatible with municipal priorities, contribute to long-term mobility transformation, and strengthen the region's ability to secure future funding and scale up e-mobility infrastructure.

Apart from that, Kozani is one of the European cities selected to participate in the EU Mission "100 Climate-Neutral and Smart Cities by 2030", placing it among the most ambitious urban centres in Europe regarding climate action and sustainability. Through this initiative, Kozani has committed to achieving full climate neutrality by 2030—twenty years ahead of the EU-wide target—by transforming its energy, mobility, buildings, industry and digital systems. As part of this process, the municipality prepared and submitted a Climate City Contract, a comprehensive strategic document that outlines its vision, action plan and investment strategy for achieving net-zero emissions within the decade. In recognition of the quality and credibility of this roadmap, Kozani has been awarded the EU Mission Label, a distinction granted to cities whose climate-neutral plans meet the highest standards of feasibility, stakeholder participation and investment readiness. This label also facilitates access to financing from European, national and private sources, enabling the municipality to advance concrete projects in clean mobility, renewable energy, digital innovation and sustainable urban development. Through its involvement in the Mission, Kozani now operates within a European network of pioneering cities and benefits from continuous technical support, peer learning and innovation opportunities aimed at accelerating the transition to a climate-neutral, smart and resilient urban environment.

Kozani's Climate Neutrality Action Plan places e-mobility at the centre of its transport decarbonisation strategy, introducing a coordinated package of actions that expand electric vehicle use, renew municipal and private fleets, and deploy a large-scale network of public charging stations fully aligned with the city's SUMP and EVCP. The municipality plans to replace all 32 municipal passenger cars and half of its trucks and buses with electric vehicles, supported by RES-powered charging, achieving an estimated 499.6 tonnes of CO₂ reduction at a total cost of €20.39 million. A complementary measure replaces obsolete private vehicles with EVs, further accelerating carbon free mobility. The city will progressively install 200 new charging stations, create low-emission zones prioritising EVs (reducing emissions by 712.9 tonnes CO₂), and combine these with smart mobility systems—including smart parking, ITS traffic management, and real-time telematics—delivering an additional 6,059.6 tonnes CO₂ reduction. Infrastructure upgrades, speed management, neighbourhood light-traffic zones, and improved public transport and logistics contribute collectively to further emissions savings while supporting the modal-shift goals defined in the SUMP. Altogether, the plan presents a coherent, costed and high-impact roadmap in which e-mobility, digital mobility solutions, and the structured deployment of charging infrastructure form key pillars of Kozani's pathway to climate neutrality by 2030.

Sustainable Energy and Climate Action Plans (SECAPs) are the core planning documents required from municipalities participating in the Covenant of Mayors for Climate and Energy. They outline how each municipality will reduce greenhouse gas emissions by at least 40% by 2030, enhance climate resilience, and transition toward cleaner energy systems. SECAPs are



based on a Baseline Emissions Inventory and include targeted actions across sectors such as buildings, lighting, transport, heating, RES integration and behavioural change. They function as strategic roadmaps that allow municipalities to plan investments, access European funding, and implement concrete mitigation measures. All municipalities of Western Macedonia—including Amyntaio—have prepared SECAPs, which constitute an additional planning layer supporting the region’s transition away from lignite.

The SECAP of Amyntaio contains a dedicated transport mitigation section, where the municipality quantifies expected CO₂ reductions from transport interventions. According to the SECAP’s emissions reduction table, the transport sector accounts for a planned mitigation of 3,433.8 tonnes of CO₂, corresponding to 10,742.5 MWh of reduced energy consumption and a planned investment of €1,914,000. The SECAP foresees cleaner transport (e.g. e-mobility actions), fleet improvements and modal-shift measures, which are directly compatible with modern e-mobility initiatives. The SECAP includes measures of the transport-sector interventions that concern the replacement of older municipal and public service vehicles with more energy-efficient alternatives such electric vehicles, reductions in fossil fuel consumption through improved driving behaviour and route optimisation, and the encouragement of cleaner modes of transport. These actions form an early foundation for the municipality to adopt EVs in its fleet, particularly as the SECAP stresses the need for municipalities to “upgrade their internal administrative structures” to support sustainable energy planning and reduce fuel consumption in municipal operations. Additionally, the SECAP highlights the structural importance of transport in Amyntaio’s emissions profile, showing that mobility constitutes one of the most energy-intensive sectors of the municipality. This positioning implicitly supports the adoption of new technologies such as EVs, which were emerging at the time but not yet widespread. The plan indicates that improving the transport sector is essential to achieving overall local decarbonisation goals, thus creating the policy foundation for later investments in EV charging infrastructure and electric vehicle deployment that Amyntaio is now pursuing through its EVCP and participation in Just Transition instruments.

In parallel with regional and EU-funded instruments, several national programmes indirectly shape Western Macedonia’s sustainable mobility landscape because they directly support citizens, businesses, and municipalities in the region. The RRF-funded programme “Φορτίζω Παντού” offers subsidies for the installation of publicly accessible chargers and is particularly important for sparsely populated areas, where private investors might otherwise hesitate to deploy infrastructure. The “Κινούμαι Ηλεκτρικά” programme provides grant support for the purchase of electric cars, vans, motorcycles, bicycles, and private chargers, allowing households and businesses in Western Macedonia to reduce the cost of switching to e-mobility. The Development Law 4887/2022, especially its Just Transition regime, provides very high aid intensities – in some cases up to 70% for small enterprises – for investments in electric vehicle fleets, charging equipment, or e-mobility services. Finally, the municipal programme “Αντώνης Τρίτσης” supports local authorities in procuring electric vehicles for public services and installing municipal charging infrastructure, strengthening local institutional capacity and promoting visibility of clean transport solutions. These national tools collectively advance EV adoption at the individual, corporate, and municipal levels, thereby reinforcing the regional strategy.



Taken together, the existing policy and funding framework reveals the contours of Western Macedonia's practical strategy for sustainable mobility. Instead of a single policy document, the region's strategy is expressed through investment priorities that clearly emphasise the deployment of a dense charging network, the promotion of EV uptake among residents and businesses, the modernisation of public and municipal fleets, and the integration of e-mobility into urban and rural mobility planning. The strong role of public-private partnerships ensures long-term scalability, while the broad availability of incentives supports the transition across all user groups.

Within this context, the RuralMED pilot is fully aligned with regional priorities. By focusing on the installation of electric charging infrastructure in rural or peri-urban areas and by aiming to improve mobility access in underserved communities, the pilot directly supports the operational goals of the PΔAM and complements the wider ecosystem of regional and national instruments promoting electromobility. The pilot can therefore be understood not simply as an isolated project but as a model action contributing to Western Macedonia's broader sustainable mobility transition.



4 Roadmap for meeting the set targets from the regional strategy

Section 4 describes what improvements will be included in the activities or measures from the regional strategies and related to the pilot investments that RuralMED project is developing in each region.

The information included in this deliverable is different to the information sent in the deliverables from WP1. Focus is set on the impact from the pilot(s) into the regional strategy on sustainable mobility.



4.1 Roadmap for meeting the set targets from the regional strategy in Spain

The roadmap for achieving the objectives of the Regional Strategy for the Promotion of Electric Vehicles in Extremadura (ERIVEE) is structured around two broad time frames: the period 2026–2030, aimed at the initial implementation and consolidation of electric vehicles, and the period 2030–2050, focused on the maturity, optimisation and specialisation of the electric mobility system in the region. This roadmap is based on the actions of the Extremadura Sustainable Mobility Plan (PEMS) and the measures proposed for the temporary extension of ERIVEE.

4.1. Roadmap for 2026–2030

The period 2018–2030 focuses on achieving the strategic and tactical objectives set out in the ERIVEE, taking into account the current situation in Extremadura and the specific needs of the region, especially in rural areas.

In this timeframe, the priorities are geared towards:

- Deploying a regional, interoperable and territorially balanced charging infrastructure that guarantees the mobility of electric vehicles throughout the territory, including rural and low-density areas (OE.1).
- Promoting demand for electric vehicles, encouraging the renewal of the vehicle fleet and the exemplary role of public administrations (OE.2).
- Promoting training, specialisation and awareness-raising among both the general public and the economic and technical agents involved (OE.3).
- Implementing coordinated, multi-level governance to facilitate the planning, monitoring and evaluation of the Strategy (OE.4).

The PEMS actions linked to these objectives, together with the ERIVEE measures, enable progress towards the tactical objectives defined for 2030, such as the installation of publicly accessible charging stations, the integration of renewable energies into charging, the increase in the electric vehicle fleet to 9,200 units and the reduction of road transport emissions.

Pilot projects, including those developed within the framework of initiatives such as RuralMED, are integrated into this period as validation and learning tools, allowing solutions adapted to rural environments to be tested and lessons to be learned for possible replication on a larger scale.

Both documents, Extremadura Sustainable Mobility Plan (PEMS 2030) and the Regional Strategy for the Promotion of Electric Vehicles 2018–2030, recognise that a region with low density and an ageing population can maintain intense daily mobility dynamics, which requires promoting patterns that reduce dependence on private vehicles and guarantee universal accessibility.

Within this framework, the **RuralMED pilot investment** for Extremadura—a rental service for two electric vehicles between Cilleros, Perales del Puerto and Coria, with associated charging points— contributes directly to regional objectives by introducing a shared electric mobility solution in a dispersed rural area. The pilot project serves as a demonstration of how flexible electric services can improve regional mobility, boost flows between municipalities and



reduce emissions on daily journeys. It also allows for the analysis of real demand, charging needs and the operational viability of models that can be replicated in other rural areas of Extremadura.

4.2. Roadmap for 2030–2050

The 2030–2050 period is envisaged as a phase of expansion and evolution for ERIVÉE, based on the experience gained during the previous period and the need to adapt the Strategy to a scenario of widespread adoption of electric vehicles.

This period is structured in three successive phases:

Phase 1: Consolidation and initial scaling (2030–2035)

This phase aims to ensure the operational and economic sustainability of the rollout carried out until 2030. The priorities focus on:

- Updating and upgrading the existing charging infrastructure.
- Implementing coordinated management models, especially in rural areas.
- Progressively transitioning from direct aid to structural incentives and stable frameworks.
- Deploying data-driven governance and management tools.

In this phase, priority is given to measures aimed at ensuring service continuity, preventing infrastructure obsolescence, and strengthening the Strategy's planning and monitoring capacity.

Phase 2: Expansion, integration and applied innovation (2035–2040)

Once the system has been consolidated, the roadmap moves towards diversifying usage models and integrating electric vehicles into the energy and mobility system. This phase promotes:

- New models of access to electric vehicles, such as electric car sharing in rural areas.
- The gradual introduction of smart and bidirectional charging solutions, when technological and regulatory maturity allows.
- The adaptation of municipal incentives to local realities.
- The development of pilot projects with high potential for scaling and replicability.

This phase reinforces the system's capacity for innovation and facilitates the extension of electric vehicles to new uses and groups.

Phase 3: Maturity, optimisation and specialisation (2040–2050)



The final phase of the Roadmap focuses on optimising the electric mobility system and the economic and technological specialisation of the region. The priorities include:

- Promoting the circular economy associated with electric vehicles and batteries.
- Consolidating advanced training and technical capabilities.
- Strengthening Extremadura's image as an accessible and sustainable region for electric vehicles.
- Consolidating permanent governance and coordination structures.

In this scenario, electric vehicles are structurally integrated into the regional mobility system, making a stable contribution to climate, economic and territorial objectives.



4.2 Roadmap for meeting the set targets from the regional strategy in Croatia

The RuralMED pilot in Koprivnica–Križevci County is designed as a proof-of-concept for rural e-mobility. It installs four 22 kW AC chargers at health centres in Gola, Kalnik, Ferdinandovac and Gornja Rijeka and collects operational data on energy use, user profiles and charging patterns. The following roadmap translates the pilot into a long-term strategy that aligns with the National Policy Framework for alternative fuels, Croatia's updated National Energy and Climate Plan (NECP) and the hydrogen strategy, while “rural proofing” national targets so that villages benefit alongside urban areas.

Short-term (2025–26) – operationalising the pilot and building awareness

- **Deploy and optimise the chargers:** By the end of 2025 all four AC charging stations should be installed and publicly accessible. The pilot will offer free charging to encourage take-up and to gather data on peak periods, average charging durations and user demographics. Monitoring should include maintenance and grid impacts so that results can feed into regional planning. The pilot aligns with the NECP's strengthened renewable energy targets—42.5 % share in gross consumption and 24.6 % of transport energy from renewables by 2030—by enabling the first rural contributions to e-mobility.
- **Raise public awareness and build capacity:** Municipalities, the county and REA North should run information campaigns explaining how to use the chargers, the benefits of electric vehicles and the availability of national subsidies. Croatia's Environmental Protection and Energy Efficiency Fund (FZOEU) plans to disburse €652 million in green-transition grants in 2025, including €45 million for zero-emission road traffic and €44 million for low-interest loans for fleet modernisation. Linking residents and local businesses to these grants will help them purchase EVs, e-bikes or small electric vans.
- **Integrate charging hubs with community services:** the sites act as “mobility hubs” where residents can pick up prescriptions and charge a vehicle simultaneously. Using pilot data, the county should collaborate with grid operators to prepare for increased electricity demand.

