REPORT ON SPANISH SUPRA-AUTONOMOUS EIP-AGRI PROJECTS 2014-2022

The report summarizes the first funding period (2014-2022) of the European Innovation Partnership for Agricultural Productivity and Sustainability (EIP-Agri) operational groups, implemented at supra-autonomous level in Spain. Since the launch of EIP-Agri in 2014, 124 EIP-Agri projects have been funded under the National Rural Development Programme (PNDR) 2014-2022, submeasure 16.2, and co-funded by the European Agricultural Fund for Rural Development (EAFRD).

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Unión Europea
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PNDR
Programa Nacional de Desarrollo Rural 2014-2020

MINISTERIO DE AGRICULTURA, PESCA Y ALIMENTACIÓN

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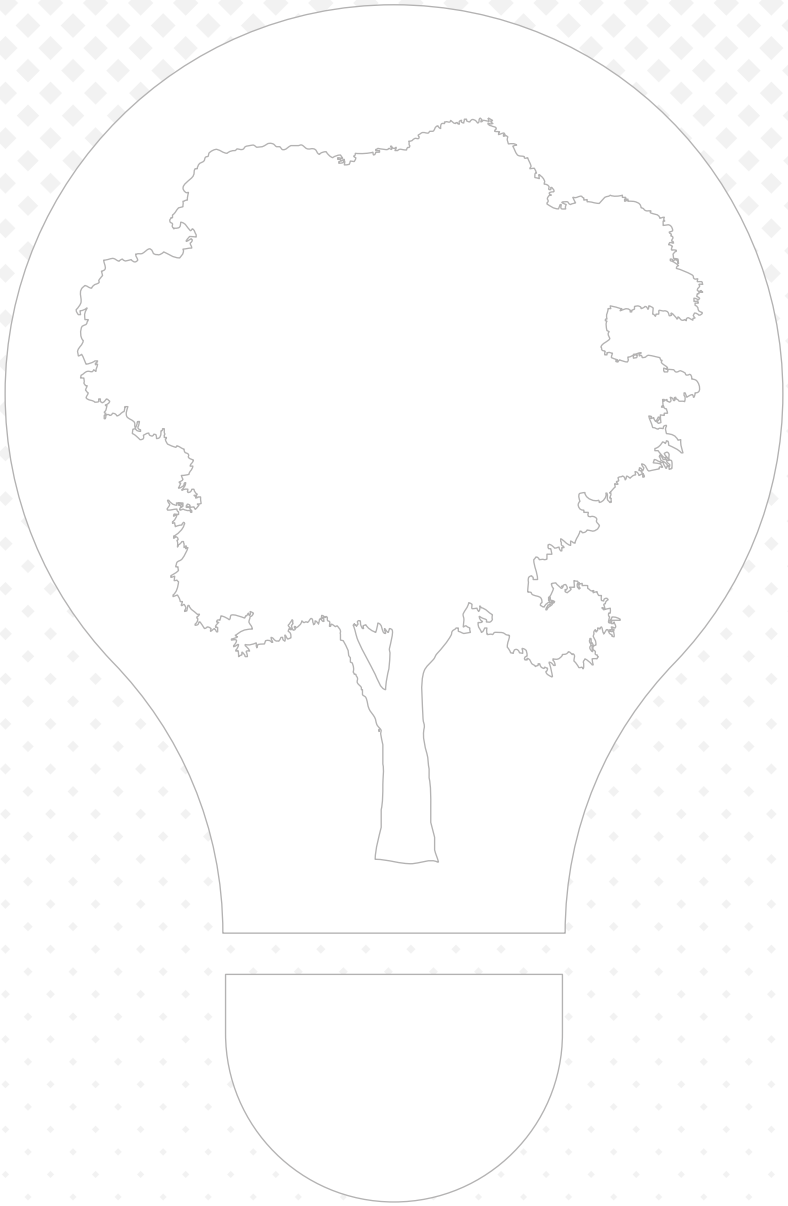
Report on Spanish supra-autonomous EIP-AGRI projects 2014-2022



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Programa Nacional de Desarrollo Rural 2014-2020

Madrid, 2023

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Preamble

It is now more than 10 years since the European Innovation Partnership for Agricultural Productivity and Sustainability (EIP-Agri) was established at European level, which, together with other partnerships, has become part of the 'Innovation Union' within the framework of the Europe 2020 Strategy. For the period 2014-2022, the EIP-Agri was implemented through multi-actor projects and thematic networks of the Horizon 2020 programme, **but also through the cooperation measure of the rural development policy of the CAP, in the rural development programmes of the different territories and Member States of the European Union.**

In Spain, between 2014 and 2022, this measure was implemented at regional level by 15 Autonomous Communities in their Rural Development Programmes (RDP), and at supra-autonomous level by the Ministry of Agriculture, Fisheries and Food through the National Rural Development Programme (NRDP). For the Ministry, a whole world of opportunities opened to stimulate collaboration between stakeholders from different autonomous communities willing to work as a team, in open and interactive innovation, in the face of far-reaching challenges and opportunities for the agrifood and forestry sector, identified by themselves with a bottom-up approach. At the supra-autonomous level, it was decided to support both the creation of operational groups around the design of an innovation project and the practical implementation of innovative projects. Initially, around 100 million euros were earmarked for this fund throughout Spain, a figure that has gradually risen to over 124 million euros because of the great acceptance of these multi-actor approach frameworks for innovation in the agrifood and forestry sector, their high proposal capacity, the exhaustion of the credit of all the calls for proposals and the success in implementing the projects. In the specific case of the Ministry in 2022, the allocation of fund to innovative groups was increased by 11% compared to what was originally programmed.

At ministerial level, our commitment was clear from the outset: we must reward those who propose to innovate in open frameworks, together with other stakeholders, whether they are part of the supply chain, auxiliary service providers or scientific and technical entities, to demonstrate that the agrifood sector can achieve high levels of innovation. This is the best lever to achieve a more competitive, more sustainable sector, essential for food security and capable of generating enormous impacts, including social impacts in rural areas.

Source: Ministerio de Agricultura, Pesca y Alimentación

Taking stock of this measure at a time when the new CAP period 2023-2027 is just beginning and the previous one is coming to an end, it is possible to see how far we have come. As a result of the 2016 and 2018 calls, 177 supra-autonomous operational groups have been created and have been able to design their innovative projects, and on the other hand, 124 supra-autonomous operational groups have carried out 124 innovative projects (23 initiated this year) with awards totalling 70 million euros of public expenditure, making the Ministry the main financier of EIP-Agri innovation in Spain. As far as the management of the Ministry is concerned, we have carried out a total of 6 calls for proposals, with more than 1,100 applications received and more than 800 entities of very different types participating (from SMEs to producer organisations, cooperatives, large companies, research centres, professional agricultural organisations, universities, non-profit organisations of the agrifood and rural civil society, etc.), which form part of these multi-actor consortia, which are the operational groups. Thanks to its good work, practical initiatives have been implemented to provide innovative solutions in many of the country's important production sectors, such as in crop production, livestock farming, the food industry, forestry and rural development, addressing a wide range of issues, from improving farm management, optimising fertilisation, genetic improvement, mitigating and adapting to climate change, promoting quality products, improving marketing, to social innovations such as mechanisms to prevent land abandonment, promoting the installation of young farmers, etc. Furthermore, with each call for proposals, digitalisation has become an increasingly important cross-sector theme for the entire agrifood chain, with funding going to interesting initiatives for the adoption of all types of new technologies in crop production, livestock farming and Industry 4.0. (digital sensing, blockchain, artificial intelligence applications, platforms, and other comprehensive data sharing frameworks, etc.).

In particular, this fund has also served as a test-bed for open innovation in the agrifood and forestry sector, at a time when innovation has been strongly promoted through all kinds of modalities and instruments, both within the Transformation and Resilience Recovery Plan and its commitment to the double digital and ecological transition, and the agrifood PERTE (a good example is the fund for its Axis 1, which required the formation of large consortia) or the Horizon Europe programme.

In this new period that we have just started (2023-2027), the Ministry's commitment to innovation is not only maintained, but strengthened with more resources (75 million euros programmed for the Ministry's support to supra-autonomous innovative projects through operational groups) and the commitment to contribute to the strengthening of the Agricultural Knowledge and Innovation System (AKIS) in Spain, through a very pluralistic body for its coordination and governance. In addition, 14 Autonomous Communities have also programmed in their territories this EIP-Agri intervention. Therefore, in total in Spain 168 million euros were programmed in the Spanish CAP Strategic Plan 2023-2027 to continue promoting a competitive agrifood sector and an economically, socially, and environmentally sustainable rural environment.

To this small balance sheet in terms of economic figures and the number of initiatives supported, I would like to add my own personal balance sheet, given the special bond I have with these grants. From the very beginning, I took on the task of contributing to the promotion of open, multi-actor innovation in the Spanish agrifood sector, at first practically alone in the then Directorate-General for Rural Development and Forestry Policy, and gradually with a growing team, which was the seed for the creation of the Sub-Directorate-General for Innovation and Digitalisation within the new Directorate-General for Rural Development, Innovation and Agrifood Training in 2018. In particular, I would like to thank all those who have been involved in this type of innovation and who have taken care to disseminate its results, in particular the Ministry officials involved in the management of both the Sub-Directorate General for Innovation and Digitalisation and the Sub-Directorate General for Market Regulation of the FEGA, but also the managing authority of the Spanish National Rural Development Programme and the Ministry's Directorates General involved in the evaluation of the projects. I would also like to mention other stakeholders without whom the implementation of this measure at supra-autonomous level would not have been possible, such as the Instituto Nacional de Investigación y Tecnología Agroalimentaria (INIA), now part of the CSIC,

Tragsatec and the Intervención Delegada in FEGA. And, of course, all the supra-autonomous operational groups and their members, who are the real protagonists of this measure's success. Together, I am convinced that we can contribute to placing the Spanish agrifood sector at the forefront of innovation in the European Union, where a strong Spanish agricultural knowledge and innovation system will benefit the agrifood sector itself, rural areas, consumers and, in short, society.

Mrs. Isabel Bombal Díaz

Director General for Rural Development, Innovation and Agri-food Training.

Ministry of Agriculture, Fisheries and Food

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MINISTERIO DE AGRICULTURA, PESCA Y ALIMENTACIÓN

Source: Ministerio de Agricultura, Pesca y Alimentación

Overview
of innovative projects under submeasure 16.2 PNDR 2014-2022


Source: Ministerio de Agricultura, Pesca y Alimentación

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1. INTRODUCTION

The Ministry of Agriculture, Fisheries and Food has overseen sub-measure 16.2, which provides funding for innovation projects of general importance carried out by supra-autonomous operational groups of the European Innovation Partnership 'Agricultural Productivity and Sustainability'. This falls under the National Rural Development Programme (NRDP) 2014-2022. The key features of these grants are outlined below:

- These resources serve to assist with the execution of preliminary undertakings and the invention of novel commodities, procedures, systems, and technologies within the agricultural, forestry, and agri-food industries. They also have the potential to encompass the production and promotion of goods and services.

- Projects should involve new activities rather than those currently being undertaken. These activities can vary widely, incorporating both innovative techniques and products, as well as conventional methods adapted to new digital, environmental, or geographical contexts. Basic research is not funded.

- The projects are carried out by Operational Groups (OGs), consisting of at least two public or private individuals or legal entities that come together to implement new and inventive projects. All of this conforms to a multi-actor approach where various entities from the agri-food and forestry industry are involved in the development of the pioneering scheme (a minimum of one entity from the agri-food or forestry sector must participate), in addition to bodies from allied sectors such as research and knowledge, technology firms, advisory services, non-profit organisations, and any other stakeholder that significantly contributes to delivering the project. This collaboration permits joint development, creation, and ownership of outcomes, recognised as interactive innovation.

- The group may not exceed 16 members when employing the 8+8 methodology. In simpler terms, there can only be up to 8 beneficiaries (who receive the grant), 8 collaborators (who provide non-financial support), and subcontractors (who are hired by the beneficiaries).

- A supra-regional scope is necessary, wherein the task force comprises members from a minimum of two different Autonomous Communities or from a national level. Also, the execution of the project must take place in two or more Autonomous Communities, and the dissemination of the project must be at a national level.

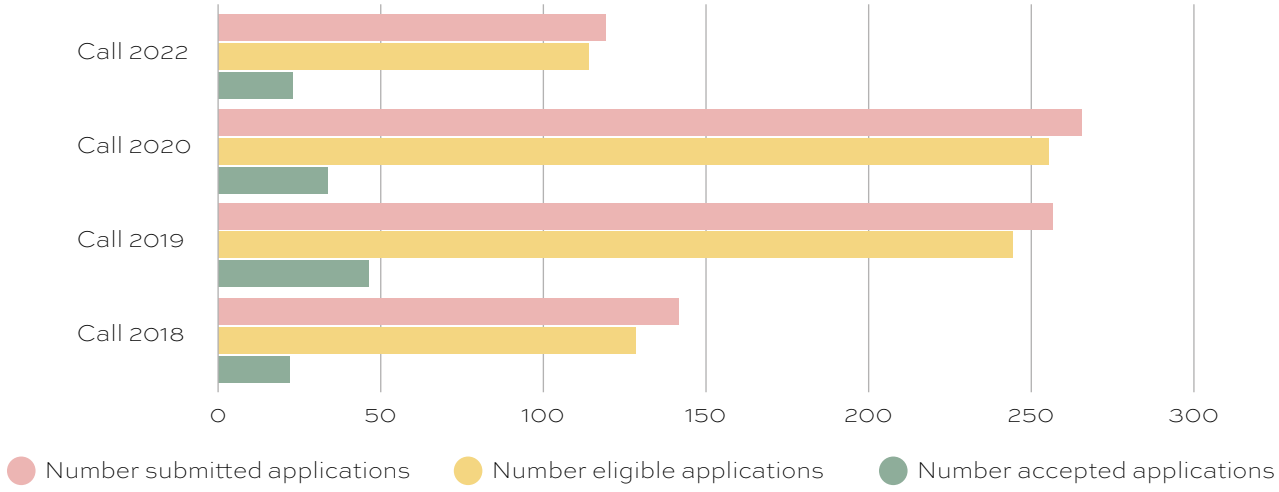
- The maximum grant for each project is €600,000 to cover project implementation, cooperation costs, investments, and dissemination of results for a maximum of 3 years. There are various eligible costs (cooperation operating costs, direct implementation costs, investments, costs of dissemination activities and indirect costs) and aid intensities available depending on whether the innovation is for a product listed in Annex 1 of the Treaty on the Functioning of the EU, forestry product, or none of the above.

During the period 2014-2022, four calls were issued in the years 2018, 2019, 2020 and

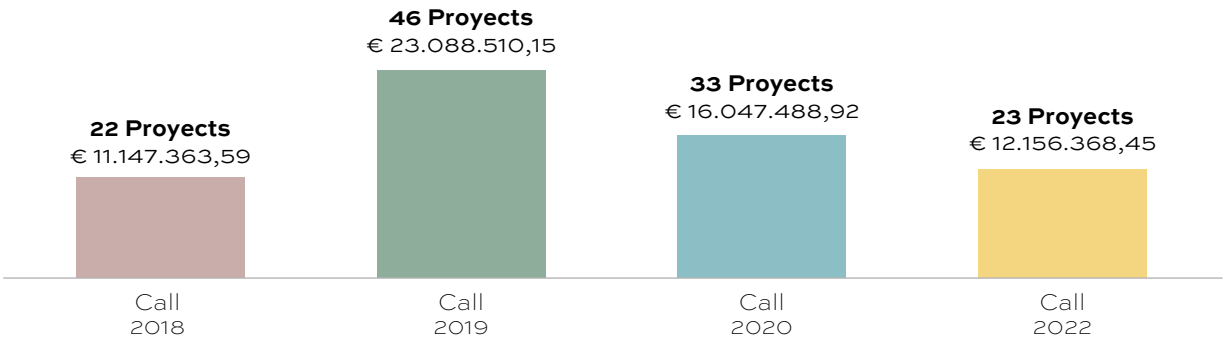
2022, with a total allocated funding of **66.7 million euros**. The demand for the measure has greatly surpassed the allocated budget. Thus, a total of **775 applications** were received during the 4 rounds of calls, of which 735 were deemed admissible. Only the projects that achieved the highest score in each call for proposals were chosen, as these grants are awarded through a competitive process. In total, **124 applications** were successful and obtained a collective sum of **62.4 million euros** in grants.

> This is a popular grant programme with intense competition, indicating that only the finest proposals are accepted in each funding round.

Number of submitted, eligible and accepted applications.



Distribution of funds awarded for project proposals.



The maximum amount per project is €600,000, with an average amount granted of around €500,000. In fact, most operational groups (77 projects, accounting for 62%) applied for more than €500,000 of grant to comply with the maximum limit. This is due to the grant having a high fund intensity, covering 100% of expenses except for investment expenses where the operational group must provide their own funds.

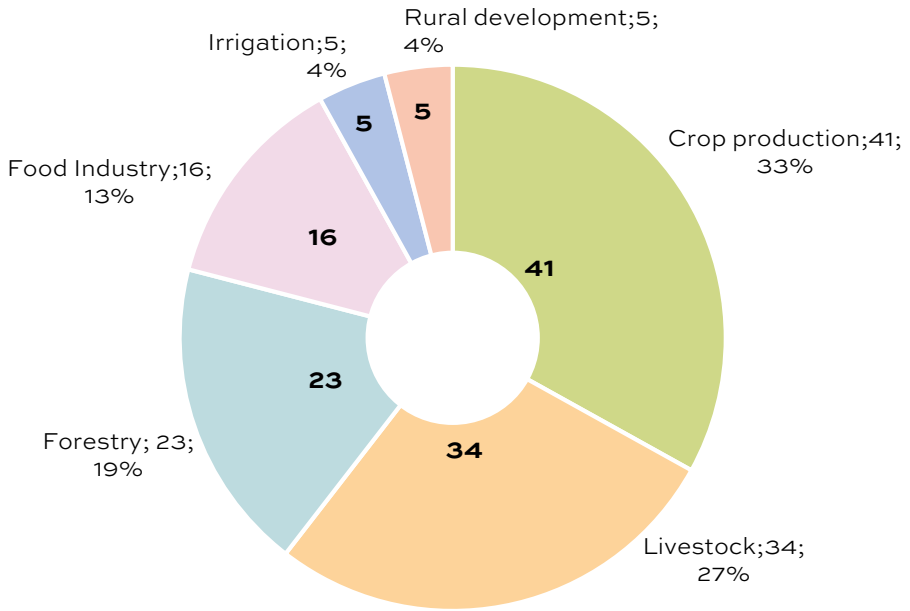
Of the 124 projects benefiting from submeasure 16.2, **59** had previously received **assistance for establishing supra-autonomous operational groups** (submeasure 16.1 of the PNDR 2014-2022, which funded a total of 177 OGs for the development of an innovative project and the establishment of the operational group in the 2016 and 2018 calls for proposals). These funds have facilitated the sector's understanding of project development fund. However, the data confirms that one need not be a beneficiary of submeasure 16.1 to receive funds under submeasure 16.2.

2. THEMATIC AREAS

Projects must address innovations in the agrifood and forestry sectors. Analysing the thematic areas of the 124 projects reveals that crop production has the highest number of approved projects (33%), followed by livestock (27%), forestry (19%), food industry (13%), rural development (4%, including aspects of social innovation related to land management, young farmers, etc.), and irrigation (4%; although they could be integrated into the crop production category conceptually).

> The entire agrifood and forestry sector is represented, although crop production projects are predominant.

Number of projects per theme and their respective percentage representation.



List of project numbers, percentage of total projects awarded (% projects), amount awarded (€), percentage of total amount awarded (% amount), and average amount per thematic area.

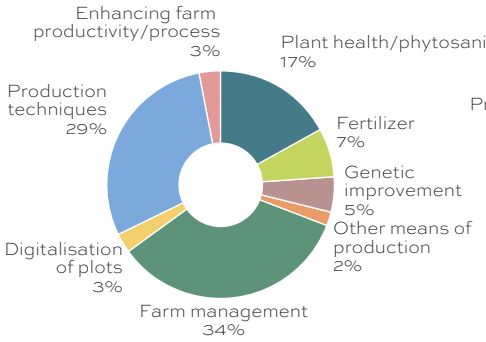
Thematic area	Projects	% projects	Amount granted (€)	% Amount	Average amount
Crop production	41	33%	€ 21,685,454.71	35%	€ 528,913.53
Livestock	34	27%	€ 16,130,022.91	26%	€ 474,412.44
Forestry	23	19%	€ 11,429,277.11	18%	€ 496,925.09
Food Industry	16	13%	€ 8,215,337.78	13%	€ 513,458.61
Rural development	5	4%	€ 2,301,690.86	4%	€ 460,338.17
Irrigation	5	4%	€ 2,677,947.74	4%	€ 535,589.55
Overall total	**124**	**100%**	**€ 62,439,731.11**	**100%**	**€ 503,546.22**

There has been a wide range of issues addressed, according to the needs of the sector. These included enhancing farm productivity, production techniques and management strategies, addressing environmental and climatic concerns, bolstering marketing efforts, maintaining quality and traceability, promoting valorisation, and implementing digitalisation. In the irrigation field, the 5 projects have provided innovative solutions to improve the efficient use of water and energy resources.

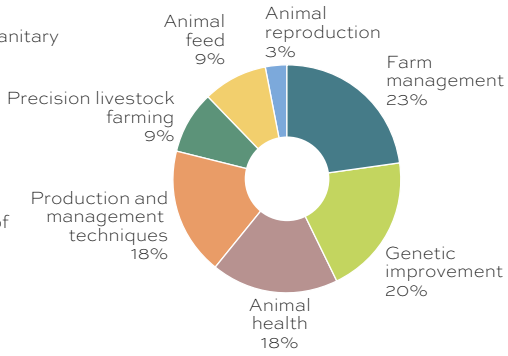
The projects supported by the thematic area are categorised as follows:

Specialisations and percentage of the projects of: (a) crop production, (b) livestock, (c) forestry, (d) food industry, (e) rural development.

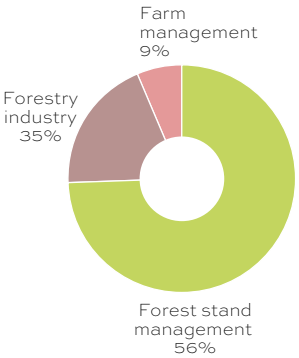
CROP PRODUCTION



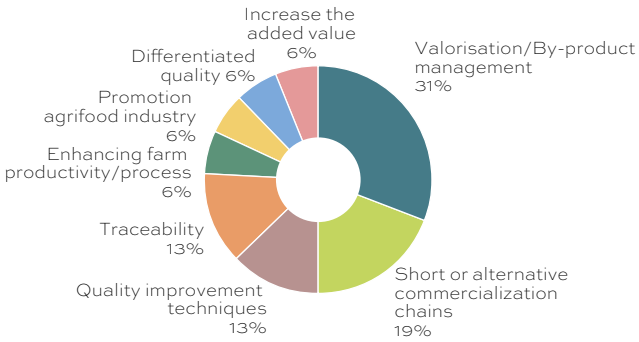
LIVESTOCK



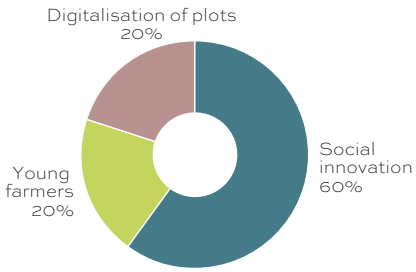
FORESTRY



AGRIFOOD INDUSTRY



RURAL DEVELOPMENT



3. SUB-SECTORS AND PRODUCTS

On analysing the production sub-sectors, the **56 crop production projects** are notable, aligned with the greater proportion of crop production projects, particularly those related to woody fruit crops. These **fruit** projects account for 15 out of the total, equating to 12%. The 15 fruit-related projects include 2 on almonds, 1 on papaya, 2 on avocado, 4 on citrus, 1 on cherry, 1 on stone fruit, and 1 combining various sectors such as stone fruit, red fruits, and table grapes. The remaining projects focus on fruit trees in general, without specifying the species. Also notable are 10 **arable vegetable crops** and 10 **cereal** crops, 7 **vineyards**, 5 **olive groves**, 4 other **leguminous** arable crops, 2 **sunflower** crops, and 2 **industrial crops** (hops and beet).

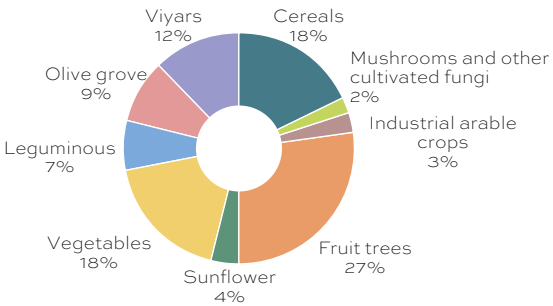
There are **36 livestock production projects**, among them 13 for **cattle** (9 for beef cattle and 3 for dairy), 6 for **pigs**, 6 for **sheep** (4 for meat sheep and 2 for dairy sheep), 3 for **poultry** (2 for meat poultry and 1 for egg laying), 3 for **apiculture**, 2 for **equine**, 2 for other animal production (in diverse subsectors) and 1 for **rabbits**

The **25 projects associated with forestry and its industries** consist of 9 projects pertaining to the timber industry, 8 projects concerning other uses of **forests** (inclusive of 2 projects on resin, 2 on wild mushrooms, 1 each on rockrose, truffles, pine nuts, and the establishment of a network of systems), 3 projects **focused on hardwoods for timber**, 2 on other types of silvicultural crops, 2 on **cork**, and 1 on **conifers for timber.**

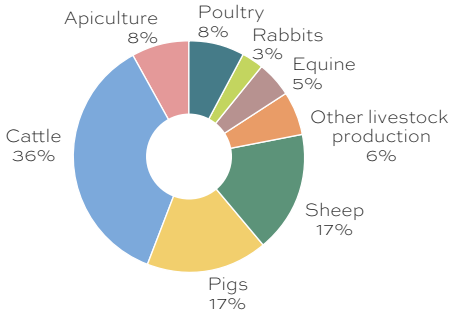
From the **food industry**, there are a total of **7 projects**, with a focus on various products such as **olive oil** (3), **meat products** (2), **wine** (1), and **dairy products** (1).

Number of projects categorised by sub-sector and product.

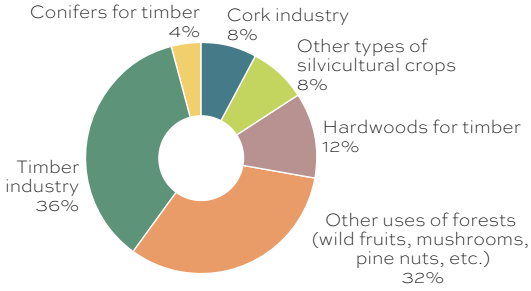
56 CROP PRODUCTION PROJECTS



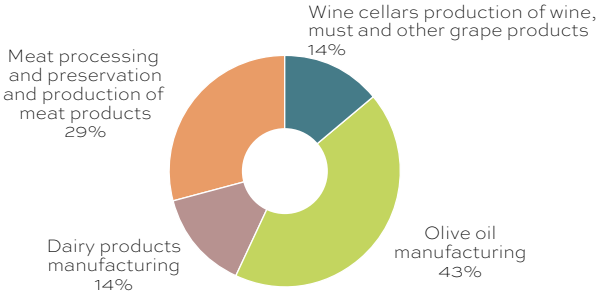
36 LIVESTOCK PRODUCTION PROJECTS



25 FORESTRY PROJECTS



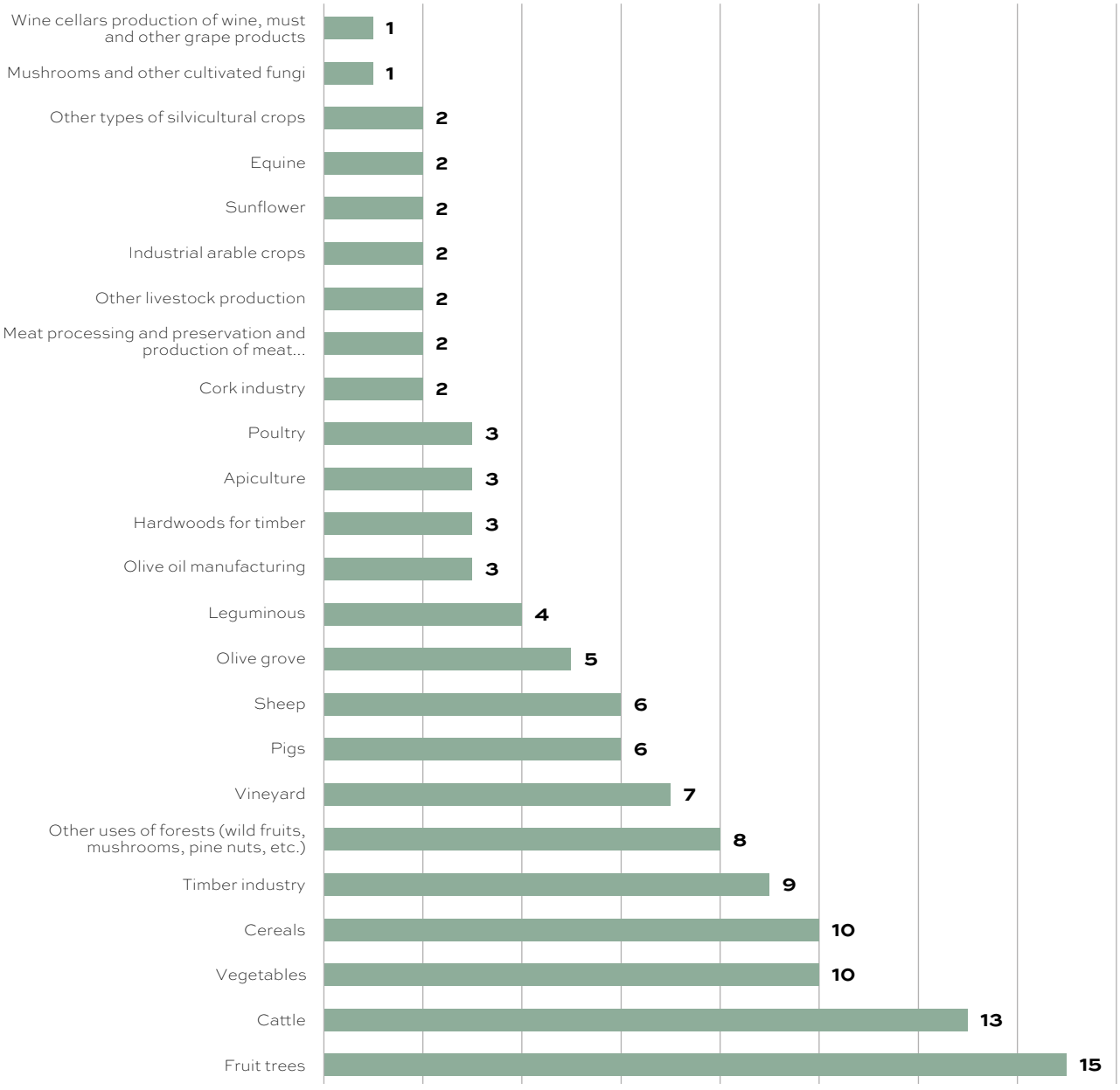
7 FOOD INDUSTRY PROJECTS



Innovations have been addressed in almost all national productive sectors and sub-sectors, irrespective of their economic impact, illustrating the widespread importance of such initiatives. These projects aim to fulfil the innovation requirements of the entire agrifood and forestry sector.

Overall, upon analysis of the targeted products from the 124 projects, the significant variety of productions is evident. The top 10 products include **fruit trees** (15 projects), followed by **cattle** (13 projects), **vegetables** (10 projects), **cereals** (10 projects), **wood industry** (9 projects), other **forestry** (8 projects), **vineyards** (7 projects), **sheep** (6 projects), **pigs** (6 projects) and **olive groves** (5 projects).

Number of projects per product.

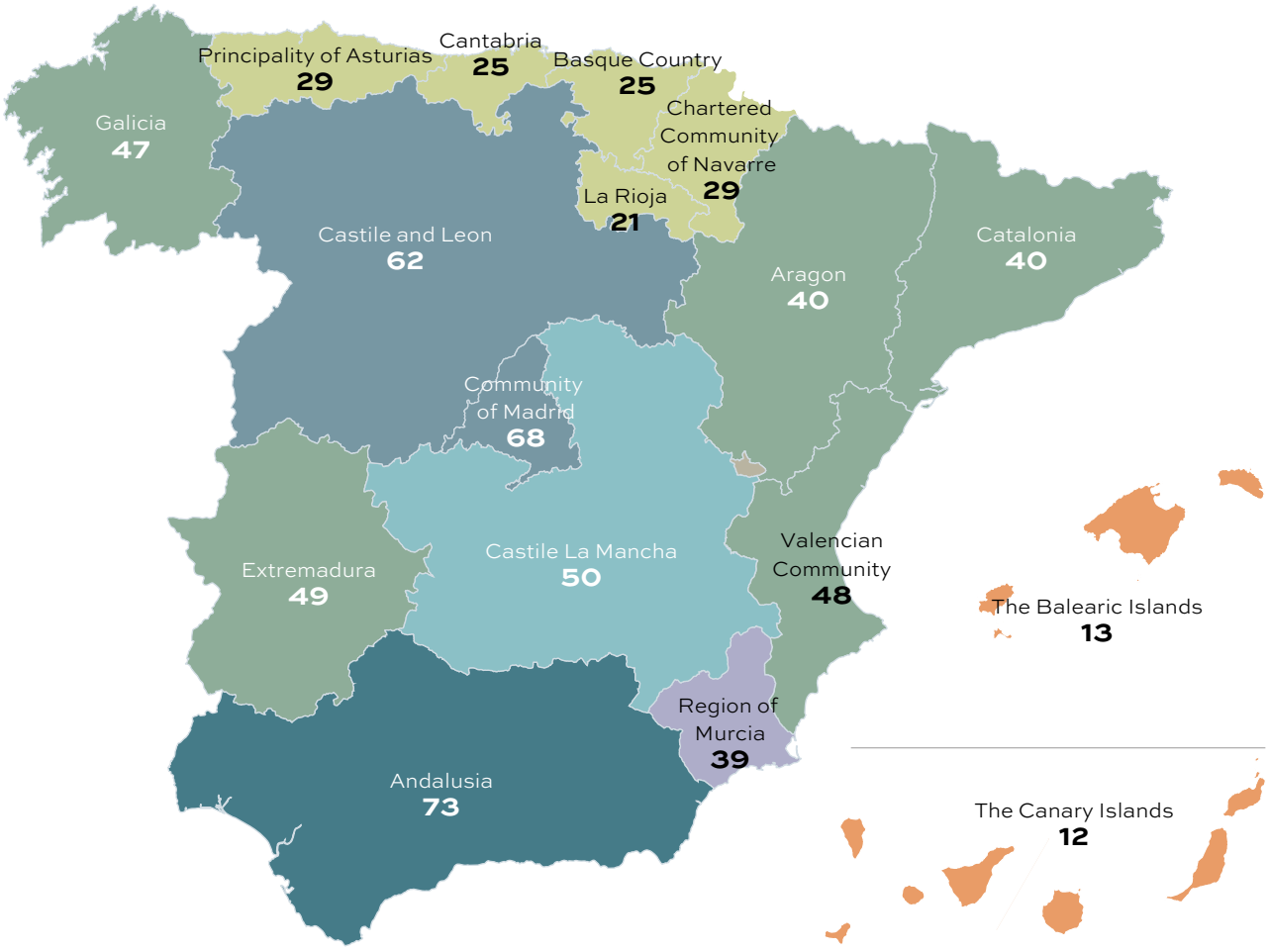


4. DISTRIBUTION BY AUTONOMOUS COMMUNITY

The purpose of this measure at supra-autonomous level is to supplement the support provided by 15 Autonomous Communities at a regional level during the rural development programming period of 2014-2022. The Ministry-managed measure enables nationwide coverage of innovative initiatives. Not only do operational groups unite members from various regions to develop these initiatives, but they can also be implemented and proposed throughout the country, resulting in widespread innovative impact.

Overall, the innovations developed by the 124 projects have been uniformly implemented across the nation, encompassing all 17 Autonomous Communities. Andalusia, the Community of Madrid, and Castile and Leon were notable for the number of projects that have been implemented there.

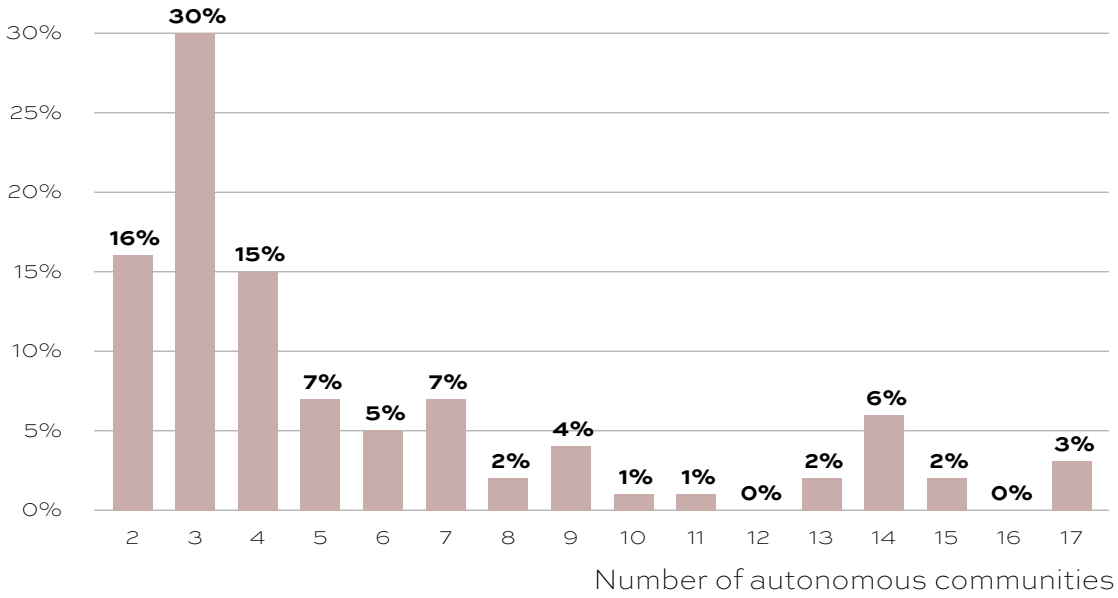
Number of projects implemented in each Autonomous Community.



Innovative projects are being implemented across various Autonomous Communities, encompassing the entire national territory.

Regarding implementing projects, 30% of them are implemented in 3 Autonomous Communities, with a mere 3% of projects executed concurrently in all 17 regions.

Percentage of projects implemented in multiple Autonomous Communities.



5. DISTRIBUTION BY FOCUS AREAS

In the design process of the National Rural Development Programme 2014-2022, this measure was identified as especially pertinent in specific European Agricultural Fund for Rural Development (EAFRD) focus areas (FA), with a corresponding financial allocation for each area:

AF2A	Enhance the economic performance of all farms and enable the restructuring and modernisation of farms, particularly with the objective of boosting participation and market focus, as well as diversifying agriculture.
AF3A	Enhancing the competitiveness of primary producers by improving their integration into the agrifood chain via quality schemes, value addition to agricultural products, promotion in local markets and shorter distribution channels, plus support for producer groups and organisations and interprofessional bodies.
AF4B	Improve water management, including fertilizer and pesticide management.
AF5A	Efficient use of water in agriculture
AF5C	Supply and use of renewable energy, waste, and non-food products for bioeconomy
P4	Restore, preserve, and enhance ecosystems

Innovative projects were required to support at least one of the objectives within the areas of interest. This did not constrain the extensive range of topics covered, and it was encouraged that innovations could be generated from within the sector itself, following a bottom-up approach.

The allocation of projects in the previously mentioned focus areas has led to the following outcomes, aligning with the available budget for each focus area in accordance with the National Rural Development Programme 2014-2022 for this specific measure.

List of projects by focus area and amounts awarded.

Focal areas	Projects	% Projects	Grant awarded
AF2A	49	39,5%	€ 24,342,972.70
AF3A	49	39,5%	€ 24,715,921.05
AF4B	6	5%	€ 3,301,108.09
AF5A	5	4%	€ 2,301,690.86
AF5C	11	9%	€ 5,870,891.51
P4	4	3%	€ 1,907,146.89
Total	**124**	**100%**	**€ 62,439,731.11**

6. DIGITALISATION PROJECTS

Innovation in digitalisation is crucial for advancing the application of data within the agrifood value chain and stimulating the growth of new business models in rural regions. These priorities align with objectives two and three of the Digitalisation Strategy for the agrifood sector and rural environment (2019), alongside their corresponding action plans (2019-2020 and 2021-2023), which are supported by the Ministry.

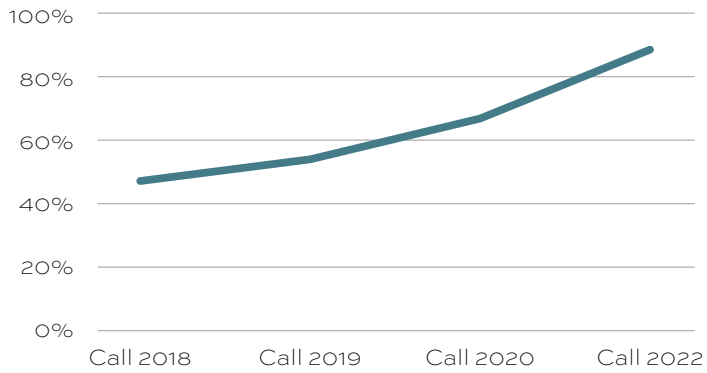
For this reason, under the EIP-Agri measure for innovative projects of submeasure 16.2 of the NRDP, have been promoted the incorporation of new technologies and digitalisation-related innovations:

- By setting aside 20% of the initial allocation for this category of project in the 2019 call, despite the percentage eventually being surpassed and not needing to be used (as the number of digitalisation projects amounted to 33% of total projects in that call).

- Through carefully crafted strategies that targeted various aspects of digitalisation. Thus, the 2020 call comprised of four lines that strongly correlated to digitalisation: interoperability, monitoring crops and predicting harvests, precision farming, and the implementation of the living labs methodology. The 2022 call for proposals incorporates the strategic approach 'B. Resource efficiency, particularly precision and intelligent farming, innovation, digitalisation and modernisation of production machinery and equipment'.

As a result of the approval of 124 projects, 66% (**82** in total) contain a digitalisation component. In addition, it has been noticed a wider adoption of digital transformation in innovations, resulting in a rising percentage of projects integrating the development or use of digital tools and services across different thematic areas, subsectors, and products, in each call. Thus, they were responsible for 11 projects in 2018, representing 50% of the total. In 2019, there were 27 projects (56% of the total), 23 projects in 2020 (70%), and 21 projects in 2022 (91%).

Evolution of the proportion of projects integrating digitalisation across the four calls.



The agrifood and forestry sector is increasingly interested in modernising through the incorporation of new technologies, which represents a vital digital component of innovation.

There are instances of digitalisation in every thematic area. Some of these are highlighted below:

- In precision farming, SMARTOM has developed an integrated management platform for industrial tomato production; TECNOGAR for chickpeas, GOPHYTOVID for vineyards, OLEOPRECISION for sunflowers, AGROTIG for cereals, each using different technologies (sensors, remote sensing, GIS, etc.).

- In precision livestock farming, the SIEGA and GELOB groups stand out in extensive livestock farming with different geolocation and livestock monitoring systems; in beekeeping, INNOMIEL and PICA with different options for monitoring hives.

- Industry 4.0 highlights include TICS4FRUIT, on the application of digitalisation throughout the fruit value chain, from harvest to point of sale, and AGROCHEF, which has developed a digital platform for promotion in local markets and short distribution chains for products such as beef or game, among others, linking the producer sector with the hotel and catering industry.

- In the forestry sector, IMAI stands out for timber identification and artificial intelligence, CHAINWOOD for the application of blockchain to the forest industry's timber supply chain, and TIMBERTRACK, which focuses on the development of timber identification and tracking tags to be integrated with CHAINWOOD's blockchain technology.

- Other OGs do not focus on one sector, but on the validation of a technology in several sectors, as in the case of PHYTODRON, for the validation and safety of aerial applications of phytosanitary products with drones in the agroforestry environment.

The nature of digitalisation is very diverse, and often several digital enablers are combined in a single project. Many OGs are collecting and processing **big data**, such as OG MIKOGEST, which is developing a 'mycological big data' based on the collection and integration of all existing mycological sector data and data

collected through two applications developed by the operational group itself (smart basket and micontrol). Other groups are developing **blockchain technologies**, such as OG IBERCHAIN, to implement this technology in the value chain of meat labelled as 100% Iberian pig.

Many groups have **developed their own applications and platforms**, which represent very valuable experiences of data sharing between different actors and demonstrate the enormous potential for the development of sectoral data spaces to meet the real needs and strategic opportunities arising from the agrifood and forestry sector itself. One of the most advanced is the OG project GC4SHEEP, which is developing a federated data cloud platform with an artificial intelligence layer for genetic and reproductive improvement of dairy sheep. The following are examples of operational groups not mentioned above with noteworthy initiatives to share data:

OG PDApp is developing a surplus exchange application to prevent and reduce losses and food waste; OG ISAB is developing an advanced system to monitor, diagnose and manage information related to health and welfare and its interaction with production in dairy cattle; OG GESVAC is developing a collaborative national data sharing platform to correlate economic information, yield, feed and health so that cattle farmers have reliable information about their animals to support their management decisions; OG SOSTVAN looks at improving the added value of extensive beef through environmental labelling and its commercialisation on a blockchain platform; OG REDaPORC developed a digital platform for comparative assessment of antibiotic consumption in pig farms, with the aim of improving biosecurity, reducing pathologies and antibiotic consumption; OG NEOWAS will implement a database and web platform to collect all information on dairy cows with emission data in order to establish genetic value prediction equations for traits related to greenhouse gas emissions; OG MESRASA has created a veterinary syndromic surveillance platform to provide information on the health status of the Spanish livestock population; OG INVERCONEC has implemented a technological platform for the digitalisation and complete control of greenhouse production in terms of productivity, sustainability, optimal yield and traceability; OG PROMINIFUN has created a platform for the management of rural property; OG INTERFAZ has created a web platform based on remote data for the classification of current and potential land use at the forest-urban interface.

