



Una manera de lacer Europa

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CDTI

Programa Operativo Plurirregional de España

Año 2021

Fondo Europeo de Desarrollo Regional

GOOD PRACTICES

THE 2015 CALL ERDF INNTERCONECTA GRANT FACILITY AWARDED IN GALICIA AND ASTURIAS EXEMPLIFIED IN THE DISMETASÍN AND ABECATIM PROJECTS

The CDTI, as the driving force behind business R&D&I, designed the instrument known as ERDF Innterconecta to generate innovative growth in less developed Spanish regions by supporting projects run through business consortiums and on specific topics.

Through this instrument, the CDTI improves cooperation at the regional level, the execution of projects based on the regions' needs and the promotion of greater territorial cohesion, while focusing its efforts on specific social challenges, such as health, food safety and quality, smart transport, climate change and efficient resource use, among others.

In this good practice, we present the ERDF Innterconecta facility in its 2015 call with the results obtained in the autonomous communities of Asturias and Galicia, exemplified in two projects, ABECATIM and DISMETASÍN, which are a model of regional cooperation and the driving of innovative development capabilities with ERDF support.

The ABECATIM project was run in a consortium by three Asturian companies, Hierros y Aplanaciones, S.A. (HIASA), the project leader and a member of the Gonvarri Group, AST Ingeniería and ADN Mobile Solutions. It consists of the development of a smart system for absorbing kinetic energy in impact attenuators, designed to protect vehicle occupants in collisions and run-off-road crashes at forks in the road and which, based on the impact produced, serves to determine the severity of the event, informing the pertinent authorities in real time of the scope of the problem on the road.

As for DISMETASÍN, it is an initiative coordinated by the Galician company Aceites Abril, S.L. and which has been developed in partnership with the companies Acolact, Alibos Galicia, Hifas da Terra and the Asturias-based company Friobas Basilio. Through the execution of this project, the companies were able to obtain ingredients with functional properties that were incorporated into diverse food matrices (oil, milk, chestnuts, preserves...) for the development of new products with functional properties and recognised health claims, serving to alleviate metabolic syndrome-related diseases, such as hyperglycaemia, increased LDL cholesterol, etc.

In Asturias and Galicia, the 2015 ERDF Innterconecta call signifies support for 232 operations (46% of all the initiatives approved in the call), which represented 77 projects by 196 companies, with a total grant amount of 53.6 million euros, accounting for 42.9 million of ERDF aid from Spain's 2014-2020 Multi-Regional Operational Programme.

The impact on both communities in terms of the total investment made by the companies for the execution of these initiatives stands at 107 million euros.



DISMETASÍN Project



ABECATIM Project

It is regarded as 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 initiatives with their representative companies comply with the information and communication obligations as ERDF beneficiaries, posting a description of the projects on their web pages and displaying an informative plaque of the co-financing in their facilities.

ABECATIM Project (Hierros y Aplanaciones, S.A. – HIASA)

Corporate website with information on the ABECATIM project, with its aims and highlighting the co-financing. <u>https://www.hiasa.com/</u>



An informative plaque of the ERDF co-financing installed in the reception area of the Hiasa offices:



DISMETASÍN Project (Aceites Abril, S.L.)

An own website was developed for the project containing information on its aims, participating companies, results, news, events and publications. The reference to the co-financing of the ERDF funds stands out in all the web contents. <u>http://dismetasin.es/</u>



DISMETASÍN project website

An informative plaque of the ERDF co-financing in the access to the offices of the company Aceites Abril.



Likewise, both initiatives have been disseminated through other communication actions:

Videos of ERDF - CDTI Good Practices

Production of videos about the initiatives with coverage in digital media, highlighting the support received from the ERDF funds and their contribution to the success of the ERDF Innterconecta facility.



https://www.youtube.com/watch?v=CHIbrbCpxLc&t=5s





https://www.youtube.com/watch?v=pToTeQilN2g&t=2s

News

National and regional public bodies, as well as associations and the specialised press, have disseminated news about both initiatives while they were underway and for the presentation of results.



