

SECRETARIA DE ESTADO DE PRESUPUESTOS Y GASTOS SECRETARIA GENERAL DE FONDOS EUROPEOS DIRECCION GENERAL DE FONDOS EUROPEOS



BUENAS PRÁCTICAS

Actuaciones Cofinanciadas



Una manera de lacer Europa

Aid line of the Economic Development Agency of La Rioja (ADER) for the implementation of R & D projects in the food sector: PLASFORMERS Project

Programa Operativo de La Rioja

Año 2022

Fondo Europeo de Desarrollo Regional

Good practice of the Economic Development Agency of La Rioja (ADER), of the aid line for the implementation of R & D projects in the food sector and, in particular, the grant awarded to the University of La Rioja, in collaboration with the Rioja Health Foundation, and the Association for Research, Development and Innovation in the Agri-Food Sector (AIDISA) — Agroalimentary Technological Center (CTIC — CITA): PLASFORMERS Project

The Economic Development Agency of La Rioja (ADER) is a public entity of the Government of La Rioja attached to the Departement of Autonomous Development, in charge of developing the policy of economic-industrial promotion, mainly in the field of small and medium-sized enterprises (SMEs).

It has a main role, since it offers aids and services that support companies from their earliest stages and throughout live-cyrcle. Among these grants, the firm commitment to promote and support R & D & I in the Rioja business fabric stands out, since it is an essential tool in improving competitiveness and allows companies in La Rioja to achieve a better positioning in specialised and highly competitive markets

The aid in which this good practice is framed aims at financing research and development (R & D) projects and innovation in processes and organisation, carried out by companies in the **agri-food sector** in La Rioja.

The **agri-food sector** has well-known food companies at national and international level (carnics, coffee, mushrooms, preserves, sausages, biscuits...), such as Alejandro Miguel, Arluy, Conservas El Cidacos, Eurochamp, Heinz, Palacios, UCC Coffee; and drinks (wineries), which make La Rioja a brand of quality, prestige and good work. Around them, a large group of companies are also created to provide assistance, which are indirectly part of this very important sector. It is a traditional sector in La Rioja, where research, development and innovation acquire a fundamental importance for the modernisation of companies, ensuring that their survival and the assistance of the European Regional Development Fund (ERDF) is indispensable.

As far as the financial year 2016 in the agri-food sector is concerned, it has allowed the development of 14 **new R & D projects** co-financed by the Regional Development Operational Programme ERDF of La Rioja 2014-2020, with a budget of 1 million euros, of which 50 % correspond to the co-financing of the ERDF. As for the impact of this aid, we must highlight an investment associated with these projects of a total of EUR 4 M.

Among all the aid granted, we can highlight **PLASFORMERS** the project, which investigates the application of atmospheric plasma for disinfection in food and health and which has been allowed to the University of La Rioja, in collaboration with the Rioja Health



Foundation, and the Association for Research, Development and Innovation of the Agri-Food Sector (AIDISA)-Agri-Food Technological Center (CTIC — CITA), with a total eligible cost of EUR 161,603.

The PLASFORMERS project consist of the industrial research of Atmospheric Pressure Cold Plasma (APCP) technology to adapt it to the application of bacterial disinfection in the field of food and health.

The three entities have worked on the validation of cold plasma technology in the fields of food and health, which would allow the development of industrial prototypes and their approach to the market. Specifically, its use as an alternative to chemical disinfectants (limited by current legislation) for the disinfection of plant raw materials has been investigated, seeking, also the application of plasma to avoid the formation of biofilm (microorganisms attached to a surface) and the persistence of pathogenic bacteria causing infectious diseases.

This action can be highlighted as a good practice, according to the following criteria:

1. The action has been properly disseminated to beneficiaries, potential beneficiaries and the general public

The management centre –the **Economic Development Agency of La Rioja** (ADER)-, has made a wide promotion of the call for grants to inform potential beneficiaries about the funding opportunities offered by the European Funds and has made this information available to as many potential beneficiaries as possible. In the same way and in compliance with its regulatory obligations, the results obtained from them have been made known to citizens and the media.

