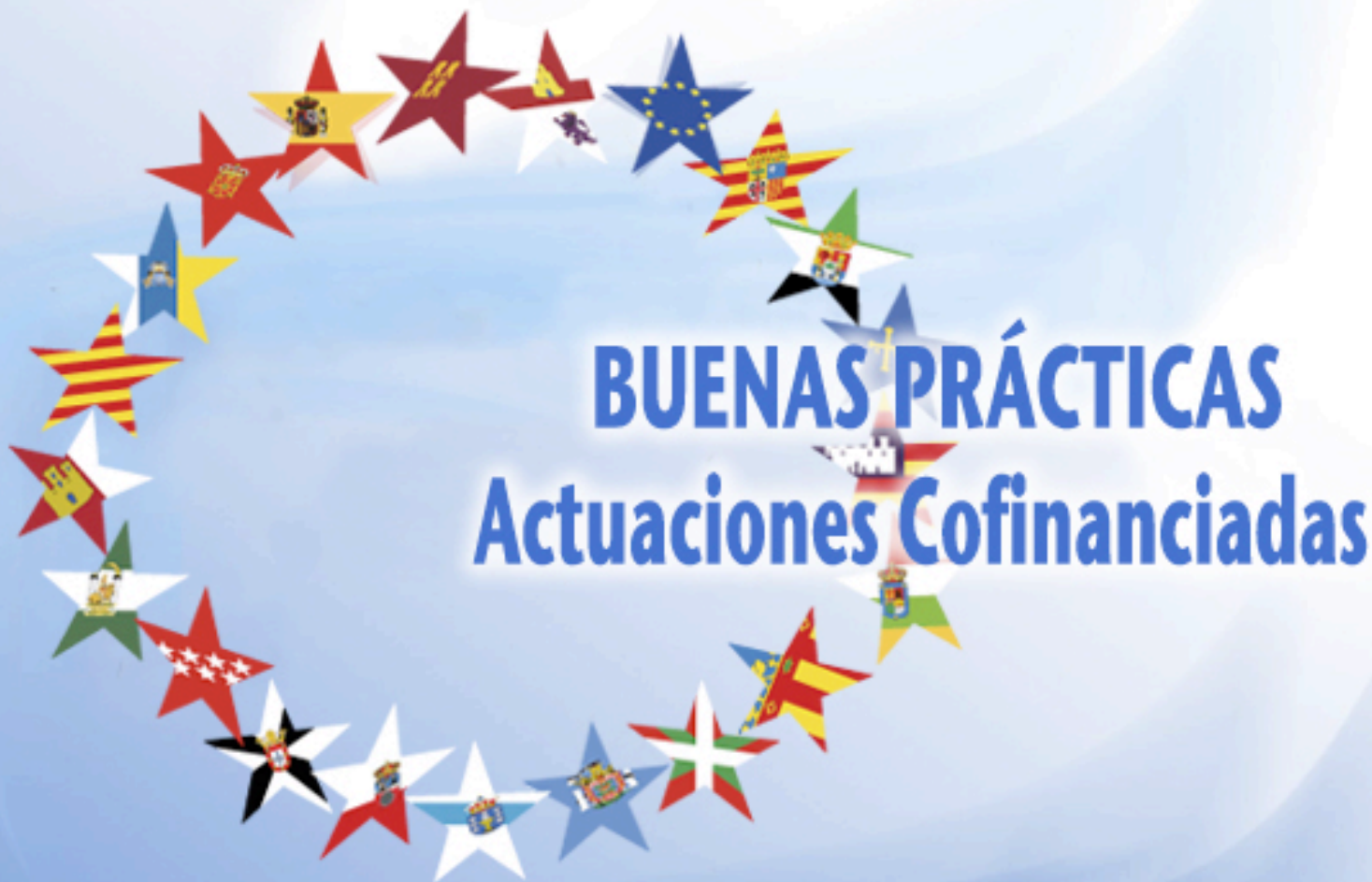


Una manera de hacer Europa



BUENAS PRÁCTICAS

Actuaciones Cofinanciadas

Innova-IDEPA aid line within the refractory ceramic products manufacturing sector, personalized in the projects developed by the companies Refractaria S.A. and Arcillas Refractarias S.A. (ARCIRESA)