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Social media

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Likewise, versions for social media of the videos on the initiatives were published with maximum exposure among the general public.





2. INNOVATIVE ASPECTS CONTAINED IN THE INITIATIVE

Both of the projects presented deliver highly relevant innovative aspects in their development and in the results obtained.

On the one hand, impact attenuator smart systems have so far been testimonial, pilot projects that have not reached their final implementation on Spanish roads. The development of the new smart attenuator at ABECATIM, totally new on the market, represents a great breakthrough in the industry. Until the execution of ABECATIM, there were projects that detect and warn of the existence of objects on the road, but no system capable of capturing vehicle impact-related images, enabling these data to be used to improve road safety and maintenance activities.

The ABECATIM project has developed smart, economical, more reliable, standard attenuators that include the use of smart models for accident classification and assistance in barrier location, and which are equipped for big data management in decision-making regarding smart attenuator location.

For its part, the DISMETASÍN project industrially formulates and develops functional ingredientenriched foods that help to reduce the symptoms of metabolic syndrome, such as hyperglycaemia, hyperlipidaemia and increased LDL cholesterol in the blood, through the use of functional ingredients and food matrices other than those commonly used. For the most part, the matrices that convey functional ingredients are dairy products, which can limit their consumption (food allergies, consumer preferences, etc.), whereas DISMETASÍN opens up the range of food matrices by expanding the selection of products available to consumers, such as oil, milk, chestnuts and preserves.

Furthermore, the project deals with the fact that there is no pharmacological treatment for the set of symptoms of metabolic syndrome, addressing related symptoms separately. However, diet provides more suitable opportunities for reducing these symptoms at the same time.

3. ADAPTATION OF THE RESULTS OBTAINED TO SET OBJECTIVES

The general aim of the ABECATIM project was the design and development of a system for absorbing kinetic energy in impact attenuators at speeds of up to 120 km/h, incorporating artificial intelligence for the detection and classification of accidents and the response to them, and which also reports the accident in real time.

The results obtained confirm that the system works properly, enabling it to be integrated into a highcapacity road, under real operating conditions, which was the aim pursued in the project and with the medium-term objective of its implementation in the future State smart road network.

Through the execution of the DISMETASÍN project, 100% of the initially proposed objectives were met thanks to the active collaboration of all the members of the consortium. In general terms, the participating companies were able to obtain ingredients with functional properties (beta-glucans, pectins, protein hydrolysates...), which were incorporated into diverse food matrices (oil, milk, chestnuts, preserves...) for the development of new products with functional properties and with recognised health claims.

The members of the consortium combined their capabilities and interests achieving common and individual benefits, which allowed them to increase their market competitiveness and, in tandem, to improve their production efficiency. As a consequence, jobs were safeguarded in the companies and product sales rose nationally and even internationally.

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

Both projects offer clear beneficial components for society on improving people's health and safety in their living conditions.

ABECATIM has addressed the Road Safety challenges posed by national and European policies on introducing state-of-the art accident evaluation and information systems at critical points on Spanish roads on **impact attenuators adapted to speeds of 120 km/h** with the aim of **reducing the impact of injuries and casualties** caused by run-off-road crashes on motorways and dual carriageways, and enabling protection services, such as road maintenance, **to act quickly**.

Passive safety and the installation of **Vehicle Containment Systems** (Barriers, Transitions and Attenuators) play a major role in **curtailing the aftermath of run-off-road crashes**.

On the other hand, metabolic syndrome is defined as a **multiple risk of cardiovascular disease and diabetes mellitus** that requires special clinical attention. Although most of the symptoms related to cardiovascular disease and type-2 diabetes have been known for decades, metabolic syndrome as such was defined in the 1980s. Several important components of this multiple pathology have been identified, such as abdominal obesity, high blood pressure, insulin resistance / glucose intolerance, a state of chronic inflammation and pro-thrombosis (predisposition to clot formation), liver disease and sleeping disorders (sleep apnoea syndrome), etc.

