



# Una manera de Racer Europa

FUNDING FACILITY TARGETED AT INDIVIDUAL R&D PROJECTS FOR THE 2015 YEARLY PAYMENT IN CATALONIA AND THE AUTONOMOUS COMMUNITY OF NAVARRE, EXEMPLIFIED IN THE COMPANIES ACOUSTIC & INSULATION TECHNIQUES, S.L. AND ACCIONA ENERGÍA, S.A

**BUENAS PRÁCTICAS** 

**Actuaciones** Cofinanciadas

**CDTI** 

Programa Operativo Plurirregional de España

Año 2020

Fondo Europeo de Desarrollo Regional

#### **GOOD PRACTICES**

## FUNDING FACILITY TARGETED AT INDIVIDUAL R&D PROJECTS FOR THE 2015 YEARLY PAYMENT IN CATALONIA AND THE AUTONOMOUS COMMUNITY OF NAVARRE, EXEMPLIFIED IN THE COMPANIES ACOUSTIC & INSULATION TECHNIQUES, S.L. AND ACCIONA ENERGÍA, S.A.

The R&D project funding programme is a CDTI facility co-financed by the European Regional Development Fund (ERDF) targeted at supporting and driving companies developing R&D projects in Spain. The R&D projects are applied business research and development projects to create or significantly improve a production process, product or service. The projects must show a distinguishing technological aspect with respect to the technologies currently existing on the market and may last between one and five years.

This funding facility is granted in the form of partially reimbursable aid; in other words, it has a non-reimbursable tranche, in a call that is open all the year round. The support may represent up to 85% of the project's approved budget.

Out of all the R&D projects submitted in 2015, projects by companies in the Autonomous Communities of Catalonia and Navarre accounted for 30%. We can exemplify this good practice in two companies, **Acoustic & Insulation Techniques, S.L.** and **Acciona Energía, S.A.**, which received ERDF financing to develop their R&D projects in these communities.

Acoustic & Insulation Techniques, S.L. (AIT) is a company engaged in manufacturing materials for acoustic insulation and the absorption of vibrations, which it commercialises in sheet and roll formats, with applications in the construction and automotive industries. The solutions offered by AIT are the upshot of more than 60 years' experience and are developed at its plant in the province of Barcelona. The support of ERDF financing has enabled it to obtain **new compounds manufactured from their own waste that improve its products' properties and performance**.

As for Acciona Energía, S.A., it is a company with an extensive track record in the renewable energy field, which aims to demonstrate the technical and economic viability of a new energy model, guided by sustainability criteria. From its facilities in Navarre, with the help of the ERDF, it has developed new automatic systems for managing and maintaining large-scale photovoltaic power plants in desert and semi-desert environments.

The R&D projects that were granted this funding facility in 2015 in the Autonomous Communities of Catalonia and Navarre represent a total eligible budget of 160 million euros, with 222 approved business initiatives and with ERDF financing of 80 million euros, benefitting a total of 153 companies.

The impact of these initiatives entails private investment of 32 million euros.



Acoustic Insulation Techniques, S.L.



Acciona Energía, S.A.

It is considered a good practice because it meets the criteria designed for this purpose:

## 1. THE ROLE OF THE ERDF IN THE INITIATIVES HAS BEEN APPROPRIATELY PUBLICISED AMONG BENEFICIARIES, POTENTIAL BENEFICIARIES AND THE **GENERAL PUBLIC**

Both companies fulfil the communication obligations on describing the projects on their websites and displaying an informative plaque at their facilities.

### Acoustic & Insulation Techniques, S.L. (AIT)

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AIT website



Permanent plaque at the Montcada i Reixac plant (Barcelona)

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## https://www.acciona-energia.com/es/sostenibilidad/proyectos-innovacion/diseño-y-operacion-grandes-plantas-fv/

Permanent plaque at the Navarre plant

Other communication actions have also been undertaken to publicise the activities:

Day session: "A way to make Europe Contributing to the Circular Economy ERDF-CDTI financing". During the session, representatives from the CDTI and from the companies highlighted the funding contributed by the ERDF to both of the initiatives.





## Acciona Energía, S.A.

Acciona Energía website

## Publication of materials to be disseminated in printed and digital format with inserts divulging ERDF support



## Exhibition at the CDTI stand at the National Environment Congress - CONAMA

Public exposure was given to both initiatives in the exhibition space, highlighting the ERDF financing received to develop the projects.