Medium-term (2027–30) – scaling infrastructure and integrating renewables

- **Expand rural charging infrastructure:** By 2027 the network should be extended to tourist destinations such as the Kalnik fortress, rural schools and cross-border gateways. The pilot will demonstrate how smaller 22 kW chargers can serve rural communities while preparing sites for future DC upgrades.
- **Integrate renewable energy and storage:** Pairing chargers with photovoltaic panels and battery storage will reduce operating costs and contribute to NECP goals. By the second quarter of 2024 Croatia had more than 1,500 public charging points—mainly medium-speed AC—but most are concentrated in urban areas and along motorways. Installing solar-powered chargers with storage in villages will “rural-proof” the network. Smart-charging software can schedule charging during periods of high solar output or low demand, supporting grid balancing.
- **Promote rural shared mobility:** The county should work with FZOEU to launch car-sharing and e-bike schemes. Funds earmarked for zero-emission fleets and



low-interest loans can be used by municipal authorities or cooperatives to procure electric vans, minibuses or shared e-bikes. These services address first-/last-mile needs and complement the pilot's chargers.

- **Prepare simplified SUMP and harmonise planning:** Although Croatia's first Sustainable Urban Mobility Plan (SUMP) was adopted in Koprivnica in 2015, many rural municipalities lack the capacity to develop similar plans. The pilot team should leverage the national SUMP Support Programme and EIB's JASPERS training to prepare simplified SUMPs based on pilot evidence. These plans should prioritise active transport, public transport integration and digital ticketing.
- **Coordinate with grid operators and align with AFIR:** AFIR requires heavy-duty vehicle chargers of 350 kW every 60 km on the TEN-T core network by 2030. The county should work with Croatian Transmission System Operator HOPS and local DSOs to secure grid connections and identify sites for high-power chargers near rural logistics hubs.

Long-term (post-2030) – mainstreaming e-mobility and integrating hydrogen

- **Institutionalise rural e-mobility and replicate the model:** By 2030 the RuralMED model should be embedded in county development plans. Public–private partnerships can ensure sustainable operation and maintenance; local companies or energy cooperatives could manage chargers and car-sharing schemes. Replication should extend to other Croatian counties and cross-border corridors, supporting tourism and cross-regional connectivity. Continuous data collection from the pilot will inform national guidelines on rural charging densities and service standards.
- **Prepare for hydrogen and heavy-duty transport:** Croatia's hydrogen strategy calls for 70 MW of electrolysis capacity by 2030 and 2,750 MW by 2050, with an accelerated scenario of 1,270 MW and 7,330 MW respectively. Public transport in Zagreb, Split, Osijek and Rijeka is identified as an early sector. Rural transit lines could become testbeds for hydrogen buses or mid-distance freight if costs decline. Integrating hydrogen refuelling with renewable-powered charging hubs would support multi-fuel rural corridors.
- **Align with national funding and NECP updates:** Future updates to the NECP and the National Policy Framework should incorporate lessons from the pilot. The NECP's raised ambitions—62 % emissions reduction in EU-ETS sectors, 16.7 % in non-ETS sectors and a 24.6 % renewable energy share in transport by 2030—will require continued investment. FZOEU and EU funds (such as the Modernisation Fund and the Competitiveness and Cohesion Programme) should earmark resources for rural charging and shared mobility. Simplifying permitting—charging stations are already classified as *simple structures* so construction permits are unnecessary—will remain crucial.

Synthesis and replication potential

The RuralMED pilot demonstrates that small rural projects can contribute meaningfully to national energy and mobility goals. By the end of this roadmap, the county will have created a



network of renewable-powered chargers and shared mobility services that complement national AFIR requirements and NECP targets. The phased approach—install, expand, mainstream—ensures that investments are data-driven and tailored to rural needs. Linking the pilot to national funding (FZOEU) and EU initiatives (JASPERS, TEN-T, hydrogen valleys) provides financial leverage and technical support. Critically, rural proofing of strategies ensures that the benefits of decarbonisation reach small municipalities and not just urban centres. The roadmap’s replication across other counties will position Croatia as a leader in rural e-mobility, supporting the country’s transition to sustainable, resilient and inclusive transport systems.



4.3 Roadmap for meeting the set targets from the regional strategy in Portugal

How the pilot investment will contribute to achieve the targets set in the regional strategy ...

Alentejo's Regional Strategy

The Regional Strategy addresses the various challenges facing the region's development, chief among them demographic aging. In this sense, the strategic vision encompasses not only inter-urban but also intra-urban mobility, ensuring the articulation of the urban system with an efficient transportation system. The complementarity between the urban system and rural areas is also crucial in addressing the Territory's challenges in this area. It is also noted that a region with low demographic potential can still be dynamic in the flow of people and goods, requiring the development of mobility patterns that enhance these flows.

The Alentejo regional strategy aligns the Strategic Objectives of Cohesion Policy with Investment Priorities. In the scope of the project, the main Objective is related to "RSO2.4: Promoting climate change adaptation and disaster risk prevention, resilience, taking into account ecosystem based approaches.", with the following investment priority as the most relatable:

- Promote energy efficiency measures and renewable energies.
The other european objective relatable with the project is "A more connected Europe - mobility and regional connectivity in information and communication technologies" objective is linked to the following investment priorities:
- Develop sustainable, climate-resilient, smart, safe, and intermodal mobility.

Promote sustainable multimodal urban mobility.

Sub-regional level - Alto Alentejo

At the sub-regional scale, the PAMUSAA was developed, framed within the Regional Operational Programme, under investment priority 4.5 - "Promotion of low-carbon strategies for all types of territories, namely urban areas, including the promotion of sustainable multimodal urban mobility and relevant adaptation measures for mitigation".

The most applicable performance indicator is the "Number of charging points for electric vehicles." Regarding results indicators, the RuralMED project contributes to the following:

- Estimated emissions of CO2 and other greenhouse gases;
- Fuel consumption in each municipality;

With these indicators in mind, the RuralMED project's pilot of Alto Alentejo responds directly to the achievement of said targets, established for the sub-regional scale and regarding sustainable mobility objectives.

SECAP



In Portugal, municipalities play a central role in implementing energy transition and climate action at the local level. Over the past decade, several municipalities in the Alto Alentejo region have developed Sustainable Energy Action Plans (SEAP) or Sustainable Energy and Climate Action Plans (SECAP), under the Covenant of Mayors. However, most of these plans are now outdated, with baseline emission inventories from 2005 or 2010 and targets no longer aligned with the current EU ambition for 2030 and 2050.

In this context, the LIFE-SMART project is supporting six municipalities in the region (Avis, Alter do Chão, Castelo de Vide, Marvão, Monforte and Sousel) in the complete revision or replacement of their local plans. These new plans are being developed according to the official Covenant of Mayors methodology (SECAP), integrating mitigation and adaptation strategies, as well as a section dedicated to energy poverty – now mandatory under the European model.

In parallel, the Intermunicipal Community of Alto Alentejo (CIMAA), aligned with the national policy framework, promoted the elaboration of Municipal Climate Action Plans (PMAC) for almost all municipalities in the region. These plans follow national guidelines under the Portuguese Climate Framework Law, including vulnerability assessments and decarbonisation pathways. Where possible, the PMACs are being used as reference documents to ensure coherence and complementarity between national obligations and Covenant of Mayors reporting requirements.

MOVE+ Classified fleet

MOVE+ is a vehicle fleet energy performance assessment and classification system created by ADENE to promote efficient mobility. In addition to classifying the fleet, MOVE+ also identifies opportunities for fuel savings (cost reduction) and environmental impact minimization through optimized fleet management.

Currently, MOVE+ applies to light vehicle fleets, typically with more than 10 vehicles, heavy goods vehicle fleets, and heavy passenger vehicle fleets. In the future, the MOVE+ concept will be extended to other mobility dimensions beyond fleets.

AREANATEjo's main tasks are to develop or update strategies for surveying and diagnosing municipal and CIMAA fleets, and to develop action plans that include identifying improvement measures, such as the electrification of municipal and CIMAA fleets.

This work includes:

- Pre-Audit - During the pre-audit phase, the necessary elements for auditing the sixteen fleets must be surveyed, and all scheduled events must be planned until the MOVE+ classification is issued and the audit report and action plan are delivered.
- Audit - The audit shall be conducted in person, preferably at the operational center of the fleet management in question. At this time, the auditor shall have, at a minimum, access to consult the evidence required to support the proposed completion of the assessment matrix.



- Deliverables - The audit report and the MOVE+ Action Plan must be delivered.

MOVE+ Classification Document issued by ADENE – Energy Agency, for each audited fleet, containing: the characterization of the fleet, a summary of its overall performance and the various dimensions assessed, as well as the improvement measures identified.

Audit Report The audit report shall contain at least the following information:

- 1) Certificate number (to be provided by ADENE), MOVE+ Auditor, audit date, and general characteristics of the fleet;
- 2) List of documentation consulted/collected during the audit and supporting the decisions made;
- 3) Quantitative classification (rounded to the nearest tenth) and qualitative classification (from "A+" to "F");
- 4) Factual information on the assessment carried out on the various criteria and quantitative classification on these criteria (rounded to the nearest whole number);
- 5) List of suggested measures and possible qualitative and quantitative classification after implementation of fast-track measures and all measures;
- 6) Association of metrics valued by MOVE+ with suggested improvement measures and establishment of SMART objectives, as well as forecasting investment needs and expected returns (Action Plan).



4.4 Roadmap for meeting the set targets from the regional strategy in Slovenia

Scaling Roadmap for Public E-Mobility in the Municipality of Bohinj (2025–2030)

This roadmap outlines a phased approach for scaling up public e-mobility services in the Municipality of Bohinj, building on the RuralMED Mobility pilot. It defines milestones, indicative costs, and key performance indicators (KPIs) to support strategic planning, investment decisions, and monitoring. The roadmap is aligned with national and regional policy frameworks and is designed to remain flexible to seasonal demand and funding availability.

Phase 1: Consolidation and Evaluation (2025)

Objectives

- Consolidate pilot results and establish a permanent operational baseline.
- Use monitoring data to assess technical, financial, and social performance.

Key actions and milestones

- Full evaluation report of the electric transport-on-demand (ToD) pilot completed.
- Decision by the municipal council on continuation and scale-up of the service.
- Formal integration of e-mobility objectives into municipal transport and tourism planning documents.

Key performance indicators (KPIs)

- 18 months of validated operational data available.
- Average vehicle utilisation: number trips per vehicle per day.

Phase 2: Initial Scale-Up and Network Expansion (2026–2027)

Objectives

- Transition from pilot to a scalable public e-mobility service.
- Expand charging infrastructure to priority locations.

Key actions and milestones

- Procurement of 1–2 additional electric vehicles for ToD service, upon data confirmation.
- Integrate public bus transport and its electrification
- Installation of 2–3 additional public or semi-public charging points (AC and/or DC) in villages, tourist nodes, or park-and-ride locations, upon data confirmation.
- Integration of the ToD service with regional public transport information and ticketing systems (where feasible).

KPIs

- Annual ToD ridership increases x% compared to 2025.
- Charging station utilisation rate x% (average).
- Reduction of private car trips on pilot corridors x% (estimated).

Phase 3: Service Integration and Optimisation (2028)



Objectives

- Optimise operations based on demand patterns and seasonality.
- Strengthen integration with tourism, social services, and regional mobility systems.

Key actions and milestones

- Introduction of seasonal service models (peak vs off-peak).
- Formal cooperation agreements with tourism operators and public institutions.
- Implementation of digital booking, routing, and data dashboards for real-time monitoring.

KPIs

- Cost per passenger-kilometre reduced by x% compared to 2026.
- Peak-season service coverage increased by x%.
- CO₂ emissions reduction from municipal mobility x% compared to baseline.

Phase 4: Maturity and Replication Readiness (2029–2030)

Objectives

- Establish a mature, resilient public e-mobility service.
- Prepare replication and knowledge transfer to other rural municipalities.

Key actions and milestones

- Expansion to a small fleet (3–5 electric vehicles), if demand justifies.
- Expansion of electric public road transport (buses)
- Strategic review of long-term funding and governance model.
- Publication of a replication guide and policy brief based on Bohinj experience.

KPIs

- Public e-mobility service covering x% of populated areas of the municipality.
- Annual ridership.
- x% reduction in local transport-related emissions compared to 2024 baseline.

Funding and Governance Considerations

Implementation of the scaling roadmap will require a mix of funding sources, including municipal budgets, national sustainable mobility funds, EU Cohesion Policy, Interreg programmes, and tourism-related financing mechanisms. The municipality should act as service coordinator, with operations potentially delivered through partnerships with transport operators or public enterprises.