In this context, the DISMETASÍN project came into being with the aim of providing the food industry with **new mechanisms for obtaining functional ingredients and products** directed at alleviating metabolic syndrome-related diseases simultaneously, representing a **real alternative prior to reliance on pharmacological treatments** that have associated drawbacks, such as the need for a different drug for each related pathology.

In addition, this project involving companies from Galicia and Asturias represents a regional boost in that food is a strategic industry in these regions from a socioeconomic point of view.





5. HIGH DEGREE OF COVERAGE OF THE TARGET POPULATION

Road safety is a primary social issue. The cost to society is immense, not only in economic figures, but also in the terrible human dramas that occur.

One of the main causes of accidents is **run-off-road crashes**, accounting for approximately **30%** of all car accidents and **4 out of 10 deaths on the road**. ABECATIM makes it possible to study the types of accidents produced and the roads where they occur in order to obtain an overall picture of the critical points where installations must be improved and to facilitate decision-making, allowing the traffic fatality rate to continue falling.

The development of the DISMETASÍN project signifies the achievement of important benefits for society in general, enabling it to have at its fingertips a range of recognised functional products that counter metabolic syndrome-related diseases. It is worth mentioning that in **Europe the prevalence of**

this illness is over 25% of the general population and close to 50% in the case of patients with cardiovascular disorders. It is, therefore, a highly prevalent disease, which continues to rise gradually and affects the entire population in a very wide age bracket and regardless of the presence or absence of related pathologies and gender. This prevalence increases in parallel with age and overweight. This is a significant concern at the social level, in terms of the ensuing high healthcare costs, in addition to being detrimental to people's health and well-being.

DISMETASÍN also allowed the companies in the consortium to increase their marketplace competitiveness while improving their production efficiency.

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

The entities that ran the ABECATIM project took into account people's competence and training regardless of any other prejudice or distinction, focusing on their richness, value and dignity. Selection and hiring processes were conducted under conditions of equality, the objective determination of salaries and incentives, non-discriminatory training plans, occupational risk and health studies that pay special attention to the gender perspective and the introduction of a flexible schedule policy to promote the reconciliation of family and work, thus helping to increase productivity and to attract, retain and motivate talent.

The DISMETASÍN project employed highly qualified personnel and achieved, as a whole, a female participation accounting for 40% of the staff. In addition, the project contributes to and develops continuous circular economy policies as a basis for the development of new ingredients and products, which have a direct impact on environmental sustainability and provide access to an improvement in the social conditions of the surrounding area.

It is also worth mentioning that the entities participating in the project are companies linked to the territory and to their vicinity's social and business framework, since they are companies from primary sectors, such as dairy, fishing, agriculture and olive oil. Furthermore, the participating research centres and the rest of the collaborating entities make up a broad network across the regions of Galicia and Asturias, which allows the dissemination of results and showcases the importance of collaborative initiatives between the different players.

7. SYNERGIES WITH OTHER POLICIES OR PUBLIC INTERVENTION INSTRUMENTS

In Spain, the Road Safety Strategy for the 2011-2020 period, approved by the cabinet on February 25, 2011, included all those actions that were going to continue promoting and improving the road safety policy to ensure that the number of traffic casualties, both fatalities and serious injuries, carries on falling, in accordance with European Commission criteria.



ABECATIM acts on three of the four pillars of the Safe System proposed by the Spanish Road Safety Strategy: Safe Roads and Environments, Safe Users and Safe Speed. The DISMETASÍN project is aligned with the ERDF Operational Programme of Galicia and its Industries of the Future Programme 4.0 targeted at industrial research projects and strategic experimental developments focused on innovative industrial technologies.

Furthermore, one of the priorities of Horizon 2020 in the 2014-2020 period was dedicated to addressing society's main challenges, which include health, demographic change and well-being.





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