



## Una manera de Racer Europa



Investment programme for foreign companies in R&D activities 2019

Castilla la Mancha ICEX

# Programa Operativo Plurirregional de España

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Fondo Europeo de Desarrollo Regional

### INVESTMENT PROGRAMME FOR FOREIGN COMPANIES IN R&D ACTIVITIES 2019 REPORT ON BEST PRACTICES CO-FINANCED IN CASTILE-LA MANCHA

ICEX has launched the INVEST IN SPAIN programme that aims to promote foreign direct investment in Spain (FDI) and to support business owners and entrepreneurs seeking to set up their businesses in Spain, focusing especially on new industrial, technology and services investment projects.

In the 2019 call, 5 companies from Castile-La Mancha were beneficiaries and received overall ERDF support to the tune of 336,422.74 euros. The investment by the companies amounted to 1,275,036 euros.

We present two companies as examples of best practices:

BRAHM PRECISION PRODUCTS CORPORATION SPAIN S.A. is the leading company in Castile-La Mancha in manufacturing and assembly of automotive industry and industrial sector parts and components. With support from the INVEST IN SPAIN programme and ERDF co-financing, the company was able to increase its R&D department and implement the NEW DEVELOPMENT OF PARTS FOR INDUSTRIAL VEHICLES project. The project consists of creating a modern R&D department with highly-qualified human resources and the latest technology developments in the sector, capable of developing engine parts for heavy machinery.

ENVIROBAT ESPAÑA S.L. is a company from La Mancha with a firm commitment to environmental sustainability and specialised in recycling all kinds of batteries declassified by manufacturers. The company engages in various activities related to environmental development, environmental studies, material recovery and recycling. It has a highly qualified workforce and over 25 years of experience in the waste recycling sector. With support from the ERDF, ENVIROBAT ESPAÑA S.L. has launched the RELIBANE project to recover lithium from non-rechargeable Li-no batteries for subsequent incorporation in the chemical industry, preferably to manufacture new lithium batteries.

We consider the two companies to be examples of implementing best practices because they meet the seven required criteria:

#### 1. High-level dissemination to beneficiaries and general public

The two selected companies have met the first objective: to publicise the cofinanced projects and the results obtained. In line with the obligations of the regulation, the companies have indicated on their respective websites the details of the projects and the sources of funding; they have also put up information posters on their premises:







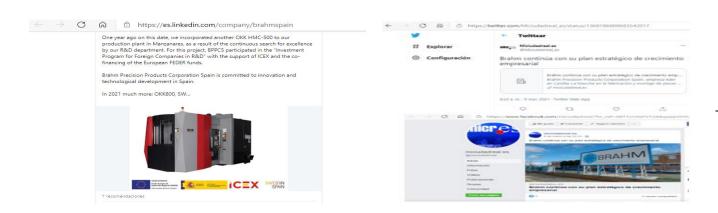
Website: <a href="https://brahmspain.com/">https://brahmspain.com/</a> www.envirobatespana.com



#### Website:



The results of the project launched by BRAHM PRECISION PRODUCTS CORPORATION SPAIN S.A. have received widespread coverage on the main social networks (Twitter, LinkedIn, Facebook):



The newspaper *La Tribuna de Ciudad Real* printed an extensive article on the improvements to the R&D department thanks to ERDF co-financing. Digital newspaper *Mi Ciudad Real* also reported on the results obtained by BRAHM PRECISION PRODUCTS CORPORATION SPAIN S.A.

https://www.miciudadreal.es/2021/03/09/brahm-continua-con-su-plan-estrategico-de-crecimiento-empresarial/

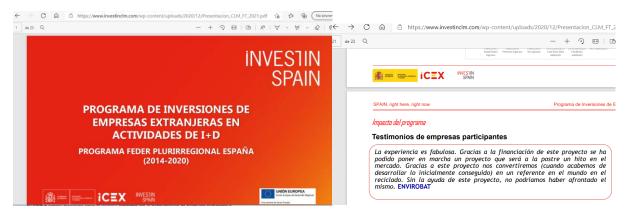


ENVIROBAT ESPAÑA S.A. took part in the ECOMONDO Italia held on 5-8 November 2019, a leading international trade fair for industrial and technological innovation in the Circular Economy, and has presented the results of the RELIBANE project, which recovers lithium from non-rechargeable batteries. The company stand showcased progress made with the project, receiving many visitors and was highly valued by sector professionals. The results of the RELIBANE project were also presented at the International Congress for Battery Recycling 2020 with virtual participation by the company.