Regular monitoring and annual reporting against the defined KPIs will ensure transparency, policy compliance, and the ability to adapt the roadmap to changing demand and funding conditions.



Conclusion

The proposed scaling roadmap provides a structured and policy-aligned pathway for the Municipality of Bohinj to transition from a pilot electric mobility action to a fully integrated public e-mobility service by 2030. By combining phased investment, clear milestones, and measurable KPIs, the roadmap supports informed decision-making and contributes to long-term sustainable mobility objectives at local, regional, and national levels.



4.5 Roadmap for meeting the set targets from the regional strategy in Bulgaria

The **regional roadmap for sustainable mobility in Bulgaria**—within the *RuralMED* framework—is largely driven by the **Stara Zagora Regional Economic Development Agency (SZ REDA)**. The pilot investments in the municipalities of **Galabovo and Radnevo**, both located in the coal transition zone, are central to achieving the targets set in the regional strategy. Here's a structured roadmap outlining how the pilot contributes:

Key Targets from the Regional Strategy

1. **Deployment of EV charging infrastructure** in underserved rural areas.
2. **Reduction of CO₂ emissions** by replacing fossil-fuel-based mobility.
3. **Improved accessibility** and sustainable transport for rural citizens.
4. **Integration of electromobility into local and regional planning** documents.
5. **Increased public and stakeholder engagement** in green mobility solutions.

Roadmap for Achieving the Targets via the Pilot Investment

Phase 1: Assessment and Planning (Q1–Q2 year 1)

- **Conduct feasibility studies** for EV charging station locations in Galabovo and Radnevo.
- Analyze existing infrastructure and electricity grid capacity.
- Align with national strategic frameworks (e.g., Bulgaria's Recovery and Resilience Plan).
- Define key performance indicators (KPIs) for monitoring (e.g., number of charges, CO₂ reduction estimates).

Phase 2: Infrastructure Implementation (Q3 year 1 – Q1 year 2)

- **Install public EV charging points** using pilot investment funds.
- Focus on accessible, visible locations (e.g., municipal buildings, health centers).
- Coordinate with grid operators to ensure interoperability and sustainability.

Phase 3: Innovative Use Cases & Business Models (Q1–Q3 year 2)

- **Deploy shared e-vehicles** or municipal fleet leasing for public services.
- Test **integration with energy systems**, e.g., coupling with solar PV or flexibility services.
- Pilot **rural MaaS (Mobility-as-a-Service)** solutions via booking apps and real-time monitoring (using the ICT platform developed by CIMNE).

Phase 4: Capacity Building and Community Engagement (Throughout Project)

- Conduct **training for municipal staff** and stakeholders.
- Launch **public awareness campaigns** and EV test drive events to engage citizens.
- Gather citizen feedback through surveys and ICT tools.

Phase 5: Policy Alignment and Strategy Refinement (Q3 2025–2026)



- Use pilot data to **update local Sustainable Urban Mobility Plans (SUMP)**s).
- Recommend **regional mobility policy adaptations** based on pilot outcomes.
- Develop a **replication plan** for other coal-transition municipalities in Bulgaria.

Pilot Investment's Contribution to Strategic Targets

Strategic Target	Pilot Contribution
EV infrastructure rollout	Installation of charging stations in Galabovo and Radnevo
Emission reduction	Transition to EVs for local government and public use
Accessibility	New mobility options in remote, underserved villages
Policy impact	Data and tools feeding into regional and local SUMP
Engagement	Community events, awareness campaigns, and digital tools



4.6 Roadmap for meeting the set targets from the regional strategy in Bosnia and Herzegovina

The regional Sustainable Mobility Strategy of the Una-Sana Canton defines a long-term and phased pathway towards improving mobility accessibility in rural and remote areas and reducing greenhouse gas emissions from road transport. The roadmap accompanying the strategy translates these objectives into a sequence of institutional, organisational, and infrastructure-related measures, allowing gradual implementation in line with available capacities and resources. Within this framework, the pilot investment implemented through the RuralMED Mobility project, the installation of a public electric vehicle charging station, represents an initial and concrete step in the implementation of the regional roadmap, particularly within the strategic direction related to the development of electric mobility and low-carbon transport solutions. The pilot directly contributes to the early implementation of measures aimed at establishing a network of EV charging infrastructure, which is identified in the strategy as a prerequisite for wider electrification of transport in the canton.

At the same time, the pilot investment indirectly supports strategic objective one, which aims to increase the use of shared and public transport modes in rural and remote areas. The presence of EV charging infrastructure creates the necessary technical preconditions for future phases of the roadmap that include the introduction of shared electric vehicles, electrification of public and demand-responsive transport services, and the development of intermodal mobility points. In this sense, the pilot serves as a foundational element that enables subsequent measures targeting modal shift and improved accessibility to essential services for rural populations.

From the perspective of strategic objective two, which targets a 30% reduction of CO₂ emissions from road transport by 2035, the pilot charging station lowers one of the key barriers to the adoption of electric vehicles in the region, namely the lack of charging infrastructure and associated range anxiety. By enabling the practical use of electric vehicles for daily and inter-urban travel, particularly in and around urban centres with high traffic volumes, the pilot supports the gradual shift from conventional fossil-fuel vehicles towards low and zero emission alternatives, as envisaged in the regional roadmap.

The roadmap foresees a progressive scaling of such investments over the implementation period, building upon the experience gained through pilot actions. Lessons learned from the planning, installation, and operation of the EV charging station provide valuable input for refining technical standards, institutional coordination, and financing models for future infrastructure expansion across the canton. This phased approach ensures that strategic targets are pursued in a realistic and implementable manner, aligned with the specific spatial and socio-economic characteristics of the Una-Sana Canton.



4.7 Roadmap for meeting the set targets from the regional strategy in Italy

The **RuralEV pilot in the Oltrepò Mantovano Consortium** is designed as a proof-of-concept for electric mobility in rural and peri-urban areas. It involves the installation of

- 1EV fast charging station in Suzzara
- 1EV medium-fast charging station in Suzzara
- 2 EVs (15-month leasing)
- ICT tool for MaaS solutions.

The pilot collects operational data on energy consumption, user profiles, and charging patterns. The roadmap translates the pilot experience into a long-term strategy aligned with the **Italian PNIEC**, the national framework for alternative fuels, and the national hydrogen strategy, while adapting national targets to the needs of rural communities in the Mantua area.

Short-term (2025–26) – operationalising the pilot and raising awareness

- **Deployment and optimisation of chargers:** By the end of 2025, all 2 charging stations will be operational and publicly accessible. Charging will initially be free to encourage usage and collect data on peak periods, average charging times, and user demographics. Monitoring will include maintenance and grid impacts to inform regional planning.
- **Public awareness and capacity building:** Municipalities and the consortium will run campaigns on using electric vehicles, environmental benefits, and available national and regional incentives, including PNRR grants and Lombardy regional calls. The goal is to support residents and local businesses in purchasing EVs, light commercial electric vehicles, or e-bikes.
- **Integration of chargers with local services:** Charging points will be co-located with essential services such as pharmacies or health centers, creating “mobility hubs.” Data collected will guide the consortium in coordinating with grid operators to handle increased electricity demand.

Medium-term (2027–30) – expanding infrastructure and integrating renewables

- **Expansion of rural charging infrastructure:** By 2027, the network will be extended to strategic points such as rural schools, tourist destinations, and mobility nodes. The pilot will demonstrate how 22 kW chargers can serve rural communities while preparing sites for future DC fast chargers.
- **Integration of renewable energy and storage:** Pairing chargers with photovoltaic panels and battery storage will reduce operating costs and contribute to PNIEC renewable energy goals. Smart-charging software can schedule charging during periods of high solar production or low electricity demand.
- **Promotion of rural shared mobility:** The consortium, in collaboration with Regione Lombardia, will launch car-sharing and e-bike sharing schemes, financed through zero-



emission fleet incentives and low-interest loans. These services address first-/last-mile mobility needs in rural areas.

- **Development of simplified SUMP and harmonised planning:** Many municipalities in the Oltrepò Mantovano do not have integrated mobility plans. The pilot will support the creation of simplified SUMP based on collected data, prioritising active transport, public transport integration, and digital ticketing.
- **Coordination with grid operators and alignment with EU regulations:** Preparations will be made for grid connections for potential high-power chargers, in line with AFIR requirements for heavy-duty vehicles.

Long-term (post-2030) – mainstreaming electric mobility and integrating hydrogen

- **Institutionalisation of rural e-mobility:** By 2030, the RuralEV model will be embedded in the consortium's development plans. Public-private partnerships will ensure sustainable operation of charging stations and shared mobility services. The model's replication can extend to other rural areas in Lombardy and cross-regional corridors.
- **Preparation for hydrogen and heavy-duty transport:** Public transport lines and local logistics fleets could become pilot sites for hydrogen buses and mid-range freight vehicles, integrating renewable-powered charging with potential hydrogen refueling stations.
- **Alignment with national funding and the NECP:** Future updates to the NECP and the national alternative fuels framework will incorporate lessons from the pilot. PNRR, regional, and EU funds will be targeted toward rural charging infrastructure and shared mobility services.

Synthesis and replication potential

The RuralEV pilot demonstrates that small-scale rural projects can make a meaningful contribution to national and European decarbonisation targets. The phased approach — install, expand, mainstream — ensures investments are data-driven and tailored to the needs of rural communities in Oltrepò Mantovano. Linking the project to national, regional, and EU funding provides technical support and financial leverage, ensuring that the benefits of the energy transition reach small municipalities, not just urban centers. Replication of the model in other Lombardy provinces will strengthen the resilience and equity of sustainable mobility across the region.



4.8 Roadmap for meeting the set targets from the regional strategy in Greece

Western Macedonia is undergoing the most significant socioeconomic transformation in its modern history. Having been the centre of lignite-based electricity production for decades, the region is now at the core of Greece's Just Transition process, as formalised in the SDAM, the Territorial Plan, the PDAM, and the national NECP 2025. These strategic frameworks share a common vision: the creation of a decarbonised, innovation-driven regional economy, in which sustainable mobility plays a central role. Mobility is one of the sectors with the highest carbon footprint in Western Macedonia due to car dependency, long distances between settlements, and uneven public transport availability. Rural areas in particular experience mobility poverty, where elderly people, vulnerable populations and low-income residents face persistent difficulties in accessing essential services, healthcare, and administrative functions. Municipal SUMPs, EV Charging Plans (ΣΦΗΟ) and SECAPs prepared in recent years recognise clean mobility and electrification as unavoidable pillars for reducing emissions, modernising public services and improving accessibility in peripheral territories.

Despite this strategic clarity, the region faces structural mobility barriers. The existing EV charging network is sparse and highly uneven, concentrated mainly in Kozani while smaller municipalities such as Amyntaio, Florina, Kastoria and Grevena lack sufficient public charging infrastructure. Preliminary findings of citizen surveys that are not yet concluded show a low awareness levels, range anxiety, limited familiarity with EV technologies and a general perception that electrification remains an urban-focused solution. Expert-based AHP analysis reinforces this diagnosis, identifying inadequate charging infrastructure, prohibitive vehicle costs, weak grid segments, harsh winter conditions, and institutional fragmentation as the dominant obstacles to large-scale EV adoption. At the same time, environmental analysis demonstrates that Western Macedonia would benefit disproportionately from e-mobility, since its historically polluted environment and high transport emissions create both a necessity and an opportunity for significant improvements in air quality and public health.

Against this background, the RuralMED pilot contributes the first integrated and operational demonstration of how e-mobility can serve real functional needs in rural and semi-urban areas of Western Macedonia. By installing two 22 kW AC charging stations in Kozani (ZEP) and Amyntaio and deploying two electric vehicles directly into public-service operations, the pilot establishes the foundation for a phased and evidence-based roadmap that can help the region meet its strategic mobility and climate targets. The roadmap below synthesises the required steps from 2024 to the post-2030 horizon, combining demand forecasting, feasibility assessments, technical considerations, socio-demographic insights, behavioural analysis, regulatory conditions, and the lessons learned from the pilot.

The short-term phase begins with the deployment, commissioning and optimisation of the pilot infrastructure. The selected locations—ZEP Kozani for the regional administrative fleet and the municipal social services building in Amyntaio for the “Help at Home” programme—are not arbitrary choices but reflect careful analysis of daily mobility patterns, service delivery needs, grid availability and accessibility considerations. This strategic site selection ensures that the charging infrastructure is not merely symbolic but embedded in high-relevance public services that operate consistently throughout the year. The ZEP location, being the seat of the Region of Western Macedonia, offers administrative visibility, stable electricity supply and predictable



service movement patterns, which are ideal for testing inter-city EV operations across the regional administrative area. The Amyntaio location, on the other hand, addresses the region's most acute mobility gap: providing accessible, reliable and low-emission transport to elderly residents in scattered villages who depend on municipal care services.