Institute of Economic Development of the Principality of Asturias (IDEPA)

**Programa Operativo
del Principado de Asturias**

Año 2020

Fondo Europeo de Desarrollo Regional

Good Practice of the Innova-IDEPA aid line within the refractory ceramic products manufacturing sector, personalized in the projects developed by the companies Refractaria S.A. and Arcillas Refractarias S.A. (ARCIRESA)

The Institute of Economic Development of the Principality of Asturias (IDEPA) has launched the Innova aid line, in order to support companies in promoting innovative projects that can become a business reality, generating new products, services and / or or processes. These are grants aimed at carrying out projects of a marked technological nature that contribute to a competitive improvement of companies.

The good practice of this line of Innova aid is particularized in the refractory ceramics sector. Within this sector, the projects carried out by the companies Refractaria S.A. and Arcillas Refractarios S.A. (ARCIRESA) have been selected as an example of good practices in this line of aid.

The company Refractaria S.A. It was founded in 1948 and since then it has been dedicated to the manufacture of refractory material. Its products are intended for different sectors, such as the cement, steel, ceramic, foundry and aluminum industries, among others. With the help of the ERDF, through the Innova line, the company has developed a project that aims to improve the properties of the most common refractory materials.

For its part, the company Arcillas Refractarias S.A. (ARCIRESA), founded in 1952, is dedicated to the extraction, calcination and processing of refractory minerals for the refractory industry, as well as for the ceramic, sanitary, foundry and construction sectors. Thanks to the help received from the ERDF, through the Innova aid line, it has been able to develop a project for the reuse of industrial waste materials in the manufacturing process of its products.

In the refractory ceramic products manufacturing sector and within this line of action, a total of four projects have been executed, with a total eligible expenditure of 329,513 euros and an ERDF aid of 105,433 euros.

In terms of impact, it should be noted that these grants have entailed a private investment of 253,120 euros.

It is considered that the projects of Refractaria S.A. and ARCIRESA are a Good Practice for:

High dissemination among beneficiaries and the general public

The Economic Development Institute of the Principality of Asturias (IDEPA), as the granting body of the aid, has carried out all kinds of actions to disseminate the calls, where the ERDF financing has been made visible. It should be noted that several information sessions have been held to present the InnoVA aid line, with reference to its co-financing by the ERDF.



IDEPA has also launched media campaigns, through newsletters and mailings, on the aid and its co-financing by the ERDF and has prepared a summary sheet of the INNOVA call that is included on its WEB in a specific section called "FEDER Funds 2014-2020".

Programa Innova-IDEPA

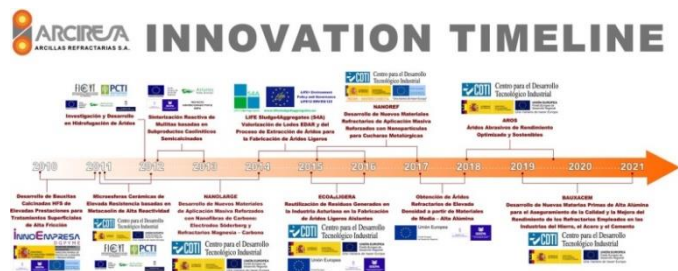
- **Objeto:** Promover la realización de proyectos innovadores de marcado carácter tecnológico, con el objetivo de contribuir a una mejora competitiva de la empresa
- Tres nuevos programas alineados con las **prioridades** de la Estrategia Asturias **RIS3**
 - **Sostenibilidad, Bioeconomía y Mercados Agroalimentarios**
 - **Digitalización de la Industria: Industria 4.0**
 - **Polo del Acero**
- Presupuesto previsto: **2.000.000 €**

21 de Julio - 3 de Octubre

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For its part, Refractaria S.A. and ARCIRESA have fulfilled the objective of disseminating the European Regional Development Fund among citizens. Thus, they include in their respective web pages images that prove the aid received from the ERDF.

