

Interreg Europe EMOBICITY

Azores Action Plan

April 2022



General information

Project acronym	EMOBICITY
Index number	PGI05092
Partner organisation	Regional Directorate for Energy Azorean Government
Country	Portugal
NUTS 2 Region	PT20 – Autonomous Region of the Azores
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The Action Plan aims to impact	Other regional development policy instrument
Policy instruments addressed	Plan for Electric Mobility in the Azores (PMEA)
Edition	April 2022
Reference	Azorean Directorate for Energy, <i>Interreg EMOBICITY Azores Action Plan (2022)</i>
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Abstract

The efficient use of public funding is a recurring concern of the Azorean Government and strongly affects the structure and regulations of the funds themselves. EMOBICITY, one of these projects, seeks to improve low-carbon economy policies, as to facilitate the take up of electric mobility at a national and regional level. The Autonomous Region of the Azores, through the Regional Directorate for Energy, has been focusing on optimising the Plan for Electric Mobility in the Azores (PMEA), which assembles most interventions financed by the Autonomous Region of the Azores' annual budget and the EU complementary funds.

Several obstacles and their related solutions for the efficient use of the European Regional Development Fund (ERDF) funding were identified through an interregional learning process that involved staff from public authorities and representatives of relevant stakeholder groups, as well as local seminars and site visits. Said obstacles include: initial investment in electric vehicles remains costly and therefore a challenge when implementing e-mobility, not only for individuals/families, but also for companies; the public network of charging stations is of great importance in the Azores, but there is a need for more infrastructures, especially in residential areas; also, this is a very recent type of technology, so it constantly needs to be brought to public attention. To overcome these obstacles, and, taking into consideration what has been learnt, one action is proposed to improve the PMEAs: extending the geographical coverage of the public network of charging stations for electric vehicles, using the EMOBICITY experience to identify the most suitable place to install this equipment (therefore assuring an adequate geographical coverage).

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1 Introduction

The ERDF provides financial support for the development and structural adjustment of regional economies, economic change, enhanced competitiveness, and territorial cooperation throughout the EU.

Interreg Europe co-finances project activities carried out by partnerships between policy organisations based in different European countries. Through interregional cooperation projects, partners must identify a common interest and then work together for the period of three to five years. Partners will begin by sharing experiences, ideas, and expertise on how best to deal with the issues at hand, and, from there, produce an action plan such as the one presented in this document.

EMOBICITY is one of the projects co-financed by Interreg Europe. This project seeks to improve low-carbon economy policies as to facilitate the take up of electric mobility at a national and regional level. EMOBICITY activities envision an interregional learning process involving staff from public authorities and representatives of relevant stakeholder groups. This learning process results in the identification of best practices for the improvement of regional policy instruments supporting electric mobility and the use of renewable energy sources. A key element of the project is interregional site visits, where project partners share strategies and experiences on specific themes and brainstorm with policymakers and stakeholders to select a number of best practices. Together with the interregional site visits, partner regions organise seminars with local stakeholders to present the results of the interregional learning process and develop guidelines for the drafting of the action plans.

EMOBICITY brings together a total of six partners. The Regional Directorate for Energy (*Direção Regional da Energia*, in Portuguese) is the entity of the Azorean Government (*Governo dos Açores*) responsible for all energy-related matters. It follows up on all energy vectors within the Azores, as well as their local production and use. It oversees energy-related installations, such as those of the local electricity utility, filling stations and gas networks. It is responsible for adopting European and national legislation to the regional context, as well as proposing its own. It mobilises the regional programmes for energy, such as energy efficiency, renewable energy production, energy transition, sustainable mobility, promotion of energy literacy and cooperation with other regions. This Regional Directorate is composed of around 40 people with a multidisciplinary background that have the support of a widespread network of diverse stakeholders. The main challenges for this Directorate directly relate to its mission of balancing out a secure, accessible, and sustainable energy system in the Azores. The small dimension of the islands hinders economies of scale, while the distance to the mainland and the geographical dispersion of the nine islands constitute an even greater challenge. Specific market solutions must

be adopted, encouraging private investment within a public framework, making for a unique Living Lab. Nowadays, the Regional Directorate is focused on the development of a long-term energy policy towards decarbonisation that promotes stability and attenuates uncertainty relative to the energy supply. This policy promotes energy efficiency and the use of renewable electricity, the transition to electric mobility, and the development of energy storage to reduce the need for grid stabilisation from thermal power plants. New legislation is also underway, envisaging a higher degree of market liberalisation.