Types of technologies used in digitalisation projects 16.2.

Categories of digitalisation	Name of the OGs of the projects
TECHNOLOGIES THAT CAPTURE DATA	
Systems technology *Satellite navigation and positioning, Global Positioning System (GPS), Geographic Information Systems (GIS), robots, drones, remote sensing*	Agrotig, Detección y erradicación de almendra amarga, Gelob, Monte digital, Plan de erradicación almendra amarga, Smartom, Gophytovid, Gossge, Mesrasa, Mikogest, Ovinnova, Prominifun, Recolecta, Sagefer, Siega, Tecnogar, Prevpa, Fagus, Gesvac 4.0, Phytodron, Pinea, Interface, Artemis, Forests 3.0, Neowas, Vid-Expert, Boviex 4.0, Equigenom
Automation *Automatic guidance or variable rate technology such as automatic guided vehicles, intelligent harvesting, intelligent weeding, remote control*	Agricultura de precisión en regadío y fertilización de cítricos, Citrustech, Citrus, Innowater, Lúpulos de Calidad, Oleoprecisión, Tics4fruit, Vigiasan, Phytodron, Effirem, Forescelta, Subalma, PDApp, Boviex 4.0
Internetof things (IoT)	Gelob, Mesrasa, Ovinnova, Tics4fruit, Vigiasan, Viticast, Isab, Forescelta, Subalma, Redaporc, Tauro, PDApp, Algavid, Amsos 360, Esjara, Boviex 4.0, Equigenom
Blockchain	Chainwood, Iberchain, Sostvan, Timbertrack, Inverconec, Prorural, Aove-Tradicional
TECHNOLOGIES THAT ANALYSE DATA	
Decision-management tools *Decision support and database management: sensor-based applications, crop maps, variety selection tools, predictive health models, livestock management for traceability. Projects that base their development on sensors, information from farmers or breeders*	Agricultura de precisión en regadío y fertilización de cítricos, Adaptación del sector de frutales de hueso al cambio climático, Innomiel, Smartom, Innovación del Aguacate, Mesrasa, Oleoprecision, Pica, Siega, Vacusos, Vigiasan, Viticast, Acrema, Tecnogar, Prevpa, Fagus, Gesvac 4.0, Isab, Resinlab, Pinea, Effirem, Forescelta, Interfaz, Inverconec, Redaporc, Global Dimension Sensolive Oil, Tauro, Champlast, Biopoptech, GC4sheep, Rebo2vino, Superfood Biotech, Algavid, Amsos 360, Esjara, Citriaforo, Boviex 4.0
Massive data	Agricultura de precisión en regadío y fertilización de cítricos, Exportgen,Adaptación del sector de frutales de hueso al cambio climático, Gelob, Madera Construcción Sostenible, Citrus, Innowater, Lúpulos de Calidad, Mesrasa, Mikogest, Ovinnova, Recolecta, Sensolive Oil, Siega, Timbertrack, Vacusos, Imai, Tecnogar, Prevpa, Fagus, Isab, Effirem, Interfaz, Inverconec, Redaporc, Global Dimension Sensolive Oil, Agrochef, Gayas, Tauro, PDApp, Fitonet, Giasat, Sebastiana, Vingo, Champlast, Biopoptech, GC4sheep, Rebo2vino, Superfood Biotech, Algavid, Amsos 360, Esjara, Citriaforo, Artemis, Bosques 3.0, Neowas, Vid-Expert, Equigenom
Artificial Intelligence (AI)	Detección y erradicación de almendra amarga, Plan de erradicación de almendra amarga, Citrus, Viticast, Imai, Effirem, Interface, Redaporc, Global Dimension Sensolive Oil, Tauro, PDApp, Fitonet, Biopoptech, GC4sheep, Rebo2vino, Superfood Biotech, Esjara, Citriaforo, Neowas, Vid-Expert, Equigenom
Others	Agricultores jóvenes en Red, Exportgen, Fungigo, Madera Construcción Sostenible, Maíz Sostenible, Cavale, Agrochef, Gayas, PDApp, Fitonet, Giasat, Sebastiana, Vingo

7. TYPOLOGY OF PARTICIPATING MEMBERS

The 124 projects involved **1,243 members**. These included beneficiaries (738), collaborators (268) and subcontractors (237). Some organisations have participated as members in several projects over time, so the number of participants is lower, with a total of **801 participating organisations.**

In terms of typology, the largest proportion of organisations are **SMEs** (19% of the total number of members), followed by **universities or public research institutes** (18%) and **national non-profit foundations or associations** (16%). In any case, participation was very diverse, in line with the multi-actor approach sought by these grants to ensure co-development, co-creation and co-ownership of the results of innovation. Participants ranged from large companies to self-employed professionals, SMEs, local action groups, etc.

The participation of the **agrifood and forestry sector** was very active. It was mandatory for them to be part of the groups to ensure that the innovative solutions developed were based on the needs of the sector itself and could be known and applied by the sector. In addition to those already mentioned (SMEs, associations, self-employed, etc.), it is worth highlighting the intervention of the cooperative sector through various cooperatives, agricultural transformation companies, priority associative entities and cooperative federations. The contribution of various organisations and associations bringing together different production sub-sectors was also very important, including **national and regional professional agricultural organisations, producer organisations, interprofessional** agrifood organisations, etc.

Regarding the **research and knowledge sector**, as mentioned above, the **universities and public research institutes** dependent on the Autonomous Communities and the **technology centres** deserve special mention.

In the latest call (2022), for reasons of economic and financial simplification in the management of these grants, the legal representative of the group was encouraged to be a private non-profit organisation and the regional public bodies (public research institutes or universities) were appointed as subcontracting members instead of direct beneficiaries of the grant. This has not restricted the creation of all types of consortia for all types of topics in this call.

> Creation of a major innovation ecosystem, with a strong presence of SMEs, universities and public research institutes

Type of participants per member.

Type of participant	Beneficiary	Collaborator	Subcontractor	Overall total
SME Ltd..	156	21	57	234
Universities or public research institutes	119	21	87	227
National non-profit foundations or associations	123	56	20	199
Regional non-profit foundations or associations	67	25	21	113
Others	15	66	10	91
Large company	47	23	5	75
Cooperative Society 1st level	50	8	7	65
SME Plc.	31	16	7	54
Technology centre	31	1	12	44
National Professional Agricultural Organisations	22	1		23
Regional Professional Agricultural Organisations	17	3	1	21
Priority associative entities	10	8		18
Self-employed professionals	9	1	8	18
Cooperative federations	14	3		17
Interprofessional agrifood organisations	9	4		13
Association of Producer Organizations	6	3		9
Agricultural Transformation Companies	6	2	1	9
Local Action Groups	3	4	1	8
Producer Organisations	2	2		4
Universities or private research institutes	1			1
Overall total	**738**	**268**	**237**	**1243**

Among the organisations involved in the largest number of projects, the **CSIC** (through the various centres that form part of it) stands out, followed by the **University of Cordoba**, the **CESEFOR** Foundation, the **University of Santiago de Compostela**, the Institute of Agro-Food Research and Technology of Catalonia (IRTA), the Polytechnic University of Madrid, ASAJA, the Federation of Forestry Associations of Castile and Leon (FAFCYLE), UPA and the Agricultural Technological Institute of Castile and Leon (ITACyL).

> This measure has increased cooperation between the various stakeholders in the agrifood and forestry system and has enabled new lines of cooperation between entities.

Top 10 participating entities.

Position	Entities	Nº of projects in which they participate
1	State Agency of the Spanish National Research Council (CSIC and its centres)	25
2	University of Cordoba (UCO)	16
3	Centre for Services and Promotion of Forestry and its Industry of Castile and Leon (CESEFOR)	12
4	University of Santiago de Compostela	11
5	Institute of Agrifood Research and Technology (IRTA)	11
6	Polytechnic University of Madrid (UPM)	10
7	Agrarian Association of Young Farmers (ASAJA)	10
8	Federation of Forestry Associations of Castile and Leon (FAFCYLE)	9
9	Union of Small Farmers and Stockbreeders (UPA)	8
10	Agricultural Technological Institute of Castile and Leon (ITACyL)	8

Regarding the geographical distribution of the entities forming the groups, the participation of members from at least two different Autonomous Communities was mandatory. This criterion was met and, as mentioned in the case of project implementation, the most common location of the entities coincides with Comunity of Madrid, Castile and Leon and Andalusia.

Geographical distribution by type of members.

Comunidades autónomas	Beneficiario	Colaborador	Subcontratado	Total general
Andalusia	103	27	32	162
Aragon	21	11	7	39
Basque Country	14	11	10	35
Cantabria	3	6		9
Castile and Leon	98	43	39	180
Castile La Mancha	23	8	14	45
Catalonia	45	9	22	76
Chartered Community of Navarre	10	8	7	25
Community of Madrid	169	69	48	286
Extremadura	44	9	11	64
Galicia	75	17	11	103
La Rioja	5	1	2	8
Principality of Asturias	24	10	5	39
Region of Murcia	33	9	6	48
The Canary Islands	11	8	1	20
Valencian Community	63	8	18	89
EU		6	2	8
Not defined			3	3
Overall total	**714**	**260**	**238**	**1239**

Source: VLRS: stock.adobe.com

3. PROJECT INFO BY THEMATIC AREAS OF THE CALLS 2018-2019-2020-2022

- Crop production
- Livestock
- Agrifood Industry
- Rural Development
- Irrigation
- Forestry

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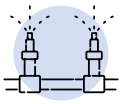

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Crop production

Source: Tragsamedia. Tragsa Group image bank

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Crop production

ADAPTACIÓN DEL SECTOR DE FRUTALES DE HUESO AL CAMBIO CLIMÁTICO

Innovation project to help the stone fruit sector adapt to climate change

Beneficiary members

- Federación de Cooperativas Agrarias de Murcia (FECOAM)
- Anecoop S.Coop.
- Fundación Universidad Empresa de la Región de Murcia (FUERM)
- Cooperatives Agroalimentaries Comunitat Valenciana
- Centro de Edafología y Biología aplicada del Segura de la Agencia Estatal Consejo Superior de Investigaciones Científicas (CEBAS-CSIC)
- Instituto Murciano de Investigación y Desarrollo Agrario Alimentario (IMIDA)
- Business Intelligence Technology (BITEC)
- Basol Fruit S.L.

Subcontracted members

- Fundación Cajamar

Collaborating members

- Grupo Frutaria S.A.
- Frutas Esther S.A.
- El Ciruelo S.L.
- Desarrollo Agrícola y Minero S.A. (DAYMSA)
- NSure
- Valagro Iberia S.L.
- Whidoc Smart Solutions S.L.

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Fruit trees

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Castile-La Mancha, Extremadura, Region of Murcia, Valencian Community

GRANT AWARDED: € 599.829,55

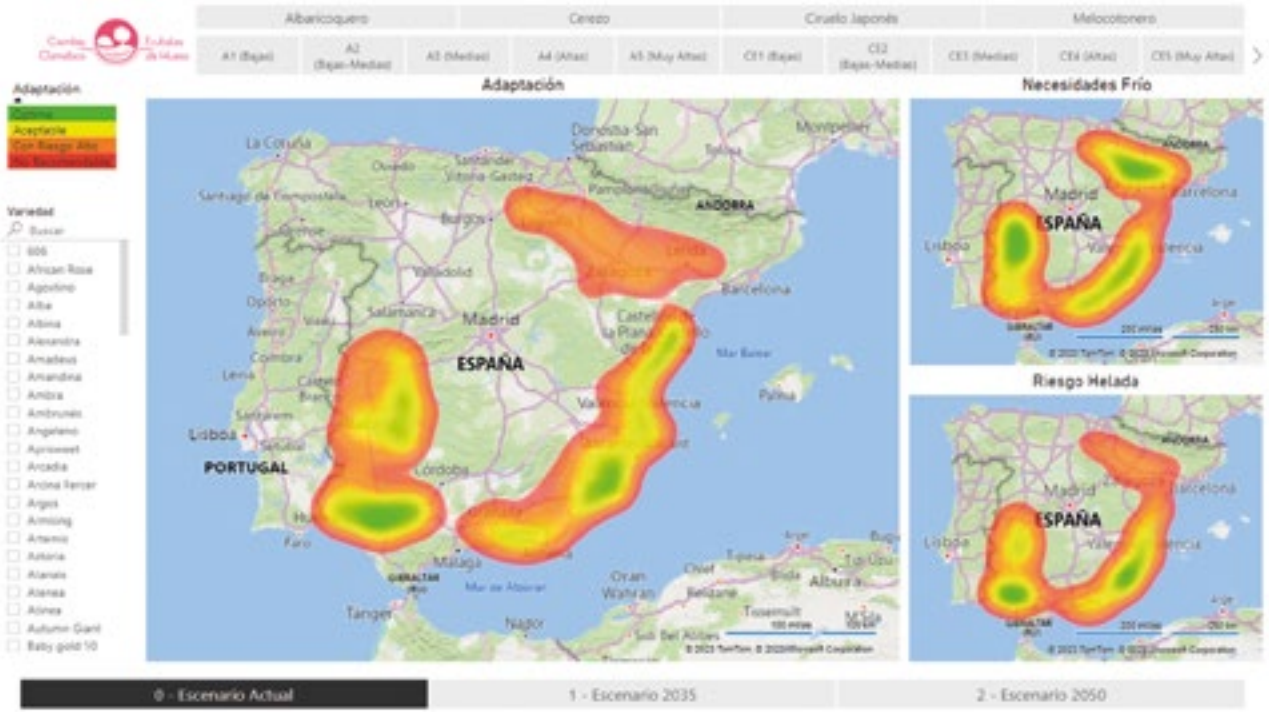
PROJECT OPERATING PERIOD: June 2019-July 2021

MORE INFORMATION:
Website: https: //cambioclimaticofrutadehueso.es/
Mail representative OG: fecoam@fecoam.es

Summary

Adaptación del sector de frutales de hueso al cambio climático promotes the design, development, and implementation, at pilot action level, of innovative strategies and tools to facilitate adaptation and mitigation of the effects of climate change on stone fruit crops.

PROJECT OBJECTIVES	OBTAINED RESULTS
Identification and characterisation of specific agro-climatic areas and zones, suitable for the efficient and sustainable cultivation of stone fruit production orientations	Identification of areas and agroclimatic zones, typologically characterised, suitable for the implantation and productive development of stone fruit trees. Development of specific climate change scenarios based on relevant agroclimatic variables and indicators.
Identification and characterisation of varietal groups and individual varieties of stone fruit trees suitable for implantation and cultivation in suitable areas and zones.	Integral operating typologies of productive orientations.
Design, development, experimental validation and optimisation of unique, efficient, and sustainable farming methods and practices.	Cultural methods and practices aimed at facilitating the adaptation of each type of production to the conditions brought about by climate change.
Develop an integrated agronomic and agro-economic evaluation system.	Integrated system for the agronomic and agro-economic evaluation of individual areas suitable for cultivation.
Development of an Información, Advice and Decision Support System (IADSS).	System to facilitate the choice of production area/ zone and production orientation.



Crop production

AGROTIG

Agricultural applications of geographic information technologies. Remote sensing decision support system for cereal crops.

Beneficiary members

- Complutum Tecnologías de la Información Geográfica S.L. (Complutig)
- Asociación Agraria de Jóvenes Agricultores de Ávila (ASAJA Ávila)
- Asociación Agraria de Jóvenes Agricultores de Galicia (ASAJA Galicia)

Subcontracted members

- Instituto de Desarrollo Comunitario (IDC)

Collaborating members

- Laboratorio de Espectro-Radiometría y Teledetección Ambiental. Consejo Superior de Investigaciones Científicas(CSIC)
- Grupo de Ingeniería Fotónica. Universidad de Cantabria (UC)
- Departamento de Geología, Geografía y Medio Ambiente-Área Geografía. Universidad de Alcalá (UAH)
- Asociación Agraria de Jóvenes Agricultores de Córdoba(ASAJA Cordoba)

CALL 2018

THEMATIC AREA: Crop production / **SUBSECTOR:** Cereals

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Cantabria, Castile and Leon, Community of Madrid, Galicia

GRANT AWARDED: € 372.411,05

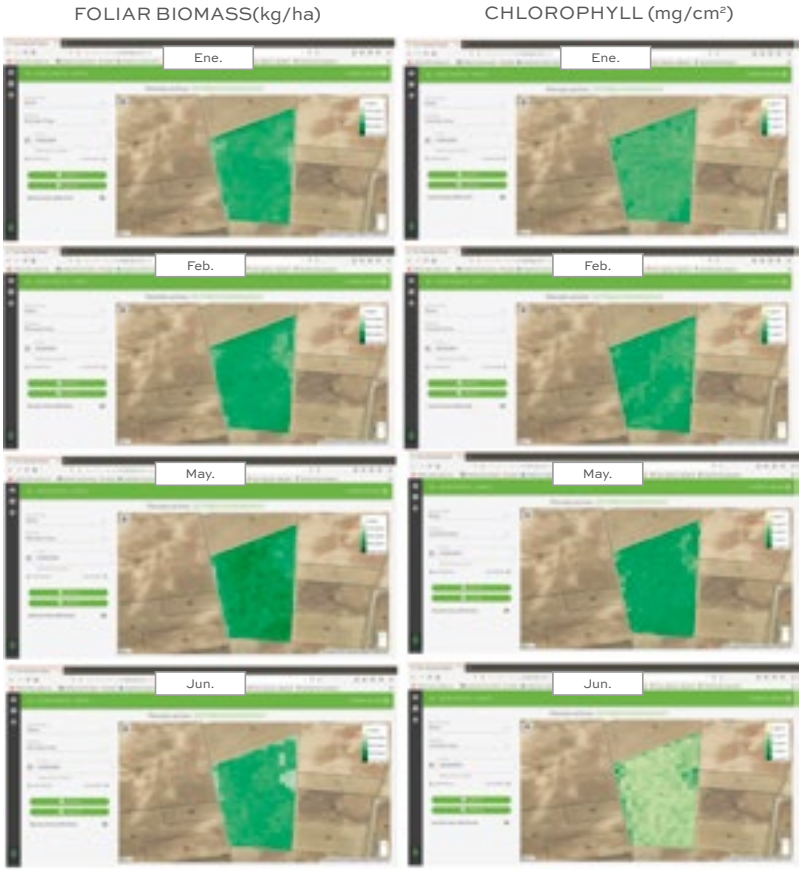
PROJECT OPERATING PERIOD: June 2018-July 2020

MORE INFORMATION:
Website: https://agrotig.complutig.com
Mail representative OG: daniel.reinoso@uah.es

Summary

AGROTIG is promoting the development of a tool, a Website map server, for monitoring cereal crops by remote sensing, allowing early detection and intervention of production anomalies and optimising the use of inputs.

PROJECT OBJECTIVES	OBTAINED RESULTS
Definition of the functionalities of the tool in accordance with the needs of technicians and farmers and the technical and scientific possibilities available.	Design an operational tool that meets the needs of farmers.
Improve and predict the monitoring of production per plot and optimise the use of inputs (fertilisers, phytosanitary products) by using the developed GIS AGROTIG tool.	Identify possible manufacturing anomalies. Comparison with previous years and forecast. Less and better use of inputs in cereal crops.
Train technicians on how to use of Geographic Information Technology (GIT) and the tool.	Appropriate training to understand and use the tool.
Improve knowledge transfer in the field of GIT. Inform potential beneficiaries about the project.	Improve consumer perception of farmers' and stakeholders' efforts to reduce the environmental impact of crop production. Awareness of the tool among technicians and farmers.



Crop production

AGROVOLTAICA

New scenarios for stable coexistence between agricultural practices and renewable energy production

Beneficiary members

- Clúster de Energías Renovables y Soluciones Energéticas en Castilla y León (CYLSOLAR)
- Consorcio Agencia Extremeña de la Energía(AGENEX)
- Centro de Investigaciones Científicas y Tecnológicas de Extremadura (CICYTEX)
- Confederación Abulense de Empresarios (CEOE ÁVILA)
- Instituto Tecnológico Agrario de Castilla y León (ITACyL)
- La Unió de Llauradors i Ramaders del País Valencia (LA UNIÓ)

Subcontracted members

- Fundación Cidaut

Collaborating members

- Agencia Provincial de la Energía de Ávila(APEA)

CALL 2020

THEMATIC AREA: Crop production / **SUBSECTOR:** Cereals

AUTONOMOUS COMMUNITIES EXECUTION: Castile and Leon, Extremadura, Valencian Community.

GRANT AWARDED: € 409.420,30

PROJECT OPERATING PERIOD: November 2020 - March 2023

MORE INFORMATION:
Website: https: //goagrovoltaica.es/
Mail representative OG: contacta@goagrovoltaica.es

Summary

AGROVOLTAICA promotes the preservation, restoration and improvement of agricultural land use in 'solar farms', so that photovoltaic installations do not displace agricultural and livestock farms, while improving their energy efficiency.

PROJECT OBJECTIVES	OBTAINED RESULTS
Improvement of the economic performance of agricultural/livestock farms thanks to the coexistence and symbiosis with photovoltaic installations 'solar farms'.	Develop a database on solar farms and how they co-exist with livestock on the land where they are installed. Drawing up an economic report relating to the crops grown.
Research the best types of plants to grow on the plots where the solar gardens will be installed.	Planting crops adapted to the soil and climatic conditions of the area where the photovoltaic systems are located, thus increasing the efficiency of solar energy use at ground level, and minimising the negative impact of the photovoltaic systems on the crops.
Improve the energy efficiency of the photovoltaic modules while restoring and preventing soil erosion on the land where the solar farms are installed.	Preparation of a study on the environmental sustainability of photovoltaic soils and the prospective and redesign of agro-solar installations with soil cultivation. Development of a guide to good coexistence practices for the agricultural and renewable energy sectors. Design and implementation of a replicability platform for agrovoltaic systems.

Crop production

ALGAVID

Digitalisation of the effect of bio stimulants and soil bioremediators based on microalgae produced on the farmer's own farm.

Beneficiary members

- Fundación Ayesa
- Cooperativas Agroalimentarias de Andalucía
- Grow to Grow Algae Solutions S.L.
- Acondicionamiento Tarrasense- Centro Tecnológico LEITAT
- Bodega Las Copas S.L. (BLC)
- Viñedos del Río Tajo S.L. (VRT)
- Fundación Agroecosistema(FAG)

Collaborating members

- Bodegas Robles S.A.
- Pilar Pedraza Ferrández

CALL 2022

THEMATIC AREA: Crop production / **SUBSECTOR:** Vineyards

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Castile La Mancha, Catalonia

GRANT AWARDED: € 599.883,57

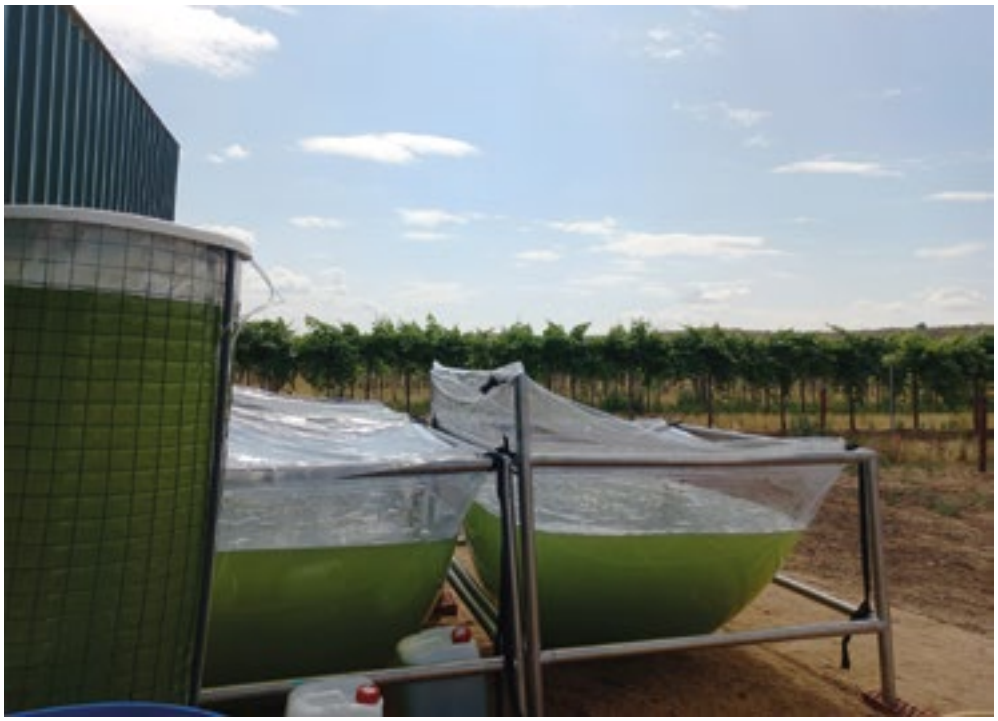
PROJECT OPERATING PERIOD: February 2023-March 2025

MORE INFORMATION:
Website: https://algavid.grupooperativo.es/
Mail representative OG: info@fundacionayesa.org

Summary

ALGAVID promotes the development of an advanced agricultural decision support and recommendation system for the dosage of bio stimulants, fertilisers and soil improvers based on microalgae, with the aim of increasing soil productivity while maintaining its value, improving the quality of the product obtained and reducing the use of chemical products.

PROJECT OBJECTIVES	EXPECTED RESULTS
Based on the self-production of bio stimulants, design a new fertilisation and irrigation programme.	Implementation and monitoring protocol for microalgae cultivation systems.
Improvement of fertilisation plan and quality of soil and irrigation water for crops.	System for decision support and determination of agronomic and environmental monitoring services. Development of a new mix of cost-effective and environmentally friendly agricultural bio stimulants and soil bioremediators.
Facilitating technology adoption.	Easy to use agronomic platform with voice decision support.
Holistic optimisation of farm processes.	Economic evaluation of the solution, as well as its impact on soil, biodiversity, waste, and CO2 quantification. Recommendations including the new fertiliser management and irrigation control programme for organic certification.



AP-Waste

Crop production

AP-WASTE

Withdrawal 'Single Use Agroplastics'. Enhancing agricultural soils, natural environments and effectively reusing plastic waste through biotechnological degradation.

Beneficiary members

- Sigfito Agronvases S.L.
- Asociación Agraria de Jóvenes Agricultores (ASAJA)
- Repsol S.A.
- Centro de Edafología y Biología aplicada del Segura de la Agencia Estatal Consejo Superior de Investigaciones Científicas (CEBAS-CSIC)
- Instituto Tecnológico del Embalaje, Transporte y Logística (ITENE)
- Universidad Miguel Hernández (UMH)

Collaborating members

- Asociación Española para el Desarrollo y la Transferencia Tecnológica en la Agricultura y la Ganadería
- (ASETAGA)
- Proteinsecta S.L.
- IRIS Technology Solutions S.L.

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Vegetables

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile La Mancha, Catalonia, Chartered Community of Navarre, Community of Madrid, Extremadura, Region of Murcia, Valencian Community

GRANT AWARDED: € 558.011,15

PROJECT OPERATING PERIOD: October 2019 – July 2021

MORE INFORMATION:
Website: https://ap-waste.es
Mail representative OG: rpastor@sigfito.es

Summary

AP-WASTE aims to raise the level of collection, use biotechnological biodegradation and enable on-farm recovery of polluting single-use agroplastics, specifically LDPE and very low-density polyethylene.

PROJECT OBJECTIVES	OBTAINED RESULTS
Demonstrate how collecting and reusing agroplastics (APs) from farming and agroba-sed work on the farm can be both technically possible and cost-effective.	Make removing and managing APs on a farm profi-table for the end-user.
Carrying out tests in 3 factories to show the technical and economic viability of the sug-gested solution.	Development of 5 experimental plans to degrade or convert APs using biotechnological mixtures.
Demonstrate that reductions in water and electricity consumption can be accompli-shed during the manufacturing of high-value goods.	Savings in water and energy consumption are achieved compared to 3 methods of conventional AP recycling.
Describe the byproducts and residuals resul-ting from the biodegradation process.	Use of byproducts: manure, chitin and amino acids.
Demonstrate quantified reduction of CO2 emissions, economic impact on biodiversity, and creation of job opportunities with a sus-tainable approach.	Achievement of GHG (greenhouse gas) emission reductions. Potential job creation in Spain. Recruitment of 5 entrepreneurial projects.

Crop production

CARBOCERT

Quantification and certification of organic carbon in mediterranean agricultural soils

Beneficiary members

- Asociación Española de Normalización (UNE)
- Aenor Internacional S.A.U.
- Asociación Agraria de Jóvenes Agricultores (ASAJA)

Subcontracted members

- Instituto de Investigación y Tecnología Agroalimentaria (IRTA)
- Instituto Andaluz de Investigación y
- Formación Agraria, Pesquera, Alimentaria y de la Producción Ecológica (IFAPA)

Collaborating members

- Asociación Española Agricultura de Conservación Suelos Vivos (AEACSV)

CALL 2018

THEMATIC AREA: Crop production / **SUBSECTOR:** Plant production and Mediterranean woody crops (olive groves, citrus, wheat, rice, almond trees, and vines)

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile and Leon, Castile La Mancha, Catalonia, Community of Madrid, Valencian Community

GRANT AWARDED: € 495.187,11

PROJECT OPERATING PERIOD: September 2018 – September 2020

MORE INFORMATION:
Website: https://gocarbocert.es
Mail representative OG: coopera@une.org

Summary

CARBOCERT supports the development of ways to measure the rise of carbon in farmland and durable structures due to sustainable farming methods.

PROJECT OBJECTIVES	OBTAINED RESULTS
Identify for every one of the 6 crops being researched, the various farming methods, agricultural techniques, and cultural treatments that could have the most significant potential for storing and capturing carbon.	Development of a carbon storage record for each of the methods, structures, and/or technologies observed in the literature review of the 6 crops.
Identify the weather, soil and farming elements that play the biggest role in impacting the uptake and storage of carbon in agricultural land.	Report on the factors that have the greatest impact on storing and capturing carbon.
Develop practical, economical, and easily replicable ways to measure the absorption and retention of carbon.	Select methods to measure the amount of carbon stored and captured in a specific area.
Define a method for certifying the carbon sequestration achieved and agricultural practice advice for farmers that includes information on various agricultural management techniques to guarantee carbon sequestration.	Certification process created and put into practice; alongside agricultural instructions designed to promote good farming practices among farmers.
Dissemination, use and sharing of findings.	Presentation of the project findings, with the development of a documentary and material resource.

Crop production

CARISMED

Sustainable papaya cultivation
in a subtropical-mediterranean climate

Beneficiary members

- Anecoop S. Coop.
- Asociación de Organizaciones de Productores de Frutas y Hortalizas de Almería (COEXPHAL)
- Hortamar S.C.A.
- Fundación Cajamar
- Instituto Canario de Investigaciones Agrarias (ICIA)
- Universidad de Almería (UAL)
- Conagrican S.L.
- Hortofrutícola Metal Agrícola S.L.

Subcontracted members

- Instituto Tecnológico de Canarias S.A. (ITC)

Collaborating members

- Cooperativas Plataneras de Canarias (COPLACA)
- Asociación Española de Tropicales
- Servicio Técnico de Agricultura y Desarrollo Rural del Cabildo de Tenerife
- Consejería de Sector Primario y Soberanía Alimentaria del Cabildo de Gran Canaria

CALL 2018

THEMATIC AREA: Crop production / **SUBSECTOR:** Papaya

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, The Canary Islands

GRANT AWARDED: € 570.531,38

PROJECT OPERATING PERIOD: June 2018-July 2020

MORE INFORMATION:
Website: https://gocarismed.es
Mail representative OG: njuste@anecoop.com

Summary

CARISMED supports the cultivation of papaya in Spain, ensuring ample quantity and quality for export to Europe. We implement profitable and sustainable strategies that prioritise the rational use of production factors to achieve this goal.

PROJECT OBJECTIVES	OBTAINED RESULTS
Develop greenhouses optimised for papaya growth and choose appropriate plant varieties for each production zone.	Establishing requirements and necessary equipment for papaya cultivation within greenhouses that promote sustainable production across different geographical regions.
Increase farm profitability and enhance production competitiveness by using resources efficiently and employing ecofriendly farming methods.	Establish ideal transplanting dates and planting densities is crucial to maximising both the quantity and quality of fruit produced. Efficient recommendations for irrigation and fertilisation and the formulation of a strategy for controlling pests and diseases
Enhance the overall worth of papaya production, whilst ensuring the preservation of quality upon arrival at the intended destination.	Identification of harvest standards and necessary post-harvest techniques to ensure the fruit arrives with its maximum sensory and visually appealing qualities intact. Ascertaining the presence of bioactive and healthy components in the fruit.

Crop production

CITRIAFORO

Use of new technology for accurate estimation of citrus fruit gauging

Beneficiary members

- Federació Cooperatives Agroalimentàries de la Comunitat Valenciana
- Anecoop S. Coop.
- S.Coop. Andaluza de Productores del Campo de Alcalá del Río (ALCAFRUIT)
- Federación de Cooperativas Agrarias de Murcia (FECOAM)
- Greenfield Technologies S.L.
- Locatec Aplicaciones Informáticas S.L.

Subcontracted members

- Instituto Valenciano de Investigaciones Agrarias (IVIA)
- Instituto Andaluz de Investigación y Formación Agraria, Pesquera, Alimentaria y de la Producción Ecológica (IFAPA)

Collaborating members

- Asociación Agrotech España

CALL 2022

THEMATIC AREA: Crop production / **SUBSECTOR:** Citrus fruit

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Extremadura, Region of Murcia, Valencian Community

GRANT AWARDED: € 489.345,00

PROJECT OPERATING PERIOD: August 2022-February 2025

MORE INFORMATION:
Website: https://citriaforo.com/
Mail representative OG: agro-alimentariescv@agro-alimentariescv.coop

Summary

CITRIAFORO supports the implementation of crop production 4.0 technologies and methods to assess citrus production from individual plots to supra-regional levels.

PROJECT OBJECTIVES	EXPECTED RESULTS
To create manual sampling methods at a plot level using mobile device photography.	Mobile app for fruit counting and protocol standardisation using a mobile device.
Implement automatic sampling technologies at plot level based on sensors mounted on tractors.	Preindustrial prototype of an image acquisition device for predicting measurements onboard a tractor or land vehicle.
Implement automated sampling technologies at plot level using drone-borne sensors.	Protocol for standardising acquisition of gauging data by drone and management platform for images acquired with ground and aerial vehicles.
Develop cloud-based supra-plot estimation models that gauge data fusion originating from the sources, agro-climatic time-series data, and satellite imagery.	Supraparcel gauging prediction model based on merging data from various sources and deploying a digital platform to gauge at different levels.

Crop production

CITRUS

Development of innovative tools for citrus varietal identification and management.

Beneficiary members

- Anecoop S.Coop.
- Instituto Valenciano de Investigaciones Agrarias (IVIA)
- Fundación Cajamar. Comunidad Valenciana
- Investigación Citrícola de Castellón S.A. (ICCSA)
- Eurosemillas S.A.
- GCM Citrus S.L.
- Source Citrus Genesis S.L.

Subcontracted members

- Asociación Invegen

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Citrus fruit

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Community of Madrid, Valencian Community

GRANT AWARDED: € 400.025,10

PROJECT OPERATING PERIOD: March 2019-July 2021

MORE INFORMATION:
Website: https://www.gocitrus.es/
Mail representative OG: nicolasjuste@anecoop.com

Summary

CITRUS advocates for an authentication system and is linked to the creation of a DSS for selecting varieties.

PROJECT OBJECTIVES	OBTAINED RESULTS
Generalisation of a citruseq genomic database based identification system.	Obtaining genetic markers for recently chosen citrus varieties and authenticating the genetic marker array for unambiguous classification of citrus types.
To aid growers in selecting varieties, an app will be created that offers a comprehensive guide to current varieties and grafted plants.	Creation of a database containing data sheets for varieties of plants and those that have been grafted. Undertaking a market study and verifying the performance of the app.

Crop production

CITRUSTECH

Technological advances for modernisation and sustainability in citrus production

Beneficiary members

- Cítricos del Andévalo S.A.
- Anecoop S.Coop..
- Universidad de Córdoba (UCO)
- Universidad Politécnica de Cartagena (UPCT)
- Instituto Valenciano de Investigaciones Agrarias (IVIA)
- Universidad Politécnica de Valencia (UPV)
- Fundación Cajamar Comunidad Valenciana (FCCV)

Subcontracted members

- Consultoría de Innovación y Financiación S.L.

Collaborating members

- Sunaran SAT
- ADEA-ASAJA Murcia
- Asociación Interprofesional de Limón y Pomelo (AILIMPO)
- Asociación de Citricultores de la Provincia de Huelva (ACPH)
- Revacitrus S.L.

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Citrus fruit

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Valencian Community, Region of Murcia

GRANT AWARDED: € 587.734,05

PROJECT OPERATING PERIOD: October 2019-July 2021

MORE INFORMATION:
Website: https://citrustech.es
Mail representative OG: msanchez@jgc.es

Summary

CITRUSTECH promotes citrus farm modernisation by incorporating technology, mechanisation, and optimising agricultural work. Moreover, our goal is to implement environment-friendly approaches that ensure improved profitability and safety.

PROJECT OBJECTIVES	OBTAINED RESULTS
Advancements in the mechanisation of cultivation processes along with the integration of new technologies have led to mechanised harvesting and adaptive pruning.	Development of production inspection technology. Adaptation and demonstration of a branch and log vibrator system. Establishment of demonstration plots using mechanised pruning and harvesting systems.
Promotion of the use of agrosustainable measures: soil protection systems, valorisation of byproducts and efficient use of inputs.	Processing of pruning waste, mulch, and multifunctional margins. Rational use of phytosanitary products.
Encourage the education of farmers and technicians, alongside the involvement of young individuals and women in the production of citrus fruit.	Occupational risk assessment and ergonomic analysis of agricultural workers. Analysis of technical and social variability.
Develop a communication and dissemination strategy to enhance the adoption of innovative and sustainable practices in citrus production, among farmers and other actors in the production chain, as well as the wider community.	Designing an effective and efficient internal communication plan. Dissemination actions in person, virtually and through publications.

Crop production

DETECCIÓN Y ERRADICACIÓN DE ALMENDRA AMARGA

Project to enhance national almond sector competitiveness

Beneficiary members

- Agrupación Exportadores Almendra y Avellana España (ALMENDRAVE)
- Asociación Española OPFH Frutos secos y Algarrobas (AEOFRUSE)
- Asociación Nacional Descascaradores Almendra (DESCALMENDRA)
- Crisol de frutos secos S.A.T.
- Arboreto S.A.T. Ltda
- Unió Corporació Alimentària
- Borges Agricultural & Industrial Nuts (BAIN)
- Mañán de frutos secos

Subcontracted members

- Instituto de Investigación y Tecnología Agroalimentaria (IRTA)

CALL 2018

THEMATIC AREA: Crop production / **SUBSECTOR:** Almond tree

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Cantabria, Castile and Leon, Castile La Mancha, Catalonia, Community of Madrid, Extremadura, Region of Murcia, The Balearic Islands, Valencian Community

GRANT AWARDED: € 573.999,00

PROJECT OPERATING PERIOD: July 2018-August 2020

MORE INFORMATION:
Website:https://ec.europa.eu/eip/Crop production/en/find-connect/projects/detecci%C3%B3n-y-erradicaci%C3%B3n-de-almendra-amarga
Mail representative OG: almendrave@almendrave.com

Summary

DETECCIÓN Y ERRADICACIÓN DE ALMENDRA AMARGA supports the creation of systems that can be used in crop production, production, and industry to find and remove bitter almonds.

PROJECT OBJECTIVES	OBTAINED RESULTS
Evaluation of bitter trees in the field and locating them for potential removal. Confirmation will be provided using Near Infrared Spectroscopy (NIRS) technology along with new hydrocyanic cyanide kits.	Map with geolocations of probable bitter almond trees. Use of portable NIR equipment and hydrocyanic cyanide kits as tools for identifying bitterwood trees in the field.
Development of discriminant models using laboratory NIRS instruments to distinguish batches of bitter almonds from sweet almonds upon receipt at almond cooperatives.	Discriminant model created using laboratory NIR equipment, along with validation of a new NIR spectroscopy prototype in the experimental phase, to detect bitter almonds in either the reception or shelling machine.
Validation of prototypes using NIRS technology to identify and eliminate bitter kernels on an individual basis, one kernel at a time, from batches of sweet almonds during production.	Prototype based on NIR-Hyperspectral technology for the detection of bitter almonds on an industrial scale, kernel by kernel.

Crop production

FITONET

Development of a digital platform and physical labs
to enhance the value of agricultural plant genetic resources.

Beneficiary members

- Fundación CELLBITEC
- Agrofor-CSIC
- Asociación para el Fomento de la I+D en Genómica Vegetal (INVEGEN)
- Bullsfot Solutions S.L.
- Unión de Pequeños Agricultores y Ganaderos (UPA)
- Grupo Da Cunha
- Obrador Creative

Subcontracted members

- Fundación Cajamar de la Comunidad Valenciana (CAJAMAR)
- Agrosa semillas selectas S.A.

CALL 2022

THEMATIC AREA: Crop production / **SUBSECTOR:** Cereals

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile La Mancha, Community of Madrid, Galicia, Valencian Community

GRANT AWARDED: € 594.138,18

PROJECT OPERATING PERIOD: May 2022-March 2024

MORE INFORMATION:
Website:https://www.gofitonet.es
Mail representative OG: gestion@agrointec.com

Summary

FITONET aims to create a dynamic network comprising of an app and 4 Living Labs (pilot projects). Its goal is to facilitate and encourage the use of plant genetic resources in the agrifood sector. This network enables the exchange of knowledge and needs through collaboration to achieve high-quality, sustainable, and profitable products.

PROJECT OBJECTIVES	EXPECTED RESULTS
Establish an information transfer framework that utilises the collection network of the National Programme for Conservation and Sustainable Utilisation of Plant Genetic Resources for Food and Crop production, integrating newly acquired pre-improvement and improvement data and insights derived from research.	Incorporating valuable information for farmers' use, through an information system that gathers their details, farming expertise, assessment outcomes, cultivation practices, and data sourced from the Network of Collections Inventory.
Create a dynamic professional social network that links farmers, associations, and entrepreneurs with researchers, including breeders, curators, and biotechnologists. All users shall provide feedback through the platform to enhance the exchange of information.	Create and distribute a dynamic and 'user-friendly' app that links farmers, associations, and entrepreneurs with researchers. The app will gather user generated data and provide feedback based on it.
Develop living labs/pilot experiments to demonstrate the importance of using biodiversity in producing profitable, sustainable, and high-quality crops and products to farmers, the agrifood sector, and wider society.	Selection of the most appropriate maize, rye, and spelt varieties for cultivation, and the study of wheat varieties with a low capacity to induce allergies and intolerances. Farmers will use the app to examine the agricultural and genetic characteristics of crops and address any issues. This information will then be integrated into FitoNet.
Make it easier for farmers, associations, and companies to get plant genetic resources and better plant types. Encourage farmers, associations, and companies to participate more in FitoNet.	Farmers and food processors who are not part of the task force will join the dynamic and open network through the dissemination of the app and pilot experiences.

Crop production

FITOSCEREZO

Availability of pesticides and integrated control strategies in cherry trees

Beneficiary members

- Federación Española de Asociaciones de Productores Exportadores de Frutas, Hortalizas, Flores y Plantas Vivas (FEPEX)
- Agrupación de Cooperativas del Valle del Jerte S. Coop. (ACVJ)
- Asociación Empresarios Agrícolas de la Margen Derecha del Ebro (AEAMDE)
- Asociación Empresarial para la Protección de Plantas (AEPLA)
- Instituto Nacional de Investigación y Tecnología Agraria OA, MP (INIA)
- Devreg Consulta S.L.U.
- Asociación Empresarial Centro Tecnológico Nacional Agroalimentario Extremadura (CTAEX)

Subcontracted members

- Agrotécnicas Del Sur S.L.
- Eurofins Agrosciences Services S.L.

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Fruit trees

AUTONOMOUS COMMUNITIES EXECUTION: Aragon, Catalonia, Community of Madrid, Extremadura

GRANT AWARDED: € 559.047,12

PROJECT OPERATING PERIOD: October 2019-July 2021

MORE INFORMATION:
Website: https://gos-fitoscerezo.ctaex.com/es/
Mail representative OG: tecnicos@madrid.fepex.es

Summary

FITOSCEREZO is promoting the development of a new integrated disease, pest and weed control programme that will rationalise the use of phytosanitary products and increase their availability for cherry trees.

PROJECT OBJECTIVES	OBTAINED RESULTS
Design a new integrated pest and disease control programme for cherry tree cultivation in Extremadura and Aragon.	Demonstrate the effectiveness of pest and disease risk assessment methods as decision support systems and to determine thresholds and timing of intervention. Design and evaluation of new integrated pest and disease control systems. Implementation of demonstration trials of the new programme, publication of a field guide to pests and diseases and development of analytical methods for the determination of residues of plant protection products.
Promotion of the availability and registration of new phytosanitary products.	New phytosanitary products available and registered for cherry growing in Spain
Evaluation of the new integrated pest and disease control programme for cherry trees from an economic, biological and environmental point of view.	Economic evaluation of the impact of the new programme and its impact on biodiversity and the environment, reduction of phytosanitary products.
Analysis of the results and conclusions.	Report on the results and conclusions of the project activities.