CDTI-ERDF stand displaying information on the co-financed initiatives

#### Social media:

https://twitter.com/CDTIoficial/status/1067799087792209925 https://www.linkedin.com/feed/update/urn:li:activity:6473564943407939584



## **Digital journals:**



Rumbo 20.03. CONAMA Foundation



PerspectivaCDTI.es digital journal

## 2. INNOVATIVE ASPECTS CONTAINED IN THE INITIATIVES

Among its requirements, the R&D project funding facility foresees the presentation in the projects of a distinguishing technological component with respect to the technologies currently existing on the market. Therefore, both initiatives offer unique, innovative aspects in their results that have been technically pre-evaluated by the CDTI in order for them to become beneficiaries of this funding.

As regards **AIT**, the main innovative feature of its project is having succeeded in developing new materials by applying **circular economy** criteria in the process. Its R&D&i strategy is based on the **separation and reuse** of the waste generated in its and its clients' production processes, whose main components are **PET or polyamides**. Through a mixing process, this waste is subsequently used to obtain a material with **enhanced rigidity** that is applied to the manufacture of the company's products in which, to date, the necessary strength and rigidity had not been obtained, especially applied to the automobile and construction industries.

In addition, it represents a solution to an **environmental** problem, on eliminating waste that usually ends up in a landfill.

As for ACCIONA ENERGÍA, the project's main technological innovation lies in the development of an advanced SCADA software system (Supervisory Control and Data Acquisition). This system is used to manage and maintain, automatically and remotely, large-scale photovoltaic power plants in extreme weather environments, such as desert and semi-desert areas, without the need for skilled personnel or manual processes that compromise reliability.

The technology developed represents a significant breakthrough in photovoltaic power plant prediction and performance systems, based on the most cutting-edge **Big Data and Machine Learning** tools and techniques.



AIT sheets for the automotive industry



Robotic cleaning in Acciona's project

## **3. ADAPTATION OF THE RESULTS OBTAINED TO SET OBJECTIVES**

**AIT**'s main objective was to analyse how to reuse the waste and worthless leftovers resulting from their industrial process, transforming them into raw materials that could produce substances with enhanced properties. With the support of the funds, the company was able to perform tests to obtain the recycled waste, in addition to carrying out test runs on the production lines in order to evaluate the performance of the equipment using these new materials.

On developing the project, the company believes it has achieved its main objective, since it has obtained highly-rigid materials with little added cost, enabling it, on the one hand, to expand its product range for the automotive industry (door panels, rear parcel shelves, etc.) and, on the other, to make economic savings. In this respect, during the course of 2019, it recovered 955,500 kilos of waste, representing a reduction in waste management of some  $\in$ 86,000 and a saving in raw material purchases of approximately  $\notin$ 575,000.

Also worthy of note is the fact that, through the project, the company has improved not only its image in the industrial sector but also its market competitiveness.

As for ACCIONA ENERGÍA, its project has, without a shadow of a doubt, achieved the objectives it had set, since it has succeeded in developing a series of **cutting-edge tools** to operate, manage and maintain photovoltaic plants that are able to detect errors, faults and future problems in **solar panels**, **increasing their quality and durability**. It has also successfully incorporated automatic systems that enable the **advanced remote management of large-scale power plants** without the excessive need for skilled personnel or manual processes.

These developments include, for example, the prediction and detection of power fluctuations through the use of special cameras that monitor clouds, as well as the robotic cleaning of the solar panels, resulting in economic optimisation and an increase in the output from the photovoltaic installations.

## 4. CONTRIBUTION TO THE RESOLUTION OF A PROBLEM OR WEAKNESS DETECTED IN THE TERRITORIAL AREA OF EXECUTION

Plastic items are usually manufactured using materials that attempt to combine sufficient elasticity with high impact strength. Nevertheless, **none of the combinations used on a regular basis deliver good results** in both properties at the same time. Thus, in order to increase rigidity, impact strength has to be sacrificed and vice versa.

The development obtained by **AIT** is able to obtain a **material reinforced** with a mix of recycled polymers that combine **both properties**, since it is suitable for the manufacture of elements with greater strength and fit to withstand post-moulding processes.

In addition, it is **environmentally friendly**, as it reuses materials that do not end up in a landfill in a region with extensive industrial activity. In quantitative terms, altogether, from the outset of the project, the dumping of **2,900 tons of waste in landfill sites** has been avoided.

On the other hand, for ACCIONA ENERGÍA, the efficient operation of photovoltaic solar energy requires the correct integration of all its components in order for the incorporation into the electricity grid of the power generated and its distribution to users to meet the objectives sought in renewable energies and to warrant their investment.

On account of the very nature of this type of energy, photovoltaic power plants are mostly found in **desert and semi-desert environments**, where the extreme weather conditions hinder their management and maintenance. Moreover, in recent years, the **size of solar farms has grown** significantly.