The policy addressed by the Regional Directorate for Energy within the context of this Action Plan concerns the Plan for Electric Mobility in the Azores (PMEA). Approved by Government Council Resolution 106/2019, the PMEA was developed by the Government of the Azores for the period between 2018 and 2024. It is a guide for the implementation of electric mobility in the Region that integrates the diagnoses of several activity sectors. In addition, the PMEA is validated by diagnoses and simulations that support the proposed measures. Furthermore, the PMEA is financed by the Autonomous Region of the Azores' annual budget and the EU complementary funds.

The Action Plan first presents the project activities regarding local meetings, seminars, and regional analysis in section 2, followed by the best practices and interregional learning process in section 3, which paves the way for the proposed action in section 4, summing up with the conclusion in section 5.

2 Local meetings, seminars, and regional analysis

Local meetings and seminars are essential tools of diagnosis that enable greater participation and engagement from stakeholders. In total, five events have been organised so far (Table 1), focusing on several areas of activity, from energy-related to municipalities, companies, hotels, and schools, as well as the general public.

Event	Date	Location	Designation	Target
1	2019-12-18	São Miguel Island	1 st Local focus group	All
2	2020-06-25	Online	2 nd Local focus group	All
3	2020-11-11	São Miguel Island	3 rd Local focus group	Schools
4	2021-07-14	Online	4 th Local focus group	Energy sector, hotels, and transport
5	2021-11-17	Terceira Island	5 th Local focus group	Fire brigade

Table 1 – Local meetings and seminars.

EMOBICITY planned one local focus group meeting per semester, held by each participating country. Up to semester 5, five meetings were organised by the Regional Directorate for Energy (DREn) and ADENE – Portuguese Energy Agency, which focused on the public charging station network for electric vehicles, incentive schemes for the acquisition of electric vehicles and charging stations developed by the Azorean Government and e-mobility in general.

Participation

To ensure representative participation, a triple helix framework was used to identify potential participants and organise the topics of the different events (Figure 1). Overall, it was possible to reach a widespread audience, with relevant stakeholders from all sectors, especially the energy-related ones targeted by EMOBICITY, but also related to governance and civil society.

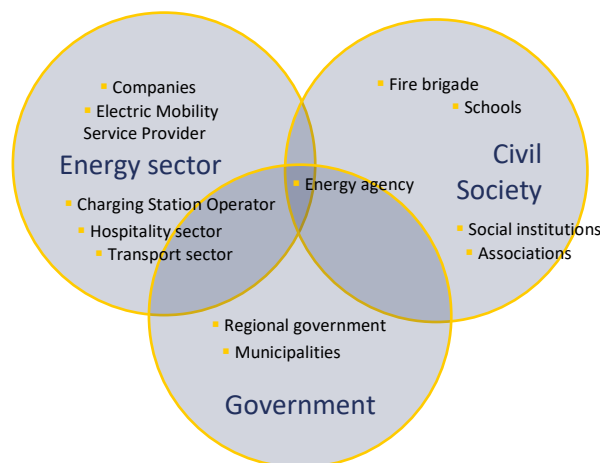


Figure 1 – Range of participants within the triple helix framework.

The events accounted to a total of 158 participants (Table 2), all of which provided very helpful feedback on the project, as well as invaluable information for the analysis of the current e-mobility situation and identifying suitable solutions. In order to guarantee participation, it was essential to invite participants in advance and ensure that the subject is relevant to them. Although it was not possible to identify the stakeholders involved in the 2nd local focus group, being an online (and live) event, both energy-related stakeholders and civil society were targets we managed to reach.

Stakeholder	Event				
	1	2	3	4	5
Associations	1				
Charging Station Operator				1	
Companies	8			2	2
Electric Mobility Service Provider				1	
Energy agency	1		3	2	2
Fire brigade					11
Hospitality sector				1	
Municipalities	15			1	
Regional government	18		3	5	4
Social institutions	1				
Schools	8		24		
Transport sector				1	
Total	44	50	30	15	19

Table 2 – Participants in local meetings and seminars.

In future events, the participation of academia and civil society must be reinforced, ensuring that all sectors are adequately represented. This will provide greater legitimacy to the results obtained. There has been a common understanding that these meetings were crucial both to learn about and promote e-mobility in the Azores.

Results

EMOBICITY aims to strengthen the capacities of all key stakeholders on e-mobility, especially regarding policy making. Several e-mobility issues were addressed and assessed during Phase 1. Initially, an overall analysis of the existing challenges, and opportunities, was performed, for the implementation of electric mobility in the Region. This analysis was based on the existing literature, previous work and, most importantly, on the organised project events, where the participants provided major feedback on these obstacles, as well as suitable solutions.