The screenshot shows the Refractaria website with a news article titled "30-04-2014 Refractaria desarrolla refractarios conformados sin cemento obtenidos mediante fraguado químico." Below the article, there are logos for "Unión Europea Fondo Europeo de Desarrollo Regional" and "IDEPA Instituto de Desarrollo Económico del Principado de Asturias".



The companies have also made the dissemination of the aid through posters located in high visibility locations in their offices.



In the same way, the aid from the Innova line and its ERDF co-financing have been disseminated through web pages and social networks of both the beneficiary companies and the Economic Development Institute of the Principality of Asturias (IDEPA).



Additionally, the newspaper El Comercio published a report in its printed edition of September 26, 2018, with reference to the aid received from the ERDF by companies dedicated to the manufacture of refractory products through the Innova aid line.



Los operarios trabajan en las instalaciones de Refractoria, ubicada en El Berrón (Siero). (I) INNOVA+ (2) IDEPA

Refractarios desde Asturias para el mundo

La compañía Refractoria desarrolla innovadores productos en su planta de El Berrón con el apoyo del IDEPA y los fondos FEDER

S. B.

La importancia del refractario en el mundo es cada vez más clara. Quien lo fabrica es Juan José Meliá, director general de Refractoria, S.A., una empresa asturiana que este año ha cumplido su 70 aniversario y que en la última década ha dado un enorme salto hacia la internacionalización e innovación. Sus productos están hoy presentes en más de cincuenta países en virtud de seguir expandiéndose. Las claves del éxito Meliá no son otras que la gente, el equipo, un programa integrado por magísteres y profesionales con un amplio sentimiento de empresa. Somos como una familia bien avenida. Se trata de cumplir los compromisos.

Los cincuenta de esta compañía, que emplea a más de 90 trabajadores, están bien asentados desde su creación, en 1948, al menos en los vestros de aquella época, como la agencia máxima al cliente y el cumplimiento de los plazos, pero también con

hemos hecho más técnicas, pero también a innovaciones. Hemos admitido y ahora admitimos nuevos servicios, apunta su director general.

Refractarios
«Cualquier vidrio, metal, aluminio o estructura que utilicemos en el día a día necesita un refractario dentro de su proceso productivo, en la actualidad, las exigencias de nuestros clientes nos obligan a estar en continuo desarrollo, lo que requiere una inversión de investigación en nuestros hornos con combinaciones de multitud de elementos», explica Meliá. Por ello, Refractoria ha realizado una fuerte apuesta por la I+D+i que está teniendo buenos resultados y genera para algunos de sus clientes, para lo cual cuenta con el apoyo del sector sector público de Asturias, la I+D+i, el apoyo del Instituto de Refractoria, los fondos FEDER, IDEPA y los fondos europeos.

(Siero), ha desarrollado proyectos dirigidos como nuevas prácticas que le han permitido desarrollar innovadores productos. Uno de ellos son los refractarios conformados en hornos de alto rendimiento a partir de hornos de bagazo químico y otros hornos. Se fabrican de una sola pieza, sin necesidad de juntas en su estructura y no contienen cemento en su composición. Además, entre de sus ventajas es que tienen una mayor vida útil, lo que supone una mayor generación de residuos.

