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E.VE.CR.I local

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D 4.1

ESTABLISHMENT OF CROSS-BORDER ELECTROMOBILITY NETWORK

Blagoevgrad / Thessaloniki / Sofia 2021

**Alliance of The Producers of Ecological Energy (SPEE-BG)
Centre for Research and Technology Hellas - Hellenic Institute
of Transport – GR (CERTH-HIT)
Bulgarian Electric Vehicles Association – BG (BAEPS)**

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EDITORS	Subcontractors "Institute for Sustainability and Safety" – Life Issue (Greece) and IKEM AD (Bulgaria)
CONTRIBUTORS	LIAPIS Panagiotis (HIT-CERTH), DIMITRAKOPOULOS Diogenis, ALIMPAKI Dimitra, MARKOUIZOS Iraklis, TAMVAKOS Athanasios, TSIOUTRAS Athanasios, SPILIOTIS Aristotelis, ZAIMOV Martin (BAEPS)
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LEAD BENEFICIARY	Alliance of The Producers of Ecological Energy – BG (SPEE-BG)
PROJECT BENEFICIARY 2	Centre for Research and Technology Hellas - Hellenic Institute of Transport – GR (CERTH-HIT)
PROJECT BENEFICIARY 2	Bulgarian Electric Vehicles Association – BG (BAEPS)
WEBSITE	https://local-e.eu
SOCIAL MEDIA	#evecri #local-e

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I. Provision of expertise and know-how transfer in Bulgaria [D4.1.1 and D4.3.1]

The Provision of expertise (legal, financial, accounting, economic, engineering) to support Know-How Transfer to selected partners for the establishment of 25 charging stations along the roads linking in the CB Area was led by SPEE-BG through subcontract with IKEM AD and was supported by BAEPS manager Martin Zaimov.

The activity covers the provision of expertise in the form of on-site and "online" consultations to small and medium-sized enterprises (SMEs) in order to build charging stations on the roads connecting the cross-border area with Greece.

The consultations covered SMEs located in the four regions eligible under the Program in Bulgaria, namely in the south-western and central-southern regions, incl. on the roads connecting Petrich and Sandanski with Seres (Kulata - Promakhon border crossing), Gotse Delchev with Drama and Kavala (Ilinden - Eksohi border crossing), Smolyan and Zlatograd with Xanthi (Zlatograd - Termes border crossing), Kardjali with Komotini (Makaza - Nympheia border crossing), Svilengrad with Alexandroupoli (Captain Petko vojvoda - Ormenion).

The aim of the activities was to install charging stations from the Bulgarian side in Bansko, Razlog, Dobrinishte, Mesta, Blagoevgrad, Dospat, Devin, Gotse Delchev, Kardjali, Momchilgrad, Petrich, Sandanski, Smolyan, Svilengrad, Simitli, Zlatograd, as well as in small towns and villages and on second and third class national roads in between.

Consultations were provided in the period 11th of April 2022 to the 25th of June 2022, and covered the settlements and the roads between them, presented below, and the dates initially planned had to be added/updated in a timely manner: the village of Kulata (GP Promakhon), the town of Petrich, the town of Sandanski, the town of Simitli, Kresna, Bansko, Dobrinishte, Mesta village, Gotse Delchev, GP Ilinden, Dospat, Devin, Smolyan, Zlatograd, Kardjali - GP Makaza, Svilengrad - GP Kapitan Andreevo and all larger villages on the roads connecting the cities of Blagoevgrad - Smolyan and Kardzhali.

The execution of the subcontract followed the usual stages: Preparing and organizing the logistics of the events; Carrying out the visits and consultations; Reporting of the achieved results.

Preparation: The preparation covered the following activities:

1. Preparation of sample protocols (samples 1, 2 and 3, provided to the Employer together with updated Time schedule as ground for the advanced payment under the Contract);
2. Uploading of information on the webpages of IKEM and the Project about the planned visits to the settlements (Appendix 1) and regularly updated;
3. Sending invitations to mayors and SMEs, which would have interest for organizing meetings included information about the topics.
4. Identifying companies in the region, close to the main roads, who to be contacted by the project team (figure 1)