The presentation of the INVEST IN SPAIN programme mentioned the project developed by ENVIROBAT ESPAÑA S.L. as an example of success, thank to ERDF co-financing:



Social media also mentioned the results achieved by the "RELIBANE" project:



#### Facebook



#### 2. The action incorporates innovative elements

In the case of BRAHM PRECISION PRODUCTS CORPORATION SPAIN S.A., the main development compared to current machining sector practice is the use of devices that can modify the plane to support parts at an exact point. Also the use of special cutting tools designed specifically to achieve the required plane tolerances, thus reducing machining times. The new tools also make it possible to work with high cutting conditions and help remove waste from galleries inside the part.



The RELIBANE project developed by ENVIROBAT ESPAÑA S.L. with support from the ERDF means that, for the first time, waste that to date had no outlet other than recycling along with other types of batteries can be used. The company plans to submit the first patent for recovering lithium from primary or non-rechargeable lithium batteries, becoming the first company in the world capable of providing a non-polluting and highly profitable solution for battery recycling. Developing this process creates a hub for innovation in the province of Guadalajara, focusing European attention on developments in improving recycling and recovery processes.



#### 3. Adequacy of the results obtained to the objectives set.

The key strategic objective of the project submitted by BRAHM PRECISION PRODUCTS CORPORATION SPAIN S.A. is to increase its R&D Department, leading it to become a centre of reference in research for its business group. Extending the R&D department reduces dependence on the parent company in India, whose R&D engineers advise and guide the company in many aspects. The project has been a success as it has provided the department with highly-qualified human resources and with the technology necessary for the manufacture and

assembly of automotive industry and industrial sector parts and components. Thanks to ERDF co-financing, the company currently has 12 people working directly on Research and Development, as part of an in-house department created by the organisation, and also Spanish engineers working on the design and development of tools and moulds for the parent company in India.

The main technical objective has also been achieved: support from the ERDF has helped to extend the R&D department, which has designed and developed a novel technology for industrial vehicle engine parts capable of minimising current challenges faced in the sector.



Thanks to the ERDF, the RELIBANE project has achieved its objective and been capable of devising and developing a novel hydromechanical process that helps to recover lithium from primary batteries collected as waste. This recycling technique can recover highly valuable raw materials and isolate metals that are harmful for the ecosystem. Lithium and other elements in the batteries could be used as raw materials for manufacturing new batteries, reducing the need to use other natural resources and successfully achieving the key objective of the Circular Economy: recovering all compounds and components from water and their subsequent use to manufacture new products. The RELIBANE Project will lead to the first patent in Europe for recovering lithium from non-rechargeable batteries.

## 4. <u>Contribution to the resolution of a problem or weakness detected in the territorial area of implementation.</u>

Companies dedicated to the manufacture and assembly of automotive industry parts and components work in a highly competitive environment. Their main challenge is to constantly adapt and innovate in order to meet the requirements of their clients who need increasingly more complex and economic parts and components. Thanks to the INVEST IN SPAIN programme and ERDF co-financing, BRAHM PRECISION PRODUCTS CORPORATION SPAIN S.A. has been able to implement technology developments that help to optimise its resources, thus improving productivity. Digitisation was implemented in all manufacturing lines, taking another step towards Industry 4.0. The company is therefore more competitive and effective, and it can continue its growth plan in Spain by offering better solutions for the manufacture of parts and components to regional and national sector companies.

Through its RELIBANE project, ENVIROBAT ESPAÑA S.L. offers a novel solution to alleviate the harmful effects on the environment if used batteries are not fully recycled. Batteries and accumulators contain various heavy metals and toxic chemicals that when discarded have been reason for concern because of the risk

of contaminating soil and water. If thrown in the rubbish instead of special recycling points, they are taken to landfills and those highly toxic metals are released into the water cycle through rain or gas produced when burning rubbish. When not recycled, this type of product has a negative impact on the environment as it produces leachates, liquids that contaminate underground water, surface water and soil. With the RELIBANE product developed with support from the ERDF, the company can alleviate the damage caused by this waste that is so difficult to recycle, and contributes to global environmental sustainability.