For the promotion of the 2016 call for aid, the website of the management centre (ADER) — ESI Funds has been used: <u>http://www.ader.es/ayudas/fondos-eie/</u>



In addition, the main economic agents of the region have collaborated, that is the Chamber of Commerce, Industry and Services of La Rioja and the Federation of Entrepreneurs of La Rioja (FER). We can also name some technological centers: in the case of the agri-food sector we have the Agro-Food Technology Center (CTIC — CITA), located in Alesón (CTIC) and Calahorra (CITA). They have been in charge of the organisation of information days on the call for aid, so that the entrepreneurs from La Rioja have been able to access direct information about the call and carry out the relevant consultations.



In addition, the project has been given a wide promotion through press releases and news included in different media (20 Minutes, El Economista, Europa Press, La Rioja, Nine Four One...), hightlighting the funding of the European Union with resources from the European Regional Development Fund (ERDF):

'Plasformers', un proyecto riojano para lograr una alternativa a los desinfectantes químicos



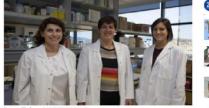


LA RIOJA DA La venganza del gran tenedor: "Nos quieren echar de

El proyecto 'Plasformers' investiga el plasma atmosférico para desinfección en alimentación y salud

EUROPA PRESS/ NOTICIA / 11.10.2017 - 09:46H

La Fundación Rioja Salud, la Universidad de La Rioja y el CTIC-CITA colaboran en



to 'Plasformers' (Plasma for Food and Medical Research), ou a el uso de la tecnología de plasma atmosférico para la desinfección bacteriana en los ámbitos de la alimentación y la salud.

El proyecto 'Plasformers' -cuyo fin último es lograr una alternativa más ecológica y eficaz al uso de desinfectantes químicos- cuenta con un presupuesto global de 373.457,79 euros financiados por la Agencia de Desarrollo Económico de La Rioja (ADER) y los Fondos Europ Desarrollo Regional (FEDER).



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La Rioja Crisis del coronavirus Logroño Comarcas 🗸 Sucesos Turismo en La Rioja

Rioja Salud, UR y CTIC investigan una alternativa 'eco' a los desinfectantes químicos

LA RIOJA les, 18 octubre 2017, 23:03



logroño. El proyecto denominado 'Plasformers', que se desarrolla en La Rioja, tiene como fin averiguar alternativas ecológicas a los desinfectantes químicos, para lo que investiga el uso de la tecnología de plasma atmosférico para la desinfección bacteriana en los ámbitos de la alimentación y la salud.

La Fundación Rioja Salud, la Universidad de La Rioja (UR) y el Centro Tecnológico de la Industria Cárnica y de Innovación y Tecnología Alimentaria (CTIC-CITA) de La Rioja colaboran en este proyecto, cuyo presupuesto es de 373.457 euros. El proyecto está financiado por la ADER y los fondos FEDER.

Las tres entidades trabajan en la validación de la tecnología de plasma frío en los campos de la alimentación y la salud, lo que permitiría el desarrollo de prototipos industriales y su acercamiento al mercado. Investigan su uso como alternativa a los desinfectantes químicos -limitados por la legislación vigente- para la desinfección de materias primas vegetales.



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LOGROÑO, 11 Oct. (EUROPA PRESS)

ión Rioja Salud, la Universidad de La Rioja y el CTIC-CITA (lasformers' (Plasma for Food and Medical Research), que inver to Plasfe ica el uso de ----gía de plasma atm entación y la salud ra la de

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E equipo científico es dirigido por el Investigador del Departamento de Ingeniaria Macánica de la Universidad de La Rioja, Fernando Aba Elias. Por parta de la Fundación Rioja Salud partólogia Yolunda Sáera Dominguez, investigación principai de la Unidad de Minorbiologia Minoraluz como concertadores de la investigación en el Centro de Investigación Biomádica de La Rioja (CIBIR).