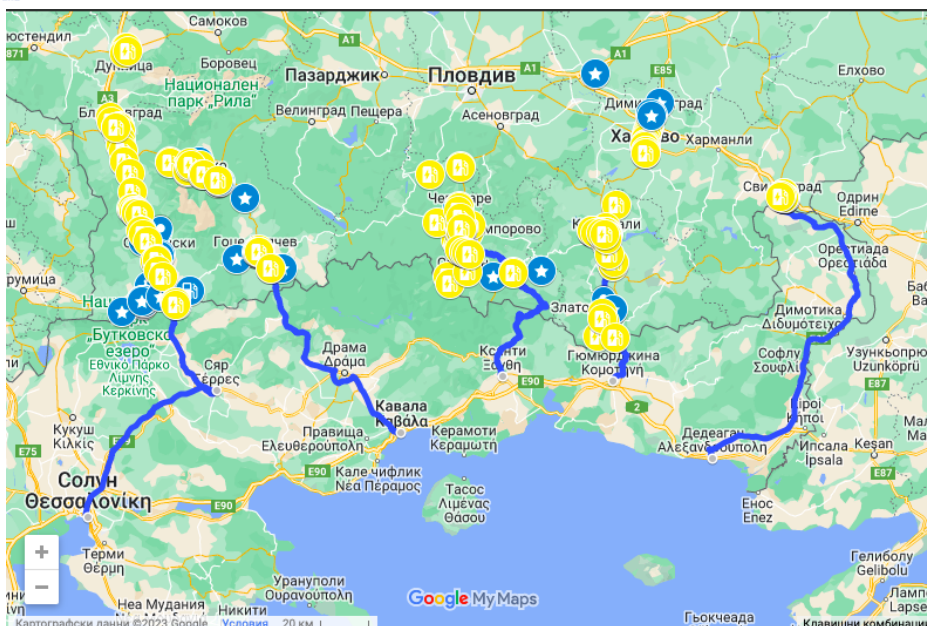


Figure 1: Mapping of the region with potential SMEs on the main roads that might benefit the project.

Conducting visits and consultations

In the implementation process of the specific part of the contract, the IKEM-BAEPS team travelled more than 2000 km roads of the national transport network (I class to III class roads) and more than 70 companies were visited. Meetings were organised with mayors and responsible officials from the eligible municipalities in order to support and speed up the work of regarding issuance of needed permits and other documents for the installation of charging stations. Due to the great mistrust on behalf of the companies and their wish to consult the initiative with their families, lawyers and accountants of their companies, two to four visits per company were made.

The following findings have been made as a result of the visits:

1. SMEs hardly survive in the current situation – post-Covid, the war in Ukraine, uncertain energy supplies, inflation and increase of fuel prices.

The meetings turned into conversations and discussions, and the first concerns were that in such a situation, charging stations would be an additional expense. The people had a hard time to convince themselves for the usefulness and business opportunity to increase the number of visitors and customers to their hotels, gas station, restaurants, coffee shops, hair salons. The lack of electric cars in these areas – especially in Smolyan and Kardzhali regions were additional arguments against installation and investment in charging stations. The team faced surprising mistrust, until our third visit and following recommendations of our partners located in the visited places, the documents requested by the project were signed. The state aid declaration was a strongly disincentive for refusing to sign the protocols and potentially to refuse already expressed interest. As a result, only 21 companies signed protocols for hours of consultation, representing state aid and needed for the contract implementation, although 39 SMEs have expressed interest. At the end, the hours of consultations as per the contract were seriously exceeded.

2. Seeking assistance from local mayors had a positive effect and opened doors of useful meetings and discussions, as a part of the advice to the local administrations was to amend their Ordinances for the movable objects - in order to reduce the administrative burdens for installing charging stations in the municipalities. The team provided the mayors of Petrich, Gotse Delchev, Satovcha, Dospat, Lyubimets, and Haskovo, free of charge, a paper with know-how information on installation of charging stations for their municipalities.

3. On the second visit, there was already an interest and even curiosity about the charging stations, as a tool to attract new customers, different from their previous ones.

4. At the last visit, the settings were already different, but it is not known why, the fear of providing information about their companies, signing declarations, even making photos of the locations, were worrying for SMEs in 3 of the eligible regions - Smolyan, Kardzhali and Haskovo.

In the Blagoevgrad region, a really active and adequate attitude towards the possibility of installing charging stations has been seen – probably it was important the fact that there are already installed few charging stations installed in the region.

The conclusion is that if the team hasn't been recommended by mayors and the local partners and representatives, the result would have been much weaker.

The lack of charging stations in the regions of Smolyan, Kardzhali and Haskovo made it very difficult for the team to move with an electric car in order to be able to demonstrate and test its advantages over ICE vehicles.

Time schedule and venue

Initially, the D4.1.1. contract was for a period of 45 days. Although the visits were made in due time, many of the protocols were not signed. This made it necessary to extend the term of the contract until July, the 10th, 2022.