This project relies on the integration of cutting-edge automatic systems that facilitate the remote management of photovoltaic power plants, serving to optimise their operation and adapted to extreme weather environments. It must also be noted that the initiatives undertaken by this company in Navarre are making a considerable contribution to the **industrial restructuring** taking place in this community. In this way, at its facilities, more than 400 renewable energy generation installations are being managed in 19 countries across the globe.

## 5. HIGH DEGREE OF COVERAGE OF THE TARGET POPULATION

Increasing business investment in R&D is the goal pursued by the funding facility that the CDTI, with the support of the ERDF, earmarks for companies that firmly commit to undertaking activities that improve their products, services or processes, with the conviction that these activities, if not in the short term, then in the medium or long term, will have a positive impact on society.

**AIT**'s customers in the automobile sector are all major corporations that offer interior acoustic solutions and which, on a global scale, supply manufacturers of equipment for the automotive industry. Furthermore, in addition to serving distributors of acoustic products and large construction and engineering firms in the construction and industrial sectors, AIT boasts international coverage as it exports 85% of its output to Europe, North America, the Southern Cone and Asia.

As for **ACCIONA ENERGÍA**, it has pioneered the installation of large-scale photovoltaic plants with capacities higher than 1 MW. In 2001, it built in Tudela (Navarre) the largest photovoltaic solar plant in Spain at the time with an installed capacity of 1.2 MWp, equipped with an experimental unit used to test different technological solutions.

Since then, it has become one of the most highly experienced companies in these types of facilities, of which it currently has, both in ownership and for third customers as well as in solar farms, an installed capacity of 1.200 MWp, spread across 33 plants in 7 countries: Mexico, South Africa, Chile, Egypt, Australia, Ukraine and Portugal, in addition to Spain.



AIT materials in the automotive industry



Acciona Energía photovoltaic plant

## 6. CONSIDERATION OF HORIZONTAL EQUAL OPPORTUNITY AND NON-DISCRIMINATION CRITERIA AS WELL AS SOCIAL RESPONSIBILITY AND ENVIRONMENTAL SUSTAINABILITY

In order to run its project, AIT created new jobs in the company, of which 50% were filled by women.

Furthermore, in the conception of its project, AIT has made a firm commitment to environmental sustainability and social responsibility, since it obtains its new compounds from the recycling of materials in order to lessen the environmental and economic impact caused by 1,460 tons of waste substances per year. Also worthy of note is the fact that these benefits extend to its customers who generate disposable product leftovers following their industrial die-cutting processes and which AIT now collects in order to reuse them and treat them at its factory.

As regards ACCIONA ENERGÍA, it is developing its project adopting the internal guidelines of its *Master Sustainability Plan 2020*, which sets down the strategic and operational objectives applied to the organisation as a whole. These include its commitment to its employees to achieve a healthy environment, free from discrimination, and it is also a pioneer in the enforcement of effective equality and diversity promotion policies. Likewise, it has more than 3.5% of people with disabilities in its workforce in Spain and runs employment integration programmes for persons at risk of social exclusion, including victims of gender-based violence.

This commitment to sustainability is reflected in its contribution to meeting the United Nations Sustainable Development Goals (SDG). ACCIONA's solutions are a response to present and future challenges, such as the decarbonisation of the energy system, resilient infrastructures and innovation, as well as the new growing needs resulting from the concentration of population in cities and climate change mitigation.

## 7. SYNERGIES WITH OTHER POLICIES OR PUBLIC INTERVENTION INSTRUMENTS

**Climate action, environment, resource efficiency and raw materials** is the fifth priority area of the Societal Challenges presented in the European Horizon 2020 programme, where one of its goals is the sustainable management of resources and natural ecosystems, in addition to the sustainable use and sourcing of raw materials. To be specific, its call titled "Greening the economy in line with the sustainable development goals", with a budget of 219.7 million euros in 2019, focuses on the transition to an economy that is more efficient in the use and consumption of resources and more resilient to climate change, which is in synchrony with the environment, and part of this call also contributes to the focus area "Connecting economic and environmental gains - the Circular Economy". Hence, these intervention policies at the European level have great synergy with both companies' initiatives.

AIT's project is also framed within a policy implemented at the regional level by the **Waste Agency of Catalonia (ARC)**, which offered a grant facility for projects on the prevention, preparation for reuse and recycling of industrial waste in 2018, 2019 and 2020, and in 2018 it also announced funding for projects driving the circular economy.

As for the **Government of Navarre**, it includes as one of the priority economic areas in its Smart Specialisation Strategy (RIS3), renewable energies and resources in order to reduce the consumption of fossil fuels and raw materials by increasing the production of renewable energies and improving energy efficiency. ACCIONA's initiative is, therefore, framed within this regional priority.





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