During this initial period, the focus is on validating feasibility, generating operational data, evaluating technical performance and building institutional capacity. The EVs replace conventional gasoline vehicles that previously consumed around 1,600 litres of fuel annually, resulting in immediate fuel displacement of approximately 3,200 litres per year across both vehicles and creating annual operational savings of roughly €4,730. These savings are especially significant for rural municipalities with limited financial resources. With the average EV consumption recorded at 14.3 kWh/100 km and each vehicle travelling around 20,000 km per year for municipal and regional services, the annual electricity demand of 2,860 kWh per vehicle is easily manageable and provides a real-world baseline for future expansion scenarios.

At this phase, the technical integration of the chargers and vehicles with the ICT system is equally important. Both stations operate under open protocols (OCPP 1.6), allowing real-time communication between chargers and the central management platform. The EVs are equipped with telematics sensors that record location, energy consumption, speed patterns, duration of routes and vehicle availability. This integrated digital layer enables the creation of datasets that municipalities, the Region and the RuralMED consortium can use for spatial analysis, cost assessments, energy forecasts, and decision-making processes. These data streams are essential for strengthening SUMP, updating EV Charging Plans, informing PDAM monitoring mechanisms and aligning with NECP modelling. In this way, the pilot establishes the first digital backbone for future Mobility-as-a-Service (MaaS) models in rural Western Macedonia.

The short-term phase also serves to build public awareness and acceptance. The visible placement of the chargers and the use of EVs by public employees and social-service workers make e-mobility visible to rural residents, helping break the psychological and behavioural barriers identified in the citizen survey. Municipalities use this period to design local communication campaigns, inform residents about the advantages of electric mobility, and promote the existence of local charging points, as at the moment three campaigns have taken place and another one at educational institutions is expected to take place. Apart from that tailored training for public staff in sustainable and e-mobility was already prepared in RuralMED Mobility project. These actions are crucial for shifting citizen perceptions and reducing the sense of unfamiliarity that currently limits adoption. By 2026, Western Macedonia will have completed the first stage of its mobility transition: a functioning, data-generating, socially purposeful and technically validated e-mobility pilot that directly serves local needs while demonstrating feasibility and benefits.

The medium-term roadmap involves systematic scaling of infrastructure, services and governance mechanisms. Demand forecasts derived from NECP 2024 projections provide the quantitative foundation. Using national scenarios adapted for ZEP and Amyntaio, the model anticipates a steady rise in EV penetration as technology costs decrease, incentives evolve and public awareness grows. EV numbers are expected to increase steadily through 2030, especially within public fleets, small businesses and early-adopter households. Electricity demand



modelling shows that the existing 22 kW AC chargers will be fully sufficient until mid-decade but that by 2027–2030, depending on demand growth, municipalities will require additional AC chargers and selective installation of DC (50–60 kW) chargers at high-demand nodes, such as university campuses, health centres, intermunicipal hubs and semi-urban commercial clusters.

The viability analysis confirms that 60 kW DC chargers offer positive economic returns in most NECP scenarios, while 150 kW units may be excessive for rural areas unless located near heavy-vehicle routes or logistics facilities. The medium-term roadmap therefore recommends the gradual deployment of additional 22 kW AC chargers in municipal service buildings, town centres and key rural settlements; the installation of one 60 kW DC charger in Kozani (possibly at the University campus or ZEP); and the placement of another in the broader Amyntaio–Florina area, aligned with optimum siting guidelines. The draft D1 identifies specific high-priority locations across Western Macedonia, including university campuses in Kozani, Ptolemaida, Florina, Kastoria and Grevena, as well as tourist villages such as Nymfaio, Vlasti, Samarina and Nestorio, where seasonal demand and geographical accessibility justify new installations. These strategically selected sites help address the region’s rural accessibility deficits and support tourism, economic development and environmental objectives.

During this medium-term phase, integration with renewable energy sources becomes a practical priority. Chargers located in public buildings—especially in municipalities with significant rooftop potential—can be paired with photovoltaic systems to reduce operational costs and enhance energy resilience. Battery storage solutions may be added to mitigate grid stress during peak hours, especially in areas with weaker electrical infrastructure. Digital systems will be expanded to include advanced charging management software, allowing for smart charging, scheduling during low-tariff periods, and optimisation based on renewable availability. These developments contribute not only to climate neutrality goals but also to the operational efficiency and long-term viability of charging networks.

Institutional processes also mature during this phase. Municipalities begin updating their SUMP and EVCPs with new data gathered from the pilot. Smaller municipalities, lacking full mobility plans, can prepare simplified SUMP using the RuralMED methodology. The Region coordinates intermunicipal efforts, ensuring that charging deployment is not fragmented but aligned with broader regional mobility corridors. Public fleets—municipal, regional, educational and social-service vehicles—progressively electrify, supported by national incentives such as “Κινούμαι Ηλεκτρικά” and by Just Transition funding instruments. By 2030, Western Macedonia builds not only its physical infrastructure but also the institutional mechanisms required to support a climate-neutral mobility system.

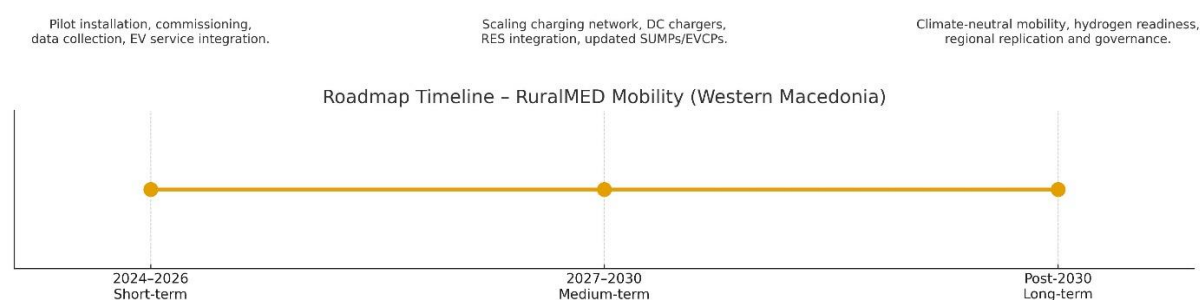
The long-term vision expands beyond electrifying public services and building a scattered charger network. Instead, it aims to establish a fully integrated, resilient and inclusive mobility ecosystem that extends to every municipality, village and community in Western Macedonia. By this stage, electrification becomes the default option for public-service vehicles, urban delivery fleets and intermunicipal administrative transport. Municipalities adopt shared procurement mechanisms to reduce costs and maintain unified technical standards. A regional mobility coordination platform ensures interoperability, data sharing, common monitoring indicators and streamlined governance across jurisdictions.

Clean mobility technologies diversify and expand. Hydrogen-powered buses or medium-distance logistics vehicles may be piloted where appropriate, especially as foreseen in Greece’s



hydrogen strategy and EU initiatives for Hydrogen Valleys. Rural heavy-duty vehicles or inter-city buses might adopt hydrogen where electrification is less efficient. Smart-mobility services, including Mobility-as-a-Service, demand-responsive transport and real-time travel information, become integrated into the region's digital infrastructure. Charging stations increasingly operate with photovoltaic systems, energy storage, and grid flexibility services, contributing to local energy resilience and reducing dependence on fossil fuels.

Rural communities, often forgotten in national mobility initiatives, become central beneficiaries of a region-wide strategy that ensures equitable access to clean and reliable transport. The RuralMED pilot evolves from a small demonstration into a replicable template for all municipalities, proving that rural areas can host efficient, low-emission mobility systems that support climate action, public health and social inclusion. By aligning the pilot's methodology with PDAM/Just Transition objectives, Kozani's Climate Neutrality plan and national NECP trajectories, Western Macedonia positions itself as a pioneering region for rural e-mobility at the European level.



The graphic timeline illustrates the phased progression of the RuralMED Mobility roadmap for Western Macedonia, structured into short-, medium- and long-term horizons. The 2024–2026 short-term phase focuses on the installation and commissioning of the pilot charging stations, the integration of electric vehicles into public-service operations, and the establishment of the digital monitoring system that enables data-driven planning. The 2027–2030 medium-term phase represents the scaling stage, during which the charging network expands across municipalities, selective DC chargers are introduced, renewable energy integration is strengthened, and updated SUMP and ECVPs embed e-mobility into local mobility strategies. The post-2030 long-term phase reflects the consolidation of a climate-neutral mobility ecosystem, characterised by full regional replication, advanced governance structures, hydrogen-ready infrastructure and the mainstreaming of clean transport in both urban and rural areas. Together, these phases illustrate a coherent transition pathway from pilot implementation to a mature, resilient and inclusive sustainable mobility system for Western Macedonia.

Thus, the RuralMED pilot lays the groundwork for Western Macedonia's transition to a climate-neutral mobility system as defined in the SDAM, PDAM, NECP and Climate-Neutral City strategies. By deploying operational EVs in public-service contexts, installing strategically located charging stations and creating a full digital infrastructure for monitoring and optimisation, the pilot addresses the region's mobility deficits while producing measurable environmental, economic and social benefits. It provides the quantitative evidence needed



for scaling, informs SUMP and ΣΦHO updates, demonstrates feasibility in rural conditions, and establishes a replicable, service-integrated approach to e-mobility deployment. Most importantly, it demonstrates that electrification is not only possible but practically beneficial in rural and semi-urban areas, offering a viable pathway to reduced emissions, enhanced accessibility, stronger public services and the long-term climate resilience of Western Macedonia.



5 Remarks from other strategies at national level

Section 5 provides a concise national-level overview identifying the country-wide policies, programmes, and funding instruments that support the strategy's targets and advance the RuralMED pilot's objectives, illustrating how these national measures complement or fill gaps in regional actions to reinforce the pilot's impact and long-term sustainability.

The information included in this deliverable is different to the information sent in the deliverables from WP1. Focus is set on the impact from the pilot(s) into the regional strategy on sustainable mobility.



5.1 Remarks from other strategies at national level in Spain

An analysis of national and regional strategies provides insight into how sustainable mobility and transport electrification policies are coordinated in Extremadura. At the national level, various strategies establish a framework that promotes the transition to electric mobility, while specific plans are developed at the regional level to adapt these policies to the local context, taking into account the geographical dispersion and particularities of the territory.

National strategies

Among the most relevant national strategies are the [Strategy for Safe, Sustainable and Connected Mobility 2030](#), the [Integrated National Energy and Climate Plan \(PNIEC 2021-2030\)](#), the [Spanish Urban Agenda](#) and the [Multi-year Strategic Plan for Road Infrastructure](#). All of these strategies prioritise the decarbonisation of transport, promoting the electrification of mobility, the improvement of public transport, digitalisation, intermodality and the use of low-emission mobility. These policies establish targets for reducing emissions, efficiently renewing the vehicle fleet and deploying alternative fuels, creating an enabling framework for the implementation of electric mobility initiatives in Extremadura, especially in rural areas.

Likewise, in December 2025, the [Sustainable Mobility Law](#) (Law 9/2025, of 3 December) was passed, establishing a modern legal framework to transform transport in Spain and recognising sustainable mobility as a right of citizens, promoting an accessible, inclusive and decarbonised system. This regulation reinforces the integration of transport electrification policies — including the promotion of electric vehicles and their charging infrastructure — and creates governance and financing mechanisms that improve coordination between administrations and support the implementation of plans such as the PNIEC, the PEMS 2030 and regional and local initiatives.

Regional strategies and plans

Regional Strategy for the Promotion of Electric Vehicles in Extremadura (2018-2030)

The main objectives of this strategy are to create and provide interoperable charging infrastructure, including 8,280 linked charging points, 189 public access stations and 220 private or restricted facilities. It also seeks to achieve around 9,200 registered electric vehicles in the region by 2030, mobilising public-private investment of approximately €235 million. The Strategy thus guarantees the charging coverage necessary for the development of electric vehicles and promotes the transition to more sustainable mobility in Extremadura.

Extremadura Sustainable Mobility Plan (PEMS) 2030

The PEMS aims to transform regional mobility towards a sustainable model, reducing private vehicle travel and promoting public transport and active mobility. It also aims to improve connectivity in rural areas and modernise the vehicle fleet, including electric vehicles. The plan includes 77 actions with a mobilisation of resources amounting to €1.89 billion until 2030, seeking to promote efficient, equitable and environmentally friendly mobility.

Extremadura Integrated Energy and Climate Plan (PEIEC) 2021-2030



The PEIEC establishes measures related to energy, climate and sustainable mobility in the region. Its objectives include promoting electric vehicles, promoting alternative fuels and modernising the vehicle fleet. By 2030, it is expected to have a significant fleet of electric vehicles —cars, vans and motorcycles— and to have renewed urban public transport with electric buses. The plan also includes incentives for the installation of charging points and tax or parking measures to promote electric mobility, such as rebates on property tax, business activity tax, parking or restricted areas.