Results [D4.1.1]

As a result of the achieved under the contract, below it is attached a comparative table with the requirements of the procedure, the proposed in the offer and what was achieved by the team:

Requirements, terms and conditions of Employer (name of the Beneficiary) for the performance of the services and its quality	Proposed by the Candidate	Achieved by the Team
SMEs covered/visited in the 4 eligible regions: (minimum 50)	60 SME	More than 70 SME
Consultations held with signed consultation protocols: (minimum 25)	27 SME	70 SME
SMEs wishing to install EV charging stations (with or without consultation): (minimum 25)	25 SME	39 SME with consultations for the installation of 62 charging stations

Signed protocols for consultation hours: (at participant's discretion)	200 hours	215 hours
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The Final report of the subcontractor includes the following appendices:

- Information on the dates and places of the visits
- List of visited SMEs from the region, received consultations
- List of companies that expressed interest
- List of those willing to install charging stations by municipalities
- List of visited settlements by districts
- List of covered roads from the national road network up to class III
- List of SMEs with specified EIC, signed protocols for hours consultation with the aim to be inserted in the register;
- Signed visit protocols – 70 SMEs
- Signed protocols for declared interest – 39 SMEs
- Signed protocols for hourly consultations – 21 SMEs

II. Provision of expertise and know-how transfer in Greece [D4.2.1]

CERTH in charge of finding the expertise (legal, financial, accounting, economic, engineering) to support know-How transfer to selected partners for the establishment of 25 charging stations along the roads linking in the CB Area.

The main goal was to build charging stations on the roads connecting the cross-border area with Bulgaria. In order to do it so, many stakeholders, from automotive professionals to SMEs had to come together.

Network Development plan

The E.V.E.C.R.I project aimed to attract small and medium-sized enterprises in the cross-border area (Greece - Bulgaria) in order to inform them regarding the benefits of e-mobility and in order to convince them to install charging stations for EVs into their businesses.

The ultimate goal was to set up a wide network of electric vehicle charging points in places such as:

- o Hotels
- o Restaurants
- o Fuel stations
- o Retail stores

E.VE.CR.I established partnerships through open tenders with the operators of charging stations across Europe with the main condition of providing interoperability.

The Project activities were structured in way as to benefit SME owners and managers, widening charger networks for operators and providing quality and efficient charging service to users of electric vehicles.

List of candidate companies and approach methodology

The list of the potential investors is found within the local SMEs. Hotels, restaurants, fuel stations, retail stores are the main potential investors for the development of the charging network stations. The location of these SMEs should be close to the national roads that connect Greece with Bulgaria or vice versa. Specific focus of this targeting is given on the 5 itineraries below:

- Petrich and Sandanski to Serres/Sidirokastro
- Gotse Delchev to Drama and Kavala
- Smolyan and Zlatograd to Xanthi
- Kardzali to Komotini
- Svilengrad to Alexandroupoli

The methodology adopted in order to approach the SMEs that could act as potential investors is the conduction of 5 round tables, one in every Greek city that is part of the itinerary. The Round Tables should be conducted in collaboration with the local authorities, such as the mayor, the regional governor, as well as the local industrial chamber. The basic role of the local authorities should be the communication of the event towards the local SMEs.

The subcontractor has to choose the appropriate hotel to host the event. The hotel and thus the conference room should be close to the center of the city hosts the event in northern Greece. The access should be easy by car and the location of the participants from the SME side should not be very far from the location of the event. The Conference room should be booked for at least three hours. A catering should be planned during the brief break of the event.

Once the date and the location are fixed the subcontractor should ask for the contacts of the SMEs. The possible sources to find these contacts, can be the local authorities (Mayor, Chamber etc.).

On behalf of CERTH/HIT, the subcontractor send the invitations to the SMEs. The SMEs that will accept the invitation will also receive follow-up calls a couple of days before the event by the subcontractor who will ask them to confirm their participation.

The presence of the automotive experts in the RTs as invited speakers is of crucial importance too. They should be invited via e-mail firstly, asking them also to make a presentation of their companies and their products during the meeting. Once they accept the invitation, the subcontractor will ask for the

presentation to be sent via e-mail to CERTH/HIT. Finally, he will make a follow up call two or three days before the event asking them to confirm their participation.

Through the speeches of the automotive experts, the local SMEs, should get informed about the evolution of the e-mobility in Greece and about the importance of the investment in the field of charging stations. The automotive experts could also give examples of the charging stations that can be installed in each region, as well as examples related to the investment cost and the potential return of investment.