Crop production

FRUITCARE

Development of PPP substitution strategies for stone fruit, soft fruit and table grapes

Beneficiary members

- Asociación de Agricultores y Empresas Agrarias (ADEA ASAJA Murcia)
- ZERYA Producciones sin residuos S.L.
- Investigación y Desarrollo Agroalimentario (IDEAGRO)
- Agrupación de Cooperativas Agrarias de Extremadura (ACOPAEX)
- Escuela de Negocios del Pirineo (ESNEPI)
- Taray SAT La Redondela
- Universidad de Zaragoza (UNIZAR)
- Fundación Parque Científico Tecnológico Aula Dei (PCTAD)

Subcontracted members

- Galifrut SAT 313 CV

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Fruit trees

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Extremadura, Region of Murcia, Valencian Community

GRANT AWARDED: € 599.636,03

PROJECT OPERATING PERIOD: January 2020-July 2021

MORE INFORMATION:
Website: https://fruitcare.eu
Mail representative OG: agalvez@asajamurcia.com

Summary

FRUITCARE supports the development of pre- and post-harvest strategies for certain candidate active ingredients for substitution in stone fruit, soft fruit and table grapes.

PROJECT OBJECTIVES	OBTAINED RESULTS
Assess the economic, environmental, and productive impact of the disappearance of various active substances and select the most problematic according to their impact.	Contribution of objective data to the 'Comparative risk-benefit assessment of each active substance' (to be carried out by each Member State for EFSA).
Design the most appropriate pre-harvest substitution strategies considering their environmental impact, mode of application and versatility and evaluate the effectiveness of different post-harvest treatments or technologies as alternatives to the use of defined active substances.	Development of different substitution protocols with new agronomic strategies and innovative post-harvest technologies to reduce the use of pesticides and extend the useful life of the product.
Study of the socioeconomic and environmental impact of the active substances on the soil, the water cycle and the commercial quality of the fruit, and evaluation of the same impact after application of the new substitution strategies selected. Establish a strategy for dissemination and exponential growth of farms with substitution programmes in place.	Calculation of socioeconomic and environmental impacts before and after application of the substitution protocol, including analyses of production costs, biodiversity indicators, input consumption, productivity, and fruit quality. Dissemination and promotion of the various substitution protocols developed and training for the sector.

Crop production

GOPHYTOVID

Optimisation of the use of plant protection products in viticulture on the basis of vigour maps

Beneficiary members

- Miguel Torres S.A.
- Codorniu S.A.
- Bodegas Martin Codax S.A.U.
- Bodega Las Copas S.L.
- Viñas del Vero S.A.U.
- FMC Agricultural Solutions S.A.
- Universidad Politécnica de Cataluña (UPC)
- Universidad de Lleida (UDL)

Subcontracted members

- Asociación Plataforma Tecnológica del Vino de España (PTV)
- Associació AEI INNOVI
- Instituto de Investigación y Tecnología Agroalimentarias (IRTA)
- Pulverizadores Fede S.L.
- Agrupación Defensa Vegetal de Raimat (ADV)

Collaborating members

- Federación Española del Vino (FEV)
- Asociación Empresarial para la Protección de las Plantas (AEPLA)
- Unión de Pequeños Agricultores y Ganaderos (UPA)

CALL 2018

THEMATIC AREA: Crop production / **SUBSECTOR:** Wine

AUTONOMOUS COMMUNITIES EXECUTION: Aragon, Castile La Mancha, Catalonia, Community of Madrid, Galicia

GRANT AWARDED: € 599.806,91

PROJECT OPERATING PERIOD: August 2018-September 2020

MORE INFORMATION:
Website: https://ec.europa.eu/eip/Crop production/en/find-connect/projects/go-phytovid-optimizaci%C3%B3n-del-uso-de-fitosanitarios
Mail representative OG: mbargans@torres.es

Summary

GOPHYTOVID aims to minimise the use of chemical pesticides in viticulture in a demonstrative and real way, and to evaluate the practical application of bio-protective alternatives in Spanish vineyards, using existing technologies for the analysis of vegetation and/or vigour maps and highly efficient treatment equipment, in order to optimise chemical treatments, minimise environmental impact and human risk, and reduce economic costs.

PROJECT OBJECTIVES	OBTAINED RESULTS
Conversion of the aerial image based intensity map into a prescription or zonal dose map.	Reduce the volume of application by achieving a reduction in the areas of the plot with the least vigour.
Development and practical validation of a tractor-mounted electronic device capable of reading the pre-established prescription card and modifying the operating parameters.	Maintain and potentially improve the efficacy of pest and disease control treatments on vines and reduce application volumes.
Adaptation and evaluation of equipment adapted to the architecture of the vineyard.	Reduce the amount of pesticide used.
Formulation and practical evaluation of the efficacy of biocontrol agents against wood diseases.	Development and application alternative strategies to chemical pesticides: biocontrol agents.
Quantification of the economic and environmental benefits of the developed device.	Increase the economic benefit and improving the technological level of farms.

Crop production

IDEAS

Sustainable crop production through environmental development

Beneficiary members

- Federación de Cooperativas Agrarias de Murcia (FECOAM)
- Asociación de Organizaciones de Productores de Frutas y Hortalizas de Almería (COEXPHAL)
- Fundación Cajamar
- Asociación de Naturalistas del Sureste (ANSE)
- Agrícola Maresme Segle XXI SAT
- Intersemillas S.A.
- Surinver El Grupo S.Coop.

Subcontracted members

- Instituto Murciano de Investigación Agrario y Agroalimentario (IMIDA)
- Institut de Recerca i Tecnología Agroalimentaries (IRTA)
- Instituto Andaluz de Investigación y Formación Agraria y Pesquera (IFAPA)
- Everfrant Gestión de Proyectos S.L.U.
- Inveseed S.L.

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Vegetables

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Catalonia, Valencian Community, Region of Murcia

GRANT AWARDED: € 527.902,17

PROJECT OPERATING PERIOD: March 2019-July 2021

MORE INFORMATION:
Website: https://www.goideas.es
Mail representative OG: fecoam@fecoam.es

Summary

IDEAS promotes more sustainable horticulture through the implementation of agri-environmental measures that maximise crop productivity by intensifying ecological processes through functional biodiversity.

PROJECT OBJECTIVES	OBTAINED RESULTS
Restoring biodiversity and its function in providing pest control services in areas of intensive crop production, reducing pesticide use and improving landscape quality.	Design, installation, and maintenance of different specific ecological infrastructures for the different fruit and vegetable crops, promoting biological control through conservation and the presence of pollinators. To ensure the commercial availability of seeds and plants of interest for the establishment of green infrastructure, optimising their production and supply to the sector.
Optimisation of integrated pest management protocols for the detection of practices that interfere with the activity of auxiliary agents.	Review and improvement of the protocols for integrated pest management at the farm level.
Encouragement of the implementation of these strategies in the production sector through existing agri-environmental support.	Results of surveys carried out among producers to identify the reasons for failing to take up agri-environmental support.

Crop production

INNOLAND

Land management social innovation

Beneficiary members

- Fundación Cajamar Comunidad Valenciana
- Anecoop S. Coop.
- Cooperativas Agroalimentarias Castilla-La Mancha (CACLM)
- Cooperatives Agroalimentaries de la Comunitat Valenciana (COACV)
- Federación de Cooperativas Agrarias de Murcia (FECOAM)
- Rural Sant Vicent Ferrer de Benaguasil Coop.V.
- Unió Nuts S.C.C.L.
- Universidad Politécnica de Valencia (UPV)

Collaborating members

- Fundación Cajamar Almería
- Cooperativas Agroalimentarias de España

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Fruit trees

AUTONOMOUS COMMUNITIES EXECUTION: Castile La Mancha, Catalonia, Region of Murcia, Valencian Community

GRANT AWARDED: € 308.500,20

PROJECT OPERATING PERIOD: November 2019-July 2021

MORE INFORMATION:
Website: https://goinnoland.wordpress.com/
Mail representative OG: carlosbaixauli@fundacioncajamar.com

Summary

INNOLAND promotes a joint approach to the specific problem of land abandonment and the use of opportunities in the cooperative sector from a multi-sectoral social innovation approach.

PROJECT OBJECTIVES	OBTAINED RESULTS
To develop a space for GCI entrepreneurship, facilitating the incorporation of management mechanisms to optimise the production of citrus, fruit, vegetables, and other woody crops to promote the commercialisation of their own production.	Launch of the Entrepreneurship Space and a networking platform between stakeholders to systematise and exchange experiences and good practices in GCIs.
Accompaniment and dissemination of two emblematic projects that allow us to contrast all the phases of the social innovation process.	The emblematic projects of joint land management in the San Vicent rural cooperative and the Uniò programme are supported. Establishment of a monitoring and evaluation system for the environmental and economic results of the plots and cooperatives involved. Dissemination of good practices to other cooperatives.
Develop a common land management toolkit, including protocols and a roadmap for implementing the GCI.	Development of a protocol accompanied by practical worksheets, videos and web tools.

Crop production

INNOVACIÓN DEL AGUACATE

Improving avocado productivity in Málaga, Cádiz, Valencia and the Canary Islands

Beneficiary members

- Asociación Agraria de Jóvenes Agricultores de Málaga (ASAJA Málaga)
- Asociación Valenciana de Agricultores de Valencia (AVA)
- Instituto de Hortofruticultura Subtropical y Mediterránea 'La Mayora' (IHSM la Mayora), Consejo Superior de Investigaciones Científicas (CSIC)
- Asociación de Agricultores y Ganaderos de Cádiz (ASAJA Cádiz)
- Instituto Valenciano de Investigaciones Agrarias (IVIA)
- Cooperativa Agrícola de Callosa d'En Sarià. CV
- Instituto Canario de Investigaciones Agrarias (ICIA)

Collaborating members

- Syngenta España S.A.U.
- Riegos Iberia Regaber S.A.

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Avocado

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, The Canary Islands, Valencian Community

GRANT AWARDED: € 365.045,86

PROJECT OPERATING PERIOD: September 2019-July 2021

MORE INFORMATION:
Website: https://goaguacatespain.com
Mail representative OG: asajamalaga@asajamalaga.com

Summary

INNOVACIÓN DEL AGUACATE promotes a significant increase in avocado productivity by encouraging the successful expansion of the crop into new areas and the transfer of technology related to cultivation techniques, plant material and biological control.

PROJECT OBJECTIVES	OBTAINED RESULTS
Identification of suitable areas for the expansion of avocado cultivation, with a view to environmentally sustainable practices and maximum productivity.	Definition and delimitation of the optimum geographical area for the efficient cultivation of avocado in the Valencian Community, Cádiz and Málaga (map: https://goaguacatespain.com/mapa/).
Transfer of avocado cultivation techniques.	Introduction of new cultural techniques for pruning, pollination, fruit quality improvement, irrigation, fertilisation, and plant health.
To increase the adoption of plant material, grafted plants, and varieties suitable for the different soil and climatic conditions in Spain.	Improving the diversity of varieties and grafted plants in 40 plots in the pilot area of the project and its influence area, as well as in the Sinyent Experimental Farm in Valencia (AVA) and the IHSM La Mayora in Málaga.
Consolidation of an avocado innovation community in Spain that is a benchmark and meets the social, environmental, and economic needs of the communities where the crop is grown.	Dissemination of the findings and new technologies developed in the project.

Crop production

INNOVATRIGO

Improving the environmental and economic sustainability of wheat production in Spain

Innovatrigo

Beneficiary members

- Asociación Española de Técnicos Cerealistas (AETC)
- Universidad de Córdoba (UCO)
- Asociación Española de Agricultura de Conservación Suelos Vivos (AEACSV)
- Antonio Tarazona S.L.
- Agrifood Sector Communication S.L.

Subcontracted members

- Transfer Consultancy

Collaborating members

- Dcoop. Sociedad Cooperativa Andaluza.
- Centros Comerciales Carrefour S.A.

CALL 2018

THEMATIC AREA: Crop production / **SUBSECTOR:** Cereals

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile and Leon, Community of Madrid.

GRANT AWARDED: € 536.178,23

PROJECT OPERATING PERIOD: June 2018-July 2020

MORE INFORMATION:
Website: http://www.innovatrigo.es/
Mail representative OG: info@aetc.es

Summary

INNOVATRIGO promotes the improvement of the sustainability of wheat production through the members of its chain, creating environmental quality labels that add value to wheat cultivation with a catalogue of Good Agricultural Practices (GAPs).

PROJECT OBJECTIVES	OBTAINED RESULTS
Integration of all actors in the wheat production chain as a means of promoting innovation for sustainable crop production and more efficient use of natural resources.	Catalogue of wheat production areas and their different management and identification of problems to be improved. Catalogue of Good Agricultural Practices (GAPs) that reduce environmental impact.
Adoption and promotion of innovative technologies among farmers and society at large.	Agronomic and economic results of how the proposed GAPs can improve wheat production compared to conventional management.
Promote labelling tools for wheat by-products, such as bread. This will give commercial visibility to sustainably produced grain.	Developing a certification scheme for low-emission wheat and labelling bread packaging with the low-emission label.
Develop an outreach plan to improve uptake of innovation and generate information to enable policy support for innovative and sustainable crop production.	Develop a web platform to promote dissemination and advocacy among policy makers on the importance of promoting sustainable and innovative practices in wheat production.

Crop production

INPULSE

Innovating to use Spanish legumes in animal feed

Beneficiary members

- Coordinadora de Organizaciones de Agricultores y Ganaderos (COAG-IR)
- Confederación Española de Fabricantes de Alimentos Compuestos para Animales (CESFAC)
- Federación Aragonesa de Cooperativas Agrarias (FACA)
- Instituto de Agricultura Sostenible-Agencia Estatal Consejo Superior de Investigaciones Científicas (IAS-CSIC)
- Centro de Investigación y Tecnología Agroalimentaria de Aragón (CITA)
- Servicio Regional de Investigación y Desarrollo Agroalimentario (SERIDA).

Collaborating members

- Asociación Española de Leguminosas (AEL)
- Ars Alendi S.A.
- Fundación Española para el Desarrollo de la Nutrición Animal (FEDNA)
- Fundación CARTIF
- Sociedad Cooperativa Andaluza Ganadera del Valle de los Pedroches (COVAP)

CALL 2020

THEMATIC AREA: Crop production / **SUBSECTOR:** Leguminous

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Basque Country, Cantabria, Castile La Mancha, Castile and Leon, Catalonia, Chartered Community of Navarre, Community of Madrid, Extremadura, Galicia, La Rioja, Principality of Asturias, Region of Murcia, The Balearic Islands, The Canary Islands, Valencian Community

GRANT AWARDED: € 439.594,65

PROJECT OPERATING PERIOD: December 2020-March 2023

MORE INFORMATION:
Website: https://goinpulse.com/
Mail representative OG: coagmadrid@coag.org

Summary

INPULSE promotes the development and evaluation of a systematic mechanism to promote the cultivation and use of legumes, adapted to the needs of all actors in the animal feed chain.

PROJECT OBJECTIVES	OBTAINED RESULTS
To analyse the situation and availability of the seeds of the legumes under study (broad bean, soya bean and pea) and the companies that market them, as well as the trials and evaluation protocols that are being carried out for these legumes.	Progress in reconnecting the animal feed chain in Spain to promote the cultivation of leguminous crops and thus reduce external dependence on protein for our livestock feed.
Diagnose the needs of the agents in the animal feed chain and the barriers to the incorporation of legumes in animal feed.	The Group for the Evaluation of New Varieties of Extensive Crops in Spain (GENVCE) has reactivated the network of legume trials, giving continuity and sustainability to the results and work carried out by INPULSE.
To agree and validate a common protocol for variety testing, contribute to the diversification of food systems in Spain, reduce greenhouse gas emissions and improve the environmental impact of agricultural production and feed supply chains.	Diagnosing the needs of the different actors in the chain, listing the seeds available and the companies that market them, and establishing a common protocol for variety testing.

Crop production

INVERCONEC

Connected greenhouse: from crop to consumer

Beneficiary members

- Agroplanning Agricultura Inteligente S.L.
- Anecoop S.C.A.
- Asociación de Organizaciones de Productores de Frutas y Hortalizas de Almería (COEXPHAL)
- Fundación Cajamar
- Hispatec Erpagro, S.L.U
- Asociación de Productores Exportadores de Frutas y Hortalizas de la región de Murcia (PROEXPORT)
- Universidad de Almería (UAL)

CALL 2020

THEMATIC AREA: Crop production / **SUBSECTOR:** Vegetables

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Region of Murcia, Valencian Community

GRANT AWARDED: € 529.724,31

PROJECT OPERATING PERIOD: June 2021-March 2023

MORE INFORMATION:
Website: https://www.inverconec.es/
Mail representative OG: victoria@coexphal.es

Summary

INVERCONEC promotes the creation of a technological platform for the digitalisation and total control of greenhouse production in terms of productivity, sustainability, optimal performance and traceability.

PROJECT OBJECTIVES	OBTAINED RESULTS
Define the infrastructure for the creation of a platform integrating the digital information available and captured in the greenhouses.	Report on the characterisation of input management and availability of digitised information in typical greenhouses in south-east Spain. Technology requirements report for the development of a cloud platform for the management and analysis of greenhouse gas information.
Design and build of a cloud platform where management and logistics recommendations will be analysed and generated to meet the needs of greenhouse growers.	Building the cloud platform with information analysis algorithms for decision support.
Project developments will be used to set up a pilot greenhouse.	Management of the pilot greenhouse through the cloud platform's algorithms, integrating recommendations for control and reduction of inputs and labour.
Development of a greenhouse management computer application which will be the repository of all data from all technologies being implemented.	Visualisation of the data uploaded to the platform through a personal access web tool. Development of a greenhouse management software application incorporating the input control and reduction strategy. Connection of information from the cloud platform with the warehouse traceability system.
Dissemination of the results.	Dissemination and transfer of project results.

Crop production

LEGSAPIENS

Opportunity creation: innovative grain legume crop production systems.

Beneficiary members

- Aigües del Segarra Garrigues S.A. (ASG)
- Explotaciones Agrícolas San Miguel S.L.
- Instituto Madrileño de Investigación y Desarrollo Rural, Agrario y Alimentario (IMIDRA)
- Centro Tecnológico Agrario y Agroalimentario (ITAGRA)
- Observatorio para una Cultura del Territorio (OCT)
- Universidad de Lleida (UDL)
- Unión de Pequeños Agricultores y Ganaderos (UPA)

Subcontracted members

- Agroecológicos Arenales S.L.
- Jolbertal S.L.
- Mensa Cívica

Collaborating members

- Asociación Profesional de Empresas Productoras de Semillas Selectas (APROSE)
- Cereales Canseco S.L.
- Sociedad Cooperativa Arae

CALL 2020

THEMATIC AREA: Crop production / **SUBSECTOR:** Leguminous

AUTONOMOUS COMMUNITIES EXECUTION: Aragon, Castile and Leon, Castile La Mancha, Catalonia, Community of Madrid

GRANT AWARDED: € 559.406,68

PROJECT OPERATING PERIOD: May 2021-March 2023

MORE INFORMATION:
Website: https://www.legsapiens.es/
Mail representative OG: upa@upa.es

Summary

LEGSAPIENS aims to boost the production of grain legumes in Spain by implementing, transferring, and disseminating innovative cultivation systems and techniques that enhance farm profitability.

PROJECT OBJECTIVES	OBTAINED RESULTS
Productive evaluation of the value chain and consumption of pulses for human consumption.	Assessment of the production and marketing capability of the pulse value chain for human consumption.
Demonstration of innovative agritechniques and production systems will be implemented in each of the case studies to cultivate grain legumes.	Demonstration and implementation of innovative production systems, specifically tailored to individual case studies, will be conducted on pilot farms. Agronomic report and field guide on legume crops for human consumption. Socio-economic study of the legume industry intended for human consumption.
Communicate to the public the objectives, activities and results of the Task Force and the importance of human consumption of pulses.	Communication campaign to promote and promote eating pulses.

Crop production

LÚPULOS DE CALIDAD

Innovations in hop growing to enhance farm sustainability in Spain.

Beneficiary members

- Lúpulos de León SAT
- Lúpulo Tecnología de Galicia (LUTE-GA)
- Universidad de León (ULE)
- Universidad de Santiago de Compostela (USC)
- Instituto Tecnológico Agrario de Castilla y León (ITACyL)
- Agencia Gallega de Calidad Alimentaria (AGACAL)
- Instituto Vasco de Innovación y Desarrollo Agrario S.A. (NEIKER)
- Hopsteiner España S.A.

Subcontracted members

- Consultora Geodilab C.B.
- EcoUrban Consultores S.L.

Collaborating members

- Asociación de Desenvolvemento Rural Mariñas-Betanzos
- Asociación POEDA – Páramo, Órbigo, ESLA Desarrollo Asociado
- Asociación de Cerveceros de España

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Hop growing

AUTONOMOUS COMMUNITIES EXECUTION: Basque Country, Castile and Leon, Galicia

GRANT AWARDED: € 577.576,83

PROJECT OPERATING PERIOD: March 2019-July 2021

MORE INFORMATION:
Website: http: //www.lupulosdecalidad.es/
Mail representative OG: tecnico@lupulosdeleon.es

Summary

LÚPULOS DE CALIDAD promotes innovative hop farming in Spain. We incorporate advancements in processes, technologies, and environmentally friendly practices for water resource conservation, fertilisers, and pest control. These improvements foster farm organisation and enhance profitability.

PROJECT OBJECTIVES	OBTAINED RESULTS
Sustainable pest and disease control.	Proposal for phytosanitary products, incorporating microorganisms with positive interaction with the hop plant, and creating a guide to Integrated Pest Management.
Optimisation of the irrigation and fertilisation system.	Optimal fertilisation and irrigation strategy for enhanced yield and quality.
Environmental and economic sustainability of farms.	Proposal for ecosustainable technologies for waste recovery and development of a digital farm management system. Specification of crop-specific techniques detailing modes of action, treatment schedule, and dosage.

Crop production

MAÍZ SOSTENIBLE

Climate-smart maize breeding

Beneficiary members

- Grupo AN (AN S. Coop.)
- Control Union CU WG Spain (Control Union Spain S.A.)
- Instituto Tecnológico Agrario de Castilla y León (ITACyL)
- Corteva Agriscience (Pioneer Hi-Bred Spain S.L.)
- Timac Agro (Timac Agro España S.A.)
- Universidad de Sevilla (US)
- Vertex Bioenergy S.L.

Subcontracted members

- Artica Ingeniería e Innovación S.L.
- Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas (CIEMAT)
- Universidad de Navarra (UNAV)

Collaborating members

- Asociación Española de Bioetanol (Bio-E)
- Confederación Española de Fabricantes de Alimentos Compuestos para Animales (CESFAC)

CALL 2020

THEMATIC AREA: Crop production / **SUBSECTOR:** Maize

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Castile and Leon, Chartered Community of Navarre, Community of Madrid, Extremadura

GRANT AWARDED: € 532.219,05

PROJECT OPERATING PERIOD: March 2021-March 2023

MORE INFORMATION:
Website: https://maizsostenible.com
Mail representative OG: salvador.martos@vertexbioenergy.com
palomaherrerogil@vertexbioenergy.com

Summary

MAÍZ SOSTENIBLE aims to enhance the sustainability and profitability of maize farming in Spain by using technology, digital tools, and environmental certification throughout the value chain.

PROJECT OBJECTIVES	OBTAINED RESULTS
To gain an understanding of the present technical and economic condition of the maize industry in Spain. The objective is to determine its key challenges and opportunities for both adapting to and mitigating the effects of climate change.	Technical and economic characterisation of major cultivated regions at a national level, detailing crucial points and opportunities for both climate change adaptation and mitigation.
Develop a certified Life Cycle Assessment (LCA) methodology specifically for maize cultivation nationally.	Development of a certified and validated methodology for sustainable maize cultivation in Spain.
Improving the sustainability of maize farming through the implementation of a Precision Farming Techniques Protocol (PFTP).	Development of a Precision Farming Techniques Protocol (PFTP) to enhance the sustainability of maize farming.
Assess the effects of the project outcomes on the long-term enhancement of maize crop yield.	Assessing project impacts, enhancing the sector's resilience to climate change, and decreasing greenhouse gas emissions.
Encourage the adoption of PFTP and GOMAIZ certification and increase awareness of the resulting sustainability enhancements among all parties involved in the maize value chain.	The PFTP implementation and certification have been encouraged, and pertinent recommendations have been established for individuals involved in the maize value chain.

Crop production

MICROCLIMATT

MICROCLIMATT

Study of the efficacy of innovative microalgae biostimulants
to combat the adverse effects of climate change on tomato and wheat

Beneficiary members

- Algaenergy S.A.
- Asociación Agraria de Jóvenes Agricultores (ASAJA)
- Agencia Estatal Consejo Superior de Investigaciones Científicas (CSIC)
- Instituto Madrileño de Investigación y Desarrollo Rural Agrario y Alimentario (IMIDRA)
- Universidad de Sevilla (US)

Subcontracted members

- Asociación para el Fomento de la Investigación y el Desarrollo Tecnológico en Genómica Vegetal (INVEGEN)

CALL 2020

THEMATIC AREA: Crop production / **SUBSECTOR:** Tomato and wheat

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Community of Madrid, Region of Murcia

GRANT AWARDED: € 539.847,34

PROJECT OPERATING PERIOD: March 2021-March 2023

MORE INFORMATION:
Website: https://microclimatt.es
Mail representative OG: gm@algaenergy.com

Summary

MICROCLIMATT promotes the development of innovative microalgae derivatives with biostimulant activity and the verification of the effects of their application on the sustainable intensification of crop production, associated with climate change mitigation in wheat and tomato.

PROJECT OBJECTIVES	OBTAINED RESULTS
Development of microalgae derivatives with biostimulant activity for crop production.	Industrial-scale development of BIO-1 and BIO-2 biostimulants from microalgae cultures.
Using transcriptomic techniques to assess the effects of microalgae derivatives on gene expression.	Rapid and prolonged upregulation of numerous genes associated with responding to phytohormones triggers the plant's ability to adapt to various abiotic stressors, including temperature, drought, salinity, and osmotic pressure.
Verification of the effectiveness of derivatives in enhancing drought tolerance in tomato and wheat crops.	The plants that were treated showed a clear superiority in recovering from the effects of water stress.
Evaluation of the impact on productivity and CO2 fixation by plant biomass resulting from the application of microalgae derivatives on crops.	Increase in wheat crop productivity on BIO-1-treated plots, resulting in over 0.5 ton/ha of extra CO2 fixation. In tomato crops grown in greenhouses, the biostimulant induces extra fixation of CO2, resulting in values of more than 1.2 tonnes per hectare.
Verification of the influence of two biostimulants derived from microalgae on soil health supporting tomato and wheat crops in greenhouse and field environments.	In wheat crops, BIO-1 positively impacts the quality, functionality, and sustainability of the supported soils. This supports the mobility of important nutrients while increasing the structural biodiversity of the microbiota. A similar response to BIO-1 has not been observed in tomato crops.

Crop production

MOSOEX
materia orgánica - gestión sostenible

MOSOEX

Increasing organic matter, sustainable management of extensive systems in Spain.

Beneficiary members

- Unión de Pequeños Agricultores y Ganaderos (UPA)
- Asociación Española de Agricultura de Conservación. Suelos Vivos (AEACSV)
- Solid Forest S.L.
- Universidad Politécnica de Madrid (UPM)
- Instituto Navarro de Tecnologías e Infraestructuras Agroalimentarias (Área Agrícola) (INTIA)
- Consejo Superior de Investigaciones Científicas (CSIC). Estación Experimental de Aula Dei (EEAD)

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Cereals

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Castile and Leon, Castile La Mancha, Chartered Community of Navarre, Community of Madrid, Extremadura, La Rioja, Region of Murcia

GRANT AWARDED: € 471.296,09

PROJECT OPERATING PERIOD: June 2019-July 2021

MORE INFORMATION:
Website: http://www.mosoex.es/
Mail representative OG: upa@upa.es

Summary

MOSOEXpromotes an innovative soil management model for extensive rain-fed production systems, aimed at improving organic matter and reducing greenhouse gas emissions.

PROJECT OBJECTIVES	OBTAINED RESULTS
Evaluation of agronomic practices aimed at maintaining and increasing soil organic matter and stabilising it in the medium and long term.	Development of a practical catalogue of soil management measures adapted to different agronomic systems.
Evaluation of agronomic practices to increase soil resistance to erosion and reduce greenhouse gas emissions associated with extensive rain-fed crop production in Spain.	Setting indicators to analyse the impact of the different management measures on the selected agronomic systems. Identifying early indicators that can be used to measure, in the short term, the effectiveness of the good practices introduced.
Characterisation of Spanish extensive rain-fed agro-systems according to common rotation, climatology, soil type, etc.	Report on the characterisation of extensive rain-fed farming systems.
To ensure wide and clear dissemination of the impact of the various actions carried out on model farms.	Development of outreach materials.

Crop production

OLEOPRECISIÓN

Modernising sunflower farming in Spain can be achieved by implementing precision farming techniques and decision-making tools.

Beneficiary members

- Sovena Oilseeds España (SOVENA)
- Agrupación de Cooperativas Agrarias de Extremadura (ACOPAEX)
- Acor
- Manzanilla Olive SCA
- Investigación y desarrollo agroalimentario S.L. (IDEAGRO)
- Centro de Investigaciones Científicas y Tecnológicas de Extremadura (CICYTEX)
- Instituto Tecnológico Agrario de Castilla y León (ITACyL)

Subcontracted members

- Universidad de Córdoba (UCO)
- Agencia Estatal de Meteorología (AEMET)

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Sunflower

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile and Leon, Extremadura

GRANT AWARDED: € 599.644,16

PROJECT OPERATING PERIOD: June 2019-July 2021

MORE INFORMATION:
Website: http://oleoprecision.es
Mail representative OG: miguel.gutierrez@sovena.es

Summary

OLEOPRECISIÓN promotes increased productivity, profitability, sustainability and adaptation to climate change in sunflower cultivation through the development of a predictive model incorporated into an intuitive and freely accessible decision app.

PROJECT OBJECTIVES	OBTAINED RESULTS
Improve knowledge of sunflower cultivation and its current situation.	Modernisation of sunflower production in Spain based on empirical and scientific data.
Obtain historical data to feed the application and data on productivity and quality of the sunflower crop.	Updating the physical and biological parameters of the sunflower crop and improving its quality and productivity in Spain.
Adaptation of the AquaCrop (FAO) simulation model for sunflower and development of an open access decision support application.	Historical and empirical data based AquaCrop simulation model (FAO). Creation of an open access app tool for decision making.
Quantifying the reduction of impacts of modernised crops compared to traditional crops and proposing management and planning guidelines at national level for sunflower cultivation.	Reducing the environmental impact of modernised crops through national management and planning guidelines for sunflower cultivation.
Project communication and dissemination: results and contributions to knowledge.	Transfer of the obtained results.

Crop production

PDApp

Moving towards a digital model
for zero waste in the agrifood industry.

Beneficiary members

- Fundació Espigoladors
- Asociación Empresarial Centro Tecnológico Energía y Medio Ambiente (CETENMA)
- Fundación Centro Tecnolóxico de Eficiencia e Sostenibilidade Enerxética (Energylab)
- Oreka Circular Economy S.L.
- Coordinadora de Organizaciones de Agricultores y Ganaderos (COAG)
- Kiwi Atlántico S.A.
- Jimbofresh Internacional S.L.L
- Conca de la Tordera S.C.C.L

Collaborating members

- Galinsect S.L.
- Trasdeza Natur S.C. LTDA
- E.I ES IM-Perfect Food S.L.
- Cooperativa Agrícola Levante Sur Soc. Coop.
- Verdcamp Fruits SAT
- Camposeven SAT NQ 9994

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Vegetables

AUTONOMOUS COMMUNITIES EXECUTION: Basque Country, Catalonia, Community of Madrid, Galicia, Region of Murcia

GRANT AWARDED: € 599.480,28

PROJECT OPERATING PERIOD: November 2022-March 2025

MORE INFORMATION:
Website: https://pdapp.coag.com.es/PDApp/
Mail representative OG: raquel@espigoladors.com

Summary

PDApp promotes the reduction of food losses and food waste in the agri-food sector through digital tools based on the principles of the circular economy and the bioeconomy, designing a decision support service for companies and agents in the primary sector that will help them to prevent FWL (food waste losses) and creating a digital tool for the exchange of surpluses generated between different agents, such as food product processing companies, NGOs receiving donations, livestock farmers, feed manufacturers, etc. These tools will guarantee traceability, as well as the reporting of FWLs to the administration.

PROJECT OBJECTIVES	OBTAINED RESULTS
Diagnose food losses and food waste in the fruit and vegetable sector.	Quantification and causes of fruit and vegetable FWL have been identified.
Facilitate the implementation of plans to prevent FWL in the primary fruit and vegetable sector, and make decisions based on sustainability criteria, including environmental, social, and economic factors.	Plans for the prevention of FWLs drawn up by 9 companies in the fruit and vegetable sector and a system for measuring the environmental, social and economic impact of these FWLs and the prevention alternatives defined.
To provide alternatives for the prevention of fruit and vegetable PDAs according to the hierarchy of food uses adapted to the sector and the territory.	Prevention or valorisation alternatives for companies with potential surplus FWL.
Raise awareness of companies in the fruit and vegetable sector to the significance of minimising and quantifying FWL.	Increased awareness and training to prevent FWL among professionals in the fruit and vegetable industry.

Crop production

PHYTODRON

Validation and safety of aerial drone applications in the agroforestry environment.

Beneficiary members

- Asociación Empresarial para la Protección de las Plantas (AEPLA)
- Baskegur
- Colegio Oficial de Ingenieros Agrónomos de Centro y Canarias (COIACYC)
- Corteva Agriscience Spain S.L.U.
- Instituto de Investigación y Tecnología Agroalimentaria (IRTA)
- Universidad de Sevilla (US)

Subcontracted members

- Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA)
- Neiker-Instituto Vasco de Investigación y Desarrollo Agrario S.A.
- Universidad Politécnica de Madrid (UPM)

Collaborating members

- Basf Española S.L.
- Dcoop. Sociedad Cooperativa Andaluza
- Instituto Nacional de Seguridad y Salud en el Trabajo (INSST)
- Plataforma Tecnológica del Vino (PTV)
- Syngenta España S.A.U.

CALL 2020

THEMATIC AREA: Crop production / **SUBSECTOR:** Olive trees

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Basque Country, Catalonia, Community of Madrid

GRANT AWARDED: € 567.924,40

PROJECT OPERATING PERIOD: March 2021-March 2023

MORE INFORMATION:
Website: https://gophytodron.es/
Mail representative OG: registrocorteva@corteva.c

Summary

PHYTODRON advocates the use of drones as a secure and efficient substitute for traditional phytosanitary applications. It involves a thorough evaluation of risks, scenarios, applications, and equipment to generate data that can aid in the regulatory framework's advancement, classifying it as a precision application distinct from the conventional aerial applications performed with manned aircraft.

PROJECT OBJECTIVES	OBTAINED RESULTS
Develop the procedure for carrying out examinations to establish drift and probable ecological hazards.	Comparison of obtained results using drift and soil deposition values for current EU terrestrial and aquatic risk assessment.
Comparative evaluation of operator exposure and risk values via unmanned aerial equipment.	Development of the first human exposure test protocol, not related to diet, published under ISBN: 978-84-17528-69-0.
Develop the technical characterisation protocol for unmanned aerial application equipment.	Elaboration of the technical characterisation report for unmanned aerial equipment for the application of phytosanitary products and evaluation of commercial equipment.
Comparing the quality, accuracy and efficiency of unmanned aerial equipment applications, alongside a comparative analysis of their effectiveness, range and cost.	Development of the initial trial protocol to determine the effectiveness of using drones in citrus treatment and residue detection, published under ISBN: 978-84-17528-69-0.
Submission for consideration regarding the regulation of using unmanned aerial equipment to apply phytosanitary products.	Document with a regulatory proposal for the new regulation of aerial applications of phytosanitary products with unmanned aerial equipment.

Crop production

PREVECO
Prevención de daños del conejo

PREVECO

Preventing agricultural damage caused by rabbits in Castile La Mancha and Extremadura

Beneficiary members

- Asociación para la Defensa de la Naturaleza (ADENA)
- Fomecam Terra S.L.
- Fundación CBD-Hábitat
- Unión de Pequeños Agricultores (UPA)

Collaborating members

- Dirección General de Política Forestal y Espacios Naturales. Junta de Castilla-La Mancha
- Dirección General de Medio Ambiente. Junta de Extremadura
- Agroseguro S.A.

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Cereals

AUTONOMOUS COMMUNITIES EXECUTION: Castile La Mancha, Extremadura

GRANT AWARDED: € 547.512,05

PROJECT OPERATING PERIOD: September 2019-July 2021

MORE INFORMATION:
Website: https://preveco.es
Mail representative OG: secretariageneral@wwf.es

Summary

PREVECO enhances farm productivity by minimising economic losses from rabbit damage through implementing preventative measures on arable crops and conducting effectiveness analyses.

PROJECT OBJECTIVES	OBTAINED RESULTS
To decrease the financial impact of rabbit damage on chosen farms within the pilot areas.	Reduction of rabbit damage on selected plots.
Carry out a multi-criteria analysis of measures to prevent damage and evaluate both their cost-benefit ratio and compatibility with biodiversity conservation in agroecosystems.	Installation and assessment of 8 methods with various modifications and their control plots on a total of 125 plots. A significant reduction in damage when implementing chemical inhibitors, fencing, ferreting, and repelling, resulting in reductions of 95.7%, 91.5%, 87.4%, and 71.9%, respectively.
Minimise the social conflict between the agricultural industry and rabbits.	Reducing social conflict in pilot areas.
To raise awareness among the public and specifically the agricultural industry regarding the issue of rabbit damage in crop production and the viable solutions available.	Conducting dissemination activities via conferences, workshops, informative talks, and articles published in sector-specific publications.

Crop production

Proteinleg
GRUPO OPERATIVO SUPRAAUTONÓMICO

PROTEINLEG

Developing high-quality dietary protein through sustainable production and processing of legume crops.

Beneficiary members

- Fundación Empresa Universidad Gallega (FEUGA)
- MIMIC Seafood S.L.
- Ramiro Arnedo S.A.
- Almacenes Gamallo S.L.
- Misión Biológica de Galicia (MBG), Agencia Estatal Consejo Superior de Investigaciones Científicas (CSIC)
- Fundación Centro Tecnológico de la Carne (CTC)

Subcontracted members

- Centro Nacional de Tecnología y Seguridad Alimentaria (CNTA)
- Proseeds Hybrid S.L.U.
- Universidad Complutense de Madrid (UCM)

Collaborating members

- Asociación Española de Leguminosas (AEL)
- Asociación Galega de Cooperativas Agroalimentarias (AGACA)
- INVEGEN Asociación para el Fomento de la I+D Tecnológica en Genómica Vegetal (INVEGEN)
- Asociación de Empresarios, Gandeiros e Agricultores da Limia (ADEGAL)
- Asociación de Criadores de la Raza Porcina Celta (ASOPORCEL)

CALL 2020

THEMATIC AREA: Crop production / **SUBSECTOR:** Leguminous

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Chartered Community of Navarre, Community of Madrid

GRANT AWARDED: € 551.440,12

PROJECT OPERATING PERIOD: Abril 2021-March 2023

MORE INFORMATION:
Website: https://proteinleg.Es/
Mail representative OG: feuga@feuga.Es

Summary

PROTEINLEG aims to improve the quality of traditional leguminous crops, increase crop diversification, and obtain high-quality grains/seeds by using sustainable production and processing methods. The programme also intends to develop a range of new products rich in vegetable proteins for human and animal consumption.

PROJECT OBJECTIVES	OBTAINED RESULTS
To create innovative, affordable, and ecologically sustainable legume crops, which are high in protein and enhance human and animal well-being, whilst also supporting environmental and biodiversity conservation.	Identification of legume crop and variety adaptability and productivity in Spain's climatic regions for food and feed through phenotyping and breeding.
Improving protein quality and quantity of legume crops through a multidisciplinary approach.	Development of prototypes for human food. Pea extrusion products were determined as the superior protein base, displaying equal texture and taste quality to that of soy-based products.
To create plant-based products high in protein content by comprehending how proteins interact with other food components and evaluating their impact on food and feed.	Development of a food product based on peas for human consumption owing to their superior nutritional value. Develop two feed formulas for slow-growing animals, substituting soya meal with pea meal where feasible to enhance the fatty acid profile and amplify essential amino acids.

Crop production

RECOLECTA

Prediction of optimal harvesting time through integrated thermal crop management.

Beneficiary members

- Florette Ibérica S.L.
- Hortícola Canarias S.L.
- Florette Hortícola Navarra S.L.
- Florette Murcia S.L.
- Vegetales de Canarias S.L.
- Brioagro Tech S.L.
- Instituto Tecnológico de Canarias S.A. (ITC)

Subcontracted members

- Vega Mayor S.L.
- Zabala Innovation Consulting S.A.
- Webada Internet S.L.

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Vegetables

AUTONOMOUS COMMUNITIES EXECUTION: Castile and Leon, Region of Murcia, The Canary Islands

GRANT AWARDED: € 593.991,60

PROJECT OPERATING PERIOD: Abril 2019-July 2021

MORE INFORMATION:
Website: https://proyectorecolecta.com/about/
Mail representative OG: aperezu@vegaMayr.es

Summary

RECOLECTA is dedicated to developing an intelligent and independent agricultural management system that establishes the most advantageous harvesting date for each crop. This system enhances primary producers' competitiveness in the food chain, ensuring better product quality, sustainability and, ultimately, customer satisfaction.

PROJECT OBJECTIVES	OBTAINED RESULTS
To develop a management system for farms through integral thermal and humidity to manage their stock of live and perishable products by programming the harvesting process.	Enhanced crop productivity, decreased time for assessing crop conditions, optimised use of phyto-sanitary/fertiliser treatments and irrigation management.
Minimise product loss due to perishing, achieving an efficient use of resources and using water alternatives for irrigation.	Reduction of water consumption and fertiliser use and definition of optimal irrigation water conditions ensuring the absence of pesticide residues.
Conducting a study on pesticide dissipation curves can aid in optimising treatments for crops and analysing the evolution of pesticide residues and soil bioremediation.	Improving soil fertility with organic fertilisation and biochar amendments.
Develop innovative industrial processing methods that reduce vegetable fragility and enhance the shelf life and food safety of pre-prepared convenience food products using vacuum cooling, washing, and air drying.	Development of a sustainable industrial washing process through the exploration of chlorine alternatives and optimisation of production parameters.

Crop production

SALUD OLIVAR

Development of innovative strategies for the control of endemic and emerging olive diseases in Spain

Beneficiary members

- Domca S.A.U.
- Visiona Ingeniería de Proyectos S.L.
- Sociedad Cooperativa Andaluza (Dcoop)
- Neval Grupo Farmalent S.L.
- International Biocontrol Manufacturers Association España (IBMA España)

Subcontracted members

- Centro Tecnológico AINIA

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Olive trees

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Community of Madrid, Valencian Community

GRANT AWARDED: € 384.830,96

PROJECT OPERATING PERIOD: March 2019-July 2021

MORE INFORMATION:
Website: https://salud-olivar.es/
Mail representative OG: jgmadero@dmcrc.com

Summary

SALUD OLIVAR aims to design innovative strategies to control endemic and emerging olive tree diseases and enhance the economic profitability and sustainability of olive farms and related industries.

PROJECT OBJECTIVES	OBTAINED RESULTS
Developing strategies to prevent (using biostimulants), correct, and detect verticillium wilt in olive trees.	Enhanced growth of olive trees achieved by using biostimulant products developed in the project, combined with controlling, and minimizing the presence of verticillium wilt.
Development of corrective strategies to combat rapid decline syndrome in olive trees.	Obtaining two phytosanitary products, one based on enzymatic compounds and the other on plant extracts, with the potential to inhibit X. fastidiosa compounds in vitro.
To contribute to the progress of the olive industry and the olive growing industry by improving the productivity of olive farms through the development of control strategies for endemic (verticiliosis) and emerging (X. fastidiosa) diseases in olive trees.	New products developed as part of a project aimed at preventing and treating two of the most troublesome diseases in olive cultivation have been released on the market.

Crop production

SALUDGIRASOL

Application of soil health and quality indicators
for sustainable and efficient sunflower management

Beneficiary members

- Asociación Agraria de Jóvenes Agricultores (ASAJA)
- Fertinagro Biotech S.L.
- Consejo Superior de Investigaciones Científicas (CEBAS-CSIC)

Subcontracted members

- Universidad Politécnica de Madrid (UPM)

CALL 2022

THEMATIC AREA: Crop production / **SUBSECTOR:** Sunflower

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Castile La Mancha, Castile and Leon, Community of Madrid, Extremadura, Region of Murcia.

GRANT AWARDED: € 599.986,28

PROJECT OPERATING PERIOD: October 2022-March 2025

MORE INFORMATION:
Website: https://saludgirasol.es/
Mail representative OG: alvaro@asaja.com

Summary

SALUDGIRASOL aims to make sunflower cultivation profitable from a productivity perspective, eliminating its residual nature and limited scope to marginal areas. Profitability will be sought while considering sustainability and ecosystem benefits, enabling a transition towards sustainable, climate-smart, and climate change-adapted farming systems. This will assist farmers in complying with the eco-schemes introduced under the new CAP.

