





# Una manera de Bacer Europa



Grants targeted to technology-based companies concretized in financial support to the biotechnology sector, personalised in the aid granted to this two companies: Nanovex Biotechnologies SL and Bioquochem SL.

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

Programa Operativo del Principado de Asturias

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Good practice presented by the Institute for Economic Development of the Principality of Asturias (IDEPA) in the form of grants targeted to technology-based companies concretized in financial support to the biotechnology sector, personalised in the aid granted to this two companies: Nanovex Biotechnologies SL and Bioquochem SL.

The Principality of Asturias through the agency for implementing the policy for promoting business development, The Institute for Economic Development of the Principality of Asturias, funds projects related to the fields of the Research and Innovation Strategies for Smart Specialisation 2014-2020, Asturias RIS3.

The purpose of the aid covered by this good practice is to promote pilot development and innovation process projects within the technological priorities of Asturias RIS3. The scope of this aid covers programmes relating to sustainability, bio economy and agri-food markets, digitalization of the industry, steel pole and health pole.

This good practice is framed in the biotechnology sector. In total, 21 projects have been implemented which means a total expenditure of 2.199.016 euros. FEDER support amounted to 1.786.968 euros.

As to the impact of these actions, it should be noted that this aid involves a private investment of 412.048 euros.

The IDEPA in the light of the operations carried out within the aid line, has selected two projects, developed in the biotechnology sector by **Nanovex Biotechnologies S.L** and **Bioquochem, S.L** which we present as example of good practices as they contain all the necessary elements to assess the impact of ERDF financing together with that of the Principality of Asturias on the modernization of the business fabric and the economic dynamization of our Autonomous Region.

The company **Nanovex Biotechnologies S.L** is a technological and innovative spin-off from the University of Oviedo launched in 2014 which offers a wide range of services and products in the field of Nano biotechnology, applicable in various sectors such as medicine, pharmacy, food, cosmetics, etc.



For its part, Bioquochem, S.L is a biotechnology company emerged from the University of Oviedo in

2015 that designs, develops and markets products portable devices) for the determination of oxidative parameters with special emphasis determination of antioxidant capacity. The measure parameter is suitable to be used in various fields health, food or sport, among others,



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It is considered good practice because it fulfils the criteria designed for that purpose:

## High dissemination among beneficiaries and the general public.

The Institute for Economic Development of the Principality of Asturias (IDEPA), as the body granting the aid, has carried out their dissemination through all kind of actions in which ERDF funding has been made visible.

Specific days have been held for the promotion of the calls for grants.





Outreach has also been developed in the IDEPA Active Newsletter with posters and new on the corporate website.



IDEPA website with news about grants



**Bioquochem, S.L** and Nanovex **Biotechnologies S.L**, comply with the regulatory provisions on communication imposed on the companies receiving ERDF financing. Posters containing information on the projects, mentioning financial support from the European Union, are available in its facilities. They also inform the public of the support obtained from the Funds through their respective websites.

Corporate communications actions:

#### NANOVEX BIOTECHNOLOGIES S.L



# **BIOQUOCHEM S.L**



These actions of communication and diffusion of the projects have been translated into articles published in the press, concerning the projects and the ERDF support to them.



#### The actions incorporate innovative elements.

The line of aid presented incorporates a clear innovative element itself, as it encourages the creation of technology-based enterprises. Both companies have the EIBT Brand which defines them as first-rate innovators.

The company Bioquochem, S.L, through this project, manages to increase the visibility of its products in different countries of the world geography. The innovative element of the Project financed by the aid line for technology-based enterprises financed by ERDF funds develops products for measuring oxidative stress (antioxidant capacity). This measuring equipment represents a major advance through the use of new technologies. They are fast thanks to the use of a portable device and without the need of qualified personnel to measure them.

These products to which we refer were not on the market and have led to a considerate improvement in the measurement of these parameters, both for the measurement of antioxidants in food and in blood or saliva samples.

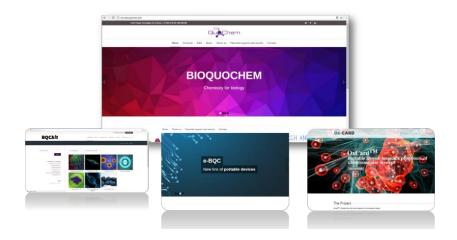
Regarding Nanovex Biotechnologies S.L innovative contribution to the Project "Development and set up of new nanomaterial-based products for use in bioassays and flow cytometry", it consists in the development of nanoparticles modified with biological material and Nano vesicles which are systems used to encapsulate compounds for application in new drugs. In this way, the active ingredients of the drug can be directed specifically to the particular ailments.

It is a Project that brings an innovative solution and high added value to a lack of our society, such as the development of new, more efficient and high-performance materials in health care.