Overall, the following key aspects were identified:

- There is a common understanding among regional stakeholders that electric mobility is essentially relevant to promote the following: less energy dependence; increased use of renewable energy in the transport sector; increased energy efficiency; reduction of GHG emissions and noise level; increased penetration of renewable energy in electricity production, through overnight charging of e-vehicles.
- Legislative framework and energy policy strategic documents towards e-mobility promotion are key.
- The management of energy in an archipelago with 9 islands is a big challenge, because there is no grid connection between the Azorean islands. This implies that each island should have at least one charging station for an effective public charging station network to exist. This constitutes itself as a special challenge for smaller islands, due to either lower population density or smaller car dealers' market (particularly e-vehicles), which consequently results in a low possibility of e-vehicle circulation.
- The Azorean archipelago is highly dependent on fossil fuels (about 90%). In 2019, regarding transport, around 30% of fossil fuels were used by road transport. Since most citizens drive their own vehicle, there are no railways, and the public transport network is not adjusted to current needs.
- Policy instruments have proven successful in fostering e-mobility, considering the investments made by beneficiaries supported by the policy instruments. Namely, the Azores 2020 Operational Programme was essential for the implementation of electric mobility in the Azores through the financing of several projects, including the reinforcement of the public charging station network.

- Financial incentive systems to support the purchase of electric vehicles and charging stations are essential to support the implementation of e-mobility, anchored by non-financial incentives. Both national and regional incentive systems have been a success so far.
- Although significant progress has been made within the scope of e-mobility since the launch of EMOBICITY, challenges and barriers still hinder its implementation. The initial costly investment in e-vehicles continues to be a challenge for the implementation of e-mobility, not only for individuals/families, but also for companies, in spite of the incentive systems already in place. Furthermore, economic and social/cultural obstacles need to be tackled. These problems come in the form of low-income households/individuals, as well as the lack of information regarding EV autonomy. Apart from that, expanding the charging infrastructure is of great importance in the Azores, especially in residential areas.
- Lack of qualified energy personnel can be a major problem in an archipelagic, isolated region such as the Azores when it comes to technical issues. An example of this would be the lack of qualified mechanics, especially in the less populated islands.

3 Best practices and interregional learning

One of the major goals of the Interreg programme is to promote interregional learning and the sharing of best practices. This is an especially relevant goal for a region such as the Azores, where the transmission of best practices is partly hindered by geographical isolation. Any possible exchanges with other regions become a major advantage as it provides a unique opportunity for learning and improving, on a region where a critical mass on public policy is not possible. This exchange process is especially relevant in the context of EMOBICITY’s partner regions, which comprise an interesting partnership between islands and different countries and regions.

EMOBICITY has currently held several project meetings and study visits. This schedule went largely according to plan, until the Covid-19 pandemic restricted in-person meetings as well as travelling, resulting in the postponement of study visits. However, in-person events have since returned to normal.

Event	Starting date	Location	Designation
1	2019-09-24	Athens (EL)	1 st Project meeting 1 st Study visit
2	2020-07-01	Online	2 nd Project meeting
3	2020-11-04	Online	3 rd Project meeting
4	2021-05-27	Online	4 th Project meeting
5	2021-07-07	Online	5 th Project meeting
6	2021-09-20	Lisbon (PT)	5 th Study visit
7	2021-09-21	São Miguel Island (PT)	4 th Study visit
8	2021-10-04	Zagreb (HR)	2 nd Study visit
9	2021-10-06	Cluj-Napoca (RO)	3 rd Study visit
10	2021-10-25	Kassel (DE)	6 th Project meeting 6 th Study visit
11		Athens (EL)	7 th Project meeting 7 th Study visit
12	Yet to happen		High-level political dissemination event
13		To be decided	(Final) Project meeting

Table 3 – Project meetings.

Interaction with other regions allowed for a generalised acknowledgement of the challenges identified in the Results section, validating all different regional diagnoses. The study visits and workshops, including the participation of external stakeholders, served as excellent discussion points for further debate and learning opportunities. These interactions also included other aspects related to the EMOBICITY project, building on the participants’ shared responsibilities, on drafting of legislation, on the definition of public policies, on the identification of barriers, challenges and opportunities within the scope of e-mobility, as well as the preparation of calls for the regional operational programmes.

4 Policy instrument addressed

The Plan for Electric Mobility in the Azores (PMEA), approved by Government Council Resolution 106/2019, was developed by the Government of the Azores for the period between 2018 and 2024. It is a guide for the implementation of electric mobility in the Region that integrates the diagnoses of several activity sectors.