PROJECT OBJECTIVES	EXPECTED RESULTS
Characterisation of Spanish agrosystems based on sunflower cultivation.	Database documenting the historical and evolutionary progression of sunflower cultivation in Spain up to today.
Analysis of agricultural practices that integrate economic viability (and oil quality) with enhanced soil quality and health.	Report on sunflower management for higher productivity and sustainability and the most effective varieties.
Define the key factors for managing sunflower crops to enhance nitrogen use efficiency (NUE) and boost soil carbon sequestration.	Report with the most relevant conditions for sunflower cultivation to serve as a tool for knowledge transfer.
Establish clear and reliable indicators to evaluate the progression of soil quality.	Set of reference indicators to help farmers evaluate soil quality and health.
Development of a manual for enhancing nitrogen use efficiency (NUE) in sunflower cultivation through organic or mineral fertilisers, alongside a guide for best practices in sunflower cultivation.	Baseline report for knowledge transfer and drafting of the 'Practical Guide for the Sustainability of Sunflower Cultivation'.
Select demonstration sites where the suggested soil indicators and agricultural practices can be applied.	Detailed monitoring report on the results and impact on farmers of the agricultural activity in the 'showcase' plots.
Dissemination and transfer of the tools developed during the project.	Effective and efficient transfer of project goals and tools.

Crop production

SMARTOM

Project for an integrated management platform for industrial tomato cultivation.

SmarTom
Plataforma de gestión integral para el cultivo de tomate
G.O. SUPRAUTONÓMICO

Beneficiary members

- Soltel It Solutions S.L.U.
- Asociación Empresarial de Investigación Centro Tecnológico Nacional Agroalimentario Extremadura (CTAEX)
- Acopaex Sociedad Cooperativa
- Fundación Instituto Tecnológico de Galicia (ITG)
- Ambling Ingeniería y Servicios S.L.
- Cartogalicia S.L.

Collaborating members

- Cooperativas Agroalimentarias Extremadura

CALL 2018

THEMATIC AREA: Crop production / **SUBSECTOR:** Tomato

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Extremadura, Galicia

GRANT AWARDED: € 599.962,24

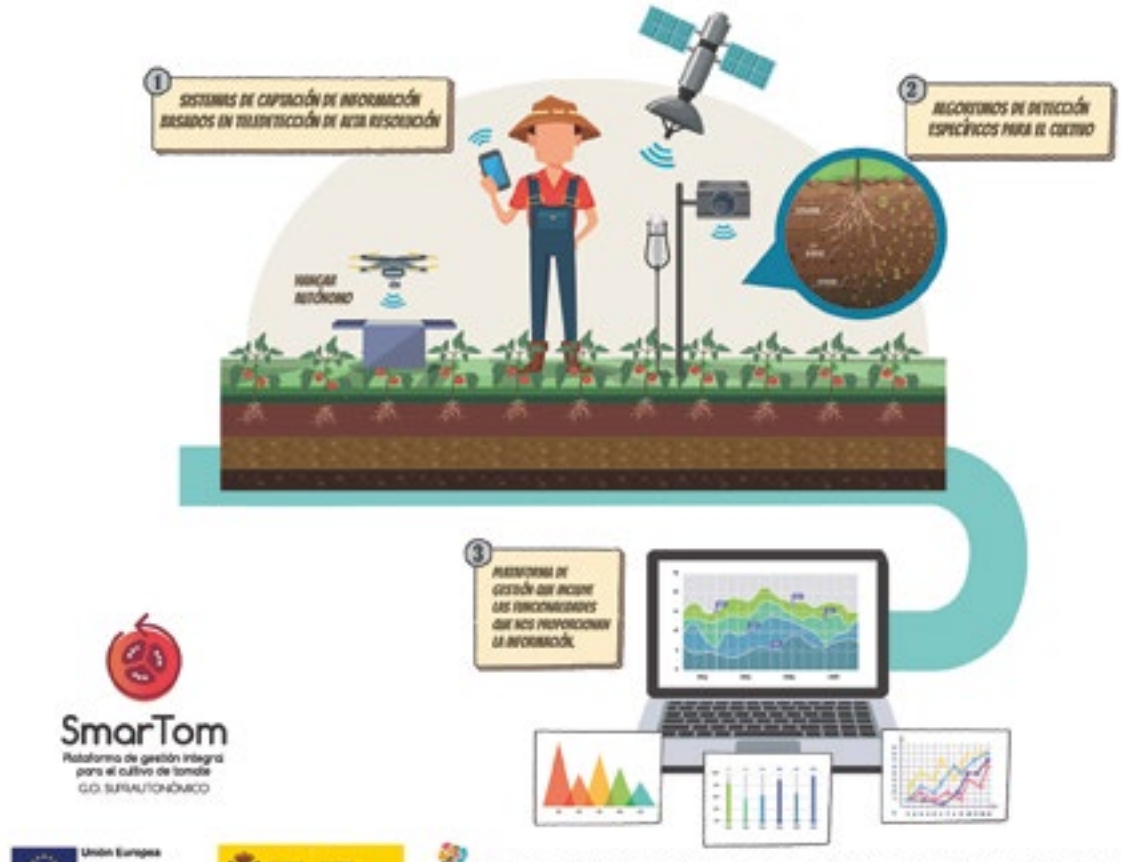
PROJECT OPERATING PERIOD: June 2019-August 2020

MORE INFORMATION:
Website: https://smartom.es/
Mail representative OG: innovacion@soltel.es

Summary

SMARTOM aims to enhance the management of industrial tomato crops for sustainable handling of vital actions like fertilisation, health, and irrigation. This is achieved by integrating diverse technologies onto a single platform.

PROJECT OBJECTIVES	OBTAINED RESULTS
Design and development of high-resolution remote sensing systems based on UAVs.	Development of a top-quality drone system with high-resolution cameras for monitoring crops.
Designing and creating algorithms to detect diseases, pests, irrigation requirements, and crop maturity using advanced spectral image processing.	Development of precise identification and forecasting algorithms for crucial tomato cultivation procedures.
Integral management system for tomato farming that offers advanced decision-making tools for end users. The system manages every stage of the crop cycle.	Development of an online platform to manage the complete tomato cycle and enhance farming performance by reducing irrigation requirements, promptly identifying crop pests and fertiliser insufficiencies during cultivation.



IMPORTE TOTAL DE LA AYUDA APROBADO: 599.962,24€ COFINANCIADO AL 80% POR EL FONDO EUROPEO AGRÍCOLA DE DESARROLLO RURAL - FEADER

Crop production

SUPERFOOD BIOTECH

Developing bio-enriched superfoods on the farm through agronomic methods.Implementation of biotechnological solution microalgae-microorganism consortia

Beneficiary members

- Asociación Agraria de Jóvenes Agricultores (ASAJA)
- Instituto Agroquímica y Tecnología de Alimentos (IATA-CSIC)
- Innoplant Tecnología e Investigación Agrícola S.L.
- Asociación Española para la Transferencia Técnica y Tecnológica a la Agricultura y la Ganadería (ASETAGA)
- Agroisa S.L.
- AMC Innova Juice and Drinks S.L.

Subcontracted members

- Fruit Tech Natural S.A.
- Arosa Investigación y Desarrollo S.L.

CALL 2022

THEMATIC AREA: Crop production / **SUBSECTOR:** Vegetables

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Castile La Mancha, Chartered Community of Navarre, Extremadura, Region of Murcia, Valencian Community

GRANT AWARDED: € 593.713,06

PROJECT OPERATING PERIOD: June 2022-March 2025

MORE INFORMATION:
Website: https://gosuperfood.es/
Mail representative OG: gosuperfoodbiotech@gmail.com

Summary

SUPERFOOD BIOTECH promotes the symbiosis between soil and plants, aiming to discover fertilisation formulas that enhance the high-value minerals and micronutrients of crops in the field.

PROJECT OBJECTIVES	EXPECTED RESULTS
Develop a new category of superfoods that increase levels of biohealthy micronutrients.	A viable option for Spanish fruit and vegetable producers is to expand into a new product category with high added value that caters to consumer needs.
Conducting experiments at 3 fruit and vegetable fields to demonstrate the proposed solution's technical and economic feasibility.	Direct study of technical-economic validation by using micro-organism-microalgae consortia on the farm to generate 3Ms (Minerals + Microorganisms + Organic Matter) and obtain bio-enriched fruit and vegetable products in high concentrations.
Demonstrate that the project proposal achieves reductions in water and electrical energy consumption to enhance production quality and add value.	Quantifying the reduction of electricity and water consumption during soil regeneration processes using the 3Ms method and in the production of fruit and vegetable superfoods.
Characterise the products made in the factory (fruit juices and food products) and the subproducts and derived residues (SDRs) produced during the manufacturing of Superfood Biotech products which are highly enriched with bioactive compounds.	Identification of fresh bio-enriched product transformation and evaluation of using SDRs from on-farm industrial transformations, as input for FMC (micro-organism-microalgae consortia) culture tanks.
Demonstrate quantitatively the actual reduction of CO2 emissions, bio-economic impact, job creation and sustainability in the production processes of biofertilisers (3Ms).	Reduction greenhouse gas emissions, conduct a comprehensive study on the bio-economic impact, and choose projects supported by young people and women in rural areas to establish bio-enriched fruit and vegetable production enterprises.

Crop production

GO TecnoGAR
Tecnificación del garbanzo

TECNOGAR

Comprehensive approach for enhancing chickpea farming through the integration of sensors and remote sensing to monitor and optimise cultivation practices.

Beneficiary members

- Agrosa Semillas Selectas S.A.
- AreaVerde-MG Projects S.L.
- Dubagan S.A.
- Instituto Madrileño de Investigación y Desarrollo Rural, Agrario y Alimentario (IMIDRA)
- Universidad Politécnica de Valencia (UPV)

Subcontracted members

- Activa Proyectos Tech S.L.
- Burcol S.L.
- Quiles Maquinaria Agrícola S.L.

Collaborating members

- Asociación Provincial de Agricultores y Ganaderos de Guadalajara (APAG)
- S. Coop. Mad. La Garbancera Madrileña

CALL 2020

THEMATIC AREA: Crop production / **SUBSECTOR:** Chickpea

AUTONOMOUS COMMUNITIES EXECUTION: Castile and Leon, Community of Madrid, Extremadura, Valencian Community

GRANT AWARDED: € 432.329,05

PROJECT OPERATING PERIOD: November 2020-April 2023

MORE INFORMATION:
Website: http://www.jlloret.Websites.upv.es/TECNOGAR/index.html
Mail representative OG: ayudaspublicas@sgi.upv.es

Summary

TECNOGAR helps improve chickpea farming in Spain by solving problems such as diseases or weeds through the use of monitoring technologies, biostimulants and comparing the performance of registered varieties.

PROJECT OBJECTIVES	OBTAINED RESULTS
To successfully incorporate both sensor networks and remote sensing into a platform for monitoring chickpea crops.	Developing multiparametric sensor devices and remote sensing techniques for crop identification and disease detection. Integration of data into a database and accessing it via a mobile application from sensors installed on the farmer's plot.
To enhance our national market presence, we aim to cultivate and distribute a variety of improved products. Consistency in product quality and availability will be prioritised.	Development of a new variety of chickpea that improves quality and crop management compared to the variety marketed by S. Coop. Mad La Garbancera Madrileña.
Improve the efficiency of managing inputs for chickpea cultivation, including water usage, fertiliser application, biostimulant usage, and phytosanitary product administration for various certified chickpea seed types.	Enhancing the plant's vegetative growth and bolstering its immunity against diseases and pests can be achieved by employing various biostimulant products.
Facilitate the adoption of new technologies by farmers via a transfer plan that involves integrating them in different stages of the project.	Teaching courses throughout the project, writing articles, and presenting at specialised conferences.

Crop production

VID-EXPERT

Intelligent system for diagnosing carbon footprint and climate change mitigation in the wine industry

Beneficiary members

- Asociación Española de Normalización (UNE)
- Federación Española del Vino (FEV)
- Sistemas Avanzados de Tecnología S.A. (SATEC)
- Intergia Energía Sostenible S.L. (INTERGIA)

Subcontracted members

- Universidad Politécnica de Madrid (UPM)
- Instituto de Investigación y Tecnología Agroalimentarias (IRTA)
- Universidad de Zaragoza (UNIZAR)

CALL 2022

THEMATIC AREA: Crop production / **SUBSECTOR:** Vineyard and Agrifood (Wine cellar)

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Catalonia, Community of Madrid, Extremadura, Galicia

GRANT AWARDED: € 599.444,00

PROJECT OPERATING PERIOD: January 2023-January 2025

MORE INFORMATION:
Website: https://www.une.org/cooperacion/vid-expert
Mail representative OG: coopera@une.org

Summary

VID-EXPERT supports compatibility and smart carbon footprint analysis for farmers and wineries to aid in reducing climate change impact within the wine industry.

PROJECT OBJECTIVES	EXPECTED RESULTS
Calculate the carbon footprint in both the vineyard and wineries.	Digital data and knowledge model for technical-scientific studies of environmental impact in vineyards and wineries.
To supply the wine industry with a sophisticated digital tool for analysing and suggesting actions to aid decision-making regarding alleviating the impact of climate change within the sector.	Intelligent system generating status analysis results and recommendations for mitigating environmental impact.
To examine the features and position of the present carbon footprint certification for the wine industry (WfCP) and suggest technological ideas that may enhance the certification's worth and promote its more extensive adoption.	Analysis of WfCP certificate status and proposal for digital improvements.
Disseminate and promote actions to reduce carbon footprints in the wine industry.	Dissemination and promotion of the project.

Crop production

VINGO

Project for the identification, valorisation,
and international marketing of minority grape varieties

Beneficiary members

- Asociación Cowine
- ECM Ingeniería Ambiental S.L.
- 3 Ases Bodegas y Viñedos S.L.
- Bodega el Hato y el Garabato
- Bodega 202 S.L.U.

Subcontracted members

- De Rotos y Descosidos S.C.
- USU Turismo Expertise
- Instituto Tecnológico Agrario de Castilla y León (ITACyL)

Collaborating members

- Asociación Ruta del Vino de Arribes
- Diputación Provincial de Ávila
- Grupo de Acción Local de Liébana

CALL 2022

THEMATIC AREA: Crop production / **SUBSECTOR:** Wine

AUTONOMOUS COMMUNITIES EXECUTION: Basque Country, Cantabria, Castile and Leon

GRANT AWARDED: € 533.449,65

PROJECT OPERATING PERIOD: January 2023-February 2025

MORE INFORMATION:
Website: www.variedadesminoritarias.es
Mail representative OG: hola@cowine.es

Summary

VINGO advances viticultural management models to promote and increase visibility of lesser-known grape varieties. This objective is attained through identifying and categorising raw materials into a digital catalogue, advocating for these varieties to combat the impacts of climate change on viticulture, marketing wines crafted from these grapes and creating quality labels.

PROJECT OBJECTIVES	EXPECTED RESULTS
Promoting the cultivation of lesser-known grape varieties as an alternative to adapting vine cultivation to climate change using innovative and technological methods.	Protocol for managing parameters to enhance the use of lesser-known grape varieties, resulting in reduced alcohol levels, lowered pH, and innovative winemaking with great commercial potential. Identify regions that promote favourable conditions for vine plants to survive against the impacts of climate change.
Develop digital and technological tools to identify, visualise, georeference, consult, promote, and manage lesser-known grape varieties within Spain.	Development of the initial online platform providing sector-specific and multidisciplinary information exchange for professionals, alongside a virtual learning environment for tailored training.
Marketing of lesser-known grape varieties at national and international level.	Marketing and commercialisation plan to boost sales of lesser-known grape varieties.
Develop a sustainability plan to decrease the Vingo alliance's emissions and compensate for its carbon footprint.	Strategic plan for green certification, environmental balance sheet, and carbon footprint. Design of a quality label.

Crop production

VITICAST

Predicting grapevine fungal diseases with innovative solutions

VITICAST
GRUPO OPERATIVO SUPRAAUTONÓMICO

Beneficiary members

- Monet Tecnología e Innovación S.L.
- Viña Costeira Sociedad Cooperativa Galega
- Bodegas Hacienda Monasterio S.L.
- Fundación Empresa Universidad Gallega (FEUGA)
- Diputación de Pontevedra-Estación Fitopatolóxica de Areeiro (EFA)
- Universidad de Vigo (UVigo)
- Bodega Matarromera S.L.

Subcontracted members

- Universidad de Santiago de Compostela (USC)

Collaborating members

- Plataforma Tecnológica del Vino (PTV)
- Asociación de Colleiteiros Embotelladores do Ribeiro (ACER)
- Asociación Galega de Viticultura (AGV)

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Wine

AUTONOMOUS COMMUNITIES EXECUTION: Castile and Leon, Community of Madrid, Galicia

GRANT AWARDED: € 599.957,11

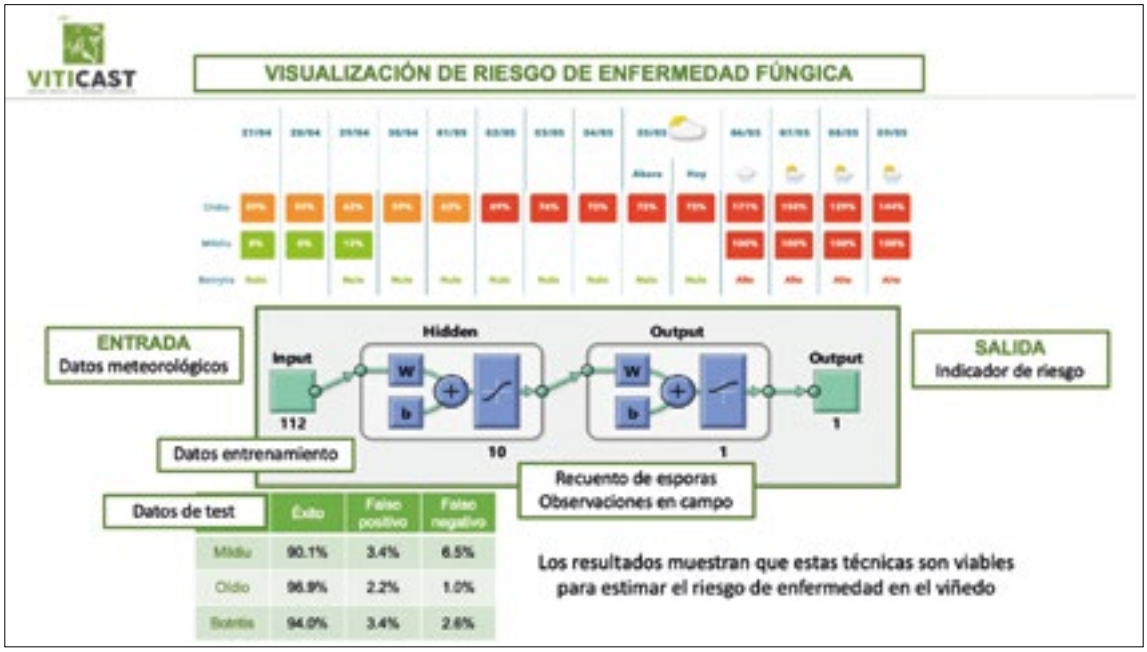
PROJECT OPERATING PERIOD: March 2019-July 2021

MORE INFORMATION:
Website: https://ec.europa.eu/eip/Crop production/en/find-connect/projects/viti-cast-soluciones-innovadoras-para-predicci%C3%B3n-de
Mail representative OG: info@monet-ti.com

Summary

VITICAST advocates for innovative warning tools to predict fungal diseases in vineyards. Our solutions optimise production, promote sustainable development and enhance vine crop.

PROJECT OBJECTIVES	OBTAINED RESULTS
To establish the beginning of various phenological stages in the chosen study regions based on grape variety.	Obtaining phytoclimatic models for the evolution of phenological phases for each plot under study and grape variety is our aim.
Develop models to predict the threshold of fungal spores in the vineyard atmosphere required for infection to take place.	Development of a comprehensive spore forecasting system for all plant pathogens.
Develop tailored algorithms for each Denomination of Origin by analysing meteorological data collected within the vineyards. This will enable the identification of periods that are susceptible to potential attacks from phytopathogenic fungi.	Establishing infection thresholds for each type of fungus in the warning tool based on climatic and phenological conditions, as well as spore concentration in the atmosphere.
Establish in each of the Designations of Origin studied a warning station for possible infections of phytopathogenic fungi.	An alert tool for fungal diseases.
Optimise the number of phytosanitary treatments in viticulture, resulting in lower production costs, higher wine quality and better protection of the environment.	Quantification of the enhancement in wine quality by evaluating multiresidue analyses conducted on the control plots as well as the plots treated with phytosanitary treatments, disregarding any warnings provided by the proposed tool in this project.



Crop production

govitinnat

VITINNAT

Innovative and sustainable natural solutions for the wine sector

Beneficiary members

- Asociación Empresarial de Investigación Centro Tecnológico Nacional Agroalimentario de Extremadura (CTAEX)
- Bodega Matarromera S.L.
- Idai Nature S.L.
- Agrozono S.L.
- Instituto de Salud Carlos III (ISCIII)

Subcontracted members

- Biológica Nature S.L.

Collaborating members

- Consejo Regulador DOP. Ribera del Duero
- Asociación Plataforma Tecnológica del Vino
- Sociedad Española de Agricultura Ecológica
- Centro de Investigaciones Científicas y Tecnológicas de Extremadura (CICYTEX)

CALL 2019

THEMATIC AREA: Crop production / **SUBSECTOR:** Wine

AUTONOMOUS COMMUNITIES EXECUTION: Castile and Leon, Community of Madrid, Extremadura, Valencian Community

GRANT AWARDED: € 586.474,07

PROJECT OPERATING PERIOD: June 2019-July 2021

MORE INFORMATION:
Website: https://ec.europa.eu/eip/Crop production/en/find-connect/projects/viti-cast-soluciones-innovadoras-para-predicci%C3%B3n-de
Mail representative OG: info@monet-ti.com

Summary

VITINNAT advocates for the use of efficient natural remedies to manage vine wood diseases' impact on crop health, productivity, grape quality, and resulting wine.

PROJECT OBJECTIVES	OBTAINED RESULTS
To create an innovative organic solution that can effectively combat vine wood diseases that are spread through the air. The end user should be able to easily apply the product and meet organic farming standards.	Identification of wood diseases and development of an innovative, durable, and commercially viable product suitable for use in organic crop production.
To illustrate the efficacy of the proposed ozone technology in managing wood diseases from contaminated soil and its potential applicability to end-users.	Action plan detailing the appropriate dosage and timing for ozone application, alongside pertinent data on beneficial microorganisms introduced to the soil.
Develop a worldwide plan for vineyards targeted towards end-users to achieve pesticide-free grapes and wine.	Improving grape yields per hectare, minimising chemical active substances, and creating a worldwide cultivation manual that employs treatments without chemical pesticide residues.
Evaluate the quality of grapes and the wine produced from the proposed solutions.	Report on comparative statistical analysis of grape and wine quality parameters.

Livestock

Source: LFRabanedo: stock.adobe.com

Operational groups

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Livestock

AMSOS 360

Innovative solutions for the sustainability of a new milk production system on dairy farms with automatic milking systems

Beneficiary members

- Confederación de Asociaciones de Frisona Española (CONAFE)
- Cooperativa Asturiana de Control Lechero (ASCOL)
- Federación de Frisona de Castilla y León (FEFRICALE)

Subcontracted members

- Xenética Fontao S.A.
- Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA-CSIC)
- Merck Sharp & Dohme Animal Health (MSD Animal Health)

Collaborating members

- Aberekin S.A.
- Asociación Profesional de Podología Bovina (APPB)
- Ankapodol S.L.
- Seragro Sociedad Cooperativa Gallega

CALL 2022

THEMATIC AREA: Livestock / **SUBSECTOR:** Cattle

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Basque Country, Cantabria, Castile and Leon, Castile La Mancha, Catalonia, Chartered Community of Navarre, Community of Madrid, Extremadura, Galicia, La Rioja, Principality of Asturias, Region of Murcia, The Balearic Islands, The Canary Islands, Valencian Community

GRANT AWARDED: € 352.350,03

PROJECT OPERATING PERIOD: November 2022-February 2025

MORE INFORMATION:
Website: https://www.revistafrisona.com/GO_AMSOS-360
Mail representative OG: sofia.alday@conafe.com

Summary

AMSOS 360 promotes the digitalisation, capture and use of the information available on dairy farms with robotic milking in Spain to strengthen their sustainability.

PROJECT OBJECTIVES	EXPECTED RESULTS
Capture the daily information collected by the milking robot at each dairy farm, along with data on the activity and rumination, if they are available.	Access and download the robot data of each dairy farm.
Connect the information captured from the dairy farm to the data on milk control, data on foot health and data on udder health.	Connect the different sources of information to a relational database and establish an automatic cross-validation process.
Develop a smart 360 management tool that relates all the information available on each animal to detect situations of alerts.	Develop a smart 360 management tool that handles the information received to define alerts and send them to the farm technicians to evaluate their degree of importance and action urgency.
Incorporate new characters to the genetic improvement programme that help to select animals that transmit the best adaptability for robotic milking to the next generation.	Define new characters that express the adaptability of the animals to the requirements of the robot and genotyping of the animals.

Livestock

ANPSTAND

Developing the national quality standard for pig artificial insemination centres

Beneficiary members

- Asociación Nacional de Criadores de Porcino Selecto (ANPS)
- Semen Cardona S.L.
- Grup Gepork S.A.
- Sociedad Cooperativa Limitada Bajo Duero (COBADU)
- Topigs Norsvin España S.L.U.
- Centro de Inseminación Artificial Porcino Cinco Villas A.I.E.

Subcontracted members

- Esmedagro, S.L.U
- Universidad de Murcia (UM)
- Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA)

Collaborating members

- Asociación Nacional de Productores de Ganado Porcino (ANPROGAPOR)
- Magapor S.L.
- Minitub Ibérica S.L.
- Kubus Lab S.A.
- Consorcio Mercantil de Huesca S.L. (HUMECO)

CALL 2019

THEMATIC AREA : Livestock / **SUBSECTOR:** Pig

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Castile and Leon, Castile La Mancha, Catalonia, Community of Madrid, Extremadura, La Rioja, Region of Murcia

GRANT AWARDED: € 575.833,91

PROJECT OPERATING PERIOD: March 2019-July 2021

MORE INFORMATION:
Website: https://anpstand.es
Mail representative OG: anps@anps.es

Summary

ANPSTAND promotes the development of a quality standard in production processes and in the minimum characteristics that the doses must fulfil that are produced by the pig artificial insemination centres of Spain.

PROJECT OBJECTIVES	OBTAINED RESULTS
Define a quality standard in production processes and in the minimum characteristics that the doses must fulfil that are produced by the insemination centres.	Document the requirements of the standard that the artificial insemination centres that want to be certified must fulfil.
Put boar semen doses of proven quality on the market that are endorsed by the quality standard.	Implement and audit the five beneficiary production centres under the quality standard.
Define and implement innovative strategies to improve the quality of the boar semen doses marketed and sold and the biosecurity of the dose production centres.	Put innovative techniques into practice to validate the quality of the semen doses and innovative strategies to reduce antibiotics in producing them and to improve the biosecurity at the semen dose production centres.

Livestock

ARTEMIS

Study and evaluation of the impact of sustainable practices and digital tools on poultry production systems

Beneficiary members

- Instituto de Estudios del Huevo (IEH)
- Nutreco Servicios S.A
- Nanta S.A.U
- OCU Ediciones S.A.
- Solid Forest S.L.
- Asociación Interprofesional Española de Carne Avícola (Avianza)
- Trouw nutrition España S.A

Subcontracted members

- Instituto de Investigación y Tecnologías Agroalimentarias (IRTA)
- Universidad de Granada (UGR)

Collaborating members

- Federación Española de empresas del sector de la producción de Huevos y Ovoproductos (FEDEROVO)
- Asociación Española de Productores de Huevos (ASEPRHU)

CALL 2022

THEMATIC AREA: Livestock / **SUBSECTOR:** Poultry

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Castile and Leon, Castile La Mancha, Catalonia, Community of Madrid, Galicia, Valencian Community

GRANT AWARDED: € 594.773,79

PROJECT OPERATING PERIOD: June 2022- March 2025

MORE INFORMATION:
Website: https://artemis-sustainavility.com/
Mail representative OG: administracion@institutohuevo.com

Summary

ARTEMIS promotes the study and evaluation of the impact of the application of new sustainable practices and innovative digital tools on poultry production systems arising from growing social demands and new European trends, integrating the consumer's perspective and their propensity to pay for such improvements in animal welfare, sustainability, and digitalisation of the sector.

PROJECT OBJECTIVES	EXPECTED RESULTS
Evaluate the effects of new nutritional strategies on animal welfare and agri-environmental sustainability in different production systems of laying hens and broilers, as well as their effects on the quality of the end products (eggs and meat).	Technical advisory services for the parameterisation of animal welfare and the performance of trials based on differentiated feeding strategies with bioactive nutrients in extensive production systems for laying hens (free-range) and semi-extensive production systems for laying hens (aviaries).
Develop new open digital tools to facilitate the quantification and monitoring of animal welfare and sustainability factors on poultry farms.	Design and development of an open digital tool for poultry farmers to quantify and monitor animal welfare and sustainability parameters.
Encourage sustainable production and responsible consumption of healthy, quality food.	Achievement of activities to estimate consumers' propensity to pay for animal welfare, sustainability and digitalisation in poultry farms.
Promote knowledge transfer in the field of animal welfare, sustainability and digitalisation in the national poultry sector.	Disseminate project results and transfer knowledge.

Livestock

AVIENERGY

From waste to resource: circular economy in the poultry sector through the energy use of poultry manure

avienergy
GRUPO OPERATIVO SUPRAAUTONÓMICO

Beneficiary members

- Alimentos del Mediterráneo S. Coop. (ALIMER)
- Fundación Centro Tecnológico de Eficiencia y Sostenibilidad Energética (EnergyLab)
- Avícola El Charcón S.L.
- Agencia Estatal Consejo Superior de Investigaciones Científicas (CSIC)
- Demaux Manufacture S.L.
- Fundación Empresa Universidad Gallega (FEUGA)
- Granja José Antonio García Blanco
- Universidad de Vigo (UVigo)

Collaborating members

- Fundación Alimentos del Mediterráneo (Fundación Alimer)
- UVE S.A. (Uvesa)

CALL 2020

THEMATIC AREA: Livestock / **SUBSECTOR:** Poultry

AUTONOMOUS COMMUNITIES EXECUTION: Castile and Leon, Galicia, Region of Murcia

GRANT AWARDED: € 565.160,04

PROJECT OPERATING PERIOD: March 2021-March 2023

MORE INFORMATION:
Website: http://avienergy.es/
Mail representative OG: feuga@feuga.es

Summary

AVIENERGY promotes the use of the energy potential of poultry manure to obtain thermal energy and/or electricity that can be used on the farms themselves, also obtaining other by-products of great added value.

PROJECT OBJECTIVES	OBTAINED RESULTS
Optimise a natural and/or forced drying method for chicken/turkey manure that allows farms to achieve the appropriate conditions for energy recovery.	Reduction of more than 20% of the moisture content of the starting biofuel.
Develop a burner adapted to chicken/turkey manure so that the sector can recover the thermal energy contained in the starting manure.	Recovery of more than 50% of the thermal energy contained in the starting manure.
Optimise combustion conditions to minimise emissions and manure from poultry farms in accordance with current regulations.	Develop an optimised combustion system for use in the poultry sector.
Quantify the reduction of energy costs of farms through the use of thermal energy.	Increase savings in heating and electricity costs by using the manure.
Characterise the ashes obtained in the process and evaluate their potential for agronomic recovery and the environmental impact of the proposed actions.	Preparation of a protocol for the agricultural use of the ashes produced in the combustion.
Transfer of the project results.	Dissemination and transfer of project results to the target sectors through publications in technical and scientific journals, events and webinars, regional, national and international congresses, press publications, news and web contents.

Livestock

GO BOVIEX

BOVIEX 4.0

Technological improvement in extensive cattle livestock production in Spain

Beneficiary members

- Real Federación Española de Asociaciones de Ganado Selecto (RFEAGAS)
- Asociación Española de Criadores de Ganado Vacuno de Raza Asturiana de los Valles (ASEAVA)
- Real Asociación Española de Criadores de Ganado Vacuno Selecto de Raza Avileña Negra Ibérica (RAEANI)
- Digitanimal S.L.

Subcontracted members

- Esmedagro S.L.U. (Inneara)
- Instituto Madrileño de Investigación y Desarrollo Rural, Agrario y Alimentario (IMIDRA)
- Comercializadora de Vacuno Selecto Avileño Negro Ibérico S.Coop.
- AgriSat Iberia S.L.

CALL 2022

THEMATIC AREA: Livestock / **SUBSECTOR:** Cattle

AUTONOMOUS COMMUNITIES EXECUTION: Aragon, Basque Country, Cantabria, Castile and Leon, Castile La Mancha, Community of Madrid, Extremadura, La Rioja

GRANT AWARDED: € 598.672,43

PROJECT OPERATING PERIOD: November 2022-February 2025

MORE INFORMATION:
Website: https://www.boviex.es
Mail representative OG: feagas@feagas.es

Summary

BOVIEX 4.0 promotes the development of a business intelligence tool for monitoring, management and decision-making support in extensive cattle livestock to improve profitability and the production environment.

PROJECT OBJECTIVES	EXPECTED RESULTS
Develop a decision-making tool for livestock farmers aimed at improving the profitability parameters of livestock.	Develop a business intelligence platform for the management of livestock farms.
Integrate information from databases and record books of farmers and associations into the tool to assist in the development of new viewing and analysis utilities on the use of the environment and available forage.	Identify alert needs proposed by farmers and technicians to generate notifications. Promotion of the incorporation of new technologies complementary to extensive grazing.
Development of multi-protocol communication gateways so that information can be sent from different sensors installed on the animals or on the farm to the internet.	Development of multi-protocol communications gateways to maximise coverage and monitor livestock.
Optimisation of land use through the combined use of satellite imagery and GPS tracker collars.	Characterisation of the variability and biomass production potential of farms by mapping management zones and NDVI evolution.

Livestock

CAVALE

Developing innovative strategies
for the production of quality foal meat

Beneficiary members

- Asociación de Investigación de Industrias Cárnicas del Principado de Asturias (ASINCAR)
- Animal Breeding Consulting S.L. (ABC)
- Asociación Criadores Ganado Equino de la Montaña Asturiana (ACGEMA)
- Asociación Nacional de Criadores de Ganado Marismeño (ANCGM)
- Cárnicas Hicor S.L.
- Confederación Española de Detallistas de Carne (CEDECARNE)

Subcontracted members

- Ikerfel S.A.

Collaborating members

- Federación Nacional de Criadores de Equino de Carne (FEDERECA)

CALL 2020

THEMATIC AREA: Livestock / **SUBSECTOR:** Equine

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Community of Madrid, Principality of Asturias

GRANT AWARDED: € 377.417,61

PROJECT OPERATING PERIOD: May 2021-April 2023

MORE INFORMATION:
Website: https://carnedepotrodecalidad.com/
Mail representative OG: mayte@asincar.com

Summary

CAVALE promotes the improvement of the horse meat value chain, in particular quality foal meat, to increase its demand and consumption, as well as developing strategies to improve the productivity and profitability of horse meat farms. The aim is to enhance the value of foal meat and its goodness by improving knowledge of the characteristics of the meat and its products, giving them added value not only for their quality, but also for aspects such as sustainability, rural development and the maintenance of native breeds.

PROJECT OBJECTIVES	OBTAINED RESULTS
Improvement of the horse meat value chain by enhancing the value of quality foal meat.	Determination of the population growth curve in foals of the Marismeña breed and the Asturian mountain horse.
Strategies for improving the productivity and profitability of horse meat farms.	Study of the economic situation of breeding farms of Marismeño and Asturian horses for meat production.
Understand the consumer's perception of foal meat and identify strategies to improve its image.	Study of consumer perception of foal meat and identification of strategies to improve its image and consumption.
Improved knowledge of the structure of the dressed carcass, characteristics of the meat and the development of innovative foal meat by-products and products.	Characterisation of the dressed carcass and cutting of foals: classification of carcasses, development of cutting and preparation of price breakdowns. Development of innovative meat by-products based on foal meat and characterisation of culinary processing to enhance their value. Microbiological, nutritional and sensory evaluation of foal meat and meat by-products. Culinary processes developed.

Livestock

EQUIGENOM

Development of an inexpensive MD chip for parentage, disease diagnosis, detection of economically important traits and genomic selection in PREs

GO EQUIGENOM

Beneficiary members

- Real Asociación Nacional de Criadores de Caballos de Pura Raza Española (ANCCE)
- Real Federación Española de Asociaciones de Ganado Selecto (RFEAGAS)
- Life Technologies S.A.

Subcontracted members

- Universidad de Sevilla (US)
- Universidad de Córdoba (UCO)
- Esmedagro S.L.

Collaborating members

- Federación Española de Asociaciones de Criadores de Caballos (FEACC)
- Real Federación Hípica Española (RFHE)
- Sociedad Española de Equinotecnia (SEDE)

CALL 2022

THEMATIC AREA: Livestock / **SUBSECTOR:** Equine

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Basque Country, Cantabria, Castile and Leon, Castile La Mancha, Catalonia, Chartered Community of Navarre, Community of Madrid, Extremadura, Galicia, La Rioja, Principality of Asturias, Region of Murcia, The Balearic Islands, The Canary Islands, Valencian Community

GRANT AWARDED: € 570.505,34

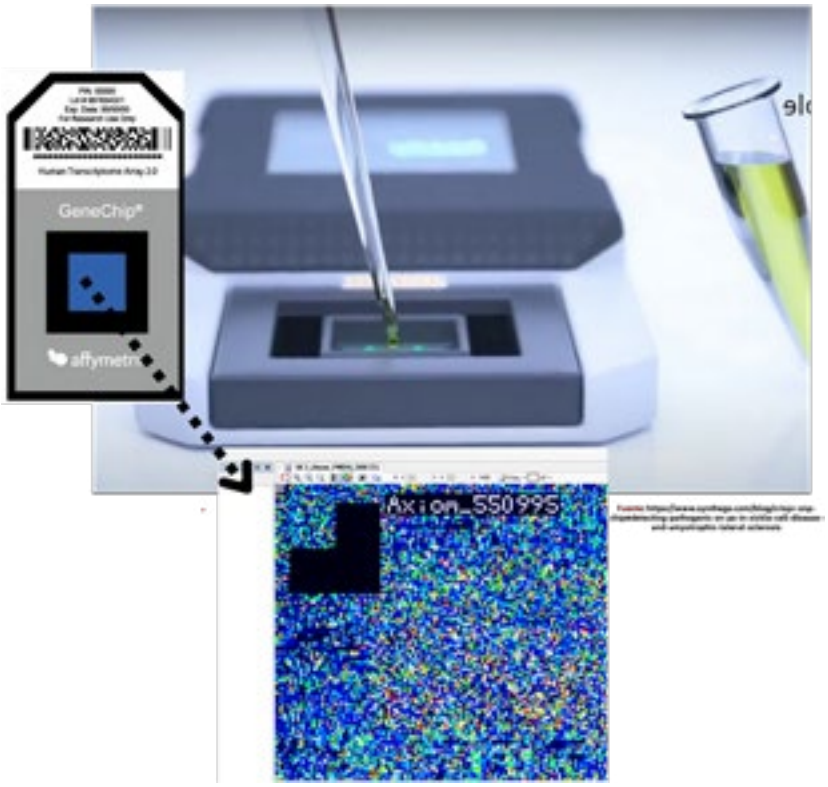
PROJECT OPERATING PERIOD: November 2022-March 2025

MORE INFORMATION:
Website: https://goequigenom.com
Mail representative OG: direccion@lgancce.com

Summary

EQUIGENOM promotes the innovative application of an economical medium density (MD) chip for the PRE (Pura Raza Española), which simultaneously allows the control of parentage, the early diagnosis of hereditary and chromosomal diseases, the detection of molecular markers and the development of genomic selection in the PRE, which will be complemented with the creation of an easy-to-use digital tool.

PROJECT OBJECTIVES	EXPECTED RESULTS
Development of a cost-effective medium density (MD) chip for parentage and genotyping of diseases and other economically important traits.	Selection of reference population and genetic markers for diseases. Design and procurement of the medium density chip and validation in the PRE.
Fine-tuning of a genomic evaluation system for the PRE.	Fine-tuning of the genomic assessment models for the different PRE selection criteria.
Development of a new digital tool accessible to farmers to enable them to interpret the obtained results on the chip.	Design and development of the digital tool on the LG website and LG app and their dissemination in the Spanish horse sector.



Livestock

EXPORTGEN

Establishing a structure for marketing and exporting genetic material

Beneficiary members

- Federación Española de Asociaciones de Ganado Selecto (FEAGAS)
- Asturgen S.L.
- Asociación Nacional de Criadores de Ganado Vacuno Selecto de Raza Rubia Gallega (ACRUGA)
- Asociación Nacional de Criadores de Caballos de Pura Raza Española (ANCCE)

Subcontracted members

- Esmedagro S.L.
- Ageron Internacional S.L.
- Xenética Fontao, S.A.
- Universidad Complutense de Madrid (Centro de Vigilancia Sanitaria Veterinaria VISAVET)

Collaborating members

- ICEX España Exportación e Inversiones, E.P.E.M.P.
- Ministerio de Agricultura, Pesca y Alimentación (Subdirección General de Acuerdos Sanitarios y Control en Frontera)

CALL 2019

THEMATIC AREA: Livestock / **SUBSECTOR:** Cattle, Equine

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Basque Country, Cantabria, Castile and Leon, Castile La Mancha, Community of Madrid, Extremadura, La Rioja, Principality of Asturias, Region of Murcia, The Balearic Islands, The Canary Islands, Valencian Community

GRANT AWARDED: € 543.404,60

PROJECT OPERATING PERIOD: March 2019-July 2021

MORE INFORMATION:
Website: https://www.exportgen.com
Mail representative OG: feagas@feagas.es

Summary

EXPORTGEN promotes the creation of a marketing structure to analyse the current situation, draw up a strategic plan for internationalisation and promote and facilitate the export of genetic material of selected breeds.

PROJECT OBJECTIVES	OBTAINED RESULTS
Strategic analysis of internationalisation and development of the structure and protocols for marketing genetic material according to the needs and requirements of the target countries for the breeds involved in the project and for the Spanish livestock population.	Establish export platform, gather information on priority and secondary markets and develop final strategic plan.
Internationalisation of selected Spanish breeds: commercial promotion of these breeds and consolidation of the Spain brand in countries with potential demand.	Active commercial promotion of Spanish breeds and improvement of the positioning of the Spain brand for selected livestock breeds.

Livestock

FORESCELTA

Large-scale precision management of Celtic pigs
in the deciduous forests of the Ibero-Atlantic region

Beneficiary members

- Agencia Gallega de Calidad Alimentaria (AGACAL)
- Asociación para el Desarrollo del Territorio Interrregional ubicado en el entorno del río Eo (INTEREO)
- Servicio Regional de Investigación y Desarrollo Agroalimentario (SERIDA)
- Fundación Centro Tecnoloxico da Carne (CTC)
- Asociación de Criadores de Gochu Asturcelta (AGCA)
- Asociación de Criadores de Ganado Porcino Celta (ASOPORCEL)
- Asociación de Propietarios Forestales del Occidente de Asturias (ASFOROCAS)
- Monte Vecinal en Mano Común Monte Do Carballo

Collaborating members

- Alimerka S.A.
- Consejería de Desarrollo Rural y Recursos Naturales del Principado de Asturias
- Diputación Provincial de Lugo
- Otea, Hostelería y Turismo en Asturias

CALL 2020

THEMATIC AREA: Livestock / **SUBSECTOR:** Pig

AUTONOMOUS COMMUNITIES EXECUTION: Galicia, Principality of Asturias

GRANT AWARDED: € 506.086,08

PROJECT OPERATING PERIOD: April 2021-March 2023

MORE INFORMATION:
Website: https://forescelta.com/
Mail representative OG: intereo@intereo.es

Summary

FORESCELTA promotes the combination of innovation in the rural world through the transfer of technology and the use of silvopastoral systems to produce autochthonous pigs of the Celtic tribe, resulting in products of differentiated quality through the use of own resources that allow sustainable and environmentally friendly practices in the agricultural and forestry sectors, carrying out activities that mitigate climate change.

PROJECT OBJECTIVES	OBTAINED RESULTS
Identify improvements in the productive aspects of native Celtic and deciduous forest pigs using an automated fencing system in extensive management.	Implement a comprehensive production system. Automated and digitised, this system will allow free-range cattle to be monitored, kept, and fattened. Contribute to recover and maintain the Celtic pig breeds Gochu Asturcelta and Porco Celta.
Achieve a uniform product of high organoleptic and nutritional quality for national use and export, while respecting the environment.	Achievement and knowledge of a quality product (colour, taste, and fatty acid profile) with a high health guarantee.
Evaluate the economic viability of the farm model using the automated animal feeding and control system.	Obtain actual data on the economic viability of the operating model.
Assess the impact of grazing on the forest environment and to test the contribution of extra yield in broadleaved forests.	Collection of data on the importance of the implementation of this system in terms of the stabilisation of the rural population and the maintenance of the social fabric.
Disseminate the results to individual landowners, ranchers, landowners' associations (SOFOR) and forest communities interested in implementing them.	Disseminate data on the establishment of new extensive Celtic pig farms in Atlantic broadleaved forests, automated or not.