#### Convergence of the results achieved with the objectives set.

The objective of the line of aids focuses on promoting the creation, start-up, development and consolidation of technology-based enterprises, so that technological research and development projects can become a reality that brings added value to the Asturias business fabric.

Bioquochem, S.L has achieved the objectives set out in this Project, which including both greater visibility of the company (improvement of the website and registration of the company's own trademarks: "Bioquochem" y "BQCkit") and the company's communication channels, as well as an improvement in the training of Bioquochem's workers in foreign trade to achieve a better export rate of the products marketed.



Regarding Nanovex Biotechnologies S.L the results have been in line with its objective of offering solutions to companies and research centres that lack the knowledge to Nano encapsulate. In addition, these results allowed the company to submit two communications to the "VII Workshop Analytical Nano science and Nanotechnology Congress (NyNA 2015)", held in Salamanca in July 2015, obtaining recognition of the validity and technical and scientific quality of the products developed during the project.



#### Contribution to the resolution of a regional problem or weakness.

The Principality of Asturias has traditionally been a region with an important industrial weight and to continue benefiting from this industrial leadership, it counts with the Asturias RIS3 Strategy on which pivots different programs and lines of action in the field of R+D+i, in order to strengthen the potentialities of the region to reinforce its industrial positioning, to focus on markets, to diversify production and to establish a new territorial model.

Both projects develop technologies that fall within one of the fields of specialization of the strategy and have a clear impact on correcting two of the weaknesses of our production system: low investment in R+D+i and a small number of technology based enterprises.

In this sense, Bioquochem, S.L y Nanovex Biotechnologies S.L, represent an example of the model that the regional government wants to promote oriented to the development of new products with a high innovative component based on science, technology and knowledge.



The Bioquochem, S.L project is characterized by the design and development of products for the determination of oxidative stress, which is the trigger of a large number of pathologies and the direct cause of cell aging. This can contribute to improving the quality of life of our elderly.

About the project promoted by Nanovex Biotechnologies S.L, it is characterized by the development and use of new materials (another priority of the RIS3), for the production of Nano vesicles as raw material as for nanoparticles. This type of materials can be modified with different biomolecules and used to replace the enzymes used until now, including a lower use of raw materials and a lower cost.

#### High coverage of the target population.

As regards the aid granted to Bioquochem, S.L project, it has a high incidence, since this oxidative stress parameters are intimately linked to health and in particular to diseases associated with ageing such as prostate cancer or stroke, fields in which Bioquochem works actively.

In the case of aid to Nanovex Biotechnologies S.L project, it has impact on the health system and attention to citizens. The company has placed on the market a range of products based on different nanomaterial as a more efficient, simpler alternative and with a lower cost than products traditionally used by companies and public bodies in the health sector, devoted to the study, detection and treatment of various pathologies such as cancer, Alzheimer or coronary disease, among others.

#### Consideration of horizontal criteria for equal opportunities and environmental sustainability.

Bioquochem, S.L project allows the determination of oxidative stress parameters in simpler way that traditional methods, using 75% less chemical reagents than the methods currently on the market. Subsequently the amount of chemical waste generated in these analyses is minimal.

Furthermore, the measure of antioxidant capacity (one of the strong features of Bioquochem) can be used as a marker for the life of a product, so the valuation of this parameter with the method developed by Bioquochem can help in the disappearance of perishable food waste.

As regards equal opportunities, the work team that develops the project is made up of 75% women. Moreover, the management tasks of the company (Directorate General and Management of R+D+I department) are managed by a woman and a man respectively.

In terms of environmental aspect, Nanovex Biotechnologies S.L. project allows to reduce the use of raw materials in the pharmaceutical sector. In food-related projects they allow to offer functional foods with smart tagging that let us know whether or not the food is in good condition. This can help to reduce food waste.

As regards the principle of equal opportunities for men and women, it underlies it, because among the requirements listed in the call for receiving the aid, compliance with the regional, national and Community normative is included. In this case the presence of women in the work team reaches 60% of the total.

## Synergies with other public intervention policies or instruments.

The objectives of the two selected actions are in line with the Research and Innovation Strategies for Smart Specialisation 2014-2020, Asturias RIS3, key element on which advocacy and support for regional R+D+i policies revolve. This is a key strategy to move forward on economic and social development, essential tool to achieve industrial leadership through technology, target our products to new markets, focusing on diversification and establishing a new territorial management model.

They are also in line with the provision of the Spanish Strategy for Science and Technology and Innovation 2013-2020, supplementing other support to the business fabric subsidized by different agencies of the General Administration of the State, which may also be financed by the European Regional Development Fund in the context within the framework of the Pluriregional Operational Programme of Spain 2014-2020.







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