Provincial and private initiatives

Electric Mobility Plan of the Provincial Council of Cáceres (MOVECA)

The MOVECA Plan is a project of the Provincial Council of Cáceres (funded by the ERDF/POPE 2014–2020, low-carbon economy axis) aimed at promoting sustainable mobility through the installation of charging infrastructure to create a comprehensive provincial network of ‘electricity stations’, with the idea of having at least one station per region and an approximate distance of 50–75 km between points, promoting the use of electric vehicles and a mobility model based on safety, efficiency and environmental and economic sustainability. It also envisages that some of these facilities could incorporate photovoltaic canopies for self-consumption and solar energy charging.

SUSMP of the Cáceres Network of Sustainable Municipalities.

The PMUS of the Cáceres Sustainable Municipalities Network is a supra-municipal sustainable urban mobility plan, promoted by the Provincial Council of Cáceres together with the municipalities that make up the Network (Cáceres and surrounding municipalities), developed collaboratively and supported by diagnostic work and surveys on traffic, parking, public transport and road infrastructure. It is part of the Network's DUSI/EDUSI Strategy and is co-financed (80% ERDF and 20% Provincial Council), with the overall objective of improving quality of life and cohesion through measures that promote more sustainable modes of transport and reduce energy consumption and pollutant emissions within the Network.

SUMP for the Plasencia functional area

The PMUS for the Plasencia Functional Area and its surroundings is a plan promoted by the Provincial Council of Cáceres (within the framework of the EDUSI Plasencia y Entorno, co-financed by the ERDF) to diagnose and define an action plan to reorganise mobility in the area and make it more sustainable, addressing problems such as car dependency, low use of public transport, road safety on crossings, and the challenge of depopulation/ageing. Its scope includes Plasencia and several surrounding municipalities (e.g. Aldehuela del Jerte, Carcaboso, Malpartida de Plasencia, etc.), and the diagnosis proposes reversing trends towards more sustainable modes of transport, promoting public transport, pedestrian and cyclist mobility, with a territorial and urban focus (Plasencia urban PMUS + territorial PMUS for the functional area).

Electric Vehicle Mobility Plan in Municipalities (MOVEM), province of Badajoz

MOVEM, promoted by the Badajoz Provincial Council in coordination with the regional strategy, aims to encourage the use of electric vehicles and facilitate the installation of charging points in the municipalities of the province. Its actions include the delivery of an electric vehicle to



each municipality for municipal services and the creation of a public charging network on public roads. By the end of 2022, 32 fast and semi-fast charging points had been installed in different municipalities, covering larger urban centres and smaller towns.

MOVES III Programme in Extremadura

MOVES III is a state programme, coordinated with the autonomous community, which promotes electric mobility through subsidies for the purchase of plug-in or fuel cell electric vehicles, as well as for the installation of charging infrastructure. By 2025, the programme will have a budget of €8,270,723, with subsidies of up to €9,900 per electric vehicle and financing of up to 80% for charging points. This programme reinforces the adoption of electric vehicles and the expansion of the charging network in the region.

Infrastructure deployment initiatives by Iberdrola and Iberdoex

The infrastructure deployment initiatives by Iberdrola and Iberdoex sought to install more than 60 ultra-fast charging points, with power ratings of up to 180 kW, at service stations throughout Extremadura, with a particular focus on rural areas. Their objective was to facilitate access to electric vehicles outside large urban centres, improving charging coverage and increasing user confidence in travelling on interurban routes or in sparsely populated areas. These initiatives are part of a broader context of investment in electricity networks in the region by *i-DE*, Iberdrola's electricity distribution company, which between 2022 and 2024 plans to invest €106 million in the modernisation and digitalisation of the Extremadura electricity grid to meet the growth in demand associated with the electrification of transport and other electrical uses, improve resilience to climate change and promote a robust, flexible and intelligent infrastructure. This transformation of the networks contributes to meeting the challenges of sustainable mobility, the integration of renewable energies and the decarbonisation objectives of the Integrated National Energy and Climate Plan (PNIEC), while boosting the economy and job creation in the region.



5.2 Remarks from other strategies at national level in Croatia

Croatia's national policy frameworks provide the backbone for its transition to climate-neutral mobility, yet most measures prioritise urban areas or corridors of strategic economic importance. This section distils the key strategies and funding programmes relevant to e-mobility and assesses where RuralMED can add value. National targets on renewable energy and alternative fuels have been strengthened in recent updates, and the country has signed agreements with European institutions to support the green transition. However, the uneven geography of infrastructure, concentrated in cities and along motorways, means rural municipalities still struggle to access funding, prepare Sustainable Urban Mobility Plans (SUMP), or attract private investment for electric-vehicle (EV) services.

Key strategies and programmes

- **Transport Development Strategy 2017–2030 (NN 84/2017)**
 - Croatia's long-term transport strategy envisages a safe, multimodal and low-carbon transport system. Through a memorandum of understanding with the European Investment Bank (EIB), the Ministry of the Sea, Transport and Infrastructure seeks to mobilise EU funds and advisory services to modernise rail, road and maritime infrastructure and to integrate innovative technologies. The EIB's Transport Lending Policy emphasises investment in public transport, shared and active modes, clean vehicles, alternative-fuel infrastructure and intelligent transport systems, indicating the policy direction that Croatia should follow. Yet the focus is on major projects and urban nodes; the Strategy does not explicitly address the mobility needs of small villages or peripheral counties, which lack the administrative capacity and financial resources to benefit from national programmes.
- **National Policy Framework (NPF) for Alternative Fuels (NN 34/17) and the Law on the Establishment of Infrastructure for Alternative Fuels (NN 120/16, NN 63/22)**
 - Croatia transposed EU regulations on alternative-fuel infrastructure into national law, setting medium-term targets of 806 public chargers by 2030 and requiring dense networks along the TEN-T corridors. The EU's Alternative Fuels Infrastructure Regulation stipulates that fast chargers of at least 150 kW for cars and vans must be installed every 60 km on core transport corridors from 2025 and that chargers for heavy-duty vehicles with a minimum output of 350 kW should be available every 60 km on the core network, with full coverage by 2030. By mid-2024 Croatia already had around 1,500 public chargers, indicating that the national target has essentially been met. However, these facilities are clustered in cities and along motorways, leaving rural areas with few or no charging points. The classification of charging stations as simple structures has simplified permitting procedures, but there is little incentive for operators to expand into sparsely populated villages unless programmes like RuralMED demonstrate viable business models.



- **Integrated National Energy and Climate Plan (NECP) 2021–2030 (updated 2024–25)**
 - Croatia's updated NECP raises the 2030 target for the share of renewable energy in gross final energy consumption from 36.4 % to 42.5 % and almost doubles the renewable energy target for transport from 13.2 % to 24.6 %. It also increases the ambition for greenhouse-gas reductions, aiming for at least a 62 % cut in EU-ETS sectors and 16.7 % in non-ETS sectors. Achieving these goals requires integrating renewable electricity generation with electromobility and smart charging infrastructure. The NECP anticipates rapid electrification of road transport and recognises the need to match vehicle uptake with energy-system upgrades. Yet the plan does not specify mechanisms for rural deployment or address how to ensure that peripheral regions can meet the AFIR requirements without overburdening local grids.
- **Energy Development Strategy to 2030 with outlook to 2050 (NN 25/2020)**
 - This strategy outlines a diversified energy mix, increased energy efficiency and security of supply, and the electrification of transport through smart grids and storage. It highlights the need to pair EV charging with renewable generation—solar PV and storage, for example—to reduce dependency on imported electricity. RuralMED's pilots, which integrate chargers with solar power and battery storage, directly contribute to these objectives by testing decentralised models that could ease grid stress and reduce losses in remote areas. Although the strategy is comprehensive, it offers limited guidance on financing small-scale rural infrastructure, leaving a gap that local initiatives must fill.
- **Hydrogen Strategy to 2050 (NN 40/2022)**
 - Croatia's hydrogen strategy sets a baseline target of 70 MW of electrolysis capacity by 2030 and 2,750 MW by 2050; under an accelerated scenario, the 2030 capacity could reach 1,270 MW. It envisions annual production and consumption of about 26,400 tonnes of renewable hydrogen by 2030 and identifies cities such as Zagreb, Split, Osijek and Rijeka as early adopters of hydrogen-powered buses. While the strategy focuses on urban public transport, rural regions could benefit from hydrogen-powered inter-city buses if economies of scale emerge. For now, hydrogen remains costly and is unlikely to serve small villages in the short term; however, incorporating rural perspectives in pilot projects could ensure that future investments consider regional connectivity beyond metropolitan areas.
- **Financial programmes and incentives**
 - Croatia's Ministry of Environmental Protection and Green Transition and the Environmental Protection and Energy Efficiency Fund (FZOEU) plan to allocate around €652 million in 2025 for renewable energy, decarbonisation of district heating, zero-emission transport and waste management. The indicative plan includes €45 million in grants for zero-emission road traffic—targeting taxi fleets, delivery services and car-sharing operators—and €44 million in favourable loans for small and medium enterprises to modernise their fleets. These funds could help municipalities acquire electric vehicles, install chargers



or set up car-sharing schemes. Private investments are also growing: the June 2025 partnership between EV-charging firm Eleport and the Supernova Group will deploy nearly 200 ultra-fast chargers at 30 shopping centres across Croatia and Slovenia, signalling market interest in high-power charging. Nevertheless, such initiatives typically favour urban or transit-oriented locations. Without dedicated funding streams and technical assistance for rural municipalities, the benefits of national programmes may bypass less-populated areas.

- **SUMP support initiatives**

- To build local capacity for sustainable mobility planning, the European Commission and JASPERS launched a National SUMP Support Programme. An introductory workshop in June 2024 gathered 81 participants from across the EU, including representatives responsible for national or regional coordination of SUMPs. The programme emphasises capacity-building, guidance and financial support for SUMP development and implementation. However, only a handful of Croatian municipalities have developed SUMPs; the city of Koprivnica adopted the country's first SUMP in 2015 and has become a national competence centre for sustainable mobility. Many rural municipalities lack the staff, data and financial resources to prepare such plans, which limits their ability to tap into national funding. Integrating rural mobility issues into the SUMP framework and providing targeted technical assistance would help bridge this gap.

Relevance to the RuralMED Mobility project

The national strategies and programmes reviewed above set ambitious targets for decarbonising transport and expanding alternative-fuel infrastructure, yet they are largely silent on the needs of sparsely populated regions. Fast-charging requirements under AFIR focus on the TEN-T corridors, and financial incentives tend to support urban fleets or major infrastructure projects. RuralMED's pilot therefore plays a crucial role in rural-proofing Croatia's mobility policies: it demonstrates how small municipalities can contribute to national objectives by installing community-scale chargers paired with renewable energy, integrating e-car sharing, and engaging residents through awareness campaigns. By collecting data on usage patterns, grid impacts and socioeconomic benefits, the pilot provides evidence for replicating these models in other counties and informs updates to regional and national plans. The lessons learned—particularly regarding technical design, financing arrangements and community engagement—can feed into future revisions of the NECP, the NPF and the Transport Development Strategy, ensuring that rural areas are not left behind in Croatia's transition to sustainable mobility.



5.3 Remarks from other strategies at national level in Portugal

Status & Key Challenges, Legal & Regulatory Framework, Funding & Investment Opportunities, Tailored Strategic Measures & Timeline, ...

ENEI 2030

Surges as the second National Plan for Smart specialization and it is articulated with the regional strategy - EREI Alentejo 2030. One of the specialization field of the mentioned regional strategy is “Mobility and Logistics” and it is aligned with the National priority - “Green Transition” of ENEI 2030. Still regarding the national strategy it is mentioned “For sustainable mobility, there are national and international companies prepared to meet the demand for electric mobility. Storage issues and the density and accessibility of fueling stations are critical for sustainable mobility (hydrogen/electric).”

Regional Intelligent Specialization Strategy – Alentejo 2030

The Regional Intelligent Specialization Strategy encompasses, within the scope of logistics mobility, several lines of action applicable to different modes of transportation. Regarding the Rural-MED project, Research and Technological Development and other operational activities are planned to encourage the concentration, monitoring, and processing of regional commuting data. These actions are aimed at fostering and implementing smooth (sustainable) local/intermunicipal/regional mobility based on the concept of Mobility as a Service (MaaS). This framework also includes support for actions with a strong innovative component that promote the testing, experimentation, and demonstration of new technologies, products, services, and business models that respond to future societal challenges.

Regarding the monitoring and evaluation of the implementation of the EREI, three data sets will be collected and monitored to assess its regional implementation. These sets refer to the different phases of the strategy's implementation: "Implementation", "First-Level Results," and "Structural Change" indicators. The RuralMED_Mobility project contributes to the implementation of this strategy through contributions to the following indicators:

- Number of innovation projects related to decarbonization and energy transition; (Implementation)
- Number of R&D projects; (Implementation)
- Rate of change in the region's innovative profile within the European Regional Innovation Scoreboard; (Structural Change)

MOVE+

Efficient mobility qualification is now available for organizations that are at the forefront of the energy transition to a more sustainable and decarbonized economy.

It is now possible to determine, on a scale from F (least efficient) to A+ (most efficient), the energy efficiency level of an organization's mobility options, already applicable to light and heavy vehicle fleets.