Thus, the PMEA has the following strategic objectives: reduction of GHG emissions; decarbonisation of the regional economy; promoting energy efficiency; more efficient use of the electrical system; cost reduction for families and organisations; and reputational gain of the Autonomous Region, enhancing the Azores, in the context of European islands and outermost regions, as a living lab of solutions for electric mobility.

In order to implement a programme aimed at improving electric mobility in the Azores, a set of coordinated measures was defined, aiming for the energy transition, especially in the land transport sector. In particular, the creation of a regional incentive system was proposed, complementary to the existing national ones, which should be based on incentives of different natures, namely financial, non-financial and fiscal. Also proposed was the implementation of a set of awareness-raising, information and promotion actions for electric mobility as an energy-efficient and regional environmental sustainability strategy.

Financial incentives include a system of incentives implemented by the Government of the Azores through Regional Decree-Law 4/2021/A. As for non-financial incentives, these include the gradual expansion of the public network of charging stations in strategic locations, so as to disseminate this technology and encourage potential new electric vehicle users.

Taking into account that the element of this Action Plan is the deployment of a charging infrastructure, PMEA's measure #6 'Implementation of the public charging station network' is naturally linked to it.

In this context, the improvement to the existent policy instrument is the following: when the PMEA was designed, priority was given to the implementation of the public charging network on non-urban areas by installing fast and normal charging stations of 50 kw and 20 kw, respectively, in order to tackle the range of anxiety. Today, having in mind all the information collected through the EMOBICITY project, the **lack of sufficient charging points in urban areas** is recognised and should be addressed.

5 Taking action

After having completed the analysis of the identified major challenges and having learnt best practices from other regions, this Action Plan was drafted, aiming to mitigate and overcome these challenges and optimise the allocation of EU funding, contributing to the EU goals for electric mobility. Therefore, one action within the competence scope of this project partner is proposed:

- Extending the geographical coverage of the public charging station network for electric vehicles.

Overall, the defined action is aligned with other activities within the topic of electric mobility in order to meet the PMEAs' targets and improve its deployment.

5.1 Action 1 – Extending the geographical coverage of the public network of charging stations for electric vehicles

5.1.1 Scope and description of the Action

At a national and regional level, in order to contribute to the decarbonisation of the mobility system and encourage the purchase of electric vehicles, citizens and companies have a set of financial, non-financial and tax incentives. With regard to non-financial incentives, cooperation protocols have been established with public and private entities, with the aim of promoting positive discrimination for e-vehicle users. These measures intend to boost the development of the e-mobility market through the installation of public charging stations, among other measures.

The option of the EV user for the charging solution presents advantages and challenges, both from the electrical system management and economic points of view. What user experiences have revealed is that, even if charging stations are not used on a regular basis, they are a guarantee that, in case of need, there is a solution available, contributing to fight range of anxiety and to motivate potential users to adhere to e-mobility.

The PMEAs sets several targets for 2024, all linked to the charging infrastructure, namely Measure #6: Implementation of the public charging station network, establishing that a public electric vehicle charging network should be in place, with a regional coverage, across all islands and municipalities, and connected to the Managing Entity of Electric Mobility (EGME) – Mobi.e.

As of right now, all islands and municipalities in the Azores are covered by at least one charging stations, making for a total of 39 (thirty-nine): 17 (seventeen) fast charging and 22 (twenty-two) normal.

Policy Improvement

The main goal of this Action is the deployment of charging infrastructures for electric vehicles, adapted to the needs of the public sector (municipalities, schools, urban areas, other public facilities), while also considering an adequate geographical distribution between the Azorean islands and their municipalities.

Therefore, the targeted improvements to the PMEAs are the following:

- Recognition of existing faults in the current public charging network for EVs and in the PMEAs – gaps and opportunities identification, perceived through EMOBICITY meetings, reports and good practices.
- Installation of new charging stations, that will prioritise proximity to urban/residential areas, where users may not be able to charge their EVs at home. The new charging points should ensure a balanced representation between the Azorean islands and municipalities, as well as reinforce the number of charging stations within the scope of the regional public access network, connected to the Managing Entity of Electric Mobility (EGME) – Mobi.e – 40 new charging points installed, adequately distributed, using EMOBICITY's experience and good practices.

As the PMEAs also foresees the existence of several targets, including one related to the deployment of normal charging stations of public access, this Action will be key in improving the governance of the PMEAs. This will be achieved, more specifically, by improving the new call structure. Initially, the PMEAs prioritised the implementation of the public charging network in non-urban areas, by installing fast and normal charging stations of 50 kw and 20 kw respectively, in order to tackle the range of anxiety. Although defined as available to public access, no particular locations were initially defined. The new call, however, will implement a new two-way approach, in coordination with regional municipalities:

1. Determine that the installation of new charging stations for EV prioritises urban areas.
2. Identifying the sites where the charging stations will be deployed a priori, with particular attention to urban/residential areas – this is particularly relevant in order to overcome a shortcoming recognised at the LSG meeting #4.