Livestock

GC4SHEEP

Cloud-based federated data platform with artificial intelligence layer for genetic and reproductive improvement of dairy sheep

Beneficiary members

- Centro de Selección y Mejora Genética de Ovino y Caprino de Castilla y León (OVIGEN)
- Cooperativa Genovis
- Asociación Nacional de Criadores de Ganado Ovino de Raza Assaf (ASSAFE)
- Confederación de Asociaciones de Criadores de Ovino de razas Latxa y Carranzana (CONFELAC)
- Medrar Smart Solutions S.L.
- Asociación Nacional de Criadores de Ganado Ovino Selecto de Raza Manchega (AGRAMA)
- Centro Tecnolóxico de Telecomunicacions de Galicia (GRADIANT)

Subcontracted members

- Universidad de León (ULE)
- Instituto Vasco de Investigación y Desarrollo Agrario (NEIKER)
- Centro de inseminación artificial de las razas Latxa y Carranzana (ARDIEKIN)
- Instituto de Ganadería de Montaña (CSIC-IGM)
- Universidad de Castilla-La Mancha (UCLM)
- Instituto Regional de Investigación y Desarrollo Agroalimentario y Forestal-Centro Regional de Selección y Reproducción Animal (IRIAF-CERSYRA)

Collaborating members

- Merck Sharp & Dohme Animal Health S.L. (MSD)

CALL 2022

THEMATIC AREA: Livestock / **SUBSECTOR:** Sheep

AUTONOMOUS COMMUNITIES EXECUTION: Basque Country, Castile and Leon, Castile La Mancha, Galicia

GRANT AWARDED: € 599.022,08

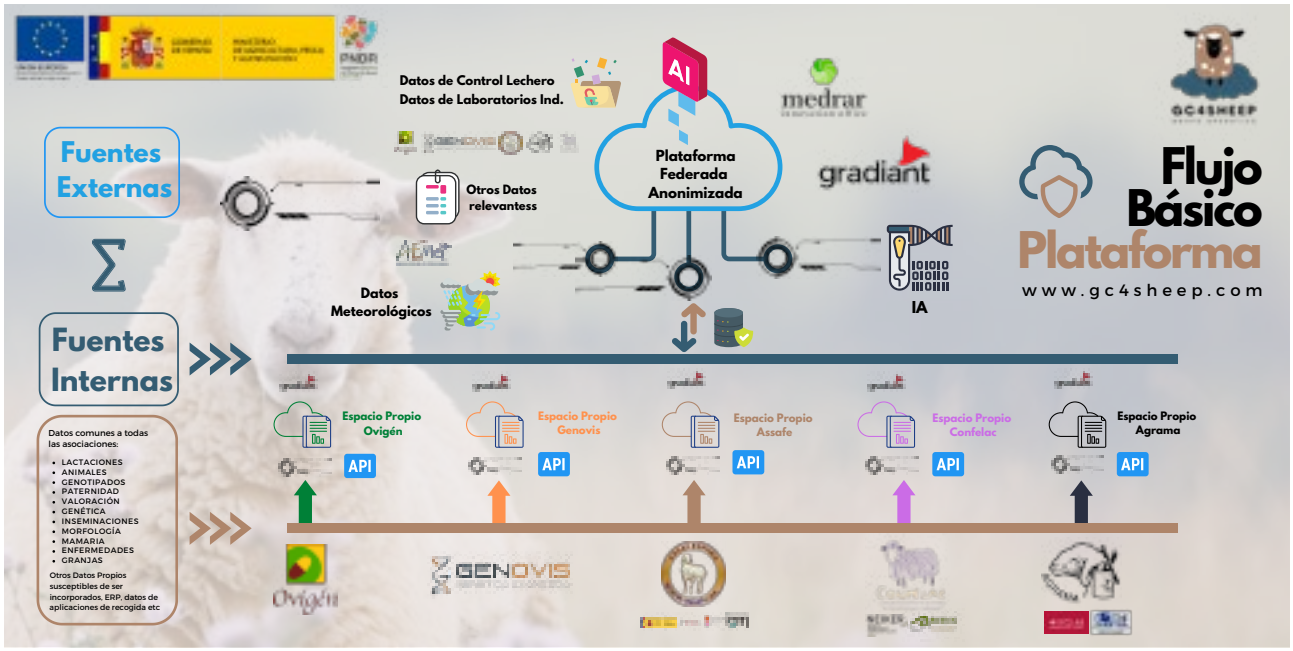
PROJECT OPERATING PERIOD: April 2022-February 2025

MORE INFORMATION:
Website: https://gc4sheep.com
Mail representative OG: administracion@ovigen.es

Summary

GC4SHEEP promotes the digitalisation and innovation of the dairy sheep sector in order to improve breeding and fertility through the processing and digitalisation of data processing with artificial intelligence.

PROJECT OBJECTIVES	EXPECTED RESULTS
Data analysis on a federated sharing platform with individualised security and artificial intelligence to achieve predictions aligned with improvements in the profitability of livestock farms.	Sheep cloud development and secure federated platform.
Analysis of innovative solutions to improve fertility, aimed at managing males and females to generate useful data for decision making.	Analysis of MIR and body condition data to evaluate improvements in fertility and analysis of male reproductive performance data based on jumping rate, feeding and semen viability for sire selection.
Technical coordination for monitoring indicators and demonstrating improvements in profitability with the proposed innovative solutions.	Coordination and management of the Group and profitability analysis.



Livestock

GELOB

Extensive livestock management in wolf habitats

Beneficiary members

- Unión de Pequeños Agricultores (UPA)
- Fundación para la Investigación en Etología y Biodiversidad (FIEB)
- Digitanimal
- Universidad Rey Juan Carlos (URJC)

Subcontracted members

- Consultores en Biología de la Conservación S.L. (CB)

Collaborating members

- Fundación Biodiversidad F.S.P.
- Asociación para la Defensa de la Naturaleza (WWF/Adena)
- Dirección General del Medio Natural de la Consejería de Fomento y Medio Ambiente. Junta de Castilla y León

CALL 2019

THEMATIC AREA: Livestock / **SUBSECTOR:** Cattle

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Cantabria, Castile and Leon, Castie La Mancha, Catalonia, Community of Madrid, Extremadura, Galicia, La Rioja, Principality of Asturias, Region of Murcia, The Balearic Islands, The Canary Islands, Valencian Community

GRANT AWARDED: € 511.047,86

PROJECT OPERATING PERIOD: March 2019-July 2021

MORE INFORMATION:
Website: https://gelob.es
Mail representative OG: upa@upa.es

Summary

GELOB promotes the design of a non-invasive technological solution for domestic livestock, allowing the detection and quelling of wolf attacks in extensive livestock areas, as well as their geolocation to improve their management.

PROJECT OBJECTIVES	OBTAINED RESULTS
Prevention of wolf attacks.	Redesign of current devices to allow them to detect when domestic livestock are being attacked by wild animals. Design of a device that repels wolf attacks and establishment of a protocol to abort them based on data analysis.
Assist in the management of extensive livestock farms.	Monitoring and geolocation of extensive livestock. Control of the areas where livestock are located and establishment of confinement criteria, so that alerts are triggered when certain configurable geographical limits are exceeded. Monitoring and control of transhumant livestock.
Contribute to improving the image of the extensive farming sector and encourage generational change.	Increase in the incorporation of young farmers into the extensive livestock sector.

Livestock

GESVAC 4.0

Management 4.0 in the beef sector: Collaborative platform for advanced management to improve the profitability of livestock farms through their digital transformation

Beneficiary members

- Federación Española de Criadores de Ganado Limusín (FECL)
- Abelur Koop Elkartea
- Sociedad Cooperativa Limitada Bajo Duero (COBADU)
- Fundación Hazi Fundazioa
- Imasde Agroalimentaria S.L. (IMASDE)
- Instituto Tecnológico Agrario de Castilla y León (ITACyL)
- Unión de Criadores de Ganado Vacuno Selecto de Raza Charolesa de España (UCHAE)

Subcontracted members

- Confederación de Asociaciones de Frisona Española (CONAFE)

Collaborating members

- Asociación de Criadores de Ganado Vacuno de Carne de Euskadi (EHAHE)
- Asociación de Criadores de Ganado Vacuno Pirenaico de Navarra (ASPINA)
- Confederación Nacional de Blonde de Aquitania (CONABA)
- El Encinar de Humienta S.A.
- Matadero Industrial Felipe Rebollo S.L.
- Okelgintza S.Coop.
- Universidad de Salamanca (USAL)

CALL 2020

THEMATIC AREA: Livestock / **SUBSECTOR:** Cattle

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Basque Country, Cantabria, Castile and Leon, Castile La Mancha, Catalonia, Chartered Community of Navarre, Community of Madrid, Extremadura, Galicia, La Rioja, Principality of Asturias, Valencian Community

GRANT AWARDED: € 429.203,99

PROJECT OPERATING PERIOD: April 2021-March 2023

MORE INFORMATION:
Website: https://www.gesvac.org/
Mail representative OG: directortecnico@razalimusin.org

Summary

GESVAC 4.0 promotes the development of a collaborative national platform through the effective and automatic digitalisation of processes and information from the beef sector, enabling the analysis of profitability and sustainability.

PROJECT OBJECTIVES	OBTAINED RESULTS
Define the necessary sources of information and the systems for accessing them.	Compilation and processing of information from participating purebred associations, cooperatives, management centres and slaughterhouses.
Develop a comprehensive system of indicators for environmental sustainability and farm profitability.	Creation of a web platform for partners to consult information.
Develop and implement new low-cost tools for farm assessment.	Comparison of herds vs. breed vs. population.
Design, build and validate an integrated information management platform.	Detection of the most economically profitable animals with the lowest environmental impact (kg CH4) within each livestock farm.

Livestock

GOSTU

Supra-Autonomous Community Tuberculosis Group

Beneficiary members

- Fundación Artemisan
- Asociación Agraria de Jóvenes Agricultores (ASAJA)
- Federación Española de Asociaciones Ganado Selecto (FEAGAS)
- Asociación Interprofesional de la Carne de Caza Silvestre (ASICCAZA)
- Asociación de Propietarios de Caza Extremadura (APROCA Extremadura)
- Instituto de Investigación en Recursos Cinegéticos (IREC-UCLM)
- Centro de Vigilancia Sanitaria Veterinaria de la Universidad Complutense de Madrid (VISAVET)
- Asociación de Propietarios Rurales para la Gestión Cinegética y Conservación del Medio Ambiente (APROCA)

Collaborating members

- Federación Española de la Dehesa (FEDEHESA)
- Unión de Ganaderos de Vacas Nodrizas (UGAVAN)
- Sociedad Cooperativa Andaluza Ganadera del Valle de los Pedroches (COVAP)
- Real Federación Española de Caza (RFEC)

CALL 2019

THEMATIC AREA: Livestock / **SUBSECTOR:** Cattle

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile and Leon, Castile La Mancha, , Extremadura, Principality of Asturias

GRANT AWARDED: € 444.167,73

PROJECT OPERATING PERIOD: July 2019-July 2021

MORE INFORMATION:
Website: http://www.gostu.es/
Mail representative OG: director@fundacionartemisan.com

Summary

GOSTU promotes the integrated management of animal tuberculosis from a 'One Health' perspective with innovative biosecurity measures for livestock farms, wildlife management, advanced environmental diagnostics and transfer of available knowledge.

PROJECT OBJECTIVES	OBTAINED RESULTS
Transfer of knowledge and technologies related to the control of health risks to livestock farms.	Reduction of disease prevalence rates and improvement of farms' economic yields.
Promote and establish protocols for the health certification and accreditation of extensive livestock farms and maximise understanding and use of livestock health campaigns.	Establishment of a systematised protocol for the certification of livestock farms from a health status viewpoint.
Promote good hunting practices and management of natural areas and involve hunters and administrations in controlling the overabundance of wild ungulates.	Establishment of sustainable population levels of wild ungulates from a health viewpoint.
Make profitable livestock compatible with the use of the surrounding area.	Design and publication of a joint comprehensive management strategy to handle animal tuberculosis.
Create a state-wide network of specialists to advise farmers and game managers to optimise the health of wild and domestic animals.	Establishment of a group comprised of 10 specialised advisors on shared diseases.

Livestock

IMECO

Implementation of MTD for emission control in manure management and treatment

Beneficiary members

- Cataro S.L.
- Centro de Investigación y Tecnología Agroalimentaria de Aragón (CITA)
- Instituto de Investigación y Tecnología Agroalimentaria (IRTA)
- Peyret S.C.

Collaborating members

- Colegio Oficial de Ingenieros Agrónomos de Aragón, Navarra y País Vasco (COIAANPV)
- Confederación Hidrográfica del Ebro (CHE)
- Departamento de Agricultura, Ganadería, Pesca y Alimentación de la Generalitat de Cataluña

CALL 2020

THEMATIC AREA: Livestock / **SUBSECTOR:** Pig

AUTONOMOUS COMMUNITIES EXECUTION: Aragon, Catalonia

GRANT AWARDED: € 380.777,39

PROJECT OPERATING PERIOD: March 2021-April 2023

MORE INFORMATION:
Website: https://coiaanpv.org/forodesarrollo/go-imeco/
Mail representative OG: silvia.fernandez@irta.cat

Summary

IMECO promotes the implementation of MTDs to control emissions from slurry storage and application to crops, the valorisation of manure as biogas and the promotion of the circular economy in the agro-livestock sector.

PROJECT OBJECTIVES	OBTAINED RESULTS
Assessment of ammonia and greenhouse gas emissions from slurry storage ponds and development of a low-cost anaerobic digester for biogas utilisation and emission reduction.	Implementation of floating octagonal pieces to cover the slurry pond and control emissions. Reduction of ammonia and other GHG emissions, between 5% and 55%, depending on parameters such as temperature, slurry characteristics and lagoon filling.
Planting a catch crop in the rotation to retain residual nutrients when the soil is bare.	Planting the catch crop ryegrass is proving to be a good practice for retaining nutrients and reducing leaching.
Characterise the catch crop in terms of its potential for biogas production (anaerobic biodegradability) and its use as a co-substrate in the anaerobic digestion of manure.	Methane yield increased by 38% when slurry was mixed with catch crop ryegrass.
Agronomic assessment and evaluation of ammonia emission reduction using a disc injection system and hanging tubes plus acidification when using digestate as fertiliser in extensive crops.	Ammonia emissions reduced by more than 70% when using digestate with acidification, compared to 33-40% with disc injection.
Agronomic assessment and evaluation of the reduction of ammonia emissions by fertigation with the liquid fraction of digestate in extensive crops.	Ammonia emissions reduced by 28% for wheat and 70% for maize over the full crop cycle. In addition, fertigation has reduced nitrogen application rates and the amount of excess nitrogen in the system.

Livestock

INNOMIEL

Remote monitoring of beehives to increase the efficiency of bee farms

INNOMIEL GRUPO OPERATIVO

Beneficiary members

- Cooperativa Apícola de las Hurdes (APIHURDES)
- Dinámica de Masas S.L.U.
- NotAnts S.L.U.
- Asociación para el Desarrollo Integral de la Comarca de las Hurdes (ADIC-HURDES)
- Asociación Provincial de Apicultores de Cuenca (APAC)
- Sierras Andaluzas S.C.A.
- Sat. Ltda. Apícola el Perelló 1363-CAT

Subcontracted members

- Personia Applied Knowledge S.L.

Collaborating members

- Cooperativas Agro-Alimentarias de España
- Reina Kilama Sociedad Cooperativa
- Cooperativa Montemiel
- Asociación Promoción y Desarrollo Serrano (PRODESE)
- Colmenas Industrias Domínguez S.L.

CALL 2018

THEMATIC AREA: Livestock / **SUBSECTOR:** Beekeeping

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile and Leon, Castile La Mancha, Catalonia, Extremadura

GRANT AWARDED: € 508.090,04

PROJECT OPERATING PERIOD: July 2018-July 2020

MORE INFORMATION:
Website: https://innomiel.com
Mail representative OG: juventino.dominguez@apihurdes.es

Summary

INNOMIEL promotes the remote IT monitoring of beehives and apiaries with the aim of increasing the competitiveness and efficiency of bee farms and improving the sanitation, traceability and quality of honey.

PROJECT OBJECTIVES	OBTAINED RESULTS
Reduce beekeepers' trips to apiaries and prevent hive theft (specific objective of receiving an alert on the app within three minutes of a hive being moved).	Development of an application for mobile phones with the status of the hives and a sensor kit that monitors them in real time and sends the data to the cloud.
Improve the selection of apiary settlements and the traceability of beekeeping products.	Expansion of the mobile application for apiary management and development of a system that enables the exchange of food traceability information on beekeeping products.
Prevent the reduction of the bee population due to the influence of the Varroa destructor mite, chalkbrood (Ascospherosis) and Asian hornet (vespa velutina), with the measurable objective of at least an early warning of one of these phenomena.	Development of a system that identifies patterns for early detection of diseases, parasites or predator action in the hive.

Livestock

ISAB

Incorporating information to improve animal health and welfare in the Spanish dairy sector

Beneficiary members

- Aberekin S.A. Centro de Inseminación Artificial
- Asturiana de Control Lechero, Sociedad Cooperativa Astur (ASCOL)
- Confederación de Asociaciones de Frisona Española (CONAFE)
- Federación Frisona de Castilla y León (FEFRICALE)
- Xenética Fontao S.A.

Subcontracted members

- Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA)
- Instituto de Investigación y Tecnología Agroalimentaria (IRTA)

Collaborating members

- Asociación Nacional de Especialistas en Medicina Bovina de España (ANEMBE)
- Organización Interprofesional Láctea (INLAC)
- Universidad Complutense de Madrid (UCM)

CALL 2020

THEMATIC AREA: Livestock / **SUBSECTOR:** Bovine

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Basque Country, Cantabria, Castile and Leon, Castile La Mancha, Catalonia, Chartered Community of Navarre, Community of Madrid, Extremadura, Galicia, Principality of Asturias, Valencian Community

GRANT AWARDED: € 348.843,60

PROJECT OPERATING PERIOD: October 2020-March 2023

MORE INFORMATION:
Website: https://www.revistafrisona.com/GO_I-SAB
Mail representative OG: sofia.alday@conafe.com

Summary

ISAB is promoting a system for monitoring, diagnosing, and managing animal health and welfare information, as well as genotyping cows with this new data for use in the breeding programme, which will lead to more disease-resistant animals and consequently reduce the use of antibiotics on dairy farms.

PROJECT OBJECTIVES	OBTAINED RESULTS
Collecting information on the health and welfare of processed animals, analysing it, and presenting it to farmers.	Identification and selection of farms with the best track record in phenotypic data collection. Create an atlas of all the pathologies to be collected.Develop a relational database to process the data. Phenotypic health information analysis, report design and web platform development for consultation of information produced. Analysis of animal welfare indicators on dairy farms.
Feasibility study on incorporating health traits into the Spanish dairy improvement programme	Genotyping of animals with collected phenotypes, development of strategies for dissemination of favourable genes in the population and dissemination of project results within the dairy sector.

Livestock

MESRASA

Improving animal health alert and collection systems

Beneficiary members

- COAG IR
- Movildat S.L.
- Universidad Politécnica de Madrid (UPM)
- Universidad Autónoma de Barcelona (UAM)

Subcontracted members

- Universidad de Santiago de Compostela (USC)

Collaborating members

- Ministerio de Agricultura Pesca y Alimentación-Subdirección General de Sanidad e Higiene Animal y Trazabilidad.
- Entidad Nacional de Seguros Agrarios
- Agroseguro
- Francisco Barrueco S.L.
- SECANIM Bioindustries

CALL 2019

THEMATIC AREA: Livestock / **SUBSECTOR:** Cattle

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Basque Country, Cantabria, Castile and Leon, Castile La Mancha, Catalonia, Chartered Community of Navarre, Community of Madrid, Extremadura, Galicia, La Rioja, Principality of Asturias, Region of Murcia, The Balearic Islands, The Canary Islands, Valencian Community

GRANT AWARDED: € 599.986,28

PROJECT OPERATING PERIOD: July 2019-July 2021

MORE INFORMATION:
Website: https://ec.europa.eu/eip/agriculture/en/find-connect/projects/mejora-de-sistemas-de-recogida-y-alerta-sanitaria
Mail representative OG: coagmadrid@coag.org

Summary

MESRASA promotes the creation of a Veterinary Syndromic Surveillance Platform that provides information on the health status of the Spanish livestock population in almost real time.

PROJECT OBJECTIVES	OBTAINED RESULTS
Identify groups of veterinarians interested in participating in the sentinel network.	Development and installation of fleet management tools for the manager.
Define and develop the structure of the network through participatory methodologies (health indicators, information flow, data analysis and feedback).	Development of a system-wide data reception and storage platform with analysis tools.
Develop the necessary IT tools for the transmission, analysis and communication of health information.	App development for farmers and veterinarians.
Implement and validate the network of sentinel veterinarians.	Monitoring of clinical data on farms and establishment of the network of sentinel veterinarians.

Livestock

MICOALGA-FEED

Reduction of antibiotics in livestock through natural feeding based on the use of fungi and algae

MICOALGA-FEED
GRUPO OPERATIVO SUPRAAUTONÓMICO

Beneficiary members

- Fundación Empresa Universidad Gallega (FEUGA)
- Hifas Veterinary S.L.
- Neoalgae Micro Seaweeds Products S.L.
- UVE S.A. (UVESA)

Subcontracted members

- Instituto de Investigación y Tecnología Agroalimentaria (IRTA)
- Centro Tecnológico AINIA
- Universidad de Oviedo (UO)
- Universidad de Vigo (UVigo)

Collaborating members

- Asociación Española de Ciencia Avícola (AECA)
- Confederación Española de Fabricantes de Alimentos Compuestos para Animales (CESFAC)
- Fundación Española para el Desarrollo de la Nutrición Animal (FEDNA)
- Asociación Interprofesional Española de Carne Avícola (AVIANZA)

CALL 2020

THEMATIC AREA: Livestock / **SUBSECTOR:** Poultry

AUTONOMOUS COMMUNITIES EXECUTION: Catalonia, Chartered Community of Navarre, Galicia, Principality of Asturias, Valencian Community

GRANT AWARDED: € 505.519,66

PROJECT OPERATING PERIOD: April 2021-March 2023

MORE INFORMATION:
Website: https://micoalga-feed.es/
Mail representative OG: feuga@feuga.es

Summary

MICOALGA-FEED promotes the development of new feeds enriched with fungi and algae with antimicrobial, immunomodulatory and anti-inflammatory capacity, strengthening animals' immune systems to reduce the use of antibiotics in poultry farming through feed.

PROJECT OBJECTIVES	OBTAINED RESULTS
Design and develop functional raw materials based on fungi and microalgae for the livestock sector.	Selection of species with the highest antimicrobial, immunomodulatory and/or anti-inflammatory potential for pilot-scale production of fungi and microalgae.
Evaluate in-vitro antimicrobial, immunomodulatory and anti-inflammatory capacity and analytically characterise formulated ingredients and feeds.	Microbiological and physico-chemical analysis of formulated feed. In-vitro evaluation of the antimicrobial, immunomodulatory, anti-inflammatory and immunostimulatory effect of large-scale manufactured feed.
In vivo evaluation of the efficacy of experimental feeds on the poultry farm.	Establishment of several experimental batches and a control, evaluating different production, welfare, meat quality and sensory parameters, as well as analysing the immunomodulatory capacity through the analysis of blood parameters.

Livestock

NEOWAS

Measuring individual on-farm methane emissions towards decarbonisation of Spanish dairy cattle by 2050

Beneficiary members

- Confederación Asociaciones de Frisona Española (CONAFE)
- Cooperativa Asturiana de Control Lechero (ASCOL)
- Federación de Frisona de Castilla y León (FEFRICALE)

Subcontracted members

- Xenética Fontao S.A.
- Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA – CSIC)
- Instituto Vasco de Investigación y Desarrollo Agrario (NEIKER)

Collaborating members

- Aberekin S.A.
- Organización Interprofesional Láctea (INLAC)

CALL 2022

THEMATIC AREA: Livestock / **SUBSECTOR:** Cattle

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Basque Country, Cantabria, Castile and Leon, Castile La Mancha, Catalonia, Chartered Community of Navarre, Community of Madrid, Extremadura, Galicia, Principality of Asturias, The Balearic Islands, Valencian Community

GRANT AWARDED: € 249.910,69

PROJECT OPERATING PERIOD: November 2022-February 2025

MORE INFORMATION:
Website: https://www.revistafrisona.com/GO_NEOWAS
Mail representative OG: sofia.alday@conafe.com

Summary

NEOWAS promotes a system for the individual measurement of methane produced in lactating cows and the collection of biological samples for their genotyping on dairy cattle farms, in order to establish equations for predicting genetic values related to greenhouse gas emissions. These results will allow artificial insemination centres and dairy cattle breeders to select more desirable animals in the next generations.

PROJECT OBJECTIVES	EXPECTED RESULTS
Collection, analysis and presentation to farmers after processing of information related to on-farm methane emissions.	Identification and selection of farms with a better track record in phenotypic data collection and a greater interest in using the information generated on the farms.
Feasibility study on the incorporation of methane emission traits in the dairy cattle breeding programme in Spain.	Analysis of phenotypic information for on-farm methane emissions, design of reports and development of the web platform for consulting information.
Establish Tier 3-type equations for methane emissions in the different regions and production systems in Spain.	Indicators of environmental impact on dairy cattle herds, genotyping of animals with compiled phenotypes and design of strategies for dissemination of favourable genes in the population.

Livestock

OVINNOVA

An innovative business model for transhumance, an ancestral and necessary practice

Beneficiary members

- Fundación Monte Mediterráneo (FMM)
- Fundación Centro de Servicios y promoción forestal y de su Industria de Castilla y León (CESEFOR)
- Universidad de Córdoba (UCO)
- Servicio de Certificación CAAE
- Interprofesional del Ovino y Caprino de Carne (INTEROVIC)

Subcontracted members

- Universidad de León (ULE)
- Innogestiona Ambiental

Collaborating members

- Junta de Castilla y León
- Universidad de Extremadura (UEX)
- Ayuntamiento de Crémenes
- EA Group S. Coop.
- Federación Española de la Dehesa (FEDEHESA)

CALL 2019

THEMATIC AREA: Livestock / **SUBSECTOR:** Sheep

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile and Leon, Extremadura

GRANT AWARDED: € 600.000,00

PROJECT OPERATING PERIOD: March 2019-July 2021

MORE INFORMATION:
Website: https://goovinnova.org/
Mail representative OG: ernestine.luedeke@gmail.com

Summary

OVINNOVA promotes the design of a business model for the provision of livestock services to improve the competitiveness of transhumant pastoralism. Transhumance is essential for the conservation of biodiversity and the sustainable management of 'grazing' as a resource.

PROJECT OBJECTIVES	OBTAINED RESULTS
Shape a new business model for the provision of summer grazing services for sheep meat farms in the southwest Iberian Peninsula.	Establishment of a new management framework for the activity through the use of innovative technologies applied in livestock receiving and sending areas. Demonstrative implementation of an innovative business model for the provision of shepherding services.
Recover pastoral use by sheep in the Cantabrian mountain range and, consequently, make it possible to recover the corresponding area of meadows in the southern Iberian Peninsula.	Improvement and assessment of the conservation status of priority habitats and species. Establishment of management models that contribute to the enhancement of biodiversity in priority habitats.
Dignify and guarantee transhumant farming and improve relations between livestock farmers-shepherds-owners-managers-environmentalists.	Hiring and training of the necessary shepherds.

Livestock

PICA

Innovative platform for bee care

Beneficiary members

- Coordinadora de Organizaciones de Agricultores y Ganaderos-Iniciativa Rural (COAG-IR)
- Movildat S.L.
- Universidad Politécnica de Madrid (UPM)

Collaborating members

- Subdirección General de Sanidad e Higiene Animal y Trazabilidad. Ministerio de Agricultura Pesca y Alimentación (MAPA)
- Entidad Nacional de Seguros Agrarios (ENESA)

CALL 2018

THEMATIC AREA: Livestock / **SUBSECTOR:** Beekeeping

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Basque Country, Cantabria, Castile and Leon, Castile La Mancha, Catalonia, Extremadura, Galicia, La Rioja, Principality of Asturias, The Balearic Islands, Valencian Community

GRANT AWARDED: € 333.000,01

PROJECT OPERATING PERIOD: July 2018-July 2020

MORE INFORMATION:
Website: https://ec.europa.eu/eip/agriculture/en/find-connect/projects/pica-plataforma-innovadora-para-el-cuidado-de-las
Mail representative OG: coagmadrid@coag.org

Summary

PICA promotes an affordable hive monitoring system and complements it with a content platform to help reduce health, environmental and economic risks in beekeeping.

PROJECT OBJECTIVES	OBTAINED RESULTS
Upgrading of existing sensing devices and communication systems.	Development of equipment with optimised sensors and communication systems and pilot test installed in the field.
Development of a communication platform that provides beekeepers with information about their hives and creates a collaborative environment for those in the sector.	Development of mobile app, web and data platform for beekeepers. Development of a centralised platform for data analysis and information generation.

Livestock

PREVPA

Overabundance: Innovation in biosecurity
and wild boar control to prevent African swine fever

Beneficiary members

- Asociación de Propietarios y Titulares para la Gestión Cinegética y Conservación del Medioambiente de Extremadura (APROCA Extremadura)
- Asociación Agraria de Jóvenes Agricultores (ASAJA)
- Asociación Interprofesional de la Carne de Caza (ASICCAZA)
- Asociación Interprofesional del Cerdo Ibérico (ASICI)
- Instituto de Investigación en Recursos Cinegéticos (IREC) (CSIC-UCLM)
- Fundación Artemisan
- Organización Interprofesional Agroalimentaria del Porcino de Capa Blanca (INTERPORC)
- Real Federación Española de Caza (FECAZA)

Subcontracted members

- Asociación Española para el Desarrollo y la Transferencia Tecnológica en la Agricultura y la Ganadería (ASETAGA)

CALL 2020

THEMATIC AREA: Livestock / **SUBSECTOR:** Pig

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Basque Country, Cantabria, Castile and Leon, Castile La Mancha, Catalonia, Chartered Community of Navarre, Community of Madrid, Extremadura, Galicia, La Rioja, Principality of Asturias, Region of Murcia, Valencian Community

GRANT AWARDED: € 363.424,56

PROJECT OPERATING PERIOD: November 2020-April 2023

MORE INFORMATION:
Website: https://prevpa.com/
Mail representative OG: iberico@iberico.com

Summary

PREVPA promotes innovation in biosecurity and wild boar control, with the overall objective of transferring innovative tools to prepare and train the livestock and hunting sectors in the prevention of African swine fever (ASF).

PROJECT OBJECTIVES	OBTAINED RESULTS
Contribute to an effective strategy for the sustainable management of wild boar populations in Spain.	Characterisation of the population dynamics of wild boar in Spain as a basis for regionalising its overabundance, implementation of a sustainable population monitoring system, development of rules with the main action measures to ensure sustainable control of wild boar populations and evaluation of the sustainability of several of these measures in the field.
Prepare the pig sector to reduce the risk in pig farms associated with wild boar.	Analysis of the spatial behaviour of wild boar in intensive pig farming environments and assessment of the risk associated with the use of livestock resources. Improve biosecurity to cope with wild boars on pig farms by developing and applying a standardised protocol for the implementation of a livestock-specific biosecurity plan.
Improve the capacity to share data and knowledge between sectors involved in ASF response prepa-redness.	Delivery of training workshops, online course and transfer of results through the preparation of dissemination articles, development of protocols and their dissemination on social media, website, press releases and audiovisual media.

Livestock

REDAPORC

Digital platform to benchmark antibiotic use on pig farms

Beneficiary members

- Asociación Nacional de Productores de Ganado Porcino (ANPROGAPOR)
- Associació PORCSA-Grup de Sanejament Porcí de Lleida
- Cincaporc S.A.
- Organización Interprofesional Agroalimentaria del Porcino de Capa Blanca (INTERPORC)
- Sociedad Agroalimentaria Tejares Hermanos Chico S.L.
- Sociedad Cooperativa Ganadera de Caspe S.R.L.
- Universidad de Lleida (UdL)
- Vall Companys S.A.U.

Subcontracted members

- Manuel Láinez Andrés (Lainez Biotrends)
- Santiago Camello Fernández (SCF Soluciones Informáticas)

Collaborating members

- Agencia Española del Medicamento y Productos Sanitarios (AEMPS)
- S.G. de Sanidad e Higiene Animal y Trazabilidad, Ministerio de Agricultura, Pesca y Alimentación (MAPA)

CALL 2020

THEMATIC AREA: Livestock / **SUBSECTOR:**Pig

AUTONOMOUS COMMUNITIES EXECUTION: Aragon, Catalonia, Castile and Leon, Chartered Community of Navarre, Community of Madrid, Region of Murcia, Valencian Community

GRANT AWARDED: € 385.549,82

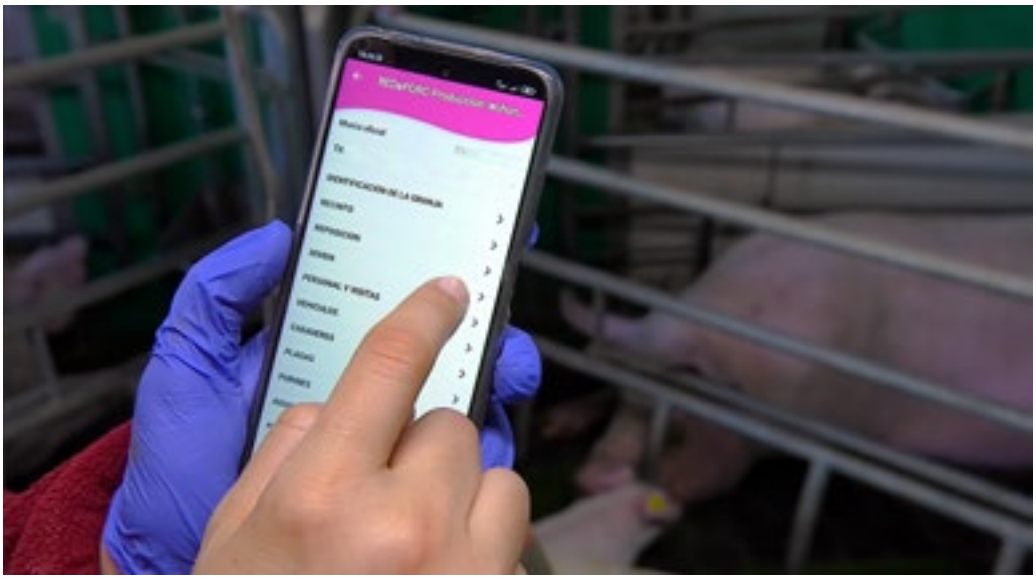
PROJECT OPERATING PERIOD: April 2021-April 2023

MORE INFORMATION:
Website: www.redaporc.es
Mail representative OG: redaporc@interporc.com

Summary

REDAPORC is developing a digital platform to compare consumption between farms according to health and biosecurity risks, to promote the reduction of antibiotic use in pig farms and companies.

PROJECT OBJECTIVES	OBTAINED RESULTS
Identify and characterising risk factors for antibiotic consumption in Spanish white layer farms.	Description of the critical points of the management and biosecurity systems on pig farms, the pathologies present and the alternatives to the use of antibiotics on farms as tools to accelerate the reduction of antibiotic consumption on pig farms.
Develop a platform to collect and compare information on health risks and antibiotic use between farms and companies in the pork sector.	Implementation of the platform as a decision support tool at farm, company, sector, and administrative level. Provide information on individual antibiotic use and compare with other similar farms.
Raise awareness, educate, and train producers, veterinarians and visitors on the risks associated with antibiotic use on pig farms, how to use the app and website, and how to operate the platform, and encourage their use to reduce antibiotic use.	The development of a guide to the responsible use of antibiotics in the pig sector, leaflets, posters, informative videos, presentations at events, courses for veterinarians in collaboration with the General Council of Veterinary Associations of Spain, a self-managed course to train any professional in the sector and the launch of the Pran Interporc award to recognise pig farms with the lowest use of antibiotics in the programme.



Livestock

REPROVI

Implementing reproductive solutions to increase the economic sustainability of dairy sheep farms

GRUPO OPERATIVO PARA LA MEJORA DE LA EFICIENCIA REPRODUCTIVA DEL OVINO DE LECHE

Beneficiary members

- Centro de Selección y Mejora Genética de Ovino y Caprino de Castilla y León (OVIGÉN)
- Asociación Nacional de Criadores de Ganado Ovino de la Raza Assaf (ASSAFE)
- Confederación de Asociaciones de Criadores de Ovino de Razas Latxa y Carranzana (CONFELAC)
- Asociación Nacional de Criadores de Ganado Ovino Selecto de Raza Manchega (AGRAMA)
- Genovis S. Coop.
- Imasde Alimentaria S.L.

Subcontracted members

- Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA)
- Neiker Tecnalia (NEIKER)
- Universidad de Murcia (UM)
- Ardiekin S.L.
- Centro Regional de Selección y Reproducción Animal (CERSYRA)
- Instituto de Ganadería de Montaña (IGM)-CSIC

Collaborating members

- Asociación Nacional de Criadores de Ganado Ovino de Raza Churra (ANCHE)

CALL 2019

THEMATIC AREA: Livestock / **SUBSECTOR:** Sheep

AUTONOMOUS COMMUNITIES EXECUTION: Basque Country, Castile and Leon, Castile La Mancha, Chartered Community of Navarre, Community of Madrid, Region of Murcia, Valencian Community

GRANT AWARDED: € 447.749,32

PROJECT OPERATING PERIOD: September 2019-July 2021

MORE INFORMATION:
Website: https://reprovi.com
Mail representative OG: gerencia@assafe.es

Summary

REPROVI promotes the collection of knowledge developed by research centres in order to apply it to the improvement of the comprehensive process of artificial insemination in extensive dairy sheep, from the preparation of semen doses to their application.

PROJECT OBJECTIVES	OBTAINED RESULTS
Implementation of microbial control solutions to increase fertility associated with artificial insemination.	Implementation of vaginal sponges with probiotics to improve the microbiological quality of the reproductive tract of the ewe to be inseminated and to improve the microbiological quality of the semen dose.
Optimisation of the technical and economic factors of artificial insemination.	Reduction of the sperm concentration of the semen dose and hormone residues through the application of new treatments. Implementation of diluents to increase the service life of semen doses and implementation of a diagnostic method for the detection of critical factors in low fertility farms. Technical and economic analysis of the impact of artificial insemination on farm profitability.
Technical coordination of a project demonstrating the technical and economic feasibility of new innovative solutions.	Monitoring the progress and financial management of the project.

Livestock

RETA

Network of Agricultural Test Areas

Beneficiary members

- Associació d'Iniciatives Rurals de Catalunya (ARCA)
- Asociación Rurbans
- Associació Xarxa de Conservació de la Natura
- Red Extremeña de Desarrollo Rural (REDEX)
- TAGUS-Asociación para el Desarrollo de Tajo-Salor-Almonte
- Soc. Coop. Ltda. Nuestra Señora del Prado (COOPRADO)
- Federació d'Agupacions de Defensa Forestal de la Terra Alta
- Universidad de Extremadura (UEX)

Subcontracted members

- Consultora AmaTerra S.L.

Collaborating members

- Diputación de Barcelona
- Fundació Lleida 21 de l'Ajuntament de Lleida
- Associació Nacional de Criadors d'Oví de Raça Ripollesa (ANCRI)
- Ayuntamiento de Arroyo de la Luz
- Réseau National des Espaces-Test Agricoles (RENETA)

CALL 2018

THEMATIC AREA: Livestock / **SUBSECTOR:** Sheep

AUTONOMOUS COMMUNITIES EXECUTION: Catalonia, Extremadura

GRANT AWARDED: € 479.500,00

PROJECT OPERATING PERIOD: July 2018-July 2020

MORE INFORMATION:
Website: https://espaciostestagrarios.org/
Mail representative OG: info@espaciostestagrarios.org

Summary

RETA promotes the creation, structuring and stimulation of a Network of Agricultural Test Areas with the aim of participating in public-private social innovation strategies to support the incorporation of new agents in the agricultural sector.

PROJECT OBJECTIVES	OBTAINED RESULTS
Coordinate the RETA Group and design an innovative methodology for the implementation of the Agricultural Test Areas.	Implementation of the activities, execution of the project and publishing of the guide for the implementation of Test Farming Areas in Spain.
Offer support services to new agricultural actors.	Creation of the support centre for the incorporation of new agents.
Implement pilot Test Farming Areas.	Implementation of Livestock Test Areas in Cáceres and Terra Alta.
Create, structure and stimulate a Network of Agricultural Test Areas.	Creation of the Network of Agricultural Test Areas.
Disseminate social and environmental innovation in support of new agricultural agents.	Implementation of the dissemination plan. Organisation of the First RETA Conference.

Livestock

SEBASTIANA

Wool sorting and grading to improve competitiveness and profitability of small sheep farms

GO SEBASTIANA

Beneficiary members

- Centro de Selección y Mejora Genética de Ovino y Caprino de Castilla y León (OVIGEN)
- Genovis Soc. Coop.
- El Navazo S.C.
- Ovintegral Iberia S.L.
- Proyecto Dlana S.L.
- Asociación Española de Criadores de Ganado Ovino Selecto de Raza Castellana (ANCA)
- Imasde Agroalimentaria S.L. (IMASDE)

Subcontracted members

- Instituto de Ganadería de Montaña-Consejo superior de Investigaciones Científicas (IGM-CSIC)
- Digital Innovation Hub on Livestock, Environment, Agriculture & Forest (DIH-LEAF)

CALL 2022

THEMATIC AREA: Livestock / **SUBSECTOR:** Sheep

AUTONOMOUS COMMUNITIES EXECUTION: Castile and Leon, Community of Madrid

GRANT AWARDED: € 566.298,51

PROJECT OPERATING PERIOD: May 2022-February 2025

MORE INFORMATION:
Website: https://gosebastiana.com
Mail representative OG: administracion@ovigen.es

Summary

SEBASTIANA promotes the implementation of a comprehensive model for the selection, sorting and marketing of wool aimed at increasing the competitiveness and profitability of small sheep farms, with the objective of making the most of wool production in Spain by promoting the activity of quality analysis, transformation and pre-sorting by livestock farmers.

PROJECT OBJECTIVES	EXPECTED RESULTS
Implement a comprehensive model for the selection, sorting and marketing of wool aimed at increasing the competitiveness and profitability of small farms.	Start-up of an objective procedure for wool quality analysis and identification of animals and monitoring of offspring.
Development and consolidation of a wool quality improvement plan through objective analysis procedures and highly inheritable phenotypic selection (wool fibre diameter).	Training of farmers in pre-shearing sorting tasks and verification of nutritional factors influencing wool quality.
Start-up of a small wool processing industry.	Definition of the wool washing and sorting process and design of a simple wool quality cataloguing system for livestock farmers.
Increase the economic profitability of Castellana purebred sheep farms through the direct sale of differentiated (pre-sorted) wool and services associated with the small wool processing industry created.	Implementation of a digital farmer-customer platform as a meeting channel, potential marketing of wool and subsequent report on the economic, social and environmental impact of the new system.

Livestock

SELAMBQ
Spanish Entrefino Lamb Quality

SELAMBQ

Spanish Entrefino Lambskin Quality Project: Improvement of the quality of Spanish entrefino lambskin. Study of the causes of the drop in the quality of entrefino lambskins and solutions applied to reverse it

Beneficiary members

- Asociación Española del Curtido (ACEXPIEL)
- Interprofesional del Ovino y Caprino de Carne (INTEROVIC)
- Asociación Nacional de Almacenes Frigoríficos de Carnes y Salas de despiece (ANAFRIC-GREMSA ANICOC OVICEBO)

Subcontracted members

- Universidad de Zaragoza (UNIZAR)
- Universidad Autónoma de Barcelona (UAB)
- José María González Sainz

Collaborating members

- Confederation of National Associations of Tanners and Dressers of the European Community (COTANCE)
- Russo di Casandrino
- Megisserie Richard SAS
- Unione Nazionale Industria Conciaria (UNIC)
- Federation Française de la Tannerie Megisserie (FFTM)

CALL 2019

THEMATIC AREA: Livestock / **SUBSECTOR:** Sheep

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Basque Country, Cantabria, Castile and Leon, Castile La Mancha, Catalonia, Chartered Community of Navarre, Community of Madrid, Extremadura, Galicia, La Rioja, Region of Murcia, The Balearic Islands, Valencian Community

GRANT AWARDED: € 232.189,11

PROJECT OPERATING PERIOD: May 2019-July 2021

MORE INFORMATION:
Website: https://ec.europa.eu/eip/agriculture/en/find-connect/projects/mejora-de-la-calidad-de-la-piel-de-cordero
Mail representative OG: inform@leather-spain.com

Summary

SELAMBQ promotes the improvement of the quality of Spanish entrefino lambskins to increase their value and improve the competitiveness of the value chain of the entrefino segment.

PROJECT OBJECTIVES	OBTAINED RESULTS
Determine the risk factors that increase the occurrence of skin defects in entrefino lambskins.	Detailed information on all aspects of lamb production on the farm, handling in the slaughterhouse and the preservation of the skins until processing.
Determine the causes of skin lesions in lambs, especially those associated with chaffing and white spot.	Analysis of a representative number of lambskins with determination of the presence and significance of defects.
Establish management guidelines and production techniques to reduce the occurrence of skin lesions.	Establishment of effective preventive measures at all levels studied to reduce the presence and intensity of skin lesions.
Elaboration of a good practice guide for the production of high-quality entrefino lambskins.	Creation and dissemination of the good practice guide among sheep producers.