The role of the experts from CERTH/HIT is important too. CERTH/HIT as main partner from the Greek side on E.V.E.C.R.I project, should ensure the proper communication between all stakeholders. Additionally, it should enhance within the studies has been conducted for the e-mobility, the importance of the development of the charging stations in the region of Macedonia and Thrace. Finally, it should also be able to give further consultancy to the SMEs that are interested on establishing a charging station in the area of their business.

During the event, the subcontractor should take as many photos as he can from all presentations and from the set-up of the event. The meeting should also be recording for the whole duration. The subcontractor should also collect letter of intent from the SMEs that are interested on investing in charging stations. He also should collect letter of support from the automotive experts, meaning that the experts support both the E.V.E.C.R.I project and the SMEs.

The publicity of the event should be done as last stage of the RT. The main results, the list of participants and the photos should be published in the local press, on Facebook page and in LinkedIn page of the project.

Timetable

The E.V.E.C.R.I project has a duration of two years, from April 13th, 2021 to April 12th 2023. The studies for the market analysis, the legal framework and the interoperability issues from Greek side are ready since May 2022. The round tables should be conducted from June 2022 to October 2022 in four Greek cities which are part of the proposed itineraries and they should be followed by the consultancy on the SMEs that are interested on investing on charging stations for electric vehicles.

The first RT has been conducted at Xanthi, on June 23rd, the second one was held at Alexandroupoli on September 8th, the third one at Kavala on September 22nd and the last one at Serres on September 23rd.

Letter of interest

The participants on the round tables, from the side of the SMEs, signed a letter of interest in case they were interested on receiving further consultancy. The additional consultancy was related to how they can install a charging station, how they can solve legal issues that may occur during the procedure and other relative matters that they may deal with during the licensing and installation.

Methodology for providing further consulting service to 4 SMEs

The chosen SMEs participated in dedicated meeting sessions, either online or via teleconference in order to go into the practical details of the installation of the EV charging stations. In these meetings the 4 SMEs received further explanations regarding the studies of market analysis, legal framework and the interoperability issues.

Furthermore, the expert from CERTH/HIT and the subcontractor are acting as an intermediate in case of issues occur with local authorities regarding the licensing or more general legal restrictions.

Recommendations for network expansion and its sustainability

The network expansion is strictly related to the successfulness of the first charging stations that will be installed through the E.VE.CR.I project. If the procedures are simplified and are clear enough to the first SMEs that will choose to trust the people work for E.VE.CR.I in order to get the job done, then it will be much easier for the local SMEs to decide to invest to the charging stations for EVs. Additionally, the return of the investment will be a crucial factor as well. If the period needed to reach the break-even point is proved short, then the potential investors will become more.

The sustainability of the Network depends mainly on the interoperability. An EV has to be able to perform a full charging without any problem in all of the charging station network. To ensure that, both the Software and the Hardware should be certified. Additionally, the charge should be done in the same way in all of the charging stations of the Network.

At the late stage of E.VE.CR.I project all the stakeholders have to be aligned in the above matters in order to facilitate the smooth charging station network workflow.

Main results achieved

Through EVECRI project the cross-border infrastructure in charging stations is getting stronger and stronger. More than 50 SMEs have already installed or will install in the near future at least one charging device which will be operate also under EVECRI application

The innovative interoperability platform of all the charging stations through a shared information and payment platform is up and running. The platform allows any user to easily charge any model of electric vehicle at different charging stations operated by different providers of charging services. It consists a vivid and interconnected network of providers of EV charging spots/stations and users of electric vehicles.

The Final report of the subcontractor includes the following appendices with details below:

- Template of letter for intent
- List of participated SMEs from the region, who received consultations

There are numerous of SMEs that were interested on receiving further consultancy. Below are listed those that we had more than one meeting:

AutoMoto Roustani" operates in the region of Serres and it acts as an auto repair shop by providing aftersales services.

"WIN DEVELOPMENT CONSULTANTS Ltd" specializes in consulting services for the design, development and management of competitive projects co-funded by the European Union, related to agrobusiness sector in Third countries and the internal market of the EU.

"Granitis I.K.E." operates at Sidirokastro and is currently active in the construction of Private and Public projects as well as in the collection and management of non-hazardous waste.

"Coffee and Drinks Pileas" is a coffee and refreshment shop in Haropo village near Sidirokastro and the Promahonas borders. During the summer, many Greeks are visiting this village for vacation.

- List of companies that expressed interest

There are numerous of companies that expressed interest on participating in the enhancement of the charging stations infrastructure in the cross-border area. The most important of them are HELLENIQ ENERGY, ABB, MC CHARGERS, GEYER, BLINK, BOSCH and others.