Action

The Regional Directorate for Energy intends to expand the public charging station network for EV by acquiring 40 charging stations to be installed in several Azorean islands.

The identification of the ideal locations is being carried out between the Government of the Azores (through DREn), the regional distribution network operator and the regional municipalities, anchored by the experiences acquired during the EMOBICITY project.

After this procedure sees its completion, the following two steps will be taken:

1. Tender launching for the acquisition of 40 charging stations by the Regional Directorate for Energy by June 2022, ensuring an adequate geographical distribution of these charging stations. The call will include the identification of the locations, where the charging stations will be deployed.
2. Movable asset transfer agreements with the regional municipalities. First agreement between the Regional Directorate for Energy and a regional municipality by June 2023.

Overall, extending the geographical coverage of the public network of charging stations for electric vehicles will greatly improve the addressed policy instrument, as well as promote e-mobility in the Azores in a very positive way.

5.1.2 Lessons learnt from EMOBICITY project

Action 1 was inspired by partner Northwest Regional Development Agency, through the “Infrastructure stations for recharging motor vehicles available in municipalities” good practice, included in the Interreg Europe Policy Learning Platform. This good practice consisted of financing the reduction of GHG emissions in transport by promoting the infrastructure for energy-efficient road transport vehicles, namely EV charging stations. The example showed how the deployment of a charging infrastructure for electric vehicles can be encouraged in circumstances where there is no sufficiently strong private enterprise initiative, so the public sector needs to be involved in the installation of charging stations, in particular the regional municipalities. Such an activity shall be carried out with a balanced geographical distribution of the infrastructure, that will be replicated by this Action, through the identification of the ideal locations for the deployment of the charging stations, developed by the Government of the Azores (through DREn), the regional distribution network operator and the regional municipalities.

Furthermore, the abovementioned good practice influenced this Action by clearly identifying the need to support the public sector (namely municipalities), as the current Azorean financial incentive scheme only supports the purchase of new EVs and charging stations by natural or legal (artificial) persons. In this regard, the proposed Action ensures the possibility of collaborating directly with regional municipalities for the promotion of e-mobility by expanding the charging infrastructure for EVs.

Additionally, this Action was also inspired by the "Publishable Report on the Promotion of E-mobility in Low Integration Fields of selected countries. Challenges and possible solutions", developed within the framework of the EMOBICITY project, which characterised low integration fields in six distinct geographic areas regarding electric mobility. One of the identified shortcomings in this Report was the need to reinforce the charging infrastructure in urban/residential areas, as it is estimated that only about 40% of residences have an allocated parking space and most of these residences are not located in urban areas.

To summarise, the key findings of the good practice and Report that influenced this Action and therefore the PMEA's improvement were:

- Co-financing the installation of EV charging stations for the public sector (municipalities).
- Equalise territorial distribution of EV charging stations.

5.1.3 Players involved

Government of the Azores (through DREn); Regional municipalities; *Eletricidade dos Açores*, S.A. (EDA, SA).

5.1.4 Budget and funding

A total of EUR 150,000, financed by the Autonomous Region of the Azores' budget and complementary funds, for the acquisition of 40 charging stations. In addition to that, the budget also includes the costs related to staff, ensured by the regional budget: a multidisciplinary team with energy and communication specialists (EUR 20,000/year).

5.1.5 Timeframe for implementation of the Action

The Regional Directorate for Energy is going to:

- Launch a public contract procedure by June 2022 for the acquisition of 40 charging stations.
- Define the new charging station locations.
- Support the first transfer agreement of movable assets between the Regional Directorate for Energy and a regional municipality, which will be celebrated by June 2023.

6 Conclusion

Interreg Europe EMOBICITY has provided an invaluable framework for better public policy through shared experience with interregional partners and local stakeholders. Several obstacles and proposed solutions for the efficient use of ERDF funding and the Autonomous Region of the Azores' annual budget have been identified, namely inappropriate types of funding, the lack of information and qualified personnel, and barriers that hinder the role of various activity sectors in implementing e-mobility. To overcome these obstacles, taking into consideration what has been learnt, one action has been proposed: extending the coverage of the public charging station network for electric vehicles, ensuring an adequate geographical distribution through the installation of 40 new charging stations.