EX 35 | Cotizaciones | Análisis técnico | Criptomonedas | Mercados | Jubilación

Un proyecto averiguará alternativas ecológicas a los desinfectantes químicos @

El proyecto denominado "Plasformers", que se desarrolla en La Rioja, tiene como fin averiguar alternativas ecológicas a los desinfectantes químicos,[...]

FINANZAS.COM 11 OCT 2017 / 07:35

El proyecto denominado "Plasformers", que se desarrolla en La Rioja, tiene como fin averiguar alternativas ecológicas a los desinfectantes químicos, para lo que investiga el uso de la tecnología de plasma atmosférico para la desinfección bacteriana en los ámbitos de la alimentación y la salud.

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LAVANGUARDIA

- La Fundación Rioja Salud, la Universidad de La Rioja y el CTIC-CTIA colaboran en el proyecto 'Plasformera' (Plasma for Food and Medical Research), que investiga el uso de la tecnologia de plasma atmosférico para la desinfección bacteriana en los imbitos de la alimentación y la salud.

REDACCIÓN 11/10/2017 08:52 LOGROÑO, 11 (EUROPA PRESS)

La Pundación Rioja Salud, la Universidad de La Rioja y el CTIC-GTA colaboran en el proyecto l'Basformeri 'Orlama for Food and Madical Researchi, que mivestiga el use de la tecnología de plasma atmosfírico para la destinfección bacteriana en los ámbros de la alimentación y la salud.

El proyecto 'Hasformera' -cuyo fin último es lograr una alternativa más ecológica y a folcaz al uso de desinfectantes químicos -cuenta con un presupuesto global de 373.4779 euros financiados por la Agencia de Desarrollo Tocomínico de La Rioja (ADER) y los Fundos Europeos para Desarrollo Regional OFEDERA.

Le equipo científico es dirigido por el investigador del Departamento de Ingeniería Mecinica de la Universidad de La Ricia, Fernando Alba Elías. Por patto de la Fundación Ricia Salud participa Volanda Sienz Dominguze, investigadora principal de la Unidad de Microbiología Molesular, como coordinadora de la Riceja (CIRNO).



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The bodies involved and beneficiaries of the aid have communicated the ERDF support through the posters placed on the premises and their respective websites:

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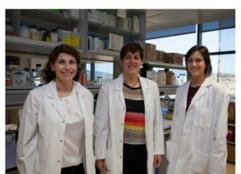
University of La Rioja



https://www.unirioja.es/servicios/sgib/investigacion/proyectos_regionales.shtml

Rioja Health Foundation

El proyecto de investigación, vinculado al área de alimentación y salud, está financiado por la ADER y por fondos FEDER.



Regional (FEDER)

El proyecto de investigación, vinculado al área de alimentación y salud, está financiado por la ADER y por fondos FEDER

La Fundación Rioja Salud, la Universidad de La Rioja y el CTIC-CITA colaboran en el proyecto 'Plasformers' (Plasma for Food and Medical Research), que investiga el uso de la tecnología de plasma atmosférico para la desinfección bacteriana en los ámbitos de la alimentación y la salud.

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https://www.fundacionriojasalud.org/noticias/253-investigacion-de-la-adecuacion-de-farmacos-frente-al-vihen-la-rioja

<u>Association for Research, Development and Innovation of the Agri-Food Sector (AIDISA) — Agri-Food</u> <u>Technological Centre (CTIC — CITA)</u>

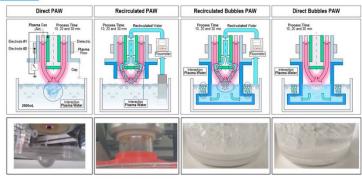


http://ctic-cita.es/nc/saladeprensa2/noticias/noticia-individual/article/ctic-cita-participa-en-la-investigacion-de-alternativas-ecologicas-a-los-desinfectantes-quimicos/

2. The performance incorporates innovative elements

Plasma is the so-called "fourth state of matter" (the other three are solid, liquid, and gaseous). In atmospheric plasma technology, a gas is altered until a mixture of reactive particles is obtained, being very effective in the thorough cleaning of surfaces.