Livestock

SIEGA

Geographic information system to assist in the management of extensive livestock

Beneficiary members

- Complutum Tecnologías de la Información Geográfica S.L.
- Asociación Agraria de Galicia (ASAGA Galicia)
- Asociación Agraria Jóvenes Agricultores y Ganaderos de Asturias (ASAJA Asturias)
- Jóvenes Agricultores y Ganaderos de Cantabria (ASAJA Cantabria)

Subcontracted members

- Instituto de Desarrollo Comunitario (IDC)

Collaborating members

- Instituto Galego da Calidade Alimentaria (INGACAL)-Centro de Investigaciones Agrarias de Mabegondo (CIAM)
- Servicio Regional de Investigación y Desarrollo Agroalimentario (SERIDA), Asturias
- Centro de Investigación y Formación Agrarias de Cantabria (CIFA)
- Departamento de Geología, Geografía y Medio Ambiente. Universidad de Alcalá (UAH)

CALL 2019

THEMATIC AREA: Livestock / **SUBSECTOR:** Cattle

AUTONOMOUS COMMUNITIES EXECUTION: Cantabria, Community of Madrid, Galicia, Principality of Asturias

GRANT AWARDED: € 479.561,90

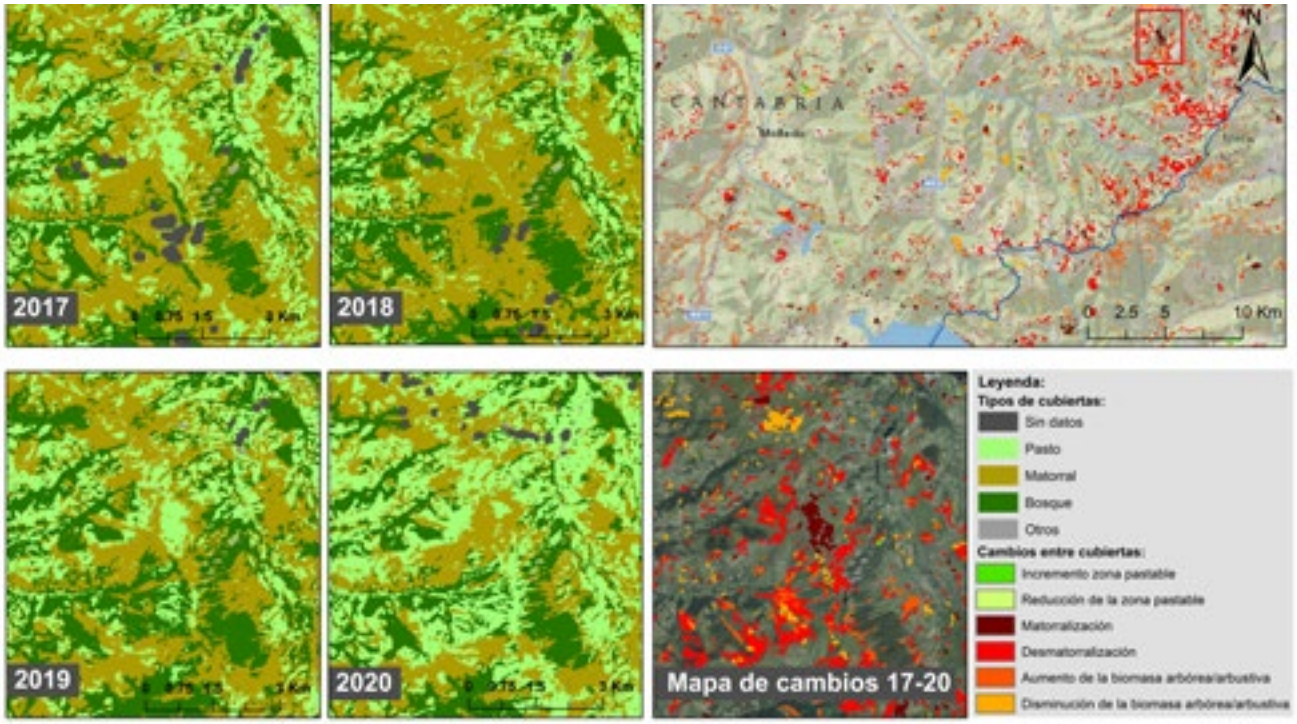
PROJECT OPERATING PERIOD: July 2019-July 2021

MORE INFORMATION:
Website: http://siega.complutig.es
Mail representative OG: daniel.reinoso@uah.es

Summary

SIEGA promotes the design and implementation of a decision-making support tool (GIS) for extensive livestock and pasture management, combining the monitoring of pastures with remote sensing and of the livestock with GPS.

PROJECT OBJECTIVES	OBTAINED RESULTS
Define the functionalities of the tool according to the needs of technicians, farmers and managers, and the technical and scientific possibilities available.	Operational tool that meets the needs of technicians, farmers and managers. System specifications and best available techniques.
Have information, in almost real time, on the state and evolution of the vegetation. Comparison with previous years and forecast.	Better decision-making in mountain management and livestock management.
Facilitate and improve the work of livestock farmers, knowing at all times the position of the livestock and the state of the pastures.	Savings in production costs for farmers through better control of the main features on their farms.
Train technicians in the use of geographic information technologies and in the use of the tool.	Have adequate training to understand and use the tool.
Improve knowledge transfer in the field of GIT and inform potential beneficiaries about the project.	Involvement of potential beneficiaries and research organisations in the design of the tool. Knowledge transfer.



Livestock

SOSTVAN

Technological strategies for improving the sustainability of the suckler cow farming sector

Beneficiary members

- Ibérico Comercialización S.C.L. (IBERCOM)
- Universidad de Salamanca (USAL)
- Universidad de Extremadura (UEX)
- Universidad de León (ULE). Grupo de Investigación IMAPOR (BB 250-código 413)
- De Heus Nutrición Animal S.A.
- Dehesa Grande Sociedad Cooperativa

Subcontracted members

- Instituto Tecnológico Agrario de Castilla y León (ITACyL)
- Imasde Agroalimentaria S.L.
- Unión de Ganaderos de Vacas Nodrizas (UGAVAN)

Collaborating members

- Asociación 19 de Abril
- Merck Sharp & Dohme Animal Health S.L.
- Organismo Autónomo Parques Nacionales

CALL 2019

THEMATIC AREA: Livestock / **SUBSECTOR:** Cattle

AUTONOMOUS COMMUNITIES EXECUTION: Cantabria, Castile and Leon, Community of Madrid, Extremadura, Galicia, Principality of Asturias

GRANT AWARDED: € 577.333,94

PROJECT OPERATING PERIOD: August 2019-June 2021

MORE INFORMATION:
Website: https://www.sostvan.com/
Mail representative OG: jignacio@iberlonja.com

Summary

SOSTVAN promotes the improvement of the positioning of extensive beef livestock on the market to ensure the economic sustainability of young farmers.

PROJECT OBJECTIVES	OBTAINED RESULTS
Maximise the environmental and animal welfare values of extensive beef cattle production.	Demonstrate that extensive livestock contributes positively to carbon footprint mitigation and provides environmental as well as economic value.
Implementation of new marketing strategies for extensive beef livestock using blockchain technology.	Quantification of how meat production linked to the extensive system ensures and improves animal welfare.
Coordination of a project demonstrating the technical and economic feasibility of new innovative solutions.	Development and implementation of blockchain technology to ensure full traceability of the meat production process.
Dissemination and transfer of the results of the innovative project to the sector.	Promotion and dissemination of knowledge and results generated with the livestock community and society.

Livestock

TAURO

Eco-efficient systems of differentiated quality:
maximising the sustainability of the Spanish fighting bull livestock

Beneficiary members

- Asociación Agraria de Jóvenes Agricultores (ASAJA)
- Coque World S.L.
- Federación Española de Asociaciones de Ganado Selecto (FEAGAS)
- Unión de Criadores de Toros de Lidia (UCTL)
- Universidad de Córdoba (UCO)
- Vincci Hoteles S.A.

Subcontracted members

- Taurocom S.L.

CALL 2020

THEMATIC AREA: Livestock / **SUBSECTOR:** Cattle

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Castile and Leon, Castile La Mancha, Chartered Community of Navarre, Community of Madrid, Extremadura, La Rioja, Valencian Community

GRANT AWARDED: € 440.317,28

PROJECT OPERATING PERIOD: June 2021-March 2023

MORE INFORMATION:
Website: https://gotauro.es/
Mail representative OG: landeta.comunicacion@toroslidia.com

Summary

TAURO promotes the increase of the added value of the meat of the fighting bulls based on the environmental, economic and social sustainability of their production in rural environments

PROJECT OBJECTIVES	OBTAINED RESULTS
Determine the most appropriate production, product and process standards to increase the value of fighting bull meat through a more sustainable production of differentiated quality and aligned with consumer preferences.	Characterisation of the dressed carcass and meat quality of two commercial types bulls and cows culled from bullfighting and rodeos, as well as sensory acceptance by untrained consumer panels in six Spanish cities.
Increase the value of fighting bull meat and improve the competitiveness and sustainability of livestock farms through the adoption of the most eco-efficient livestock practices in accordance with established production, product and process standards.	Determination of the main environmental impacts of cattle ranches with fighting bulls. This information has been used in optimisation models for the identification and implementation of the most sustainable and competitive farming practices.

Livestock

TIRAC

Innovative techniques for antibiotic reduction in rabbit farming

Beneficiary members

- De Heus Nutrición Animal S.A.U.
- Fundación Empresa Universidad Gallega (FEUGA)
- Porto Muiños S.L.
- Universidad de Santiago de Compostela (USC)
- Universidad Politécnica de Madrid (UPM)

Subcontracted members

- Granja J. Echegoyen S.L.U.

CALL 2020

THEMATIC AREA: Livestock/ **SUBSECTOR:** Rabbit farming

AUTONOMOUS COMMUNITIES EXECUTION: Chartered Community of Navarre, Community of Madrid, Galicia

GRANT AWARDED: € 485.043,39

PROJECT OPERATING PERIOD: March 2021-March 2023

MORE INFORMATION:
Website: https://tirac.es/
Mail representative OG: mccastro@deheus.com
ecegarra@deheus.com

Summary

TIRAC promotes the application of innovative techniques in the field of nutrition to reduce the use of antibiotics for digestive problems in fattening rabbits, ensuring their health and profitability for farmers.

PROJECT OBJECTIVES	OBTAINED RESULTS
Detailed knowledge of the health status of the Spanish rabbit sector and the use of antibiotics.	Conducting a survey among farmers in order to determine their sanitary, management and infrastructure situation and thus take appropriate measures to resolve the detected problems.
Obtaining feed adapted to the digestive needs of young rabbits at weaning that will improve their intestinal health and help to reduce the use of antibiotics.	Development of the best ideal protein profiles and fibre fractions to improve gut health, thereby reducing antibiotic consumption.
Inventory of algae, by-products and algae extracts from the Galician coasts of interest in the formulation of animal feed.	Identification of the type of algae that can promote intestinal health due to their soluble fibre content and characterisation of the different fibre fractions (soluble and insoluble).
Multiplier effect on the transfer of project results to the rabbit sector.	Dissemination of the results and the work conducted in a generalised manner among the sector through magazines, social media and seminars.

Livestock

VACUSOS

Increasing the economic sustainability of fattening cattle on extensive suckler cow farms

VACUSOS
Compromiso y sostenibilidad

Beneficiary members

- De Heus Nutrición Animal S.A.
- Ibérico Comercialización S.C.L. (IBERCOM)
- Instituto Tecnológico Agrario de Castilla y León (ITACyL)
- Cedesa Digital S.L.
- Unión de Criadores de Ganado Vacuno Selecto de Raza Charolesa de España (UCHAE)
- Federación Española de Criadores de Limusin (FECL)
- Universidad de Salamanca (USAL)
- Imasde Agroalimentaria S.L.

Subcontracted members

- Unión de Ganaderos de Vacas Nodrizas (UGAVAN)

Collaborating members

- Asociación 19 de Abril

CALL 2019

THEMATIC AREA: Livestock / **SUBSECTOR:** Cattle

AUTONOMOUS COMMUNITIES EXECUTION: Cantabria, Castile and Leon, Community of Madrid, Extremadura, Galicia, Principality of Asturias

GRANT AWARDED: € 592.376,90

PROJECT OPERATING PERIOD: August 2019-June 2021

MORE INFORMATION:
Website: https://vacusos.es/
Mail representative OG: arey@deheus.com
mccastro@deheus.com

Summary

VACUSOS promotes the increase of economic sustainability of extensive beef cattle fattening in extensive suckler cow farms

PROJECT OBJECTIVES	OBTAINED RESULTS
Demonstration of increased profitability associated with fattening calves on extensive suckler cow farms.	Significant savings at farm level (€100 more per cow per year).
Optimisation of calf feeding for fattening on extensive suckler cow farms.	Better use of the farms' natural resources due to the nutritional strategies developed, which will prevent their abandonment in the short term.
Digitalisation of the fattening process in extensive suckler cow farms.	Sensor systems for feedlots located in extensive suckler cow farms. Significant reduction of nitrogen emissions due to increased digestibility and reduced protein intake.
Technical coordination of a project demonstrating the technical and economic feasibility of new innovative solutions.	Monitoring the progress and financial management of the project.
Dissemination and transfer of the results of the innovative project to the sector.	Promotion and dissemination of results in the livestock sector.

Livestock

VARROAFORM

Development of an effective formulation for the control and prevention of Varroatosis in domestic honeybees *(Apis mellifera)*

Varroaform
GRUPO OPERATIVO SUPRAAUTONÓMICO

Beneficiary members

- Fundación Empresa Universidad Gallega (FEUGA)
- Universidad de Santiago de Compostela (USC)
- Universidad de Las Palmas de Gran Canaria (ULPGC)
- Benigno Basteiro Rodríguez
- Urbano González Escapa
- Agustín Arias Martínez

Collaborating members

- Asociación de Apicultores de Gran Canaria (APIGRANCA)
- Asociación Defensa Sanitaria (ADS) Apicultores de La Palma
- Asociación Española de Apicultores (AEA)

CALL 2019

THEMATIC AREA: Livestock / **SUBSECTOR:** Beekeeping

AUTONOMOUS COMMUNITIES EXECUTION: Castile and Leon, Castile La Mancha, Galicia, The Canary Islands

GRANT AWARDED: € 379.920,30

PROJECT OPERATING PERIOD: March 2019-July 2021

MORE INFORMATION:
Website: https://www.plataformatierra.es/innovacion/grupo-operativo-varroaform
Mail representative OG: feuga@feuga.es

Summary

VARROAFORM promotes the development, implementation and evaluation of a controlled release formulation as an alternative to conventional treatments in beekeeping for the control and prevention of Varroatosis (external parasitosis caused by the mite Varroa destructor) in domestic honeybees *(Apis mellifera)* using products of natural origin.

PROJECT OBJECTIVES	OBTAINED RESULTS
Evaluation of efficacy and possible toxicity in bees.	Obtaining and pharmaco-technical characterisation of several alternative formulations to conventional treatments, non-toxic for bees and effective under real conditions of use, tested in experimental apiaries. Field efficacy evaluation carried out by means of controlled trials, evaluating concentration and dosage of the active substances, time of application, temperature and evaporation pressure of the substances, among other factors. The paste proved to be, in general, the formulation with the best results and the highest acaricidal effect, comparable to conventional treatments.
Reduction or total absence of residues in natural honey and other products derived from the hive.	Initial detection and quantification of residues in natural honey and other products derived from the hive and development of anti-Varroa formulations that do not generate such residues.
Reduce the costs for beekeepers and producers of current Varroa treatments.	Final economic evaluation of the total cost of application of the product in apiaries, where the prices of the experimental formulations developed in this study are cheaper than those already on the market.

Livestock

VIGIASAN

Use of technologies to assess health status, welfare and productivity in livestock

Beneficiary members

- Universidad Complutense de Madrid (UCM)
- PigCHAMP Pro Europa S.L.
- Vall Companys S.A.
- Infomicro Comunicaciones S.L.
- Asociación Española de Productores de Vacuno de Carne (ASOPROVAC)

Subcontracted members

- Fundación VET+I Plataforma Tecnológica Española de Sanidad Animal
- Horizcience S.L.

Collaborating members

- Asociación de Productores de Ganado Porcino (ANPROGAPOR)
- Luis José Romero González (MAPA)

CALL 2019

THEMATIC AREA: Livestock / **SUBSECTOR:** Pig

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Basque Country, Cantabria, Castile and Leon, Castile La Mancha, Catalonia, Chartered Community of Navarre, Community of Madrid, Extremadura, Galicia, La Rioja, Principality of Asturias, Region of Murcia, The Balearic Islands, The Canary Islands, Valencian Community

GRANT AWARDED: € 480.156,42

PROJECT OPERATING PERIOD: March 2019-July 2021

MORE INFORMATION:
Website: https://ec.europa.eu/eip/agriculture/en/find-connect/projects/empleo-de-tecnolog%C3%ADas-para-evaluar-el-estado-de
Mail representative OG: potri@ucm.es

Summary

VIGIASAN promotes the development and implementation of technologies and innovations in surveillance in pigs and cattle (that can be extrapolated to other species) to monitor changes in different parameters for the control of diseases in livestock.

PROJECT OBJECTIVES	OBTAINED RESULTS
Implement data collection methodologies in a population, in a systematic and continuous manner, for analysis and interpretation.	Installation of technological infrastructure on farms. Configuration of software and hardware for automatic video storage-erasing and development of animal recognition and tracking algorithm, based on artificial intelligence and signal processing theory.
Identify physiological and behavioural (movement) patterns during the onset of health problems through real-time remote monitoring and automatic generation of health alarms.	Development of statistical analyses and movement reports. Development and implementation of a real-time algorithm using a standalone software application that allows the detection of changes in movement patterns and the generation of alarms.
Identify the early onset of diseases and animal behavioural problems in a population and to extrapolate the obtained results in pigs and cattle to other species.	Dissemination activities, including conferences to disseminate the results.

Agrifood Industry

Source: Tragsamedia. Tragsa Group image bank

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Agrifood Industry

AGROCHEF

Digital platform for promoting products in local markets and short distribution channels for producer groups, organizations, and interprofessional organisations

Beneficiary members

- A Plus Field Marketing S.L.
- Asociación Agraria de Jóvenes Agricultores (ASAJA)
- Federación de Asociaciones de Cocineros y Reposteros de España (FACYRE)
- Federación Española de Asociaciones de Ganado Selecto (FEAGAS)
- Lonja Online Española S.L.
- Real Federación Española de Caza (RFEC)
- Unión de Criadores de Toros de Lidia (UCTL)
- Universidad de Córdoba (UCO)

Subcontracted members

- Fostec S.L.

CALL 2020

THEMATIC AREA: Agrifood Industry / **SUBSECTOR:** Cattle

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile La Mancha, Catalonia, Chartered Community of Navarre, Community of Madrid, Region of Murcia, The Balearic Islands, Valencian Community

GRANT AWARDED: € 445.934,32

PROJECT OPERATING PERIOD: June 2021-March 2023

MORE INFORMATION:
Website: https://goagrochef.com/
Mail representative OG: clientes@aplusmk.com

Summary

AGROCHEF aims to use technology and digitalisation to support direct marketing processes, facilitating the sale of food created by small-scale agricultural and livestock producers in the hotel and catering industry across the country.

PROJECT OBJECTIVES	OBTAINED RESULTS
Increase sustainability in the producer sector and in the Horeca channel.	Establish a digital platform to facilitate direct collaboration between small and medium-scale producers and Horeca establishments, promoting their engagement.
Reduce the environmental and climate impact by using short marketing channels.	Establish direct communication between a supplier and customer, allowing for local product search or, if not available, direct delivery without intermediaries.
Enhance advertising and promotion approaches for the most susceptible small-scale producers and small businesses operating in the Horeca sector.	Creation of the Sabe a Más label for the Horeca sector and a digital platform presenting producers with direct access to customers.
Encourage the adoption of sustainable eating habits and promote the transition to healthy and sustainable dietary patterns.	Promote Spanish rural products based on the Mediterranean diet and utilizing tools for direct communication between suppliers, producers, and customers to increase sustainability in distribution.
Establish anonymous information systems to assess the satisfaction levels of the end consumers, who are customers of the Horeca establishments participating in the project.	Provide a complimentary digital platform for the direct interaction between both industries to facilitate sales and purchases of goods (https://app.goagrochef.com/).
Help small and medium-sized producers and individual catering establishments to go digital.	Identify digital obstacles and facilitators at both ends of the value chain.

Agrifood Industry

AGUACAVALUE

Avocado by-products can be valuable
in animal nutrition, nutraceuticals, and cosmeceuticals.

Beneficiary members

- Frumaco S.L.
- Fundación Centro Tecnológico de Investigación y Desarrollo del Alimento Funcional (CIDAF)
- Natac Biotech S.L.
- Grupo Empresarial La Caña
- Cereales Macob S.L.
- Cooperativas Agroalimentarias de Andalucía

Subcontracted members

- Departamento de Fisiología y Bioquímica de la Nutrición Animal de la Estación Experimental del Zaidín-Consejo Superior de Investigaciones Científicas (EEZ-CSIC)
- Alejandro González Campos (Activa I+D+i)

CALL 2018

THEMATIC AREA: Agrifood Industry / **SUBSECTOR:** Avocado

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Community of Madrid

GRANT AWARDED: € 573.621,15

PROJECT OPERATING PERIOD: July 2018-July 2020

MORE INFORMATION:
Website: http://www.aguacavalue.com
Mail representative OG: info@frumaco.com

Summary

AGUACAVALUE explores viable options for utilizing avocado by-products through analysis of their nutritional profile, bioactive compound content, antioxidant potential, and digestibility. This research aims to obtain high-value products for animal feed production and the nutraceutical/cosmeceutical industry.

PROJECT OBJECTIVES	OBTAINED RESULTS
Develop animal feed products using avocado by-products through formulation.	Report containing the various by-products, the techniques employed for their extraction (drying and milling), as well as the outcomes of quality/microbiological tests.Formulate diets for specific animal groups, creating a report containing nutritional and quality data, characterising bioactive compounds in the pellets, and reporting bioactivity results. Report containing information on the bioactivity and digestibility of each type of by-product/pellet tested in animals
Develop high-value cosmetic and nutraceutical products from avocado byproducts.	Report containing the various by-products, the techniques employed for their extraction (drying and milling), as well as the outcomes of quality/microbiological tests. Characterisation reports for each by-product, including the identification of bioactive compounds and associated bioactivity results. Report on pilot-scale extracts and bioactivity results for bioactive compound characterisation. High value-added products with a composition and bioactivity report.

Agrifood Industry

AOVE-Tradicional

Blockchain certification for tracking extra virgin olive oil from traditional olive groves.

Beneficiary members

- Unión de Pequeños Agricultores y Ganaderos (UPA)
- Wealize S.L.
- Migasa Aceites S.L.U.

Subcontracted members

- Universidad de Jaén (UJA)

Collaborating members

- Lidl Supermercado S.A.U.

CALL 2022

THEMATIC AREA: Agrifood Industry / **SUBSECTOR:** Olive trees

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile La Mancha

GRANT AWARDED: € 79.882,50

PROJECT OPERATING PERIOD: January 2023-February 2025

MORE INFORMATION:
Website: https://aovetradicional.es/
Mail representative OG: upa@upa.es

Summary

AOVE-Tradicional advocates for creating a blockchain solution that allows consumers to have confidence in the quality of products derived from olives grown in traditional, sustainable farms and receive expert economic advice.

PROJECT OBJECTIVES	EXPECTED RESULTS
Enhance understanding of consumer trends around extra virgin olive oil (EVOO) based on production methods and characteristics and identify factors that boost customer confidence.	Study on consumer behaviour: levels of knowledge regarding olive oils, consumer perception of quality, and confidence inspired by specific attributes of olive oils and extra virgin olive oils.
Distinguish between extra virgin olive oil and olive oil from conventional groves.	Characterisation of traditional olive groves.
Encourage the adoption of digital traceability in product marketing.	Develop a versatile blockchain tool for certifying the complete value chain, creating certification standards and labelling.
Enhance the economic efficiency of conventional olive grove holdings, we aim to encourage intergenerational transition, establish, and sustain firms, aid in collective farming, promote female involvement in the sector.	Develop an economic management advisory module for farms, including tailored advice for young people and women.
Improve the sustainability of traditional olive grove farms.	Recommendations for adapting to and reducing the impact of climate change, using natural resources and inputs, and promoting the development of renewable energy.

Agrifood Industry

CHAMPLAST

Creating a new value chain in mushroom production through the circular economy.

Beneficiary members

- Asociación Profesional de Productores de Sustratos y Hongos de La Rioja, Navarra y Aragón (ASOCHAMP)
- Asociación de Investigación de Materiales de Plásticos y Conexas (AIMPLAS)
- Ingelia S.L.
- Agricultores de la Vega de Valencia (SAV)

Subcontracted members

- Sustratos de La Rioja S.L.
- Instituto de Tecnología Química de la Universidad Politécnica de Valencia (UPV-CSIC)

CALL 2022

THEMATIC AREA: Agrifood Industry / **SUBSECTOR:** Mushroom

AUTONOMOUS COMMUNITIES EXECUTION: Chartered Community of Navarre, La Rioja, Valencian Community

GRANT AWARDED: € 596.368,95

PROJECT OPERATING PERIOD: October 2022-February 2025

MORE INFORMATION:
Website: https://gochamplast.com/
Mail representative OG: direccion@ctich.com

Summary

CHAMPLAST aims to enhance the sustainability and productivity of the mushroom industry by reducing and recovering waste produced by the sector, specifically exhausted substrate, and agricultural film.

PROJECT OBJECTIVES	EXPECTED RESULTS
Valorisation of post-cultivation substrate to obtain advanced char with high added value, which has been validated for use as a fertiliser in agricultural soils and as a covering material in mushroom cultivation.	Obtaining advanced char from spent substrate residue can improve the environmental impact of mushroom cultivation while also increasing farm profitability.
Replace film with sustainable, compostable plastic solutions through physical modifications for mushroom cultivation.	Production of various biodegradable films. Study of the shelf life of cultured films under realistic working conditions and validation of compostability at the end-of-life.

Agrifood Industry

GAYAS

Home-cooked meals, delivered
from the countryside to your doorstep

GAyAS. COMIDA DE ORIGEN, DESDE LA ALDEA A CASA

Beneficiary members

- Asociación de Gandeiros A Fonsagrada
- Sociedad Cooperativa A Carqueixa
- Isabel Álvarez Rodríguez
- Asociación Montes e Vales Orientais - Geodestino Turístico Ancares Terras de Burón
- Alberto Uría Moreno
- Yolanda Álvarez Beneitez
- Universidad de Santiago de Compostela (USC)

CALL 2020

THEMATIC AREA: Agrifood Industry / **SUBSECTOR:** Meat products

AUTONOMOUS COMMUNITIES EXECUTION: Galicia, Principality of Asturias

GRANT AWARDED: € 454.802,75

PROJECT OPERATING PERIOD: November 2020-April 2023

MORE INFORMATION:
Website: https://gayas.es/
Mail representative OG: asgafon@yahoo.es

Summary

GAYAS promotes the creation of Rural Transformation Centres (RTC), where products from local farms are prepared for sale fresh or processed into ready meals and delivered to consumers' homes via an e-commerce platform.

PROJECT OBJECTIVES	OBTAINED RESULTS
By adding value to their products through processing in the area, farmers can increase their incomes.	Increase the price paid for the raw material at the point of origin, thus benefiting farmers who add value to their product.
Turn the products of the small farms into a recipe book of typical local menus, to be sent home as cooked and vacuum-packed dishes or as raw products.	Prepare take-away meals using quality local ingredients, mainly Galician beef from the project's farmers, honey, cheese, vegetables, and greens.
Use public or private facilities, such as school or restaurant kitchens, to become a reception centre for raw materials and a rural processing centre for menus to be marketed.	Operate CTRs in existing facilities, extending their useful life, and improving the circular economy.
Restore productive potential by bringing abandoned land back into use to produce raw materials for the project.	Develop derelict or underused land, focusing on the potential of the rural environment, investment in it (especially by young people) and communication with the administration to help develop it.
Generate jobs in rural areas, especially for young people and women.	Recruitment of young people and women in the sector.

Agrifood Industry

GIASAT

Ecosystem of tools to strengthen and consolidate
Sustainable Food Hubs (SFH) through multi-action channel innovations

Beneficiary members

- Centro de Estudios Rurales y de Agricultura Internacional (CERAI)
- Fundación Entretantos
- Iniciativas Sociombientales S. Coop. Mad
- Plant on Demand S.L. (POD)
- Asociación Ekoalde Elkartea
- Asociación Productores, Elaboradores y Tiendas ecológicas (VallaEcolid)

Subcontracted members

- Asociación Vida Sana
- Universidad de Córdoba (UCO)

Collaborating members

- Unidad Alimentaria de Valladolid S.A (Mercadolid)
- Mercados centrales de abastecimiento de Valencia S.A (Mercavalencia)
- Instituto Canario de Calidad Agroalimentaria (Ecocomedores)
- Saltamontes Bio S.A.T
- Valle y Vega S.C.A

CALL 2022

THEMATIC AREA: Agrifood Industry / **SUBSECTOR:** Vegetables

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Castile and Leon, Chartered Community of Navarre, Community of Madrid, The Canary Islands, Valencian Community

GRANT AWARDED: € 599.754,15

PROJECT OPERATING PERIOD: November 2022-February 2025

MORE INFORMATION:
Website: https://giasat.org
Mail representative OG: info@cerai.org

Summary

GIASAT promotes the improvement of the economic and social conditions of small and medium-sized producers in rural areas through innovation in short supply chains through Sustainable Food Hubs (SFH).

PROJECT OBJECTIVES	EXPECTED RESULTS
Strengthen 9 SFHs and 308 enterprises in the primary sector through the implementation of innovative formulas for short channel marketing and direct sales and networking.	Optimisation of logistical processes, implementation of accompanying protocols for sustainable purchasing aimed at collective catering companies, increasing the digitalisation of participating SFHs by developing improvements to GISAT's digital infrastructure, designing innovative mechanisms for direct sales to end consumers in schools, workplaces, or homes, and improving new capacities for developing wholesale channels for organic products.
Systematise, collate, disseminate and transfer SFH innovations that bring small and medium sized farms closer to 5 of the 6 'benefits for farmers' set out in the European Green Deal.	Develop and implement a digitised ecosystem of tools to promote, accelerate and improve food hubs, and disseminate the toolkit to food hubs and small and medium-sized farms and cottage industries.

Agrifood Industry

GLOBAL DIMENSION SENSOLIVE OIL

Innovative project to disseminate and internationalise results from instrumental analysis that complements the panel test.

Beneficiary members

- Campus de Excelencia Internacional Agroalimentaria (ceiA3)
- Organización Interprofesional del Aceite de Oliva Español (OIAOE)

Subcontracted members

- Universidad de Córdoba (UCO)
- Universidad de Granada (UGR)

Collaborating members

- Consejería de Agricultura, Ganadería, Pesca y Desarrollo Sostenible (CAPDES)
- Ministerio de Agricultura, Pesca y Alimentación (MAPA)
- Dcoop (S. COOP. AND)
- Sovena España S.A.
- Deoleo Global S.A.

CALL 2020

THEMATIC AREA: Agrifood Industry / **SUBSECTOR:** Olive trees

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Community of Madrid

GRANT AWARDED: €400.301,90

PROJECT OPERATING PERIOD: July 2021-March 2023

MORE INFORMATION:
Website: https://www.aceitesdeolivadeespana.com/grupo-operativo/
http://www.ceia3.es/investigacion-y-transferencia/proyectos/global_dimension_sensolive_oil/
Mail representative OG: t.perez@interprofesionaldelaceitedeoliva.com

Summary

GLOBAL DIMENSION SENSOLIVE OIL supports the global spread and national implementation of cutting-edge laboratory technologies and working methodologies. It complements panel testing as a control system through digital access, promoting standardisation.

PROJECT OBJECTIVES	OBTAINED RESULTS
Support the innovation of quality self-monitoring in production systems and networking through digitalisation.	Accessible digital model, training, and guidance on technological use tailored to specific companies.
Promote co-design of actions and foster collaborative work between the sector and administration.	Development of an access protocol and optimisation of the model. Actions with official laboratories.
Enhance the function of interprofessional organisations.	Set up a platform and engaging with users is being coordinated by OIP for this project.
Promote the internationalisation of outcomes and bolstering Spain's position.	Internationalisation of project results among producer countries and/or international organisations involved.
Capitalisation of results, sustainability and post-project viability.	Identification and definition of new areas of work for the future.

Agrifood Industry

GOVALMAVIN

Valorisation of traditional materials for the production of quality wines

Beneficiary members

- Asociación Plataforma Tecnológica del Vino (PTV)
- Celler del Roure S.L.
- Asociación de Investigación de las Industrias Cerámicas
- Asociación de Investigación de las Industrias Cerámicas (ITC-AICE)
- Alfatec Ingeniería y Consultoría S.L.P.
- Real Sitio de Ventosilla S.A. (Bodegas Prado Rey)
- Fundació Parc Tecnològic del VI (VITEC)
- Juan Carlos Sancha S.L.
- Universidad Miguel Hernández de Elche (UMH)

Subcontracted members

- AINIA Centro Tecnológico
- Universitat Politècnica de València (UPV)
- Cátedra de Química Agrícola de la Universidad de Castilla y la Mancha (CQA-UCLM)
- Grupo de Procesos Enológicos de la Universidad de Valladolid (UVa-MOX)-Instituto Tecnológico Agrario y Alimentario (ITAGRA CT)
- Artica Ingeniería e Innovación S.L.

Collaborating members

- Denominación de Origen Uclés (D.O. Uclés)
- Denominación de Origen Protegida Valencia (DOP Valencia)
- Observatorio Español del Mercado del Vino (OeMv)

CALL 2018

THEMATIC AREA: Agrifood Industry / **SUBSECTOR:** Wine

AUTONOMOUS COMMUNITIES EXECUTION: Castile and Leon, Castile La Mancha, Catalonia, Community of Madrid, La Rioja, Valencian Community

GRANT AWARDED: € 540.000,00

PROJECT OPERATING PERIOD: August 2018-August 2020

MORE INFORMATION:
Website: https://www.ptvino.com/proyectos/valorizacion-de-materiales-tradicionales-para-vinificacion-de-vinos-de-calidad-govalmavin/
Mail representative OG: secretaria@ptvino.com

Summary

GOVALMAVIN promotes the development and objective valorisation of new Spanish wines of distinction through alternative production and ageing methods, using traditional earthenware jars and newly designed technology.

PROJECT OBJECTIVES	OBTAINED RESULTS
For wine production and ageing, to optimise the physical and mechanical properties of the vats.	Characterisation of the physical properties of glasses and optimisation of the design and construction process of new winemaking and wine-aging glasses.
For the production and ageing of high-quality wines fermented and/or aged in vats from the main Spanish varieties: Tempranillo, Garnacha, Monastrell and Macabeo (Viura).	Development of oenological itineraries according to the physical characteristics of the vats and the grape varieties to be vinified.
Promotion of Spanish wines produced and/or matured in earthenware jars to national and international consumers.	Promotion of the national and international market segment of wines aged in vats as a differentiating factor compared to wines preserved in wood. Achievement of high-quality wines and aged wines without the addition of exogenous aromas.

Agrifood Industry

IBERCHAIN

Implementation of blockchain technology in the value chain of meat labelled as 100% Iberian Native Breed

Beneficiary members

- Asociación Española de Criadores de Cerdo Ibérico (AECERIBER)
- Ibérico Comercialización S.C.L (IBERCOM)
- Señorío de Montanera S.L. (Señorío)
- Cooperativa Ganadera del Valle de los Pedroches (COVAP)
- Sánchez Romero Carvajal Jabugo S.A. (Sánchez)
- Cedesa Digital S.L.
- Coveless

Subcontracted members

- Imasde Agroalimentaria S.L. (IMASDE)
- Universidad de Córdoba (UCO)
- Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA)
- Renacens sistemas S.L.

Collaborating members

- Agroalimentaria Beher S.L.

CALL 2019

THEMATIC AREA: Agrifood Industry / **SUBSECTOR:** Pig

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Community of Madrid, Extremadura

GRANT AWARDED: € 567.975,60

PROJECT OPERATING PERIOD: September 2019-July 2021

MORE INFORMATION:
Website: https://iberchain.es
Mail representative OG: asanchez@aeceriber.es

Summary

IBERCHAIN supports the enhancement of economic sustainability for extensive livestock farms that produce meat certified under the 100% Iberian Autochthonous Breed seal.

PROJECT OBJECTIVES	OBTAINED RESULTS
Analysis of the requirements of the future traceability system.	Definition of requirements for the traceability system utilizing blockchain and the acoustic system employing NIRS.
Development of a blockchain platform and sensing solutions using NIRS.	Programming of the blockchain platform and the consumer app. Development of an automated sound system and both the quantitative and qualitative multivariate models of the NIRS equipment.
Implementation of a blockchain platform to guarantee the traceability of meat labelled as 100% Iberian native breed.	Implementation, start-up, and validation of the traceability system.
Technical Coordination of the project.	Project progress financial management and monitoring.
Disseminate and transfer project outcomes to the industry.	Promote the project idea and sharing the results.

Agrifood Industry

INNOEXTRACT

Innovative extraction protocols for compounds of interest in agri-food by-products

Beneficiary members

- Domca S.A.
- Fundación para las Tecnologías Auxiliares de la Agricultura (CT TECNOVA)
- Centro Tecnológico Nacional Agroalimentario Extremadura (CTAEX)
- Troil Vegas Altas S.C.L.
- Cítricos de Murcia (CIMUSA)
- Centro Tecnológico Nacional de la Conserva y Alimentación (CTNC)

Collaborating members

- Cooperativas Agroalimentarias Extremadura

CALL 2019

THEMATIC AREA: Agrifood Industry / **SUBSECTOR:** Olive trees

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Extremadura, Region of Murcia

GRANT AWARDED: € 484.641,92

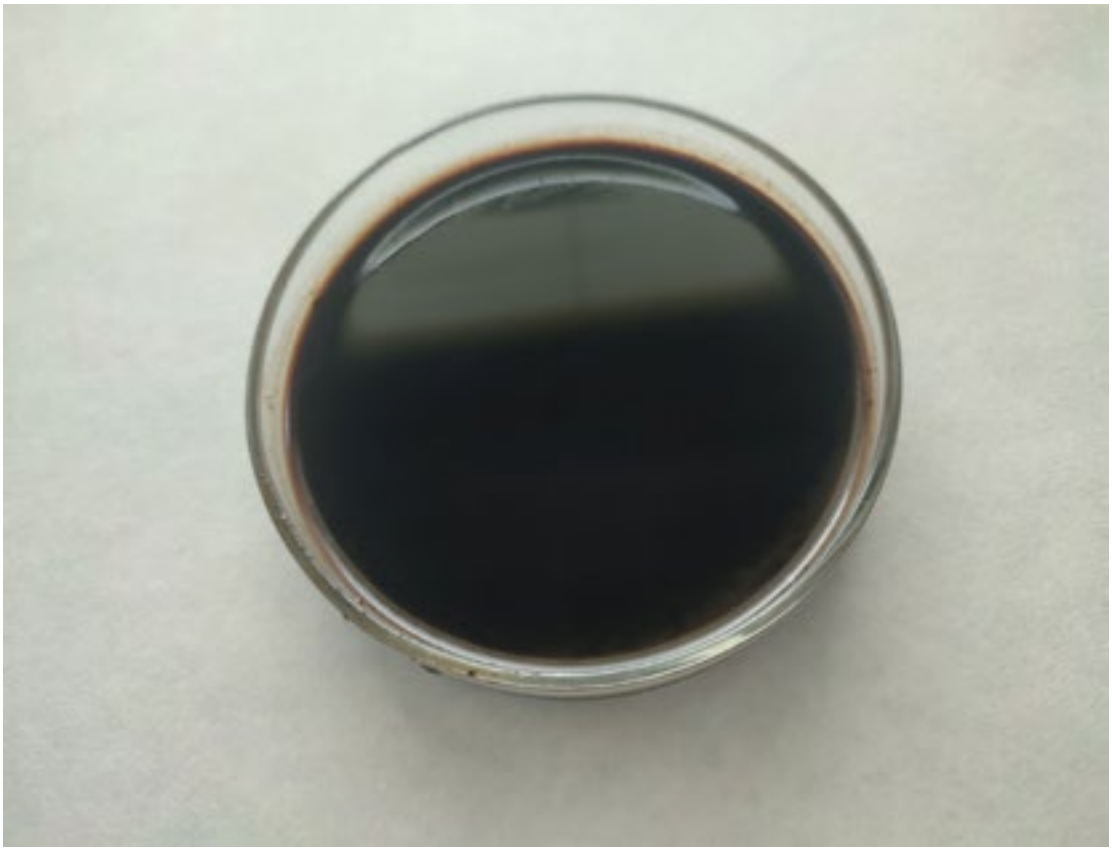
PROJECT OPERATING PERIOD: October 2019-July 2021

MORE INFORMATION:
Website: https://www.domca.com/grupo-operativo-innoextract/
Mail representative OG: abarjona@domca.com

Summary

INNOEXTRACT promotes sustainable extractive techniques for the recovery of agri-food waste and its valorisation through 4 applications for the crop production, livestock, and food industries.

PROJECT OBJECTIVES	OBTAINED RESULTS
Quantitative and qualitative evaluation of bioactive compounds of interest in residues from the olive and citrus fruit industries.	Content of interesting bioactive compounds in oil and citrus waste and their potential for valorisation.
Design and development of innovative and sustainable extraction protocols for waste from the olive and citrus industries.	Innovative extraction protocols for bioactive compounds for each type of residue (oil and citrus) as an alternative to organic solvent extraction at pilot and semi-industrial scale.
Validate the bioactive capacity of extracts obtained in different industrial sectors: food, crop production, and animal nutrition.	Extracts with validation for their bioactive and technological properties.



Agrifood Industry

OLIVA

Industrial use of olive stones for sustainable products

Beneficiary members

- Olivarera Los Pedroches S.C.A.
- Asociación de Investigación de Materiales Plásticos y Conexas (AIMPLAS)

CALL 2019

THEMATIC AREA: Agrifood Industry / **SUBSECTOR:** Olive trees

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Valencian Community

GRANT AWARDED: € 316.131,38

PROJECT OPERATING PERIOD: March 2019-July 2021

MORE INFORMATION:
Website: https://gooliva.com/
Mail representative OG: presidente@olipe.com

Summary

OLIVA promotes the incorporation of olive stone as a reinforcement in biodegradable thermoplastics to obtain new plastic compounds suitable for the manufacture of products and components such as secondary packaging for olive oil.

PROJECT OBJECTIVES	OBTAINED RESULTS
Obtain a homogeneous material from olive stone grinding, with a suitable particle size in the micrometric range, to be incorporated as a reinforcing filler in a plastic matrix.	Optimise the olive stone grinding process to obtain a homogeneous sample.
Obtain a biodegradable composite in a polymeric matrix with a reinforcing filler of olive stone (OLiPLAST) and with a behaviour suitable for injection moulding.	Obtain the OLiPLAST material. Study its creep behaviour.
Improve the environmental impact of using olive stones as a filler in the production of polymer composites.	Environmental study of the process of incorporating olive stones into biodegradable plastics to obtain new products, compared to their use as biomass in an energy recovery process.

Agrifood Industry

ORLEANS

Developing bioactive packaging to valorise dairy waste

Beneficiary members

- Asociación de Investigación de Materiales Plásticos y Conexas (AIMPLAS)
- Biopolis S.L.
- Federación Empresarial de Agroalimentación de la C.V. (FEDACOVA)
- Quesería Dehesa Dos Hermanas S.L.
- Royuela Cheese Company S.L. (Quesos La Cabezuela)
- Universidad de Valencia (UV)

Subcontracted members

- AINIA Centro Tecnológico

Collaborating members

- Dcoop. Sociedad Cooperativa Andaluza

CALL 2020

THEMATIC AREA: . Agrifood Industry / **SUBSECTOR:** Goat

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Valencian Community

GRANT AWARDED: € 598.659,77

PROJECT OPERATING PERIOD: May 2021-February 2023

MORE INFORMATION:
Website: https://goorleans.com/
Mail representative OG: fedacova@fedacova.org

Summary

ORLEANS is promoting the valorisation of a waste product, whey from goat's cheese production, to develop bioactive packaging through the formulation of a bioactive coating made from fermented whey.

PROJECT OBJECTIVES	OBTAINED RESULTS
Fermentation of goat and sheep whey with antimicrobial strains against Penicillium spp. and yeasts to obtain bioactive additives.	Identify 58 lactic acid bacteria from milk, whey, and cheese samples, 7 of which have antifungal potential against major cheese pathogens.
Active cheese packaging development.	Conduct pathogen efficacy studies to determine the in vitro antifungal activity of the active coating and active packaging prototype and package-food interaction studies (shelf life) to determine the in vivo antifungal activity of the active coating and active packaging prototype.
Non-synthetic preservatives are used to guarantee the food quality of the cheese.	Obtain a safe bio preservative for use against cheese pathogens, extending the shelf life of cheese without altering the physical, chemical, and organoleptic quality parameters.
Achieve consumer acceptance of new products: active packaging and healthier cheeses.	Proven acceptance of new, more natural products by cheese consumers.
Demonstrate the validity of fermented whey as a probiotic for animal feed.	Positive evaluation of fermented whey for potential applications as a probiotic in animal nutrition.

Agrifood Industry

PLAN DE ERRADICACIÓN ALMENDRA AMARGA

Bitter almond eradication plan in Spain

Beneficiary members

- S.C.A. Almendrera del Sur
- Cooperativa de Comercialización Agraria de Totana (Coato S.Coop.)
- Agencia Estatal Consejo Superior de Investigaciones Científicas, M.P. (CSIC)
- Olives & Foods Machinery S.L.
- Coordinadora de Organizaciones de Agricultores y Ganaderos (COAG)
- Cooperativas Agroalimentarias de Andalucía

Subcontracted members

- Universidad de Córdoba (UCO)
- Ines Optics S.L.