Otro proyecto ha consistido en el desarrollo de un nuevo producto refractario que contribuye a la mejora de la calidad del acero a través de la reducción de impurezas generadas durante el proceso de colado. Actualmente, la compañía trabaja en nuevos proyectos de I+D+i relacionados con la nanotecnología. Los productos de Refractoria están destinados a diferentes sectores, como la industria del cemento, del acero, del aluminio, fundición y aluminio, entre otros. Para mejorar su posición competitiva, Refractoria hace un gran esfuerzo en el desarrollo de nuevos productos o mejoras de los existentes, lo que le confiere ventajas frente a sus competidores (productos con mejores resistencias, aumento de la refractariedad, baja permeabilidad a agresivos químicos, mejor comportamiento a bajas temperaturas, etc.). Estas características, junto con el plan de internacionalización, le ha permitido estar presente en más de 50 países.



Juan José Meliá, director general de la empresa. (I) INNOVA+ (2) IDEPA

70 años creciendo

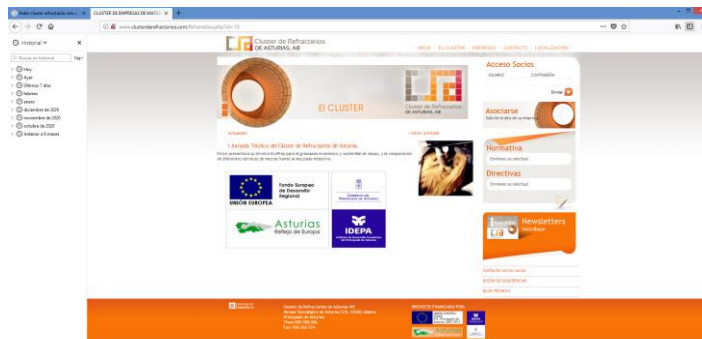
El B. B. Refractoria comenzó su andadura hace 70 años. La suma de la experiencia y del sector productivo refractario para la industria del acero en los hornos de colado por plasma, la industria y demás instalaciones metalúrgicas.

Años atrás, con la incorporación de la ciudad asturiana, la compañía se reestructuró su actividad en nuevos productos y procesos por vía seca y semiseca. Esta adaptación hace que la empresa entre en nuevos sectores como el aluminio, el aluminio, el vidrio, la cerámica, la

cal el papel, petroquímica, etcétera. En 1997 la sociedad lleva a cabo un ambicioso programa de renovación y amplía sus instalaciones con dos nuevas líneas de producción que complementan a las ya existentes. A finales de 2008 comienza a operar una nueva planta dedicada a la fabricación

de refractarios no conformados (hornos, masas y cementos), que incrementa notablemente la capacidad de producción de estos productos. Un año más tarde abre su oficina de ventas para América en México y Abu-Dabi en Turquía para Oriente Próximo. La compañía sigue estando ahora el futuro con grandes expectativas de crecimiento.

In the same way, the INNOVA aid and the ERDF co-financing have been disseminated in two days promoted by the Cluster of Refractory Companies of Asturias to which the two companies belong.



Incorporation of innovative elements

The project of the company Refractaria S.A. is called "Cementless shaped refractories obtained by chemical curing".

The innovative elements lie in obtaining a new series of refractory products that do not have cement or clay in their composition, which has great advantages compared to conventional refractories, since they allow the development of much larger pieces that adapt better to complex shapes. For customers, this leads to lower economic installation costs, mainly due to a shorter assembly time compared to the use of traditional parts of smaller sizes. In the long term,



the economic advantages are materialized in a longer useful life of the parts, as a consequence of their better characteristics and due to the significant reduction of the union joints, given their large size.

Regarding the project of the company ARCIRESA "Reuse of waste generated in Asturian industry in the manufacture of lightweight insulating aggregates (Ecoarligera)", the innovative element results from the use as raw material in the elaboration of refractory products of residual materials of an industrial nature generated in Asturias by other companies. This reduces the cost of manufacturing and enables the recycling of products that would otherwise end up in landfills.