#### 5. High degree of coverage of the target population

To extend the R&D department, BRAHM PRECISION PRODUCTS CORPORATION SPAIN S.A. initially created two new jobs and then, thanks to the good results obtained, hired another ten people in the areas of design, manufacturing and quality control, fostering economic development in the region. Thanks to the technological improvements implemented, the parts and components the company is capable of manufacturing respond to the needs of the national and international automotive industry and industrial sector.

ENVIROBAT ESPAÑA S.L. is based in Guadalajara (Castile-La Mancha), one of the "Transitory" regions; with this project, it is the only region of Europe with a process for recovering lithium from primary batteries. Lithium is a highly reactive metal with a high risk of fire if not handled properly. In recent years we have seen a series of accidents at sector companies while storing waste mainly destined for landfill. This project helps to prevent the use of landfills as an end destination for waste and offers a feasible solution to a recycling problem that affects everyone on the planet, as batteries are widely use across the world.

## 6. Consideration of the cross-cutting criteria of equal opportunities and non-discrimination, as well as social responsibility and environmental sustainability.

BRAHM PRECISION PRODUCTS CORPORATION SPAIN S.A. has proven its firm commitment and social responsibility and is greatly involved in training new generation of highly qualified professionals, collaborating closely with the University of Castile-La Mancha, one of the leading universities in Spain. Since the new R&D department was launched, many students have had the opportunity to complete work experience at the company, gaining more insight into technological knowledge acquired at the university.

This is a clear example of a project that drives the region as it has boosted economic development in the province, working with companies from La Mancha to supply materials as well as to provide technical and logistics services. Several companies in Ciudad Real have benefited from research conducted during the project by BRAHM PRECISION PRODUCTS CORPORATION SPAIN S.A.



ENVIROBAT ESPAÑA S.L. has a firm commitment to environmental sustainability, actively collaborating with the Regional Ministry of Sustainable Development in Castile-La Mancha and with the Spanish Government Ministry of Ecological Transition to implement specific policies that meet the needs of he recycling sector. As added value, ENVIROBAT ESPAÑA S.L. is a member of the European Battery Recycling Association (EBRA) and is responsible for the Circular Economy Working Group of the Spanish Batteries and Energy Storage Business Association (AEPIBAL), and therefore an important and necessary business liaison with public entities. The company also works with the main Integrated Battery Management Systems (SIG) in Spain and Europe, and carries out different activities related to environmental development.

The activity undertaken by ENVIROBAT ESPAÑA S.L. has a drag effect on the economy of La Mancha with two direct beneficiary companies: Logística Ambiental SL and Transportes Sedano, both based in the province of Guadalajara and that collaborate with ENVIROBAT ESPAÑA S.L. in transporting waste.

#### 7. Synergies with other policies or instruments of public intervention

The project presented by BRAHM PRECISION PRODUCTS CORPORATION SPAIN S.A. is fully in line with the strategic interest of the RIS3 Castile-La Mancha programme, which presents the Smart Specialisation Strategy for Research and Innovation in Castile-La Mancha and serves as an agenda for transforming the production model in the region, prioritising and supporting technological research and innovation. The ultimate objective of RIS3 Castile-La Mancha is for more progress, more employment and more competitiveness in the region, in line with the EU Horizon 2020 Programme.

The RELIBANE project by ENVIROBAT ESPAÑA S.L. meets the European Commission's objective in terms of achieving a Circular Economy and the objectives of the Pact for a Circular Economy promoted by the Ministries of Agriculture and Fisheries, Food and Environment and Economy, Industry and Competitiveness. The Pact for a Circular Economy aims to foster collaboration and coordination between companies and public administrations to jointly address today's environmental, economic and technological challenges. Recovering waste prevents overexploitation of increasingly scarce natural resources. The RELIBANE project recovers lithium from used batteries collected as waste. Lithium and other elements in the batteries could thus be used as a raw material for producing new batteries, reducing demand for raw materials and helping to comply with the commitments acquired by the EU as part of the United Nations 2030 Sustainable Development Agenda.





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