Plasma Activated Water



In recent years, a great research effort has been made in the development of conservation technologies based on new principles, different from heat, encompassed under the name of emerging food conservation technologies. Its objective is to inactivate the microorganisms and enzymes present in them without altering their nutritional, organoleptic and functional characteristics. One of the most recent is nonthermal atmospheric plasma.

Plasma Activated Water: PAW Generation Methods

The innovative element of the project lies in the validation of cold plasma technology in the fields of food and health. Mainly, its use as an alternative to chemical disinfectants (limited by current legislation) for the disinfection of plant raw materials and the application of plasma to avoid the formation of biofilm (microorganisms attached to a surface) and the persistence of pathogenic bacteria causing infectious diseases.

3. Alignment of the results obtained with the objectives set

The results of the project raise the possibility of using direct plasma and plasma activated water as decontamination-disinfection methods, both in previous treatments of preparation of plant matrices and in treatments applied to surgical material.

Furthermore, they also propose its use for previous disinfection treatments in foods that are going to be consumed immediately, hospitality industry, or prior to freezing or mild heat treatment, etc. Plasma Activated Water



PLASTA FOR 1000 & MEDICAL RESEARCH

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

The financial support of these projects contributes to the resolution of weaknesses in our region, such as the low expenditure on research and development, far from the objectives of the European Union. This aid is therefore intended to strengthen the system of research, development and innovation.

Likewise, it implies the adaptation of a traditional sector such as agri-food to the new standards of quality and innovation demanded by markets, are increasingly competitive and more international.

5. High degree of coverage on the population to which it is targeted

As a result of the development of these operations, there is a contribution to the improvement of the competitiveness of the economy, and thereby to the improvement of the conditions of the workers of the beneficiaries.

Likewise, through the investment aimed at the development of innovative products, it encourages the

improvement of the pre-existing ones in the national and international market to which companies are targeted, so that the final consumers of these products can also benefit from this type of investment.

Similarly, plasma research as decontamination-disinfection methods, mainly in the food sector, benefits all final consumers of food products, with a high microbiological quality, without adding additives and preservatives.

6. Consideration of horizontal criteria of equal opportunities, non-discrimination, as well as social responsibility and environmental sustainability

The call for aid from the ADER for the development of R & D and innovation projects in processes and organisation comply with the horizontal principles granting an extra 0.5 % premium of aid to those beneficiaries who demonstrate a certificate in force of certification models, in the field of labor relations, corporate social responsibility, family reconciliation and work life, equality plans, family responsible companies and occupational risk prevention systems, such as Standards or Models SA 8000, SGE 21, IQNet SR10, EFR, ISO 45001, Ohsas 18001, and current ones.

Likewise, this specific project has had a great representation of women in the coordination and development of the work, helping to spread the presence of women in the scientific and technological field.

7. Synergies with other policies or instruments of public intervention

The PLASFORMERS project has been the forerunner of a strong and fruitful relationship between its partners that has materialised in the presentation and concession of other projects also related to the field of disinfection using plasma technology also co-financed by the ERDF and MINECO such as the NEW-PAWER projects (New PAW Technology for Plant Stabilisation Research); RAPANUI (Anti-Biofilm coatings by non-balanced Atmospheric Plasma-polymerisation for use in the food industry); the EDIPACC project (Pilot Study of Pear Disinfection in Postharvest Using Active Water with Plasma as a measure for the mitigation of Climate Change) that is part of the actions developed within the framework of the Rural Development Program of La Rioja.

PLASFORMERS has also been the germ for the development of other projects such as "Plasma Applications for Smart and Sustainable Agriculture (PlAgri) or "Therapeutic Applications of Cold Plasmas (PlasTHER)" that are developed by participating in COST ACTION of the European Union (International Programme for European Cooperation in the Field of Scientific and Technical Research).



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