Adequacy of the results obtained to the established objectives

Thanks to the project carried out, the ARCIRESA company has improved its position in the market by reducing its production costs due to the use of raw materials that are waste from other industrial companies. An example of this has been the increase in the volume of its sales, becoming the ninth company nationwide by volume of sales in the refractory sector.

For its part, Refractaria SA, the incorporation to its catalog of more competitive products, of large size and of more complex shapes, has allowed it to expand its sales in important markets such as foundry and glass, increasing the workforce to 90 workers. In addition, it has allowed it to enter a market of growing activity and in which it was not present, such as that of incineration activity.

Contribution to the resolution of a regional problem or weakness

Both projects try to correct one of the weaknesses of our production system, the reduced investment in R+D+i, and both projects develop technologies that are included in one of the fields of the Regional Strategy for Smart Specialization, Asturias RIS3, pillar important for the economic transformation of the Principality of Asturias.

As research, development and innovation are fundamental pillars of their business, both companies are making a great effort in terms of promoting activities for technological innovation. In this sense, both have an R+D+i department and a highly experienced multidisciplinary team, which allows them to advance in the design and analysis of the new products developed.



The projects executed by both companies contribute to the reorientation of research and innovation towards the needs of the production system, with investments linked to new products, which has allowed Refractaria S.A. and ARCIRESA to access new markets to which they had no access.

High degree of coverage of the target population

The performance of the company ARCIRESA has a very broad degree of coverage towards the population in environmental terms, since the reduction and reuse of industrial waste that could end up in the Asturias Waste Treatment Center benefits the entire population of Asturias.

As for Refractaria SA, its performance also has similar environmental effects, since by developing much larger pieces that have a longer useful life, it encourages client companies in this sector, such as steel, glass, etc., that have a large presence in Asturias, significantly reduce the waste they produce, and therefore, send to the Asturias Waste Treatment Center.

In addition, the actions of ARCIRESA and Refractaria S. A. have a direct relationship with improving the competitiveness of companies with a strong presence in the region, such as those related to the steel, cement, foundry and aluminum industries, among others. And this has a favorable impact on job creation and on economic activity in general.



Consideration of the horizontal criteria of equal opportunities and environmental sustainability.

Both companies carry out an activity that is respectful with the environment and, through the technological innovation carried out in processes and products, they have made decisive progress in sustainability.

In the case of Refractaria S. A, through the development of these innovative projects, the production of large refractories is achieved, in a single piece, without the need for joints in their structure and that do not contain cement in their composition. This entails a great environmental advance, since they have a longer useful life, which results in less waste generation.

In addition, by not using cement in the composition, some environmental problems are avoided, such as the erosion of the stone quarry area, the production of powders caused by the crushing of the limestone and the emission of pollutants into the air during the calcination process in the oven.

In the case of ARCIRESA, the use as raw material of industrial waste materials from other companies in the region constitutes an example of a circular economy. Rubble is reused to turn it into raw material so that it does not become waste.

The principle of equal opportunities between men and women and non-discrimination underlies the call itself, since among the requirements for the approval of the aid, is the acceptance of regional, national and community regulations on equality of opportunities. ARCIRESA y Refractaria S.A are also firmly committed internally to gender parity in the company's managerial positions.

Synergies with other policies or instruments of public intervention

The Innova-IDEPA grants are in line with the provisions of the Spanish Strategy for Science, Technology and Innovation 2013-2020 and complement other grants to the business fabric granted by different bodies of the General State Administration, which may also receive funding from the ERDF in the framework of the Pluri-regional Operational Program of Spain 2014-2020.

The objectives of the actions of Refractaria S. A and ARCIRESA are in line with the technological priorities of the Asturias Regional Smart Specialization Strategy RIS3.

Likewise, Refractaria S. A and ARCIRESA develop an important cooperation with the IDONIAL Foundation, a regional technological center dedicated to research and experimental support for regional companies related to the materials sector, with the University of Oviedo or with the National Carbon Institute. (INCAR, CSIC).

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