At the same time, opportunities for energy savings, cost reductions, and minimization of environmental impact are identified.

A company or organization with a MOVE+ classified fleet:

- knows the energy and environmental efficiency of its fleet and seeks continuous improvement;
- knows what opportunities there are for reducing costs (fuel, etc.) and CO2 emissions;
- demonstrates a commitment to reducing the fleet's ecological footprint and adopting cleaner solutions for transporting people and goods;

motivates and influences employees, customers, suppliers, and partners toward more sustainable and environmentally friendly mobility.

This classification is already available for light and heavy vehicle fleets. It will soon be extended to all areas and mobility solutions for any company.

Transporting people and goods is responsible for more than a third of all final energy consumption in Portugal and accounts for 25% of CO2 emissions. That's why it is essential to invest in more sustainable mobility, geared towards eco-efficiency and based on more environmentally friendly options and technologies.

The classification process is carried out by trained and qualified auditors or by companies recognized by ADENE – Energy Agency, who will work in conjunction with the organization's fleet manager or person in charge.

ADENE is responsible for certifying technicians, after verifying that they meet the basic requirements, including specific training.



5.4 Remarks from other strategies at national level in Slovenia

5.4.1 Status and Key Challenges

5.4.1.1 Status

Slovenia has established a **clear strategic commitment to electric mobility** through national transport, climate, and energy policy documents. E-mobility is recognised as a key lever for:

- Decarbonising road transport,
- Reducing air pollution,
- Improving energy efficiency,
- Supporting innovation and industrial competitiveness.

Progress has been made in:

- Deployment of public charging infrastructure,
- Introduction of purchase incentives for electric vehicles,
- Pilot projects in public transport and municipal fleets.

However, **implementation outcomes remain uneven**, particularly outside urban centres.

5.4.1.2 Key challenges

- **Slower-than-expected market uptake of battery electric vehicles**, with volatility in new registrations.
- **Insufficient pace of charging infrastructure deployment**, especially fast chargers and rural coverage.
- **Fragmentation between national objectives and local implementation capacity**, particularly in small municipalities.
- **Uncertainty and discontinuity in incentive schemes**, affecting consumer and investor confidence.
- **High dependence on private car use**, especially in rural and tourist regions.

5.4.2 Legal & Regulatory Framework

5.4.2.1 Strategic and planning framework

Electric mobility is embedded in several binding and non-binding national instruments:

- Transport Development Strategy of the Republic of Slovenia (to 2030),
- Integrated National Energy and Climate Plan (NECP),
- Alternative Fuels Infrastructure planning documents,
- National Recovery and Resilience measures related to green transition.

These frameworks:

- Set decarbonisation and electrification objectives,
- Define priorities for alternative fuels infrastructure,
- Encourage pilot testing and gradual scaling of innovative mobility services.



5.4.2.2 Regulatory environment

- Public charging infrastructure is regulated to ensure **non-discriminatory access and interoperability**.
- Municipalities are legally enabled to:
 - Invest in charging infrastructure,
 - Organise public or semi-public mobility services,
 - Act as coordinators of sustainable mobility solutions.
- Public procurement rules allow the inclusion of **environmental and lifecycle criteria**, supporting electric fleet acquisition.

5.4.2.3 Regulatory gaps

- Limited binding obligations for charging deployment in rural areas,
- Lengthy permitting and grid-connection procedures in some locations,
- Lack of a dedicated national regulatory framework for **demand-responsive electric public transport**.

5.4.3 Funding & Investment Opportunities

5.4.3.1 National funding sources

- State co-financing schemes for EVs and charging infrastructure,
- National sustainable mobility and climate funds,
- Support measures for municipal fleet electrification.

5.4.3.2 EU funding instruments

- Cohesion Policy funds (ERDF, Cohesion Fund),
- Recovery and Resilience Facility,
- Interreg programmes (for pilots, cross-border learning, and scaling),
- Connecting Europe Facility (for strategic infrastructure).

5.4.3.3 Investment challenges

- Small municipalities often face:
 - Limited administrative capacity,
 - Difficulty in co-financing,
 - Uncertainty about long-term operational funding.
- Private investment in rural charging infrastructure remains limited due to lower utilisation rates.

5.4.3.4 Strategic opportunity

Well-designed **pilot-and-scale approaches**, supported by monitoring data, significantly improve access to national and EU funding by reducing perceived investment risk.



5.4.4 Tailored Strategic Measures & Indicative Timeline

5.4.4.1 Strategic measures

To strengthen national-level effectiveness and local uptake, the following measures are recommended:

1. **Stabilisation of incentive frameworks**
 - a. Introduce multi-annual incentive roadmaps for EVs and charging.
 - b. Reduce policy uncertainty for consumers and municipalities.
2. **Acceleration of charging infrastructure deployment**
 - a. Prioritise fast and semi-fast chargers outside major urban centres.
 - b. Support municipal-led installations in rural and tourist areas.
3. **Support for service-based e-mobility**
 - a. Promote electric demand-responsive transport and shared mobility services.
 - b. Recognise public e-mobility services as essential infrastructure in rural areas.
4. **Strengthening municipal capacity**
 - a. Provide technical assistance, templates, and advisory support.
 - b. Encourage regional coordination and shared service models.
5. **Data-driven scaling**
 - a. Require monitoring and evaluation of pilots.
 - b. Use performance data to guide national funding decisions.

5.4.4.2 Indicative timeline

Period	Strategic focus
2024–2025	Consolidation of policy framework, evaluation of pilots
2026–2027	Accelerated infrastructure deployment and service expansion
2028–2029	Integration, optimisation, and regional replication
2030	Review and alignment with post-2030 climate targets

5.4.5 Concluding remark

At national level, Slovenia has a **solid strategic and legal foundation for electric mobility**, but faces an implementation gap related to infrastructure pace, rural coverage, and service-based solutions. Addressing these challenges requires **stable funding signals, stronger support for municipalities, and a shift from isolated pilots to scalable public e-mobility services**, fully aligned with national climate and transport objectives.



5.5 Remarks from other strategies at national level in Bulgaria

National-Level Strategies & Remarks (Bulgaria)

Status & Key Challenges

- **Low EV uptake in rural areas:** Bulgaria faces delayed penetration of EVs, especially outside urban corridors. Range anxiety and limited infrastructure are barriers.
- **Coal-dependent regions in transition:** Galabovo and Radnevo are part of Bulgaria's just transition regions (Stara Zagora area), undergoing structural change from fossil-based energy.
- **Fragmented local planning:** Many rural municipalities lack tailored Sustainable Urban Mobility Plans (SUMPs) or EV adoption frameworks.
- **Insufficient public-private coordination:** Lack of incentives and limited engagement of private investors in low-density areas.

Legal & Regulatory Framework

- **National Recovery and Resilience Plan (NRRP – Bulgaria):**
 - Prioritizes sustainable transport and decarbonization.
 - Funds are earmarked for public charging infrastructure but mainly in cities.
- **Transport Development Strategy 2021–2030:**
 - Recognizes need for multimodal integration but limited focus on rural e-mobility.
- **Climate Law (under development):**
 - Expected to support zero-emission vehicle deployment as part of Bulgaria's EU climate commitments.
- **Energy Strategy 2020–2030:**
 - Supports renewable integration, including potential for grid-connected EV charging.

Funding & Investment Opportunities

- **EU Structural Funds & Green Transition Mechanism:**
 - Bulgaria is eligible for Just Transition Fund (JTF) resources; Galabovo and Radnevo are potential beneficiaries.
- **NRRP (Component 5 – Green Bulgaria):**
 - Budget for EV chargers and urban mobility plans; could be leveraged for rural extensions via pilot-based justification.
- **Operational Programme “Environment” & “Regions in Growth”:**
 - Target clean transport, but uptake for rural e-mobility remains low.
- **Public-private partnerships (PPPs):**
 - Still underutilized; need for frameworks to de-risk private investment in charging networks in low-demand areas.

Tailored Strategic Measures & Timeline



Measure	Timeline	RuralMED Contribution
Develop rural SUMPs with EV components	2024–2025	Use pilot data to support strategy integration
Incentivize rural EV infrastructure	2024–2026	Demonstrate use cases in Galabovo & Radnevo
Enable grid-smart charging & RES integration	2025–2026	Link with RES-based charging in pilot designs
Citizen engagement & demand stimulation	2024–2025	Awareness campaigns & training by SZ REDA
National interoperability guidelines	2025+	Align with ICT standards tested in RuralMED



5.6 Remarks from other strategies at national level in Bosnia and Herzegovina

At the national level, Bosnia and Herzegovina does not have a single, integrated strategy dedicated exclusively to sustainable mobility, particularly in rural and remote areas. Instead, relevant objectives related to transport decarbonisation, energy efficiency, and environmental protection are addressed through a combination of development strategies, sectoral policies, and climate and energy related frameworks at different governance levels. This fragmented institutional and strategic landscape represents a key challenge for the systematic implementation of sustainable mobility measures across the country, especially outside major urban centres.

Despite the absence of a unified national sustainable mobility strategy, the existing legal and regulatory framework provides a generally enabling environment for the development of electric mobility and low carbon transport solutions. Current regulations allow the deployment of electric vehicle charging infrastructure, the introduction of pilot projects, and the implementation of incentive based measures for cleaner transport technologies. However, national level frameworks tend to remain broad and non-operational, offering limited guidance on implementation modalities, particularly for rural territories with specific spatial, demographic, and economic characteristics.

From a funding and investment perspective, national and entity level strategies strongly rely on external financing sources, including European Union programmes and international financial institutions. These instruments are primarily designed to support large-scale or strategic investments, often prioritising urban areas and main transport corridors.

The regional Sustainable Mobility Strategy of the Una-Sana Canton complements national level orientations by translating general policy objectives into territorially adapted and phased measures. While entity strategy articulate long term goals related to electrification, emission reduction, and smart mobility, the regional strategy operationalises these goals through concrete actions tailored to rural and semi urban contexts.

Overall, higher level strategies in Bosnia and Herzegovina provide an important strategic backdrop for the advancement of sustainable mobility, but their effectiveness depends largely on regional and local implementation capacities.



5.7 Remarks from other strategies at national level in Italy

Italy's **national policy frameworks** provide the backbone for the country's transition to climate-neutral mobility, yet most measures historically prioritise metropolitan areas, industrial hubs, or strategic transport corridors. Rural and peri-urban municipalities often face difficulties in accessing funding, developing integrated mobility plans, or attracting private investment for electric mobility services. The **RuralEV pilot in Oltrepò Mantovano** demonstrates how targeted local actions can complement these national frameworks, filling gaps in rural coverage while reinforcing regional sustainable mobility strategies.

Key strategies and programmes

- **Piano Nazionale Integrato per l'Energia e il Clima (PNIEC) 2023–2030**
 - The PNIEC establishes national targets for renewable energy and transport decarbonisation, including a 21–24 % renewable energy share in transport by 2030 and a reduction of 43.7 % in non-ETS sector emissions. The plan promotes electrification of vehicles, adoption of hydrogen for transport, and integration of renewable energy into mobility infrastructures. While its measures focus largely on urban centers and high-traffic corridors, the RuralEV pilot ensures that small municipalities contribute to achieving these targets, generating early data on rural charging demand and usage patterns that can inform national policy adjustments.
- **Legislative Framework on Alternative Fuels (Legislative Decree 257/2016 and subsequent amendments)**
 - Italy has transposed EU directives on alternative fuels into national law, establishing minimum coverage requirements for EV charging stations along TEN-T corridors and simplified permitting for operators. High-power chargers for heavy-duty vehicles (≥ 350 kW) are required along core networks by 2030. While these regulations incentivise urban and motorway deployments, rural areas often remain underserved due to lower traffic density and uncertain business cases. The RuralEV pilot demonstrates practical deployment models for villages, showing how small-scale AC chargers can be integrated with public services, schools, and health centers, providing evidence for policy refinements that encourage equitable infrastructure distribution.
- **National funding instruments supporting sustainable mobility**



- The **PNRR (National Recovery and Resilience Plan)** and the **MITE Green Transition Fund** provide substantial resources for e-mobility, hydrogen infrastructure, and fleet electrification. Grants and low-interest loans target public transport operators, municipalities, and private fleets. Yet, rural municipalities frequently lack the technical capacity to prepare competitive applications or manage funded projects. By gathering operational data, the RuralEV pilot supports municipalities in drafting project proposals, leveraging national incentives, and demonstrating the feasibility of rural e-mobility initiatives.
- **National support for planning and capacity building**
 - The Ministry of Infrastructure and Mobility, in collaboration with the **Osservatorio PUMS** and EU advisory initiatives (such as JASPERS), promotes Sustainable Urban Mobility Plans (PUMS) and training for local authorities. Rural municipalities often cannot implement full-scale SUMPs due to limited staff and budgets. The pilot provides a **data-driven foundation for simplified mobility plans**, ensuring that small villages adopt strategic interventions aligned with national objectives, including active mobility, multimodal integration, and digital ticketing.