Collaborating members

- Cooperativas Agroalimentarias de España

CALL 2018

THEMATIC AREA: Agrifood Industry / **SUBSECTOR:** Almond tree

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Castile La Mancha, Catalonia, Extremadura, Region of Murcia, The Balearic Islands, Valencian Community

GRANT AWARDED: € 523.022,25

PROJECT OPERATING PERIOD: July 2018-July 2020

MORE INFORMATION:
Website: https://almendraamarga.grupooperativo.es
Mail representative OG: jcgallego@almensur.com

Summary

PLAN DE ERRADICACIÓN ALMENDRA AMARGA aims to eliminate bitter almonds from marketing channels by taking measures across production to industry and involving all links in the supply chain and all administrations.

PROJECT OBJECTIVES	OBTAINED RESULTS
Identify almond trees or branches with bitter kernels in the field is necessary to implement an action plan, such as removal, new planting, or control measures, which may involve grubbing-up.	Develop an app to identify and geolocate bitter almond trees.
Identify of bitter almonds in agro-industrial processing.	Develop a prototype for identifying bitter almonds in production lines using artificial vision systems in the industry or cooperatives.
Raising awareness among farmers and rural residents about effective almond management through campaigns and informative events.	Awareness-raising campaigns, dissemination, and collaboration are crucial to highlight the importance of the addressed issue in this project.

Agrifood Industry

REBO2VINO

Circular economy for reusing wine bottles in the wine sector

Beneficiary members

- Federación Española del Vino (FEV)
- Miguel Torres S.A.
- Bodega González Byass Jerez S.L.U.
- Verallia Spain S.A.
- Indra Soluciones Tecnológicas de la Información S.L.U. (Minsait)

Subcontracted members

- Consorci Escola Superior de Comerç Internacional Universitat Pompeu Fabra (ESCI-UPF)
- Artica Ingeniería e Innovación S.L.

Collaborating members

- Sociedad Ecológica para el Reciclado de Envases de Vidrio (ECOVIDRIO)
- Asociación Española de Codificación Comercial (AECOC)
- Confederación Empresarial de Hostelería de España (CEHE)

CALL 2022

THEMATIC AREA: Agrifood Industry / **SUBSECTOR:** Wine

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Catalonia, Community of Madrid

GRANT AWARDED: € 563.721,90

PROJECT OPERATING PERIOD: October 2022-March 2025

MORE INFORMATION:
Website: https://rebo2vino.es/
Mail representative OG: info@fev.es

Summary

REBO2VINO promotes the development of an impact analysis and the feasibility of a glass bottle reuse system in the Spanish wine sector, applying the principles of the circular economy

PROJECT OBJECTIVES	EXPECTED RESULTS
Determine the quantitative scope of the wine bottle reuse system in Spain and the interest of producers in introducing reusable packaging.	Measure the potential of the glass bottle return system in the wine sector at national level.
Design and validation of a standard reusable bottle model to facilitate its implementation in Spain, with a view to studying its possible homologation at European level.	Validation of a standard bottle to implement packaging reuse in the sector.
Identify the main barriers, limitations, and opportunities for the implementation of the system in the Horeca channel and propose solutions to overcome these barriers by means of a good practice guide.	Identification of barriers, limitations, and opportunities for the implementation of the system in Spain on a global scale and training of wineries to implement glass bottle reuse.
Design a real pilot test of the reuse model, integrating digital applications for traceability, and assess its technical, economic, and environmental feasibility.	Technical, economic, and environmental feasibility of the system in the wineries participating in the pilot test and consumer perception study.
Develop a simplified technical tool to guide wineries on the potential environmental benefits of reusing glass bottles.	Simplified Life Cycle Assessment (LCA) and Product Environmental Footprint (PEF) technology tool for system environmental analysis.
Design the communication and dissemination plan for the project in the wine sector.	Strategy for transferring project results to the sector and stakeholders.

Agrifood Industry

SENSOLIVE OIL

Instrumental analysis to supplement the Test Panel

Beneficiary members

- Organización Interprofesional del Aceite de Oliva Español (OIP)
- Campus de Excelencia Internacional Agroalimentario (CEIA3)
- Dcoop
- Sovena
- Deoleo
- Universidad de Granada (UGR)

Subcontracted members

- Universidad de Córdoba (UCO)

Collaborating members

- Ministerio de Agricultura, Pesca y Alimentación (MAPA)
- Consejería de Agricultura, Pesca y Desarrollo Rural

CALL 2019

THEMATIC AREA: Agrifood Industry / **SUBSECTOR:** Olive tree, olive oil

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Catalonia, Community of Madrid, Extremadura

GRANT AWARDED: € 518.127,06

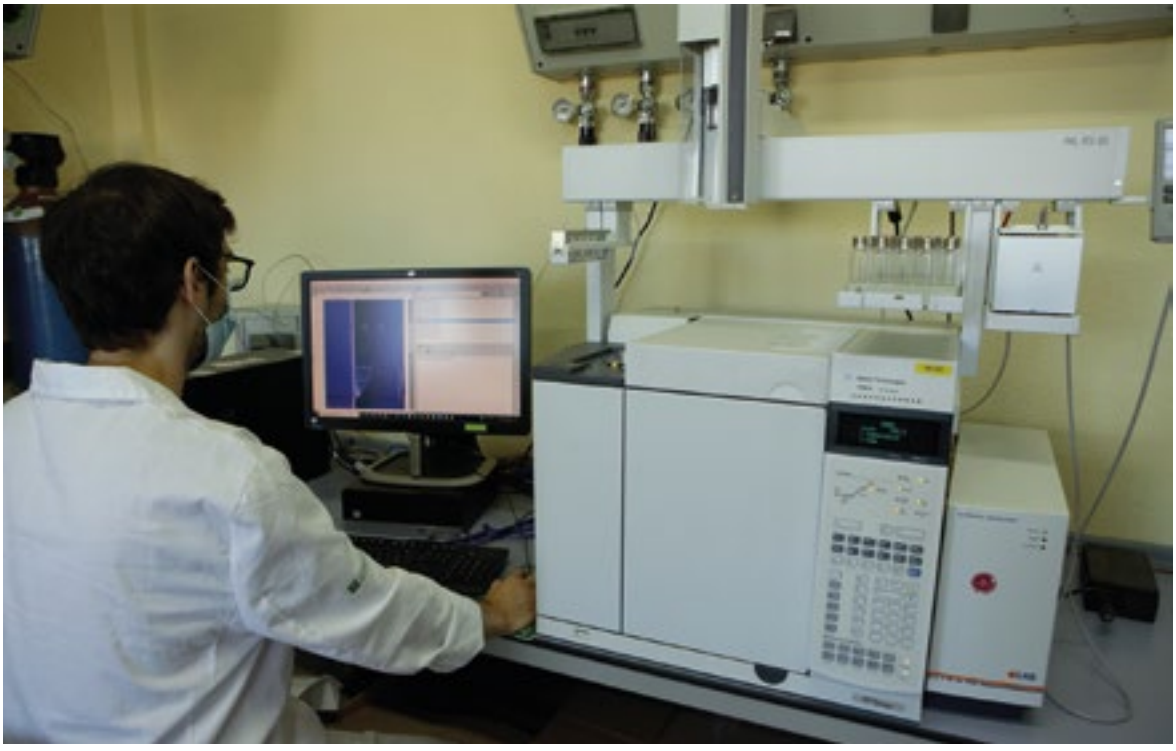
PROJECT OPERATING PERIOD: July 2019-July 2021

MORE INFORMATION:
Website: https://ec.europa.eu/eip/agriculture/en/find-connect/projects/sensolive-oil-an%c3%a1lisis-instrumental-complemento-al-0 http://www.ceia3.es/investigacion-y-transferencia/proyectos/sensolive_oil/
Mail representative OG: t.perez@interprofesionaldelaceitedeoliva.com

Summary

SENSOLIVE OIL enhances producers' competitiveness by supporting quality control systems. It complements the 'Test Panel' method in virgin olive oil using instrumental technologies backed by globalised management and networking.

PROJECT OBJECTIVES	OBTAINED RESULTS
Implement the technology(ies) at both the enterprise and sectoral level.	Effective implementation in 3 agrifood industries (laboratories) and one official laboratory.
Validation and pre-validation of the method, supporting its adoption and promoting its implementation.	Validation of self-monitoring systems will directly benefit all producers of virgin olive oil in the aspects of packaging and marketing.
Strengthen the role of inter-branch organisations and other producer associations is crucial.	Involvement of all organisations and entities in the sector taking part in OIP is crucial for disseminating the project and creating a community of users, coordinated by OIP.
Encourage the digitalisation of the olive industry through networking and utilising significant amounts of data.	Modernisation of the olive oil sector, positioning Spain as a world reference.
Promote official validation of the method globally.	Involve and share information with stakeholders, as well as promoting the global reach of the project outcomes.



Agrifood Industry

TICS4FRUIT

Optimising the fruit post-harvest and distribution chain through ETICS design

Beneficiary members

- Instituto Tecnológico del Embalaje, Transporte y Logística (ITENE)
- Geezar Soluciones S.L.
- Universidad de Zaragoza (UNIZAR)
- Mercados Centrales de Abastecimiento S.A. (MERCASA)
- Federación Española de Asociaciones de Productores, Exportadores de Frutas, Hortalizas, Flores y Plantas Vivas (FEPEX)
- Fundación Parque Científico Tecnológico Aula Dei (PCTAD)

Collaborating members

- SanLucar Fruit S.L.

CALL 2019

THEMATIC AREA: Agrifood Industry / **SUBSECTOR:** Fruit trees

AUTONOMOUS COMMUNITIES EXECUTION: Aragon, Community of Madrid, Valencian Community

GRANT AWARDED: € 551.174,51

PROJECT OPERATING PERIOD: December 2019-July 2021

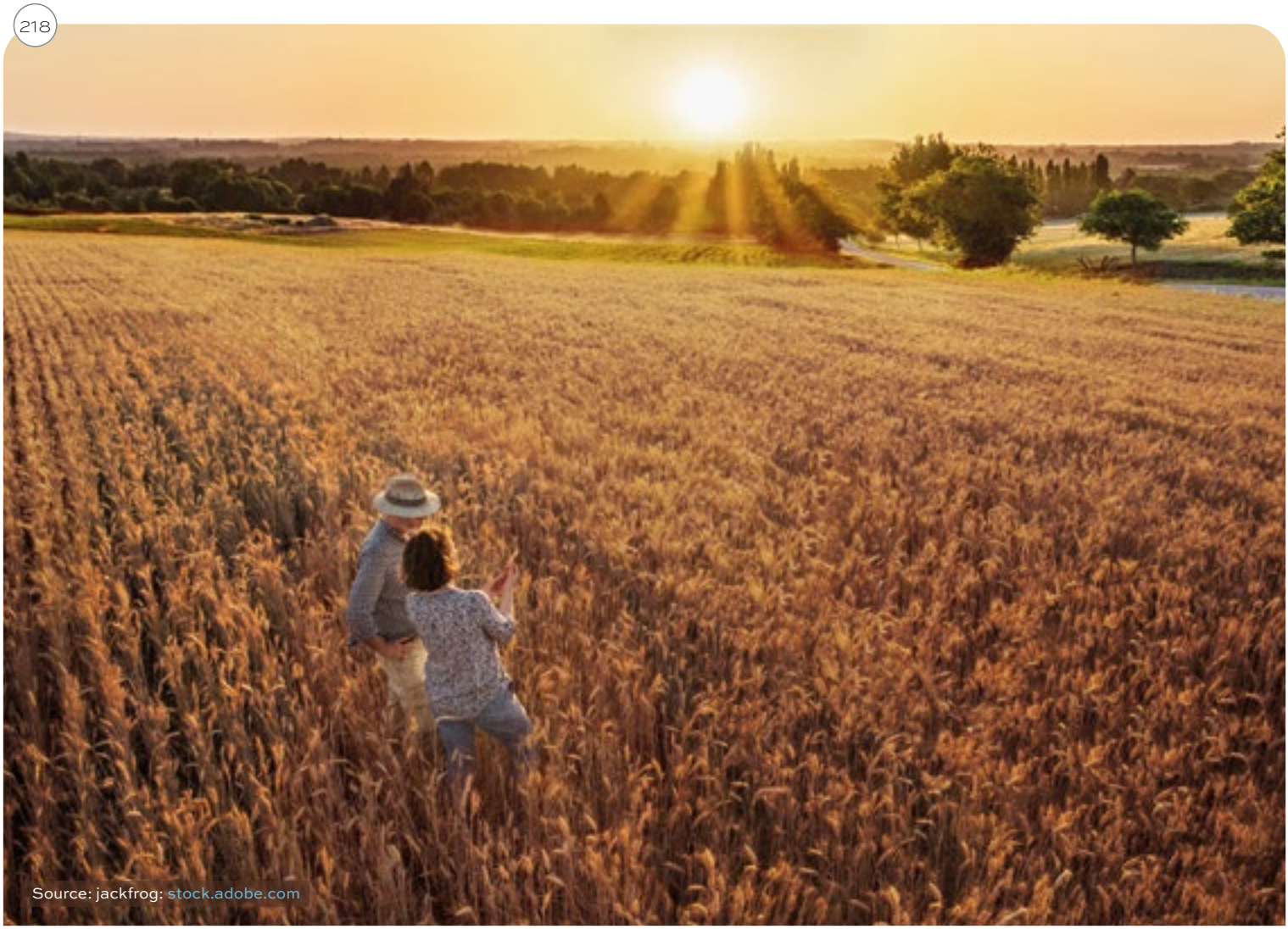
MORE INFORMATION:
Website: http://tics4fruit.com
Mail representative OG: marta.canete@itene.com

Summary

TICS4FRUIT promotes the 4.0 management of the entire fruit value chain, from harvest to point of sale, through digitalisation and the use of ICT to maintain initial quality and reduce losses.

PROJECT OBJECTIVES	OBTAINED RESULTS
Identify and quantify critical processes and logistics activities in the chain with highest product losses.	Identify the stages that have the greatest impact on quality loss, quantifying the losses caused at each stage and defining the determining factors according to the type of fruit.
Define the environmental parameters to be controlled and the critical ranges or limits for each type of fruit.	Selection of shock, temperature, humidity, and gas data loggers. Define the areas to be checked at each stage and for each type of fruit.
Development of various freshness indicators for incorporation into smart labels on packaging or other surfaces.	Detect and identify fruit spoilage metabolites in response to different stresses.
Designing warehousing, transportation, and distribution to optimise inventory and reduce costs, wastage, and product loss.	After implementation of the proposed new model, data on cost savings and product losses.
Development of various technological solutions to monitor the most influential critical stages of product quality and the 4.0 management of logistics processes.	Apps capable of analysing various indicators and determining their associated lifetime/parameters, devices capable of collecting data and communicating via GPRS/4G, and a data centralisation and analysis platform.

Rural Development



Source: jackfrog: stock.adobe.com

Operational groups

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Rural Development

AGRICULTORES JÓVENES EN RED

Young Farmers in RED: Profitable, Efficient and Diversified

Beneficiary members

- Unión de Pequeños Agricultores (UPA)
- Universidad de Córdoba (UCO)
- Universidad de Málaga (UMA)
- Tecnología y Servicios Agrarios S.A. (TRAGSA)

Collaborating members

- Federación de Asociaciones de Mujeres Rurales (FADEMUR)
- CaixaBank

CALL 2019

THEMATIC AREA: Rural development / **SUBSECTOR:** Animal production

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Cantabria, Castile and Leon, Castile La Mancha, Community of Madrid, Extremadura, Galicia, La Rioja, Principality of Asturias, Region of Murcia, The Balearic Islands, The Canary Islands, Valencian Community

GRANT AWARDED: € 598.402,28

PROJECT OPERATING PERIOD: March 2019-July 2021

MORE INFORMATION:
Website: https://coiaanpv.org/forodesarrollo/go-agricultores-jovenes-en-red
Mail representative OG: upa@upa.es

Summary

AGRICULTORES JÓVENES EN RED promotes the design and implementation of a collaborative digital platform (www.raices.info) to develop a series of activities to support the incorporation of young people into agricultural activity, improving their success rates and their economic, environmental, and social sustainability.

PROJECT OBJECTIVES	OBTAINED RESULTS
Facilitate access to information that young farmers may need to make their farm more sustainable, economical, and environmentally friendly, and to create a community of young farmers who can help and motivate each other.	Technology watch system aimed at technology transfer and improving young farmers' decision making. Design a collaborative space between them.
Promote digitalisation processes to improve the efficiency and sustainability of youth farms and their relationship with current and future CAP requirements.	Develop tools that enable monitoring and decision support at farm level and that can interoperate with other services provided by different administrations.
Encourage and promote the involvement of young people in agriculture and change their perception of the sector.	Dissemination of the accompanying ecosystem for the digitalisation processes of young farmers' farms.
Promote the sustainability of farms by encouraging the use of renewable energy.	Promote renewable energy when developing the project.

Rural Development

GOSA
Grupo Operativo
Supra Autonómico
Alimentación Pública
Sostenible 4.0

ALIMENTACIÓN PÚBLICA SOSTENIBLE 4.0

Supporting the transition to sustainability in public canteens
by improving the skills of local organic fruit and vegetable producers

Beneficiary members

- Observatorio para una Cultura del Territorio (OCT)
- Instituto Canario de Calidad Agroalimentaria (ICCA)
- Buscándome las Habichuelas S.L.U.
- Universidad de La Laguna (ULL)
- Centro de Estudios Rurales y de Agricultura Internacional (CERAI)

Subcontracted members

- Madrid Km 0 Centro Logístico S. Coop.Madrid
- Garúa Intervención Educativa S. Coop.Madrid

Collaborating members

- Instituto Madrileño de Investigación y Desarrollo Rural, Agrario y Alimentario (IMIDRA)
- Instituto Navarro de Tecnologías e Infraestructuras Agroalimentarias (INTIA)
- Coordinadora de Organizaciones de Agricultores y Ganaderos de Canarias (COAG Canarias)
- Ajuntament de València, Servici de Pobles de València, secció d'Agricultura i Horta

CALL 2019

THEMATIC AREA: Rural development / **SUBSECTOR:** Vegetables

AUTONOMOUS COMMUNITIES EXECUTION: Community of Madrid, The Canary Islands, Valencian Community

GRANT AWARDED: € 597.870,88

PROJECT OPERATING PERIOD: July 2019-July 2021

MORE INFORMATION:
Website: https://sostenibilidadalimentaria.org
Mail representative OG: oct@observatorioculturayterritorio.org

Summary

ALIMENTACIÓN PÚBLICA SOSTENIBLE 4.0 promotes the generation of knowledge, tools, an action protocol, and a network of producers to supply and promote the consumption of local organic fruit and vegetable products in public school canteens.

PROJECT OBJECTIVES	OBTAINED RESULTS
Improving the skills of local organic fruit and vegetable producers to facilitate the transition to sustainability in public canteens in Madrid, Valencia, and the Canary Islands.	Generating knowledge about the production capacity of organic fruit and vegetables, the characteristics of the public catering sector, the eating habits of consumers and the ecological footprint of public catering menus.
	Implementing pilot initiatives in public canteens.
	Establishment of a local and autonomous network of local organic fruit and vegetable producers for the collection and distribution of their products in public catering.
	Campaign to encourage public procurement of local organic food.

Rural Development

ECOPIONET

Innovation and bioeconomy in the rural environment.
Establishment of a PO for organic extensive herbaceous crops in Salamanca, Toledo, and Guadalajara, based on an innovative transfer network.

Beneficiary members

- Agencia Estatal Consejo Superior de Investigaciones Científicas (CSIC)
- Sociedad Española de Agricultura Ecológica (SEAE)
- Fundación Cajamar de la Comunidad Valenciana
- Asociación Agraria Jóvenes Agricultores de Salamanca (ASAJA Salamanca)
- Unión de Campesinos COAG de Salamanca
- Coordinadora Agraria de Castilla-La Mancha (COAG CLM)
- Unión de Pequeñas Agricultores y Ganaderos de Salamanca (UPA Salamanca)
- Unión de Pequeños Agricultores y Ganaderos de Castilla-La Mancha (UPA CLM)

Subcontracted members

- Volterra Ecosystems S.L.
- Ofiset S.L.

Collaborating members

- Emilio Esteban S.A.

CALL 2018

THEMATIC AREA: Rural development / **SUBSECTOR:** Cereals, pulses, oilseeds and forage

AUTONOMOUS COMMUNITIES EXECUTION: Castile and Leon, Castile La Mancha

GRANT AWARDED: € 509.019,20

PROJECT OPERATING PERIOD: July 2018-July 2020

MORE INFORMATION:
Website: https://pionerosecologicos.net/
Mail representative OG: raquel.arroyo@irnasa.csic.es

Summary

ECOPIONET promotes the creation of an organisation of organic extensive arable crop producers through an innovative system of transfer and organisation in which different actors from various fields are integrated to exchange knowledge.

PROJECT OBJECTIVES	OBTAINED RESULTS
Establish an effective organisational system and knowledge transfer network by involving actors with different profiles.	Improving farmers' knowledge of organic production and marketing, agrosystems management and profitable farm management. Enhancement of interaction and knowledge sharing between different stakeholders.
Establishing a PO (Producer Organisation) for organic products, allowing producers to get a higher margin for their products and reduce costs.	Lay the groundwork for the future creation of an organic PO, based on improved knowledge of associationism, to enable farmers to gain more bargaining power and offer consumers healthier, more sustainable, and higher quality products.
Disseminate the results of the project to reach a wide audience (farmers, buyers, public administrations, research centres, technology companies and end users).	Dissemination of project results to a wide range of stakeholders.

Rural Development

PROMINIFUN

Innovative management models to improve smallholder productivity

Beneficiary members

- Fundación Centro de Servicios y Promoción Forestal y de su Industria de Castilla y León (CESEFOR)
- Confederación de Organizaciones de Selvicultores de España (COSE)
- Federación de Asociaciones Forestales de Castilla y León (FAFCYLE)
- Asociación Profesional de Ingenieros de Montes al Servicio de la Hacienda Pública (APIMHP)
- Agresta Sociedad Cooperativa
- Fora Forest Technologies S.L.L.
- Universidad de Vigo (UVigo)

Subcontracted members

- Universidad de Extremadura (UEX)
- Asociación Forestal de León (ASFOLE)
- Asociación Forestal de Zamora (ASFOZA)

CALL 2019

THEMATIC AREA: Rural development / **SUBSECTOR:** Forest

AUTONOMOUS COMMUNITIES EXECUTION: Aragon, Cantabria, Castile and Leon, Castile La Mancha, Chartered Community of Navarre, Community of Madrid, Extremadura, Galicia, Principality of Asturias

GRANT AWARDED: € 584.000,00

PROJECT OPERATING PERIOD: July 2019-July 2021

MORE INFORMATION:
Website: https://minifundio.es/
Mail representative OG: pablo.sabin@cesefor.com

Summary

PROMINIFUN promotes the design of new management models and proposals for the revaluation of potentially productive areas.

PROJECT OBJECTIVES	OBTAINED RESULTS
Digitalisation and design of solutions to improve the management of smallholdings.	Mapping of species suitability and potential, calculation, and valuation of stands through remote sensing supported forest inventory, calculation of economic profitability of stands, UTA and Minimum Management Unit, and calculation of fire risk. Create a platform for managing rural property
Applied innovation for the improvement and effectiveness of existing policies or the design of new management models based on innovation in the social relations of the rural population.	Comparative analysis of pooled management models. Conference on sustainable management, applications, and benefits of pooled management. Characterisation of the ownership structure, Porter's analysis, and adaptation of cluster management models. The development of new groups of landowners and the preparation of management documents and silvicultural references
Collaboration and outreach to rural communities.	Active collaboration and dissemination as tools for knowledge transfer.

Rural Development

SAGEFER
Grupo Operativo de Innovación

SAGEFER

Development and implementation of a forest management support system in RED-SAGEFER

Beneficiary members

- Sistemas de Desarrollo Integral del Territorio S.L.
- Asociación para la Certificación Española Forestal PEFC España
- Federación de Asociaciones Forestales de Castilla y León (FAFCYLE)
- Geodel S.C.
- Centro de Observación y Teledetección Espacial S.A.U. (COTESA)
- Universidad de Santiago de Compostela (USC)
- Asociación de Municipios para el Desarrollo Rural Integral de la Serranía Suroeste Sevillana

Subcontracted members

- Asociación Forestal de Ávila (AFOAV)
- Confederación de Organizaciones de Selvicultores de España (COSE)

Collaborating members

- Diputación Provincial de Ávila (DIPUAV)
- Asociación de Amigos del Parque Natural Los Alcornocales (AAALC)

CALL 2019

THEMATIC AREA: Rural development / **SUBSECTOR:** Forest

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile and Leon, Community of Madrid, Galicia

GRANT AWARDED: € 387.426,25

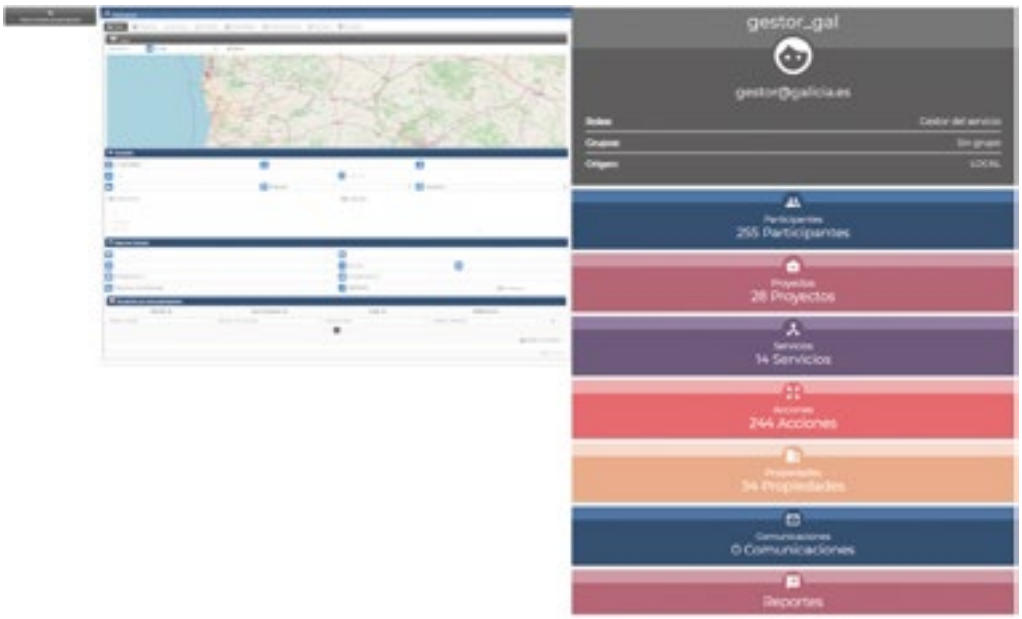
PROJECT OPERATING PERIOD: September 2019-July 2021

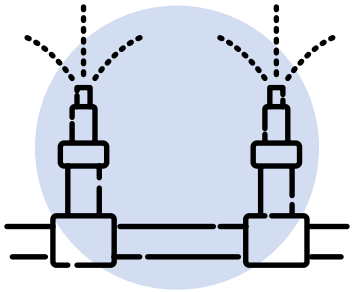
MORE INFORMATION:
Website: https://www.sagefer.org/
Mail representative OG: jesus.martinez@fmc-galicia.com

Summary

SAGEFER promotes the design, development, and implementation of a network of software systems for territorial implementation, which allows the promotion and enhancement of the forest area at the municipal level in Spain, mobilising all the actors of the sector.

PROJECT OBJECTIVES	OBTAINED RESULTS
Development of a model that includes all the elements considered to be key to the integrated development of forest resources in a territory.	Development of the management modules of the SAGEFER model, consisting of the parts of the system related to its operation.
Develop an ad hoc IT tool for the implementation of the model, which will serve as a support to achieve sustainable and integrated management of forest resources in the areas where it will be implemented.	Create a software tool to manage actions, initiatives, projects, or users, as well as to generate reports, manage documents, print maps or access any available data source.
Implement the system in at least 3 areas with different characteristics, improving each of the development indicators previously selected in the model.	Three implementations, three strategic projects in each pilot area and business models in six economic sectors related to forest resources where a business opportunity has been identified.
Plan the structure and actions necessary to enable the transfer and replicability of the project's results.	Drawing up a national replication plan for the solution that has been achieved, tested, and evaluated, which will enable the operational group to promote and implement the system developed throughout Spain.





Irrigation

Source: Tragsamedia. Tragsa Group image bank

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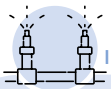


Irrigation

AGRICULTURA DE PRECISIÓN EN REGADÍO Y FERTILIZACIÓN DE CÍTRICOS

Precision farming in citrus irrigation and fertilisation

Beneficiary members

- Asociación Valenciana de Agricultores de Valencia (AVA)
- Asociación Agraria de Jóvenes Agricultores de Málaga (ASAJA)
- Instituto Valenciano de Investigaciones Agrarias (IVIA)
- Centro de Edafología y Biología aplicada del Segura-Centro Superior de Investigaciones Científicas (CEBAS-CSIC)
- Ignacio Puech Suanzes
- Distribuciones de Maquinaria Agrícola y Agroquímicos S.L. (DIMAGRO)
- Hemav Technology S.L.

Subcontracted members

- Universidad Politécnica de Valencia (UPV)
- Instituto de Investigación y Formación Agraria y Pesquera (IFAPA)

CALL 2019

THEMATIC AREA: Irrigation / **SUBSECTOR:** Citrus fruit

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Region of Murcia, Valencian Community

GRANT AWARDED: € 393.300,34

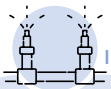
PROJECT OPERATING PERIOD: March 2019-July 2021

MORE INFORMATION:
Mail representative OG: departamento_organizacion@avaasaja.org

Summary

AGRICULTURA DE PRECISIÓN EN REGADÍO Y FERTILIZACIÓN DE CÍTRICOS aims to enhance the efficiency of citrus irrigation and fertilisation by implementing a thorough management service, capturing data through both ground and aerial sensors, processing it using artificial intelligence, and improving fruit quality.

PROJECT OBJECTIVES	OBTAINED RESULTS
Modify both the communal and individual irrigation and fertilisation setups used by citrus growers to facilitate the effective implementation of precision farming technology.	Conditioning of 3 citrus irrigation areas to optimise their hydraulic and energy efficiency to the maximum via a simple methodology that can be replicated by farmers. Implementation of an airborne and ground-based sensor system.
Enhance water and fertiliser usage in citrus production, while boosting the quality and yield of citrus fruits, precision farming technologies are employed via aerial and terrestrial sensing.	Development and implementation of an irrigation and fertiliser recommendation service during the entire fruit cycle using a straightforward and flexible programming approach resulted in considerable enhancements in quality and yield, whilst also reducing input usage.
Revise citrus cultivation plots to modern soil tillage and mulching methods.	Conditioning of 3 citrus-growing regions in relation to new farming and ploughing methods.
Consolidation of an innovation community for Precision Citrus Farming in Spain, serving as a benchmark and cohesive body for innovation and technology transfer in this field.	Dissemination of the findings and outcomes of the innovation project within the Spanish citrus-growing sector.



Irrigation

CEREAL AGUA

Transfer, innovation, and new technologies for more efficient, profitable, sustainable and socially inclusive cereal production in Spain

GRUPO OPERATIVO SUPRAAUTONÓMICO
Cereal·Agua
Sostenibilidad Hídrica y Agronómica de las Cuencas de Cereal

Beneficiary members

- Ambienta Ingeniería y Servicios Agrarios y Forestales S.L.U.
- Universidad de Córdoba (UCO)
- Universidad de Salamanca (USAL)
- Jogosa Obras y Servicios S.L.U.
- Realima S.L.
- Confederación Hidrográfica del Duero

Subcontracted members

- Instituto de Agricultura sostenible. Consejo Superior de Investigaciones Científicas (IAS-CSIC)
- Instituto Andaluz de Investigación y Formación Agraria, Pesquera, Alimentaria y de la Producción Ecológica (IFAPA)
- Asociación Empresarial de Investigación Centro Tecnológico Nacional Agroalimentario Extremadura (CTAEX)
- Sociedad Cooperativa del Alagón – COPAL
- Comunidad de Regantes de la Margen Derecha del Alagón
- Asociación Agraria Jóvenes Agricultores de Córdoba (ASAJA Córdoba)

Collaborating members

- Ayuntamiento de Córdoba
- Confederación Hidrográfica del Guadalquivir

CALL 2019

THEMATIC AREA: Irrigation / **SUBSECTOR:** Cereals

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile and Leon, Extremadura

GRANT AWARDED: € 499.930,00

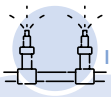
PROJECT OPERATING PERIOD: May 2019-July 2021

MORE INFORMATION:
Website: https://cerealagua.es/gos-cereal-agua
Mail representative OG: alvarojulian@gmail.com

Summary

CEREAL AGUA addresses the hydrological, agronomic, environmental, climatic, social and economic challenges associated with these crops through technology transfer in three designated pilot areas.

PROJECT OBJECTIVES	OBTAINED RESULTS
Achieving sustainable cereal cultivation entails addressing the challenges of conserving and protecting soil, saving water, integrating into the landscape, enhancing ecosystem services, adding value, and adapting to climate change.	Improve water savings and erosion protection in cereal-growing regions. Improve and quantify the added value of agro-ecosystems.
Improve cereal cultivation to enhance profitability and meet the demands of evolving global markets and policies. Catalyst for better social integration of young people and women in rural employment.	Enhance the profitability of crop production and encouraging the inclusion of young individuals and women in employment opportunities within areas of cereal cultivation.
Review of alternative options for cereal cultivation in rural areas and their integration with other cross-cutting networks in the region.	Integration with H2020, LIFE and other Operational Groups.



Irrigation

EFFIREM

Reducing sugar beet irrigation energy costs via enhanced energy efficiency and reduced water consumption

Beneficiary members

- Asociación de Investigación para la Mejora del Cultivo de la Remolacha Azucarera (AIMCRA)
- Moval Agroingeniería S.L.
- INEA-Escuela Universitaria de Ingeniería Técnica Agrícola (EUITA)
- Audit Irrigation S.L. (Universidad del Riego)
- Encore Lab S.L.
- Agroteo S.A.
- Explotaciones Agrícolas Valjimeno S.L.
- Juan Manuel Corrales Martín

Subcontracted members

- Idasi S.L.
- Sistemas de Riego Solar S.L.
- Agrisat S.L.
- Efi-Riego
- Rosa María Rodríguez González
- Arnedo y Belmonte Ingeniería e Innovación S.L.
- 8 Profesores para cursos presenciales AUDIT
- 10 Profesores para cursos presenciales INEA

Collaborating members

- Confederación Hidrográfica del Duero
- Recursos Naturales de Castilla y León S.L.

CALL 2020

THEMATIC AREA: Irrigation / **SUBSECTOR:** Beetroot

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile and Leon

GRANT AWARDED: € 540.166,20

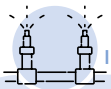
PROJECT OPERATING PERIOD: March 2021-March 2023

MORE INFORMATION:
Website: www.effirem.org
Mail representative OG: e.rosique@aimcra.es

Summary

EFFIREM encourages farmers to implement innovative measures to reduce irrigation energy expenses and water usage. This guarantees the sugar beet sector's sustainability and competitiveness.

PROJECT OBJECTIVES	RESULTADOS OBTENIDOS
Improve crop yields by correctly applying irrigation techniques, while also decreasing farmers' reliance on irrigation.	Improved beet yields for 2022.
Decrease the energy expenditure of irrigating sugar beet crops by enhancing water usage efficiency and the energy expended in disseminating it.	A decrease in the energy cost of irrigation ranging between 40% and 60% was observed in the Marchena (Se), Palaciosrubios (Sa) and Rueda (Va) demonstrators.
Improve the accessibility of information and its transfer to farmers and technicians through targeted and modular courses.	Training courses, technical seminars, and visits to demonstrations. Resource library available on the web.
Develop a web platform that integrates the gathered information.	Creation of an integrated web platform to connect farmers, companies, and institutions, facilitating access to services related to water and energy conservation. The platform will enable the companies to offer farmers their specialised expertise.



Irrigation

INNOWATER

Modernising irrigated orchards to improve water and energy use

Beneficiary members

- Moval Agro ingeniería S.L.
- Comunidad de Regantes Foia del Pou
- Federacio Cooperatives Agroalimentàries de la Comunitat Valenciana (FECOAV)
- Universidad Miguel Hernández de Elche (UMH)
- Universidad Politécnica de Valencia (UPV). Departamento de Economía y Ciencias Sociales (DECS)

Subcontracted members

- Dr. Ricardo Suay Cortés, Doctor Ingeniero Agrónomo

Collaborating members

- Universidad de Almería (UAL). Grupo de Investigación AGR-224. Sistemas de cultivo hortícolas intensivos

CALL 2019

THEMATIC AREA: Irrigation / **SUBSECTOR:** Fruit trees

AUTONOMOUS COMMUNITIES EXECUTION: Community of Valencia, Region of Murcia

GRANT AWARDED: € 301.504,39

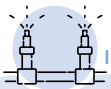
PROJECT OPERATING PERIOD: July 2019-July 2021

MORE INFORMATION:
Website: https://goinnowater.org/
Mail representative OG: mmora@moval.es

Summary

INNOWATER promotes the improvement of water and energy use efficiency at the plot level by defining a system of management indicators and applying comparative analysis to extract value from shared macro data.

PROJECT OBJECTIVES	OBTAINED RESULTS
Propose solutions for the measurement, comparison and continuous improvement of water and energy use efficiency at plot level.	Document identifying the problems to be solved, requirements and specifications for the software derived from the participatory co-creation workshops. A report of fact sheets on good practices that respond to the problems and needs that have been identified.
Develop and test a computer programme for calculating and comparing the efficiency of water and energy use at plot level for the Foia del Pou irrigation community, applied to the cultivation of fruit trees under localised irrigation.	Analysis and comparison of data from previous and current campaigns, identification of inefficiencies and improvements in indicators with changes in cultural practices and incorporation of energy generated from solar panels
Promote the transfer of this management tool to other crops, other geographical areas, and other irrigation systems.	Train managers and users to use the tool. Results of the project presented at national and international conferences, congresses and dissemination and scientific publications



Irrigation

SUBALMA

Improving productivity and sustainability of underground drip irrigation systems utilising olive oil mill waste as fertiliser through nanobubble implementation

Beneficiary members

- Sistema Azud S.A.
- Agencia Estatal Consejo Superior de Investigaciones Científicas (CSIC)
- S. Coop. Andaluza San Isidro Labrador
- Evergrant Gestión de Proyectos S.L.
- Diputación Provincial de Jaén
- Centro Provincial Jóvenes Agricultores de Jaén (ASAJA Jaén)

Subcontracted members

- Suroliva 2000 S.L.
- Agrosolmen S.L.

CALL 2020

THEMATIC AREA: Irrigation/ **SUBSECTOR:** Olive trees

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Region of Murcia

GRANT AWARDED:€ 564.758,11

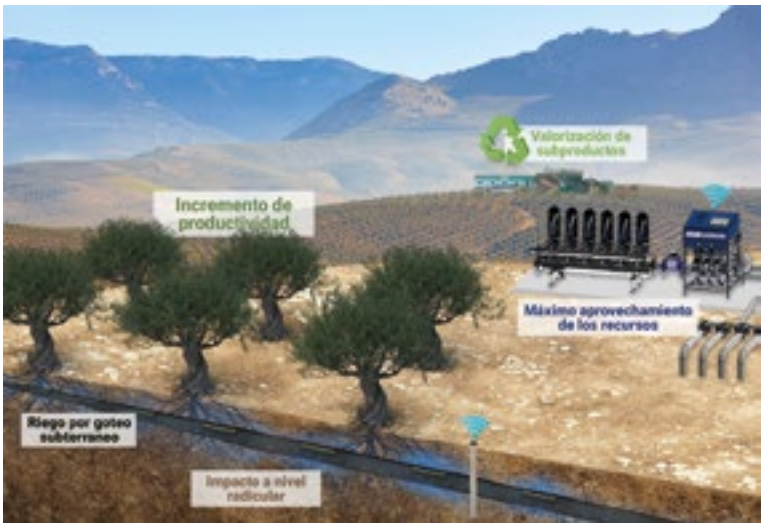
PROJECT OPERATING PERIOD: January 2021-March 2023

MORE INFORMATION:
Website: https://www.subalma.com/
Mail representative OG: ltornel@azud.com

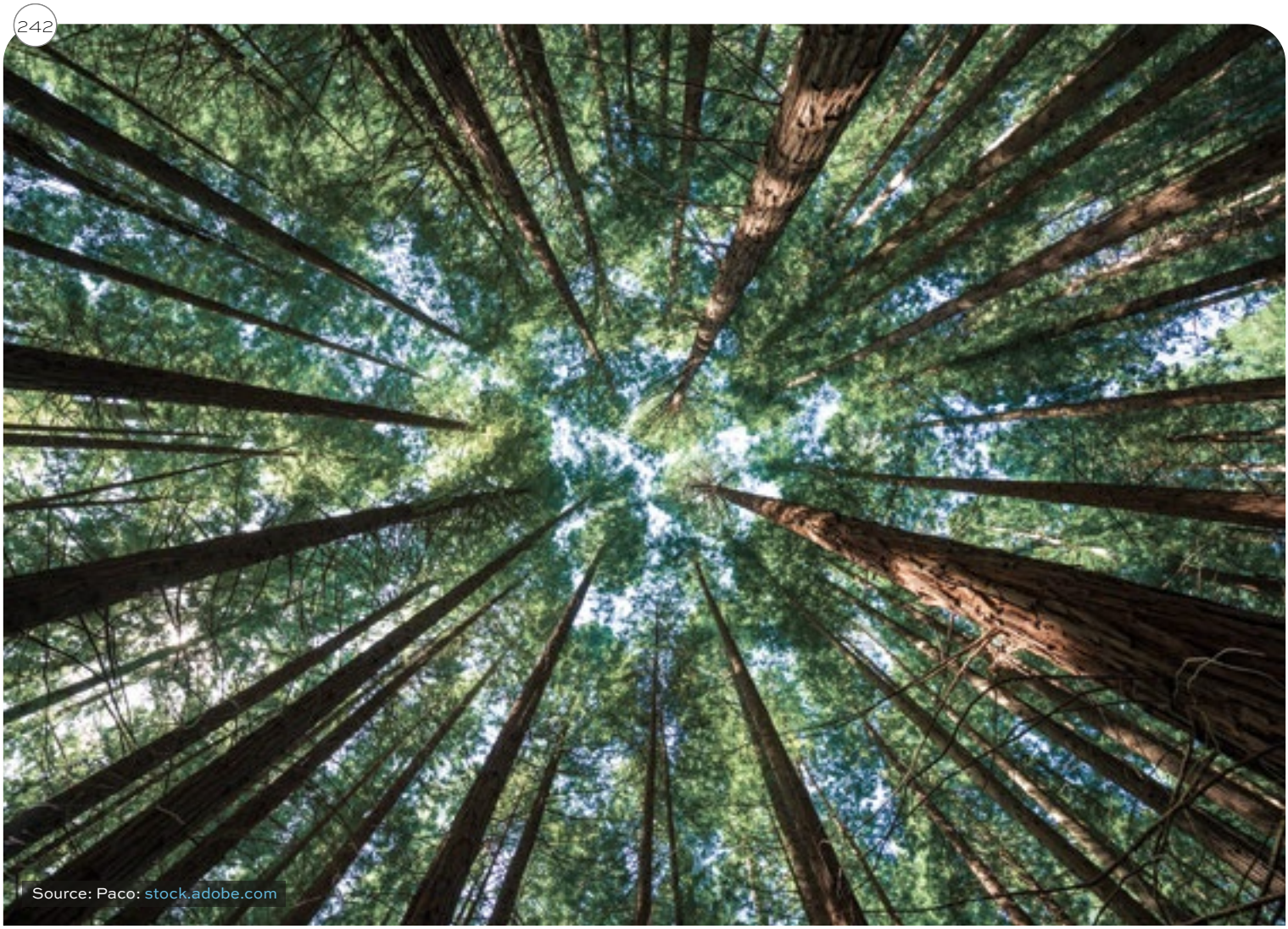
Summary

SUBALMA aims to foster sustainability in the olive grove industry by adopting models that enable producers to maximize resource usage and achieve greater profitability. By using the liquid by-product of the olive mills as a fertiliser through underground drip irrigation (UDI), gains traction towards a more resilient agriculture that combats the impact of climate change.

PROJECT OBJECTIVES	OBTAINED RESULTS
Create an avant-garde method rooted in the circular economy, enabling significant enhancement of ecological practices and competitiveness for olive oil mills.	Efficient use of the liquid by-product generated during olive oil production and its nutritional value from washing olives can help reduce synthetic fertiliser use. Increase in water allocation for irrigation. Maintenance of system performance while maximising autonomy. Conversion of waste into a valuable resource, thus eradicating the need for waste management and its related expenses. Positive impact on consumer perception of the final product, resulting in increased profitability.
Promote and standardise the upgrade of irrigation systems, boosting olive cultivation productivity and advocating for the use of by-products instead of synthetic fertilisers to enhance resource efficiency.	Underground drip irrigation (UDI) results in a favourable change in root system morphology, improved water distribution patterns, an increase in available soil volume, and 4% higher fruit fat yield in a more economical and sustainable manner.
Transfer expertise and knowledge to the agricultural industry via demonstration plots, advocating for the widespread adoption of this groundbreaking methodology that boosts crop yields in an environmentally sustainable manner.	Proposals for end-user actions to develop circular economy business models. Disseminating the project findings through publication on social media and technical platforms as well as hosting training workshops and technical conferences.



