





Una manera de Bacer Europa



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Programa Operativo de la Comunidad Valenciana

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Fondo Europeo de Desarrollo Regional

Good Practice of the Valencian Institute of Business Competitiveness (IVACE) of the Generalitat Valenciana in the line of aid aimed at Technology Centres of the Comunitat Valenciana for the development of non-economic R&D projects (Research and Development) carried out in cooperation with companies, which has resources from the Operational Programme ERDF 2014-2020 Comunitat Valenciana, personalised in the aid granted to the Technological Institute of Energy (ITE) for the UFCharger project.

The purpose of the grants to finance the UFCharger project is to promote research, technological development and innovation of a non-economic nature of the Technology Centres of the Valencia Region through collaboration with companies.



UFCharger has developed an ultra-fast charging station for electric vehicles adapted to new technologies, which positions Valencian electromobility companies as pillars of the European business and energy sector.

This project has been carried out through two initiatives. On the one hand, with the creation of an ultra-fast charging station that increases the autonomy of electric cars. On the other, through the design of an electric vehicle simulator that allows testing and validating the correct operation of the station, and testing communications between the charging station and the vehicle without the need for a real car.

The projects approved in this line are R&D projects of a non-economic nature with the aim that the results of the research are not "tailor-made" for a specific company and can later be transferred to a whole sector, sub-sector or broad group of companies. The call not only contemplates technology centres as sole beneficiaries, but also includes as a requirement for the projects the collaboration with companies so that the research is really aimed at responding to the needs of the industrial sectors of the Valencian Community. The companies transfer the intellectual and industrial property rights (IPR) resulting from the collaboration to the technology centres so that these in turn can be transferred to all those companies potentially benefiting from them.

UFCharger is an ambitious project aimed at decarbonising transport and reducing carbon dioxide emissions on the planet. It responds to the two major challenges of the European Commission: boosting the digitalisation and technological development of companies for the benefit of the environment.

The call for grants promoted by the Valencian Institute of Business Competitiveness (IVACE) of the Generalitat Valenciana for the financial year 2017 had an initial budget of 22,718,360.00 euros, which allowed the development of 123 R&D (Research and Development) projects cofinanced by the Operational Programme for Regional Development ERDF of the Valencian Community 2014-2020. Among them, we highlight the UFCharger project, led by the ITE (Technological Institute of Energy) with a total eligible cost of 194,927.21 €, of which 50% (97,463.60 €) corresponds to the ERDF co-financing.

Arguments that make this action a Best Practice in accordance with the defined criteria:

1. The action has been adequately disseminated to beneficiaries and potential beneficiaries and to the general public

Public events

Visit of the European Commissioner for Cohesion and Reforms, Elisa Ferreira, together with the Councillor for Sustainable Economy Rafael Climent, to the facilities of the Technological Institute of Energy to learn about the results of the UfCharger project. 26 October 2021



Representatives of the European Commission visit the UFCharger ultra-fast charging station developed by the Technological Institute of Energy. 31 March 2022.



News published in general and specialised digital press







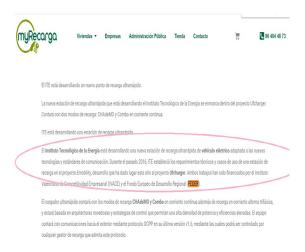
Articles on the web



Social networks







Website



2. The action incorporates innovative elements

This project has several novel aspects in the electric mobility sector. Firstly, the UFCharger station has increased the range of electric cars and speeded up the charging time, reaching 100 kW (double the capacity offered by most current fast charging stations). To meet this challenge, the project has worked on two key factors: electric vehicles being able to increase the capacity of their batteries, and charging stations being able to deliver a higher power output.

In addition, the project includes a technical and economic feasibility report on a mobile charging system, analysing solutions that facilitate rapid charging that does not require direct power supply from the electricity grid. The ultimate goal is to put an end to users' uncertainty about the autonomy of the vehicle during journeys, being especially useful for roadside assistance for cars that have run out of autonomy or in locations where it is not profitable to install recharging points.