Impact on regional strategies and long-term sustainability

By embedding chargers within community hubs and linking them with shared mobility services, the RuralEV pilot strengthens the **regional sustainable mobility strategy of Lombardy**, demonstrating how national-level targets and funding can be translated into tangible benefits for rural areas. The pilot fills gaps left by urban-focused programs, provides replicable operational models, and generates actionable insights for national policymakers. Ultimately, it contributes to **equitable implementation of NECP goals**, supporting the scale-up of rural e-mobility and informing future national policies to ensure small municipalities are included in Italy's green transition.

The Suzzara pilot project represents a strategic milestone in building a new model of sustainable mobility for Italy's inland and rural areas. The combination of shared electric vehicles, charging infrastructure, and a digital MaaS platform offers a practical and replicable solution that aligns with regional and national goals for decarbonization and transport innovation. The insights and data gathered through the pilot provide concrete guidance to address key challenges such as accessibility, modal integration, financial sustainability, and regulatory adaptability.



The Suzzara experience demonstrates that even low-density territories can actively participate in the green transition when supported by targeted policies, public investment, and local partnerships. The project outlines a clear roadmap: test, adapt, replicate. Its potential to scale across the Oltrepò Mantovano Consortium—and in similar rural settings—reinforces its systemic value. This initiative stands as a reference point for developing mobility strategies that are equitable, digital, and emissions-free, fully aligned with Italy’s and Europe’s long-term sustainability objectives.



5.8 Remarks from other strategies at national level in Greece

Greece's evolving national strategy for sustainable mobility provides the broader institutional, legislative and financial landscape within which regional actions such as the RuralMED pilot unfold. Although mobility competencies in Greece are shared across multiple levels of governance, national policy remains the core driver that sets the trajectory for transport decarbonisation, electric vehicle deployment and infrastructure development. The national strategies do not simply complement regional efforts; they actively shape the conditions for success, define mandatory obligations for municipalities and regions, and create the strategic incentives that enable projects like RuralMED to become scalable, replicable models for rural and semi-urban territories. The following section provides a comprehensive overview of the national strategies, regulatory frameworks and investment programmes that underpin the Greek transition to electromobility, with a particular emphasis on how these elements reinforce the long-term sustainability and replicability of the RuralMED interventions in Western Macedonia.

Greece's national approach to sustainable mobility has undergone substantial transformation since 2019. Prior to that period, the country had extremely low penetration of electric vehicles, negligible public charging infrastructure and an ageing internal-combustion fleet that placed it among the least prepared EU members for low-emission mobility. This situation began to change rapidly following the adoption of Law 4710/2020 on the Promotion of Electromobility, which for the first time consolidated incentives for EV purchases, defined the regulatory architecture for charging providers, set the requirements for municipal charging plans and introduced clear obligations for the electrification of public and private fleets. Since then, successive national strategies—including the Climate Law 4936/2022, the revised NECP 2025, the National Electromobility Plan of 2023 and the national implementation plans for the Recovery and Resilience Facility—have progressively strengthened the country's commitment to transport electrification and have established a comprehensive policy ecosystem that now guides mobility transition across all regions.

The national policy framework acknowledges the profound structural challenges the country faces. Greece's vehicle fleet remains among the oldest in Europe, with private cars averaging over 16.6 years and commercial vehicles often exceeding two decades of use. This presents severe implications for air quality, climate change, public health and fuel dependency. At the same time, national assessments show that over two-thirds of households in major cities lack private parking, limiting the feasibility of home charging and increasing the pressure to develop publicly accessible charging networks. Outside metropolitan areas, the situation differs but remains challenging: rural regions like Western Macedonia are characterised by long travel distances, dispersed settlements, low-density built environments, and high dependence on private vehicles. These areas require tailored interventions because market-driven deployment of charging infrastructure is insufficient to meet future demand or support equitable access to clean mobility.

Against this background, national strategies explicitly recognise that the transition to electromobility must be geographically inclusive. This recognition is particularly relevant for Just Transition regions such as Western Macedonia, where the mobility transformation intersects with the wider regional goal of moving away from lignite-based economic structures. For these regions, electrification of public services, deployment of renewable-power charging



stations and development of efficient mobility networks are not only environmental imperatives but also essential elements of economic restructuring, air-quality improvement and social cohesion. The RuralMED pilot's integrated approach—situating public charging infrastructure within administrative and social-service nodes, utilising electric vehicles for regional administration and elderly care and generating high-quality operational data—fits precisely into this national narrative of targeted interventions that serve both climate and social objectives.

National mobility strategy is anchored in the NECP 2025, which outlines transport-sector emission reduction trajectories, electric vehicle uptake scenarios, infrastructure requirements and the integration of renewable energy in mobility. The NECP explicitly states that electric mobility constitutes the most viable pathway for achieving EU CO₂ performance standards, while also emphasising the need to develop nationwide charging infrastructure to support increasing EV adoption. It provides annual projections for EV penetration across multiple scenarios, which inform both national planning and regional strategies such as those prepared in RuralMED. For Western Macedonia, these projections are critical because they provide the empirical basis for forecasting electricity demand, sizing charging infrastructure and identifying where future high-power chargers may be needed as the region approaches 2030.

Complementing the NECP, the National Electromobility Plan provides an operational roadmap for the transition. It organises interventions into three strategic axes: vehicle electrification, infrastructure development and ecosystem integration. This includes incentive programmes for electric cars, light commercial vehicles, buses, taxis and micromobility; subsidies and tax incentives for home and workplace chargers; deployment of fast-charging stations along motorways and major interurban corridors; and the development of digital tools for EV management, reservation and real-time information. Importantly, the plan emphasises the need for infrastructure deployment in areas that are traditionally underserved—rural regions, island communities, mountainous areas and places with dispersed populations. This is where the RuralMED pilot becomes highly relevant: its deployment in Kozani and Amyntaio demonstrates precisely the type of localised, service-integrated and socially impactful electrification model that the national strategy seeks to scale.

Several national laws and regulatory frameworks reinforce these strategic directions. Law 4710/2020 remains the national reference point for electromobility, defining the market's operational model, ensuring technical interoperability, requiring minimum accessibility features and establishing standards for public chargers. It also mandates that every municipality develop an EV Charging Plan (EVCP), ensuring that local authorities systematically identify appropriate charging locations and integrate charging infrastructure into local development tools. Law 4784/2021, which establishes the national framework for Sustainable Urban Mobility Plans, links mobility planning to funding eligibility, effectively requiring local authorities to embed electromobility within their mobility strategies. The Climate Law 4936/2022 introduces binding sectoral emissions targets, providing additional pressure for local authorities and regions to take immediate action in the transport sector.

In addition to regulations, the national government has developed a suite of financial instruments that directly advance the mobility transition. The “I Move Electric” scheme provides subsidies for electric cars, vans, two-wheelers, bicycles and charging equipment, supporting both households and corporate fleets. The RRF-funded programme “I Charge



Everywhere” accelerates the deployment of public chargers, particularly those that serve urban and peri-urban mobility. The Just Transition Fund, which specifically targets Western Macedonia, finances clean and sustainable mobility solutions as part of the region’s economic restructuring. Tax incentives, including reduced taxation for EV benefit-in-kind valuations and accelerated depreciation for corporate EV purchases, improve the business case for electrifying company fleets. The availability of these national funding mechanisms significantly reduces the cost burden on municipalities and regional authorities, making it easier for them to scale the type of interventions piloted by RuralMED.

The “I Move Electric” (Κινούμαι Ηλεκτρικά) scheme is Greece’s flagship national subsidy programme designed to accelerate the adoption of electric vehicles and small-scale charging infrastructure among both private individuals and businesses. For private citizens, the programme provides a subsidy of €3,000 for the purchase or leasing of an electric car with a pre-tax retail price up to €50,000, with an additional €1,500 scrappage bonus and €400 for the purchase of a smart home charger. Enhanced incentives apply to specific social groups: an extra €1,000 for persons with disabilities (AMEA), €1,000–€2,000 for large families depending on the number of dependent children, and €500 for young buyers up to 29 years old. The scheme also subsidises electric microcars and professional tricycles (L5e–L7e) at 30% of pre-VAT value up to €1,500, electric mopeds and light two-wheelers (L1e–L4e) at 20% up to €700, and electric bicycles at 30% up to €500. For companies, the programme offers similar purchase or leasing subsidies of €3,000 per electric car, combined with a €1,500 scrappage bonus and €400 for each smart charger installed. Corporate incentives also cover professional electric tricycles and microcars (30% subsidy up to €1,500) as well as electric mopeds (20% up to €700). Courier, delivery and tourism companies are additionally eligible for support to acquire up to 10 electric bicycles. Businesses operating on Greek islands receive a further €1,000 per electric vehicle, reflecting national priorities for clean mobility in vulnerable and remote regions.

The “Green Taxis” (Πράσινα Ταξί) programme is a dedicated national subsidy scheme aimed at accelerating the replacement of conventional taxi vehicles with zero-emission electric taxis across Greece. Implemented under the National Recovery and Resilience Plan “Greece 2.0”, and financed by the European Union’s NextGenerationEU, the programme supports taxi owners in retiring older, polluting vehicles and transitioning to modern, fully electric models. The scheme offers a substantial eco-bonus covering 40% of the pre-tax vehicle price (ΑΤΠΦ), up to a maximum of €17,500 for the purchase of a battery-electric taxi (BEV). A mandatory scrappage requirement applies to the old taxi, for which the owner receives an additional €5,000, further lowering the net acquisition cost. To facilitate home or depot charging, the programme also provides a grant of €500 for the purchase of a smart charger. Additional top-up subsidies of up to €1,000 are available for priority groups, including:

- Drivers with disabilities (ΑμεΑ),
- Families with at least three dependent children, and
- Young taxi owners up to 29 years old who already hold a taxi operating licence.

Eligible beneficiaries include all owners of EURO 5 or older taxis, reflecting the programme’s focus on phasing out high-emission vehicles from urban transport fleets. Each licence holder is entitled to acquire one fully electric, zero-emission taxi per taxi licence, either through direct purchase or via professional leasing.



The “I Charge Everywhere” (Φορτίζω Παντού) programme is Greece’s flagship national initiative for accelerating the rollout of publicly accessible EV charging stations across the country. Implemented under the National Recovery and Resilience Plan (Greece 2.0) and financed by the European Union – NextGenerationEU, the programme aims to create a comprehensive, geographically balanced national charging network that ensures accessibility for urban, peri-urban and rural areas while fostering healthy market competition among charging operators. The programme provides substantial financial support for the procurement, installation and grid connection of public EV charging stations powered exclusively by electricity from renewable energy sources. Eligible installation sites include municipal spaces, public roads, parking facilities, fuel stations, motorways, airports, marinas, and other public-access locations. The scheme is intentionally broad in terms of beneficiaries, covering private companies, cooperatives, agricultural organisations, SMEs, municipal enterprises and public bodies, recognising that diverse actors must contribute to achieving nationwide charging coverage. Beneficiaries are divided into two main categories. Category I includes entities that own or hold exclusive rights to the space where a station will be installed and who collaborate with a licensed Charging Infrastructure Operator (Φ.Ε.Υ.Φ.Η.Ο.) to manage the station. Category II consists of Charging Infrastructure Operators themselves, who receive full rights to use the installation site in accordance with the concession agreement. This two-tier structure ensures that municipalities can deploy stations according to their EV Charging Plans (EVCP) through competitive concession tenders, while private operators can expand infrastructure at commercially viable sites. The programme’s grant intensity varies depending on the type of location and the characteristics of the implementing organisation. For Category A installations—stations placed on municipal land included in official EVCPs—subsidy levels are defined through concession contracts, with upper limits set by ministerial decision and adjusted according to municipal population. For Category B installations—stations located in all other publicly accessible areas such as fuel stations, parking garages or TEN-T corridors—the subsidy rate depends on both the size of the enterprise (large/medium/small) and the region where the infrastructure is installed. Support ranges from 20% for large companies in densely populated areas to up to 65% for small enterprises in less developed regions, such as Thrace.

The “Antonis Tritsis” programme of the Ministry of Interior is one of Greece’s most important national financing instruments for local authorities, supporting large-scale municipal investments in sustainability, smart cities and public infrastructure. Within its thematic priorities, the programme includes a dedicated electromobility axis, which finances the procurement of electric public-service vehicles and the installation of municipal charging infrastructure. This makes it a key national tool for accelerating the electrification of municipal fleets and improving local charging availability in both urban and rural areas. Through this programme, municipalities can acquire a wide range of electric utility vehicles, including waste-collection trucks, small and medium vans, pick-up vehicles, electric cars for administrative use, and small electric buses for local transport services. Funding also covers the purchase and installation of municipal charging stations, enabling local authorities to build the infrastructural backbone required to operate their electrified fleets. As a result, the programme promotes cleaner, quieter and more efficient public services, while helping municipalities modernise their fleets with low-emission technologies. Several municipalities across Greece, including those in Western Macedonia, have already secured funding under the Antonis Tritsis programme to



install public chargers and procure electric vehicles, gaining practical experience that facilitates further scaling of electromobility initiatives. Its broad eligibility criteria allow not only large cities but also smaller rural municipalities to participate, making it an important mechanism for reducing territorial inequalities in access to green mobility. By enabling local authorities to modernise their vehicle fleets and expand their charging infrastructure at minimal financial burden, the Antonis Tritsis programme acts as a significant national lever for municipal decarbonisation. In regions like Western Macedonia—currently undergoing a Just Transition from lignite-based activities—it provides the financial capacity and institutional support needed to replicate and expand pilot actions such as those developed under RuralMED. Ultimately, the programme supports the creation of cleaner public services, strengthens local climate action, and contributes to a coherent national pathway toward sustainable and inclusive mobility.