Finally, the equipment is equipped with the OCPP (Open Charging Point Protocol) which allows direct communication between electric vehicle charging stations and a central management system.

3. Adequacy of the results obtained with the established objectives

The aim of this project is to promote technological development and innovation while reducing the polluting gases emitted by vehicles. With the progress of the ultra-fast charging station of the Technological Institute of Energy, electric mobility has been promoted in the territory and has contributed to the improvement of energy diversification and savings, as well as respect for the environment.

This project responds to the current circumstances in which more and more local, regional, national and European governments are concerned about environmental pollution and put fossil fuels in the spotlight. UFCharger's environmental strategy aimed at reducing CO2 emissions and decarbonising transport is positioned as an important focus of the common energy policy.



4. Contribution to the resolution of a problem or weakness detected in the territorial area of implementation

Financial support for this project contributes to solving an environmental problem. This action has contributed to the improvement of the balance of carbon dioxide emissions in the environment because, on the one hand, electric vehicles will use cleaner energy, and, on the other hand, the alternative use of transport that uses fossil fuels helps to reduce harmful emissions. By using electric power in vehicles there is a 40% cut in carbon dioxide emissions from cars, increasing energy savings and improving energy efficiency.



It is also a question of equipping our transport networks with the necessary infrastructure. Not only the vehicles themselves must be prepared, but also the electricity grid and energy generation and storage systems have an important role to play.

On the other hand, this project has improved the effective bridges between the research and production sectors for the transfer of knowledge and the transfer of results to companies in the Valencian Community.

5. High degree of coverage of the target population

The action is aimed at a broad sector of the population. The electric car sector is widely accepted by the public. Ultra-fast charging makes it easier for users to access electric vehicles and improves the quality of this means of transport, helping to make the population more willing to choose the electric option for their journeys. According to the Plan for the promotion of electric vehicles and the deployment of charging infrastructure in the Valencia Region published by IVACE, it is expected that by 2030 the Valencia Region will have more than 260,000 electric vehicles.

This same plan reflects the aim of installing 270 fast charging points and 2100 semi-fast charging points by 2030. ITE, with this project for the construction of ultra-fast charging points, contributes to achieving these figures for the coming years.

6. Consideration of the horizontal criteria of equal opportunities and non-discrimination, as well as environmental responsibility

This action is aimed at all citizens, without any discrimination on the grounds of gender, functional diversity or any other circumstance.

With regard to environmental sustainability criteria, it represents a major step forward in the electromobility sector, as it reduces environmental pollution, contributing to the fight against climate change. Special attention is paid to the emission of polluting gases, by reducing or replacing traditional combustion transport with electric transport, promoting cleaner transport with the introduction of renewable energies and energy efficiency.



Through this project, a sustainable and competitive energy model has been achieved, in line with the objectives set by the European Union.

7. Synergies with other policies or instruments of public intervention

At the regional level, it is part of the Plan for the promotion of electric vehicles and the deployment of charging infrastructure in the Valencia Region (Generalitat Valenciana), which aims to promote the transition to a low-carbon energy system.

It is also in line with the UNEIX programme, the strategic plan for the improvement of mobility, infrastructures and transport in the Valencia Region 2019-2030, promoted by the Department of Territorial Policy, Public Works and Mobility of the Generalitat Valenciana.

Thirdly, this Best Practice complies with the provisions of the Long-term Strategy for a modern, competitive and climate-neutral Spanish economy in 2050 of the Ministry for Ecological Transition and the Demographic Challenge. In its section 7.6 dedicated to research, innovation and development, it talks about policies aimed at promoting electric vehicles together with other alternative fuels that provide zero-emission mobility.

The UFCharger project is also in line with the Sustainable Development Goals (SDGs) promoted by the United Nations, which adopted a set of global goals to eradicate poverty, protect the planet and ensure prosperity for all. Of the 17 goals set, it meets four of them: Affordable and clean energy, decent work and economic growth, industry, innovation and infrastructure, and climate action.















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