Thus, the national strategies also place strong emphasis on digitalisation and smart mobility. The National Electromobility Plan recognises that the long-term success of electrification depends on smart-charging systems, interoperable digital platforms, open data standards, telematics integration and consumer-friendly user interfaces. These elements align precisely with the digital backbone developed in RuralMED, including OCPP-enabled chargers, vehicle telematics, data analytics and ICT integration for real-time monitoring. The pilot thus contributes directly to national objectives of building intelligent and digitally integrated mobility ecosystems, providing the Ministry with high-quality operational data for refining national planning assumptions.

Taken together, these national strategies create a coherent and highly supportive environment for the RuralMED pilot. They justify the electrification of public-service fleets in Kozani and Amyntaio, provide the financial and regulatory tools necessary for replication, establish national objectives that require rural and semi-urban electrification, and ensure that mobility planning at the municipal level incorporates EV infrastructure into long-term development trajectories. In turn, the RuralMED pilot demonstrates how these national ambitions can be operationalised in real contexts: how public-service fleets can transition to electric mobility, how charging infrastructure can be strategically sited to maximise impact, how rural populations can benefit from clean transport and how data-driven approaches can guide infrastructure expansion.

For Greece, the analysis of the current strategy, the roadmap, and the national framework shows that Western Macedonia already has most of the strategic pieces for a sustainable, e-mobility-oriented transition in place; what RuralMED adds is operational proof, localisation in rural contexts, and a concrete model for scaling. At regional level, Western Macedonia does not rely on a single “sustainable mobility strategy” document, but on a dense architecture of transition instruments: the Just Development Transition Plan (SDAM), the Programme for Just Development Transition (PDAM), the Territorial Plan, the Regional OP and national OP “Transport”, municipal EV Charging Plans (EVCs), SUMP and SECAPs. Together, these define a clear direction: deployment of a dense public charging network, electrification of public and municipal fleets, integration of e-mobility into urban and rural mobility planning, and the use of public–private partnerships to scale infrastructure. SDAM and the Territorial Plan explicitly place e-mobility inside the region’s post-lignite development model, even envisaging an “electric mobility industrial park” and related manufacturing activity, while PDAM dedicates



specific resources and targets to public charging infrastructure, with at least 86 recharging points planned in Just Transition areas by 2029.

At municipal level, Western Macedonia is comparatively advanced. All municipalities have prepared EVCPs, which provide the detailed spatial and technical blueprint for public charging infrastructure, including in small settlements and village centres. In Kozani, the EVCP uses demographic and fleet projections to design a combined model of commercially attractive sites and socially equitable, neighbourhood-based overnight charging; in Amyntaio, the EVCP covers the whole dispersed municipal territory and is now a prerequisite for tapping Just Transition and RRF funds. The SUMP of Kozani adds a broader sustainable mobility vision, prioritising active modes, public transport, traffic calming and explicitly the increase of electric vehicles as part of the decarbonisation mix. Kozani's Climate Neutral City Contract under the EU Mission "100 Climate-Neutral and Smart Cities by 2030" then upgrades this ambition, with quantified targets for municipal and private fleet renewal, 200 new chargers, low-emission zones and smart mobility systems, placing e-mobility firmly at the core of a 2030 net-zero mobility pathway. SECAPs, such as that of Amyntaio, further underline the role of transport and fleet upgrades in local emissions reduction trajectories.

The regional roadmap developed under RuralMED builds directly on this architecture and translates it into a phased, evidence-based trajectory for Western Macedonia. In the short term (2024–2026), the pilot in ZEP Kozani and Amyntaio delivers real operational demonstrations: two 22 kW AC chargers and two EVs embedded in regional administrative services and the "Help at Home" programme. This is not symbolic infrastructure: it replaces gasoline vehicles consuming about 1,600 litres/year each, generates significant fuel cost savings, cuts roughly 8 tonnes of CO₂ per year, and serves highly visible and socially important use cases. At the same time, the pilot introduces digital monitoring (OCPP chargers + telematics), providing the first high-quality dataset on rural EV operations in the region and directly feeding updated SUMPs, EVCPs and PDAM/NECP monitoring. In the medium term (to 2030), the roadmap foresees network expansion with additional AC chargers in municipal service hubs and rural settlements, selective DC chargers at key regional nodes, coupling with PV and storage, and progressive electrification of municipal and regional fleets, aligned with NECP projections, Just Transition funding and national incentives. Beyond 2030, the roadmap anticipates a mature ecosystem where EVs become the norm for public services, clean mobility extends to every municipality and village, and hydrogen or other alternative fuels complement electrification for specific heavy-duty or long-distance uses.

Nationally, Greece has in the last five years constructed a very supportive electromobility framework that strongly reinforces these regional dynamics. Law 4710/2020, the Climate Law 4936/2022, the NECP 2025 and the National Electromobility Plan 2023 define the legal obligations, targets and market model for EVs and chargers. They mandate EVCPs and SUMPs, set binding emissions-reduction pathways and position electric mobility as the main route to meet EU CO₂ standards. Financially, programmes such as "Κινούμαι Ηλεκτρικά" (I Move Electric), "Πράσινα Ταξί" (Green Taxis), "Φορτίζω Παντού" (I Charge Everywhere) and the "Αντώνης Τρίτσης" municipal investment programme provide multi-layered incentives: subsidies for EV purchases and scrappage, support for smart home and workplace chargers, grants for public charging stations on municipal land and along TEN-T corridors, and funding for electric municipal utility vehicles and local charging hubs. For Western Macedonia, these tools are further enhanced by Just Transition Fund and Development Law regimes that offer



higher aid intensities for e-mobility investments. Taken together, they reduce the financial risk of fleet electrification and infrastructure rollout and make scaling of the RuralMED model technically and economically feasible. From the perspective of Greece and Western Macedonia, three main conclusions emerge:

- First, strategic alignment is very high. The regional transition instruments (SDAM, PDAM, Territorial Plan), local planning tools (SUMP, EVCPs, SECAPs) and national strategies (NECP, National Electromobility Plan, climate and e-mobility laws) all point in the same direction: dense public charging networks, rapid fleet electrification, digitalised mobility, and explicit attention to Just Transition regions and rural territories. RuralMED does not operate on the margins of policy; it sits exactly in the convergence zone of these strategies.
- Second, despite this strong framework, there is still a clear implementation gap in rural areas, driven by uneven infrastructure, behavioural barriers, low EV penetration and institutional capacity limitations in small municipalities. The analysis and roadmap show that without targeted pilots and data-driven planning, there is a risk that national and regional objectives remain concentrated in urban centres like Kozani, leaving smaller towns and villages behind. The RuralMED pilot directly addresses this gap by installing infrastructure where it previously did not exist (Amyntaio), embedding EVs in social care and regional services, and demonstrating that e-mobility can function reliably in real rural conditions, harsh winters and dispersed settlement patterns.
- Third, the combination of pilots, digital data and funding instruments provides a credible pathway for replication and scaling.

Tus, the conclusions from the roadmap are that Western Macedonia can now move from fragmented, project-based actions to a coherent, region-wide deployment strategy: expanding chargers along the nodes identified in EVCPs and the RuralMED analysis; prioritising public-service and shared vehicles; exploiting national schemes such as “I Charge Everywhere” and “Antonis Tritsis” for infrastructure and fleet; and integrating all of this within updated SUMPs and climate-neutrality plans. If these steps are followed, Western Macedonia can become a reference region for rural e-mobility in Greece and the wider MED area, showing how a former coal region can use electromobility to deliver climate benefits, social inclusion and new economic opportunities in parallel.



6 Conclusions

The analysis of the sustainable mobility frameworks across the eight RuralMED regions highlights a shared strategic ambition to decarbonise transport systems, while at the same time revealing significant structural, territorial and institutional differences that directly affect the implementation of electric mobility solutions in rural and remote areas.

Across all regions, electric mobility is clearly recognised as a priority within national or regional policy frameworks, particularly in relation to climate neutrality, energy transition and reduction of greenhouse gas emissions. However, the degree of policy maturity and operational readiness varies substantially. Regions such as Spain (Extremadura), Slovenia and Italy benefit from relatively consolidated planning instruments, including comprehensive mobility strategies, electric vehicle promotion plans and structured funding mechanisms. In contrast, other territories, such as Bosnia and Herzegovina and parts of Bulgaria, operate in contexts where integrated rural mobility strategies are either emerging or largely absent, requiring regional and project-driven initiatives to bridge policy and implementation gaps.

Despite these differences, a common challenge emerges across all participating regions: the persistent imbalance between urban and rural areas in the deployment of electric mobility infrastructure and services. Charging networks, incentives and pilot investments remain predominantly concentrated in cities and along major transport corridors, while rural areas continue to face limited accessibility, lower market attractiveness and reduced institutional capacity. This imbalance reinforces car dependency and range anxiety in rural communities and risks widening territorial inequalities in the transition to low-carbon mobility.

The RuralMED project responds directly to this shared challenge by positioning rural territories not as secondary beneficiaries of urban-oriented strategies, but as testing grounds for context-adapted, scalable and socially inclusive electric mobility solutions. The regional analyses demonstrate that RuralMED pilot actions are consistently aligned with higher-level policy objectives—whether climate plans, energy strategies or transport frameworks—while translating them into concrete, locally relevant interventions. In several regions, the pilots act as catalysts for the development or refinement of regional mobility strategies, ensuring that future planning is grounded in operational experience rather than purely strategic intent.

Another transversal finding is the growing importance of integrated approaches combining infrastructure, services, governance and data. Successful rural e-mobility deployment cannot rely solely on the installation of charging points. Instead, it requires coordination with demand-responsive transport services, shared mobility schemes, municipal fleet electrification, renewable energy integration and digital platforms for monitoring and management. Regions such as Slovenia and Spain illustrate how pilot monitoring and data collection can inform evidence-based scaling-up, while experiences from Greece and Italy highlight the role of targeted funding instruments and industrial strategies in reinforcing long-term sustainability.

Capacity building and institutional support emerge as critical enabling factors. Many rural municipalities lack the technical expertise, financial resources or administrative capacity to independently design and implement sustainable mobility measures. RuralMED contributes to closing this gap by fostering transnational knowledge exchange, providing practical implementation models and strengthening the role of regional agencies as coordinators and facilitators. This dimension is particularly relevant in regions undergoing structural transitions,



such as Western Macedonia in Greece or coal-affected areas in Bulgaria, where e-mobility is simultaneously an environmental, social and economic transformation tool.

However, the existence of well-developed strategies does not automatically guarantee successful implementation. One of the key lessons emerging from this report is that many European regions have already produced ambitious mobility plans, yet practical deployment often remains limited due to administrative complexity, funding constraints or a lack of operational experience. In this regard, the most advanced RuralMED regions still face the challenge of moving from planning to action, transforming strategic objectives into tangible mobility services and infrastructure capable of generating measurable benefits for citizens

From a transnational perspective, the comparative analysis confirms the added value of cooperation across Mediterranean rural regions. While national regulatory frameworks and funding conditions differ, the underlying challenges—territorial dispersion, low population density, seasonal demand and limited commercial viability—are largely shared. RuralMED demonstrates that transferable solutions exist, provided they are sufficiently flexible and adapted to local contexts. The project thus lays the groundwork for replication beyond the pilot areas, contributing to a more balanced and resilient transition to sustainable mobility across the Euro-MED area.

Ultimately, RuralMED Mobility confirms that the transition to sustainable mobility in rural areas requires both robust strategic frameworks and concrete implementation actions. The combination of policy development, pilot testing and knowledge transfer developed within the project provides a strong foundation for future investments and offers a replicable model for other rural and remote territories across the Euro-Mediterranean region seeking to accelerate their transition towards a more sustainable, resilient and inclusive mobility system

In conclusion, the Sustainable Mobility Strategies developed within RuralMED represent a significant step towards embedding electric mobility in rural policy frameworks. By combining strategic alignment, pilot-based learning and transnational cooperation, the project strengthens the capacity of rural regions to actively participate in the energy and mobility transition. The outcomes of this deliverable provide a solid foundation for the subsequent implementation phases, ensuring that future investments are coherent, evidence-based and capable of delivering long-term environmental and territorial benefits.