Forestry



Source: Paco: stock.adobe.com

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Forestry

ACREMA

Adaptation of the production of resin to the stands of *Pinus pinaster* for the production of timber

Beneficiary members

- Agencia Gallega de Calidad Alimentaria (AGACAL)
- Consejo Superior de Investigaciones Científicas (CSIC)
- Fundación Centro Tecnológico Forestal y de la Madera (CETEMAS)
- Universidad de Santiago de Compostela (USC)
- Rincón de La Vega S.A.L.
- Sinergias Sostenibles Resiforest S.L. (FORESIN)

Collaborating members

- Asociación Asturiana de Empresarios Forestales de la Madera y el Mueble (ASMADERA)
- Asociación Nacional para la Reorganización y Defensa del Sector Resinero
- Federación Empresarial de Serradoiros e Rematantes de Galicia (FEARMAGA)
- Sociedad de Resinas Naturales S.L.

CALL 2020

THEMATIC AREA: Forestry / **SUBSECTOR:** Resin

AUTONOMOUS COMMUNITIES EXECUTION: Castile and Leon, Galicia, Principality of Asturias

GRANT AWARDED: € 558.710,55

PROJECT OPERATING PERIOD: February 2021-Mach 2023

MORE INFORMATION:
Website: https://acrema.es/
Mail representative OG: erikamc@foresin.es

Summary

ACREMA promotes the increase in productivity of pine stands through the integration of an innovative resin use that allows to obtain the highest quality resin while maintaining its sustainability resin of the highest quality while maintaining the sustainability of the stands.

PROJECT OBJECTIVES	OBTAINED RESULTS
Resin extraction system innovation and optimisation.	Develop closed resin extraction methods, considering species, location, extraction method and stimulant paste used.
Search for stimulating eco-pastes that are compatible with an ecological production system.	Procurement of many stimulants for use in resin production improvement trials.
Increase in competitiveness through the differentiation of a high-quality product that is able to compete on the international market.	Determine the key parameters that will allow the resin to be classified according to its quality.
Compatibility of producing resin with producing quality structural timber.	Obtain data to show that the management models proposed for the development of a resin activity do not affect the structural characteristics of the wood and that both uses can be compatible with the consequent economic benefit to the owner.
Identify and quantify the positive externalities associated with resin harvesting.	Identify and quantify positive externalities: increased forest fire monitoring and prevention, substitution of petroleum derivatives with renewable bio-products, contribution to rural population growth and job creation.
Design and development of a software tool to support decision making.	Develop decision support system comprising interactive simulator with production models and website with auxiliary variables and resin production maps.
Technology transfer and innovation generated by the project will professionalise the resin sector.	Transfer and disseminate the knowledge generated by the project via the web (www.acrema.es).

Forestry

BIOPOPTECH

Promoting poplar cultivation and cascading poplar into high value technological products

BIOPOPTECH
Grupo operativo

Beneficiary members

- Fundación Centro de Servicios y promoción Forestal y de su Industria de Castilla y León (CESEFOR)
- Grupo Garnica Plywood S.A.U.
- Bosques y Ríos SLU
- Asociación Española de Fabricantes de Tablero Contrachapado (AEFCON)
- Asociación para la Certificación Española Forestal (PEFC España)
- Madera Plus Calidad Forestal S.L.
- Tabsal SCL S.L.
- Fora Forest Technologies S.L.L.

Subcontracted members

- Universidad de Santiago de Compostela (USC)
- Universidad de Granada (UGR)
- Universidad de Valladolid (UVA)
- Federación de Asociaciones Forestales de Castilla y León (FACYLE)

Collaborating members

- Junta de Castilla y León
- Gobierno de Navarra

CALL 2022

THEMATIC AREA: Forestry / **SUBSECTOR:** Black poplar

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile and Leon, Chartered Community of Navarre, Galicia, La Rioja

GRANT AWARDED: € 596.871,76

PROJECT OPERATING PERIOD: November 2022-February 2025

MORE INFORMATION:
Website: https://gobiopoptech.es
Mail representative OG: raquel.puntero@cesefor.com

Summary

BIOPOPTECH is promoting an innovative study of 45 poplar plots (15 clonal + 30 productive) to optimise the yield of different wood products (LSL, plywood) depending on the clone and other variables, and to develop ICT to optimise and promote the resource.

PROJECT OBJECTIVES	EXPECTED RESULTS
Determine clonal, environmental and dendrometry influences on poplar technological quality.	Identify potential clones to use in Spain based on environmental characteristics.
Optimise the use of the resource based on a correct characterisation of the raw material in the production-transformation chain.	New clonal optimising system for mechanical characterisation of plywood and LSL (Laminated Strand Lumber) in different clones.
Integrate the ICT results for the technological allocation of poplar wood and optimising the use of the resource.	Mobile ICT tools for mapping the quality of the technology and a web-based visualisation tool for landowners to plant the most suitable clone in each area.
Promote poplar plantations and optimising their economic performance by incorporating sustainable forestry certification.	Group certification of sustainable forestry for small poplar growers and developing the 'Thank the Poplar' scheme.

Forestry

BOSQUES 3.0

Sustainable use, biodiversity, and resilience
of Spanish forests through digitalisation and remote sensing

Beneficiary members

- Asociación para la Certificación Española Forestal (PEFC España)
- Agresta Sociedad Cooperativa
- Inca Ingeniería del Medio S.L.
- Entidade Galega Solicitante da Certificación Forestal (EGS)
- Pradifir S.L.

Subcontracted members

- Universidad de Oviedo

Collaborating members

- Entidad Aragonesa Solicitante de la Certificación Forestal (PEFC- ARACERT)
- ENCE, Energía y Celulosa S.A.
- Dirección General de Infraestructuras Rurales y Montes - Consejería de Medio Rural y Cohesión Territorial - Principado De Asturias

CALL 2022

THEMATIC AREA: Forestry / **SUBSECTOR:** Sylviculture

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Aragon, Basque Country, Cantabria, Castile and Leon, Castile La Mancha, Catalonia, Chartered Community of Navarre, Community of Madrid, Extremadura, Galicia, La Rioja, Principality of Asturias, Region of Murcia, Valencian Community

GRANT AWARDED: € 352.139,20

PROJECT OPERATING PERIOD: January 2023-February 2025

MORE INFORMATION:
Website: https://www.pefc.es/que-hacemos/nuestro-impacto-colectivo/nuestros-proyectos/GO-bosques-3-0
Mail representative OG: pefc@pefc.es

Summary

BOSQUES 3.0 promotes the creation of new IT tools for managing and improving Spanish forests in a sustainable way. Digitalisation and registration of forest areas, remote sensing of national land cover changes and strengthening of forest industry links.

PROJECT OBJECTIVES	EXPECTED RESULTS
Digitising and registering the national forest area to ensure sustainable management for the intended users.	Integral tool for managing and monitoring the certification process, integrating digital mapping of certified areas, and providing automatic characterisation.
A system for detecting modifications in vegetation through remote sensing techniques to boost forest durability, diversity, and sustainable usage.	Cloud technology has been used to implement an image processing chain, which includes change mapping. The platform provides remote sensing information and offers the most recent updated image based on Sentinel 2.
Enhancing and enhancing the value chains of forests and forest products. Enhancement of social and economic aspects.	Coordination among stakeholders, development of the forest industry, and creation of the 'Open Forests' online platform for real-time visualisation of sustainably managed forests.

Forestry

ChainWood
Blockchain for Inmutable Timber

CHAINWOOD

Development and implementation plan for a distributed software system for the forest industry supply chain

Beneficiary members

- Sistemas de Desarrollo Integral del Territorio S.L.
- Fundación Corporación Tecnológica de Andalucía
- Federación de Asociaciones Forestales de Castilla y León (FAFCYLE)
- Emergya Ingeniería S.L.
- Fundación Centro tecnológico Forestal y de la Madera (CETEMAS)
- Maderas Siero S.A.
- Accuro Technology S.L.
- Cluster da Madeira e o Deseño de Galicia

Subcontracted members

- Indra Sistemas S.A.
- Risutec Ltd.
- Asociación para la Certificación Española Forestal (PEFC España)

Collaborating members

- Greenalia Forest S.L.
- Financiera Maderera S.A.
- ENCE S.A.
- Garnica S.A.

CALL 2018

THEMATIC AREA: Forestry / **SUBSECTOR:** Wood

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile and Leon, Community of Madrid, Galicia, Principality of Asturias

GRANT AWARDED: € 539.000,00

PROJECT OPERATING PERIOD: July 2018-July 2020

MORE INFORMATION:
Website: https: //www.chainwood.eu/
Mail representative OG: jesus.martinez@fmc-galicia.com

Summary

CHAINWOOD promotes the development of a system that makes it possible, with guarantees of security and confidentiality, to manage and follow the flow of wood from its points of production to its delivery to the wood industry for universal public use.

PROJECT OBJECTIVES	OBTAINED RESULTS
Design and develop a modular software system, based on the blockchain group of technologies, to facilitate traceability and timber transactions between different actors.	Improve transactions, quality, and timber management by creating a blockchain-based software system accessible to all stakeholders in the chain.
Define an operational and governance model for the system that encourages its use by the various stakeholders, based on guarantees of security in data management, efficiency in operation and scalability in application.	Design and develop the governance protocol and operation of the system, definition of the different roles of the stakeholders involved, data management, maintenance, and improvement of the system.
Gradual implementation of the system in the different supply chains in Spain, starting with Galicia, Asturias, and Castile and Leon .	Carry out three supply chain pilots in the participating members' regions (Galicia, Asturias, and Castile and Leon).

Forestry

ESJARA

Rockrose essential oil for rural bioeconomy development

Grupo Operativo ESjara

Beneficiary members

- Fundación Centro de servicios y Promoción Forestal y de su Industria de Castilla y León (CESEFOR)
- Centro de Investigaciones Energéticas Medioambientales y Tecnológicas (CIEMAT)
- Agresta Sociedad Cooperativa
- Biolandes Andalucía S.A.
- El Jarpil S.L.
- Federación de las Asociaciones Forestales de Castilla y León (FAFCYLE)
- Rooteco Agriculture S.L.

Subcontracted members

- Asociación Forestal de Zamora
- Asociación Forestal de Burgos
- Federación Española de la Dehesa

Collaborating members

- Junta de Castilla y León
- Dirección General de Medio Natural y Biodiversidad de Castilla-La Mancha

CALL 2022

THEMATIC AREA: Forestry / **SUBSECTOR:** Sylviculture

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile and Leon, Castile La Mancha, Extremadura

GRANT AWARDED: € 599.820,49

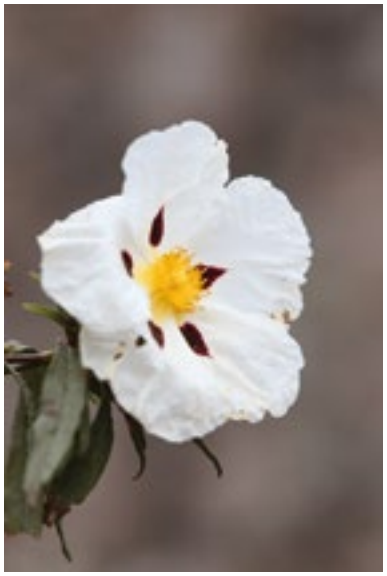
PROJECT OPERATING PERIOD: January 2023-March 2025

MORE INFORMATION:
Website: https://goesjara.es/
Mail representative OG: raquel.puntero@cesefor.com

Summary

ESJARA promotes the development of the potential for the extraction of rockrose derivatives, in particular essential oils, through the active management of *Cistus ladanifer* and *Cistus laurifolius scrublands*, extending the activity to new areas that are currently abandoned and modernising their harvesting to generate economic returns for their owners and contribute to the fight against climate change through sustainable forest management and fire prevention.

PROJECT OBJECTIVES	EXPECTED RESULTS
Identify the potential of jarales for essential oil production in 5 pilot areas.	Precise mapping of vine biomass/exudates/essential oils and a tool for predicting optimal harvesting times.
Develop innovative solutions to bring new areas into production by managing the resource using mechanised harvesting.	Optimisation of the logistics chain based on technological solutions for the extraction of essential oils and the development of a digital tool to manage the harvest, logistics and traceability of raw materials, ESjaraQR, to reduce costs.
Develop new applications for rockrose essential oils and by-products, providing new uses, added value and value chain circularity.	Recovery and characterisation of products from waste.
Create a business model focused on the end user, incorporating innovation, and allowing the development of harvesting activities in new areas of the national territory.	Landowner groups and plans for the exploitation of rockrose in the comarcas.
Collaboration, transfer, and dissemination of value-added opportunities to rural communities.	Knowledge transfer tools: active collaboration and project management.



Forestry

FAGUS

Adding value to beech by innovating and improving the competitiveness of its forest-based value chain

GO FAGUS

Beneficiary members

- Asociación de Empresarios de la Madera de Navarra (ADEMAN)
- Agresta S.Coop.
- Fora Forest Technologies S.L.L.
- Fundación Centro de Servicios y promoción Forestal y de su Industria de Castilla y León (CESEFOR)
- Fundación Centro Tecnológico Forestal y de la Madera (CETEMAS)
- Fundación Hazi Fundazioa
- Madera Plus Calidad Forestal S.L.

Subcontracted members

- Fundación General de la Universidad de Valladolid (FUNGE-UVA)
- Instituto de Educación Secundaria Murgia BHI
- Universidad de Santiago de Compostela (USC)

Collaborating members

- Dirección General de Biodiversidad de la Consejería de Sostenibilidad y Transición Ecológica del Gobierno de la Rioja
- Servicio de Montes y Gestión de Hábitats de la Diputación Foral de Gipuzkoa
- Gobierno de Navarra
- Diputación Foral de Álava. Servicio de Montes

CALL 2020

THEMATIC AREA : Forestry / **SUBSECTOR:** Wood

AUTONOMOUS COMMUNITIES EXECUTION: Basque Country, Cantabria, Castile and Leon, Community of Madrid, Principality of Asturias, Valencian Community

GRANT AWARDED: € 562.446,82

PROJECT OPERATING PERIOD: January 2021-March 2023

MORE INFORMATION:
Website: https://Gofagus.es/
Mail representative OG: Agresta@Agresta.org

Summary

FAGUS promotes the revaluation of beech wood through innovation in forest management and the technologisation of product classification and characterisation, thus creating a local bioeconomy.

PROJECT OBJECTIVES	OBTAINED RESULTS
Improving the management of beech forests.	A nationally representative sample of beech stands will be quantitatively inventoried and surveyed.
Provide owners, managers, and loggers with innovative tools to economically exploit beech forests.	Development of tools for the calculation and classification of beech wood volumes according to the morphological characteristics of the standing tree, based on the use of airborne and terrestrial LiDAR and photogrammetry.
Implement industry validated grading technologies and standards for the different products in the forest industry value chain.	Standardise potential beech wood qualities according to desired products along the forest industry value chain.
Develop a new LVL structural product in beech veneer.	Create a new beech LVL product for use in structures.
Create a trans-regional Roundtable for the Beech Tree, including all stakeholders in the value chain.	Develop of an interregional beechwood promotion round table with the various stakeholders.

Forestry

FUNGIGO

Pilot model of intelligent mycological parks: A sustainable dedication to social inclusion in rural regions of Aragon and Castile and Leon

Beneficiary members

- ECM Ingeniería Ambiental S.L.
- Centro de Investigación Tecnológica Agroalimentaria (CITA)
- Artículo 1 Consultores S.L.
- Salarca Sociedad Cooperativa de Iniciativa Social
- TRUFBOX Innovation S.L.

Subcontracted members

- Garrapo S.L.

Collaborating members

- Ayuntamiento de Candelario
- Diputación de Palencia
- Diputación Foral de Bizkaia. Dirección de Agricultura Servicio de Montes
- Fundación General de la Universidad de Valladolid (FUNGE)
- Instituto Europeo de Micología (EMI)
- Bosque Modelo Palencia
- Entidad local Comunidad histórica Albarracín

CALL 2019

THEMATIC AREA: Forestry / **SUBSECTOR:** Mushrooms

AUTONOMOUS COMMUNITIES EXECUTION: Aragon, Castile and Leon

GRANT AWARDED: € 524.503,71

PROJECT OPERATING PERIOD: November 2019-May 2021

MORE INFORMATION:
Website: https://www.fungigo.es
Mail representative OG: info@ecmingenieriaambiental.com

Summary

FUNGIGO advocates developing a Smart Mycological Parks pilot model to promote inclusive rural development through sustainable wild mushroom practices that protect the environment and support economic growth.

PROJECT OBJECTIVES	OBTAINED RESULTS
Ensuring the mycological resource is environmentally sustainable throughout its journey from the forest to commercialisation.	Model of integrated management plan for mycological exploitation and implementation of the Smart Mycological Park in the Sierra de Candelario (Salamanca).
Develop a training programme for job readiness and a support framework for inclusive entrepreneurship, leveraging the comprehensive use of mycological resources.	Implementation of a programme to provide training and job opportunities, as well as a programme to support inclusive entrepreneurship.
Ensure clarity and conciseness in promoting mycotourism.	Develop mycotourism routes, creation of intelligent fungal kits, and execution of a marketing plan.
Streamline the legal framework governing wild mushroom trade and implement ICT solutions to enhance their visibility, value, traceability, legality, employability, and commercial viability.	Pilot scheme for creating a smart legal framework and devising new technologies and methods using data science to apply in the mushroom industry.

Forestry

GENMAC

Sustainable supply of high-quality coniferous timber through genetic resources

Beneficiary members

- Empresa de Transformación Agraria, S.A., S.M.E., M.P. (TRAGSA)
- Viveros Fuenteamarga S.L.
- Confederación de Organizaciones de Selvicultores de España (COSE)
- Cluster da Madeira e o Deseño de Galicia (CMD)
- Instituto Vasco de Investigación y Desarrollo Agrario S.A. (NEIKER)
- Misión Biológica de Galicia, Consejo Superior de Investigaciones Científicas (MBG-CSIC)
- Agencia Gallega de la Calidad Alimentaria (AGACAL)

Subcontracted members

- Universidad de Vigo (UVigo)

Collaborating members

- Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA)

CALL 2018

THEMATIC AREA: Forestry / **SUBSECTOR:** Conifers for timber

AUTONOMOUS COMMUNITIES EXECUTION: Basque Country, Castile and Leon, Community of Madrid, Extremadura, Galicia, Principality of Asturias

GRANT AWARDED: € 537.357,04

PROJECT OPERATING PERIOD: July 2018-August 2020

MORE INFORMATION:
Website: https://mejormaderadecalidad.es/
Mail representative OG: lluquero@tragsa.es

Summary

GENMAC promotes the improvement of the competitiveness of the forestry sector through the best use of genetic resources and available forest information, ensuring a stable and sustainable supply of quality wood to the industry.

PROJECT OBJECTIVES	OBTAINED RESULTS
Evaluate and adapt the results of breeding programmes to current, medium and long-term needs for the sustainable production of high-quality raw materials for industry and forest owners.	Determine the needs of the timber industry and Forest Reproductive Material (FRM) producers and assess the status of national breeding programmes and the Basic Materials (BM) of other programmes that may be of interest to pine wood production forestry. Characterisation and re-evaluation of BMs relevant to sawtimber quality for tolerance to pests, diseases and abiotic factors and vegetative propagation capacity using innovative methodologies. Determination of recommended use zones for some highly productive pine BMs.
Depending on the needs identified, adapt and articulate seed and plant production systems according to the different types of forestry and the territorial areas to be considered, incorporating new technologies and ensuring supply.	Market improved FRMs, ensuring supply of seed and vegetative propagules for the forest types and areas concerned.
Efficient use of FRMs through demonstration.	Establishment of experimental plots to demonstrate the results of improvement. Facilitating the sector's access to new FRMs.

Forestry

GOSSGE

Survey and control of the eucalyptus pest Gonipterus in Galicia, Asturias and Cantabria

Gossge
grupo operativo gonipterus

Beneficiary members

- Asociación Española de Fabricantes de Pasta, Papel y Cartón (ASPAPEL)
- Centro Tecnológico Forestal y de la Madera (Fundación CETEMAS)
- Confederación de Organizaciones de Selvicultores de España (COSE)
- Ence Investigación y Desarrollo S.A.U.
- Adra Ingeniería y Gestión del Medio S.L.P.
- Asociación Sectorial Forestal Galega (ASEFOGA)
- Galca Solucions Habitacionais S.L.

Subcontracted members

- Información e Imagen. Análisis de Medios S.L.
- Universidad Politécnica de Madrid (UPM)
- Agrícolas Ingenieros Pravia C.B.
- Empresa Pública Sociedad de Servicios del Principado de Asturias S.A. (SERPA)

Collaborating members

- Consejería de Medio rural, Pesca y Alimentación. Dirección General del Medio Natural-Gobierno de Cantabria
- Conselleria Do Medio rural-Xunta de Galicia
- Consejería de Desarrollo rural y Recursos naturales-Principado de Asturias
- Departamento de Sostenibilidad y Medio Natural de la Diputación Foral de Bizkaia

CALL 2018

THEMATIC AREA: Forestry / **SUBSECTOR:** Eucalyptus

AUTONOMOUS COMMUNITIES EXECUTION: Cantabria, Galicia, Principality of Asturias

GRANT AWARDED: € 581.157,08

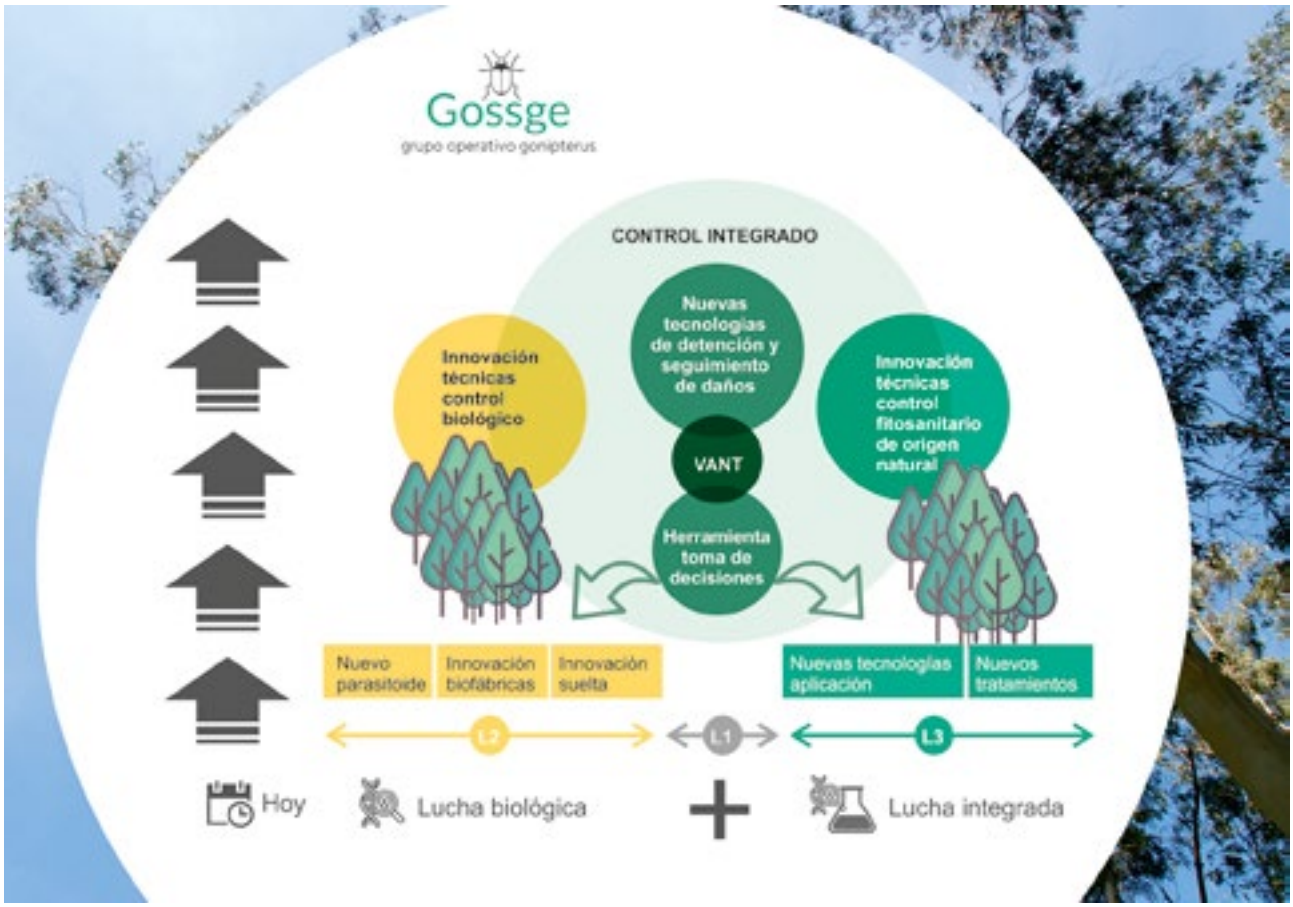
PROJECT OPERATING PERIOD: July 2018-July 2020

MORE INFORMATION:
Website: https://ec.europa.eu/eip/agriculture/en/find-connect/projects/gossge-grupo-operativo-sobre-la-sanidad-del
Mail representative OG: administracion@aspapel.es

Summary

GOSSGE aims to bring together those affected, create new ways to diagnose damage, involve property owners and detection managers, use innovative control methods, improve biological control techniques and share our findings.

PROJECT OBJECTIVES	OBTAINED RESULTS
Innovative methods to detect pest levels are currently under development.	Interconnected protocols can enhance the pest situation diagnosis and the necessary measures to be taken to curb it.
Advancements in biological pest management techniques.	Controlling and increasing the parasitism rate and improving the seasonal stability of oviposition. Effective methodology and knowledge sharing to enhance production capacity.
Advanced methods for regulating pests using natural substances or those compatible with integrated pest management.	Development of new application systems: VANT versus ground application. Comparison of traditional versus innovative VANT techniques.



Forestry

IMAI

Identifying timber using mobile devices

Beneficiary members

- Universidad Politécnica de Madrid (UPM)
- Universidad de Granada (UGR)
- Asociación Española del Comercio e Industria de la Madera (AEIM)

Subcontracted members

- Everyware Technologies S.L.
- Donosti Frame
- Fundación Descubre
- José Luis Fermosel Álvarez

CALL 2020

THEMATIC AREA: Forestry / **SUBSECTOR:** Wood

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Community of Madrid

GRANT AWARDED: € 331.548,65

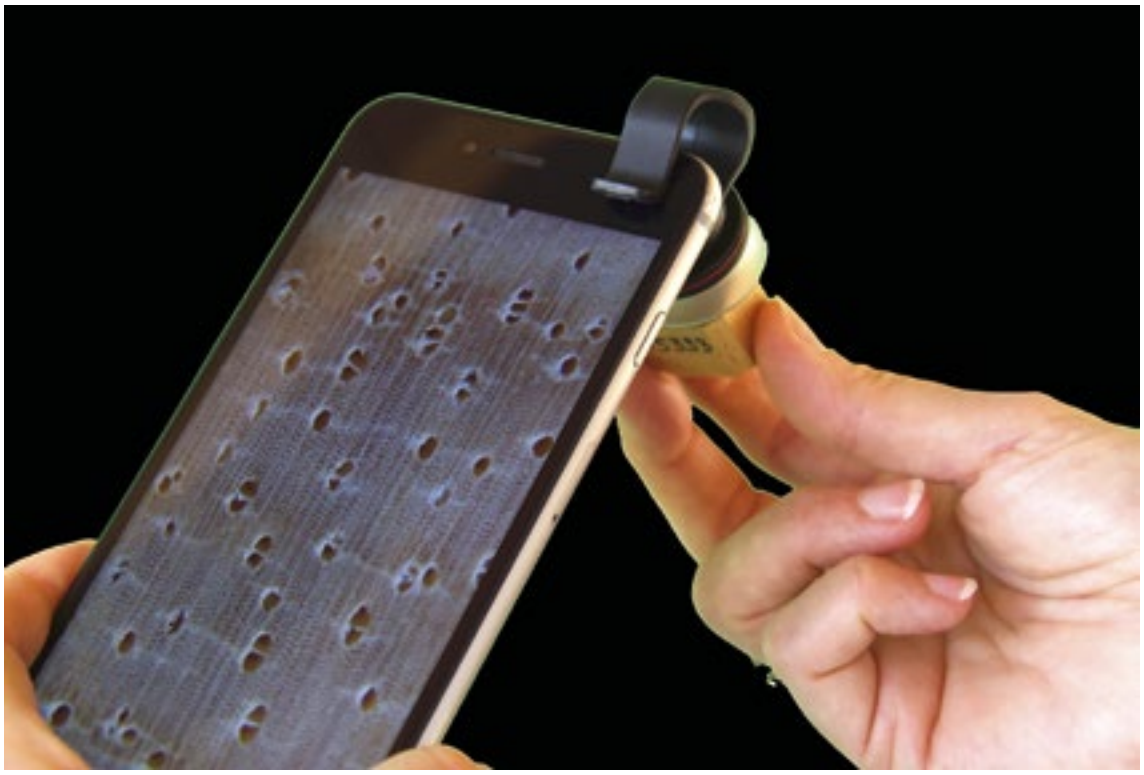
PROJECT OPERATING PERIOD: November 2020-March 2023

MORE INFORMATION:
Website: www.goimai.es
Mail representative OG: paloma.depalacios@upm.es

Summary

IMAI promotes the development of an application for Android and IOS for the identification of wood by artificial intelligence (deep learning) through images obtained with magnifying glasses of 24, 100, 200 and 400 magnifications coupled to a mobile phone.

PROJECT OBJECTIVES	OBTAINED RESULTS
Carry out a diagnosis of the wood industry in Spain to select the woods that can be part of the national and international trade.	Report on the diagnosis of the wood industry in Spain and selection of the species included in the project.
Creation of a database of 400 commercial wood species.	Creation of a database of information and macroscopic photographs with magnifying glasses of different magnifications of more than 400 commercial wood species, including CITES species.
Optimisation of wood identification models for selected species database using deep learning algorithms.	Develop and optimise different deep learning algorithms for wood identification.
Integrate the deep learning model into mobile software platforms.	Deploy a native app on Android and iOS to integrate the deep learning model and provide an easy-to-use interface for the app interacting with the model.



Forestry

INNOBANDAS

INNOBANDAS

Cantabria, Chartered Community of Navarre, and the Basque Country: innovative health project on pine needle strips

Beneficiary members

- Asociación Baskegur
- Foresna-Zurgaia
- Asociación Cántabra de Empresarios de la Madera y del Comercio del Mueble (ACEMM)
- Galca Solucions Habitacionais S.L.
- Fundación Hazi Fundazioa

Subcontracted members

- NEIKER-Instituto Vasco de Investigación y Desarrollo Agrario S.A.
- Basoekin S.L.

Collaborating members

- Asociación Española de Fabricantes de Pasta, Papel y Cartón (ASPAPEL)
- Diputación Foral de Álava
- Departamento de Sostenibilidad y Medio Natural de la Diputación Foral de Bizkaia
- Diputación Foral de Gipuzkoa.
- Dirección General de Medio Natural de la Consejería de Medio Rural, Pesca y Alimentación de Cantabria (DGMN Cantabria)
- Departamento de Desarrollo Rural, Medio Ambiente y Administración Local del Gobierno de Navarra

CALL 2018

THEMATIC AREA: Forestry / **SUBSECTOR:** Pines

AUTONOMOUS COMMUNITIES EXECUTION: Basque Country, Cantabria, Chartered Community of Navarre

GRANT AWARDED: € 413.450,00

PROJECT OPERATING PERIOD: July 2018-July 2020

MORE INFORMATION:
Website: https://ec.europa.eu/eip/agriculture/en/find-connect/projects/grupo-operativo-innobandas-proyecto-innovador-de
Mail representative OG: info@baskegur.eus

Summary

INNOBANDAS promotes the use of innovative techniques to provide a sustainable solution to the health problem known as 'needle banding', which is progressively and increasingly affecting pine stands.

PROJECT OBJECTIVES	OBTAINED RESULTS
Test the effectiveness in our forests of innovative techniques used in New Zealand and Chile, as well as those developed by our research centres to control needle streaks.	After the trials, there was an increase in green needle density and wood volume growth.
Analyse the economic and environmental sustainability of the technologies	Evaluate the amount of product used in tests detected in surface water and soil in the area.
Develop and implement innovative techniques for efficient systematic survey, defoliation assessment and outcome measurement. Minimise the economic damage caused by needle streak disease to pine growers.	Determine the accuracy and cost of each survey technique, assess defoliation and measure results.

Forestry

INTERFAZ

Reduce disturbance and enhance the value of ecosystem services at the wildland-urban interface through integrated management

Beneficiary members

- Aeromedia UAV S.L.
- Diputación de Girona
- Fora Forest Technologies S.L.L.
- Fundación Centro de Servicios y Promoción Forestal y de su Industria de Castilla y León (CESEFOR)
- Fundación de Ecología del Fuego y Gestión de Incendios Pau Costa Alcubierre (FPC)
- Empresa Pública de Servizos Agrarios Galegos S.A. (SEAGA)
- Tecnosylva S.L.

Subcontracted members

- Fundación General de la Universidad de Valladolid (FunGe-UVa)
- Universidad de Vigo (UVigo)

Collaborating members

- Ayuntamiento de Corullón
- Ayuntamiento de Villafranca del Bierzo

CALL 2020

THEMATIC AREA: Forestry / **SUBSECTOR:** Silvicultural crops

AUTONOMOUS COMMUNITIES EXECUTION: Castile and Leon, Catalonia, Galicia

GRANT AWARDED: €515.491,81

PROJECT OPERATING PERIOD: November 2020-March 2023

MORE INFORMATION:
Website: https://gointerfaz.es/
Mail representative OG: raquel.puntero@cesefor.com

Summary

INTERFAZ promotes the establishment of management measures and the use of the productive potential of the territory as tools to minimise the risks caused by biotic and abiotic disturbances in the rural environment and the urban forest interface.

PROJECT OBJECTIVES	OBTAINED RESULTS
Develop open data-based tools to manage the wildland-urban interface and the environment around rural settlements, minimising the risk of disturbance to agroforestry operations.	Remote data collection and processing to classify current and potential uses, delineate and design protection measures and evacuation plans. Automated post-processing system for LiDAR data collected by drones, web application design for the development of self-protection plans against IIFF, and training on forest biomass management in the UFI (Urban-Forest Interface).
Develop sustainable management alternatives that minimise fires and other disturbances in these areas, using the productive potential of the area.	Map the potential, suitability and predicted future presence of forest species. Quantification and valuation of UFI ecosystem services, web viewer for consultation of generated cartography, development of innovative territorial and social management models and fuel reduction in UFI areas.
Improve cooperation between those involved in territorial management, those involved in innovation and the agroforestry production network.	Agroforestry and livestock training. Develop a feasibility plan for a small shepherds' self-governed enterprise to maintain the wildland-urban interface.
Working with and reaching out to rural communities.	Cooperation between actors involved in the primary value chain of products from the forest-urban interface.

Forestry

Grupo Operativo
Madera Construcción Sostenible

MADERA CONSTRUCCIÓN SOSTENIBLE

An intelligent tool for the selection of wood products for the building and construction industry

Beneficiary members

- Asociación para la Certificación Española Forestal (PEFC España)
- Universidad de Córdoba (UCO)
- Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA)
- Agencia Estatal Consejo Superior de Investigaciones Científicas (CSIC)
- Cupa Innovación S.L.
- Búsqueda Justificada de Diferenciación S.L. (BJD Services)
- Balidea Consulting & Programming S.L.
- Aenor Internacional S.A.U..

Collaborating members

- Maderia. Sociedad Española de la Madera.
- Confederación de Organizaciones de Selvicultores de España (COSE)
- Maderas Abad. Maderas Miguel Abad e hijos S.L.

CALL 2018

THEMATIC AREA: Forestry / **SUBSECTOR:** Wood

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Castile La Mancha, Community of Madrid, Galicia

GRANT AWARDED: € 495.066,74

PROJECT OPERATING PERIOD: July 2018-July 2020

MORE INFORMATION:
Website: https://www.pefc.es/que-hacemos/nuestro-impacto-colectivo/nuestros-proyectos/grupo-operativo-madera-construccion-sostenible
https://www.maderia.es/
Mail representative OG: pefc@pefc.es

Summary

MADERA CONSTRUCCIÓN SOSTENIBLE promotes the development of an intelligent tool for the appropriate selection and prescription of wood-based construction products for use in sustainable buildings, providing technical and environmental content.

PROJECT OBJECTIVES	OBTAINED RESULTS
Provide reliable information and technical data on wood products to facilitate regulation.	Taxonomic classification of structural wood products according to their technical properties. Proposals for constructive solutions based on wood or containing wood in their composition and intelligent product selection.
Demonstrate, through environmental information, the excellence of wood as a building material in relation to the values associated with sustainability.	Environmental Product Declarations (EPDs) and awareness raising on the use of wood to contribute to climate change mitigation and sustainable forest development.
Provision of an information dissemination tool on the technical and environmental characteristics of wood building products.	Creation of a web portal and intelligent information tools.

Forestry

MIKOGEST

Innovative dynamic management of mycological resources

Beneficiary members

- Fundación Centro de Servicios y Promoción Forestal y de su Industria de Castilla y León (CESEFOR)
- Confederación de Organizaciones de Selvicultores de España (COSE)
- Federación de Asociaciones Forestales de Castilla y León (FAFCYLE)
- Federación Española de Empresarios de Setas y Trufas (FETRUSE)
- Consorci Centre de Ciència i Tecnologia Forestal de Catalunya (CTFC)

Subcontracted members

- Federación de Asociaciones Micológicas de Castilla y León (FAMCAL)
- Asociación Forestal de Burgos (ASFOBUR)
- Asociación Forestal de Salamanca (ASFOSA)

Collaborating members

- DGMN-Junta de Castilla y León

CALL 2019

THEMATIC AREA: Forestry / **SUBSECTOR:** Mushrooms

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Cantabria, Castile and Leon, Castile La Mancha, Catalonia, Chartered Community of Navarre, Community of Madrid, Extremadura, Galicia, La Rioja

GRANT AWARDED: € 568.809,51

PROJECT OPERATING PERIOD: January 2020-September 2021

MORE INFORMATION:
Website: https://www.mikogest.net/
Mail representative OG: pablo.sabin@cesefor.com

Summary

MIKOGEST promotes the management of the regulation of the mycological resource by means of innovative techniques (ICT tools) to guarantee the sustainability of the use of the resource and the traceability of the product.

PROJECT OBJECTIVES	OBTAINED RESULTS
Estimating productivity and forecasting production to enable decisions to be made to ensure sustainable management of the natural environment.	Prediction of yields according to habitat and weather conditions. Design and structuring of a Mycological Big Data system to access and analyse the large amount of data available in the natural environment. (https://visor.mikogest.net/). Development of the Smartbasket app, a downloadable app open to all users that turns a mobile phone into a smart basket. (https://www.mikogest.net/pagina/smartbasket). Design of Micontrol tool to facilitate the work of control of the use of the guards in the mycological enclosures (https://www.mikogest.net/pagina/micontrol).
Ensure resource sustainability and traceability by establishing management criteria.	Sustainability criteria for land use in areas according to the production variables identified. The total area certified in Castile and Leon amounts to 240,389.72 ha.
Professionalise harvesting. Encourage associations of harvesters.	Creation of an association of professional collectors and a training plan, as well as active collaboration and project management as tools for knowledge transfer (https://seteros.es/).

Forestry

GRUPO OPERATIVO
Monte digital

MONTE DIGITAL

Sustainable forestry innovation. Methodological proposal for obtaining high-precision dasometric parameters from forest digitalisation

Beneficiary members

- Universidad de Castilla-La Mancha (UCLM, grupo MARFO)
- Digital Elevation Models (Dielmo 3D S.L.)
- Naturaleza y Tecnología de la Mancha S.L. (Naturtec)

Subcontracted members

- Capazita Innovación y Tecnología S.L.

Collaborating members

- Junta Administrativa de Bienes de Fuertescusa (JABF)

CALL 2018

THEMATIC AREA: Forestry / **SUBSECTOR:** Wood

AUTONOMOUS COMMUNITIES EXECUTION: Castile La Mancha, Valencian Community

GRANT AWARDED: € 261.763,75

PROJECT OPERATING PERIOD: June 2018-July 2020

MORE INFORMATION:
Website: https://ec.europa.eu/eip/agriculture/en/find-connect/projects/GO-blockchain-madera-dise%c3%b1o-desarrollo-e
Mail representative OG: angela.gonzalez@uclm.es

Summary

MONTE DIGITAL is promoting an innovative method of digitising the forest using mobile terrestrial Land Mobile Mapping for high-precision, low-cost inventory, and monitoring of forest cover, facilitating decision-making in forest management. The result is the software that obtains both dendro and dasometric parameters (AID-FOREST), working fully automatically and without the need to pre-process the Lídar point clouds.

PROJECT OBJECTIVES	OBTAINED RESULTS
Validate the reliability of the Land Mobile Mapping (LMM) inventory at sample plot scale, using standard commercial software to process the LMM point cloud.	Determination of dasometric parameters using classical inventory techniques and the LTM technique. Quantify the total cost and compare the two techniques.
Generate algorithms for the calculation of the dasometric variables based on the point cloud, integrated in an artificial intelligence software, which will be fully automatic.	Development of AID-FOREST software, specifically for processing LMM point clouds at two scales: parcel and canton. Validate the AID-FOREST software and compare with commercial software
Apply and validate the algorithms on a larger scale (canton) to assess the unlimited capacity to process very large areas.	Complete inventory of the cantons based on the LMM digitalisation of the two forests studied, processed at cantonal level using the AID-FOREST software and obtaining total costs. The software proved to be fully automatic. There were no restrictions on the area of forest to be inventoried and the accuracy was very high.

Monte digital

Forestry

PINEA

Improvements and innovations in domestic pine nut production

gopinea.org

Beneficiary members

- Centre de Ciència i Tecnologia Forestal de Catalunya (CTFC)
- Confederación de Organizaciones de Selvicultores de España (COSE)
- Ecología y Espacio S.L. (ECOSPACIO)
- Federación de las Asociaciones Forestales de Castilla y León (FAFCYLE)
- Fundación Centro de Servicios y Promoción Forestal y de su Industria de Castilla y León (CESEFOR)
- Instituto de Investigación y Tecnología Agroalimentaria (IRTA)
- Sociedad Cooperativa Piñonsol Castilla y León (PIÑONSOL)
- Forestal de Catalunya S.C.C.L.

Subcontracted members

- Asociación Forestal de Valladolid (ASFOVA)
- Instituto de Química Avanzada de Cataluña (IQAC-CSIC)
- Universidat de Barcelona (UB)

Collaborating members

- Asociación Castellana de Elaboradores de Piñón (ACEP)
- Departament d'Acció Climàtica, Alimentació i Agenda Rural (Generalitat de Catalunya)
- Forestal Catalana (Generalitat de Catalunya)
- Junta de Castilla y León
- Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA-CSIC)
- Universidad de Valladolid (UVA)

CALL 2020

THEMATIC AREA: Forestry / **SUBSECTOR:** Sprocket

AUTONOMOUS COMMUNITIES EXECUTION: Castile and Leon, Catalonia, Community of Madrid

GRANT AWARDED: € 565.391,89

PROJECT OPERATING PERIOD: November 2020-April 2023

MORE INFORMATION:
Website: https://gopinea.org/
Mail representative OG: raquel.puntero@cesefor.com
montse.ganado@cesefor.com

Summary

PINEA aims to promote the recovery of the Iberian pine nut through innovative ways of managing the biotic and abiotic factors that are destroying it: *Leptoglossus occidentalis* and extreme drought.

PROJECT OBJECTIVES	OBTAINED RESULTS
Determine parameters and variables related to *Leptoglossus occidentalis* affecting Iberian pine nut production.	Improve knowledge of the life cycle of *Leptoglossus occidentalis*. Obtain possible precursors for a pheromone with semiochemicals from the pest insect itself that show clear signs of some interaction and enhanced activity. Useful information on the behaviour of various clones of *Pinus pinea* against pests. Determination of the climatic variables that most influence the vulnerability of stone pine stands by monitoring environmental and production variables with remote and terrestrial sensors.
Establish a methodology for the prediction of *Pinus pinea* pineapple harvest.	Update and development of the public version of the Pinea Climadat app and development of the Standard Operating Procedure (SOP) for Unmanned Aeriel Vehicles (UAVs) for pine tree characterisation and direct harvest evaluation.
Determine management measures to improve pineapple harvesting in existing and new *Pinus pinea* plantations.	Development of the Stone Pine Management Manual and the protocol for the application of the insecticide Deltamethrin 2.5% W/V for the control of *Leptoglossus occidentalis* in *Pinus pinea* plantations.

Forestry

PRORURAL

Supporting the economic development of rural areas by creating a responsible market for innovative forest products

Beneficiary members

- Ayuntamiento de Orea
- Ayuntamiento de Orihuela del Tremedal
- Fundación Comercio para el Desarrollo (COPADE)
- Forest Stewarship Council España (FSC)
- Fundación Centro de Servicios y Promoción Forestal y de su Industria de Castilla y León (CESEFOR)
- Leroy Merlin España S.L.U.
- Azentúa (Valor Ambiental y Sostenible S.L.)

CALL 2020

THEMATIC AREA: Forestry / **SUBSECTOR:** Wood

AUTONOMOUS COMMUNITIES EXECUTION: Aragon, Castile La Mancha

GRANT AWARDED: € 562.281,83

PROJECT OPERATING PERIOD: November 2020-March 2023

MORE INFORMATION:
Website: https://copade.es/nuestros-proyectos-y-beneficiarios/proyecto-feader-GO-prorural/
Mail representative OG: info@copade.org

Summary

PRORURAL promotes the design and testing of a new profitable business model for the sustainable use of public forests with innovative forest products that generate wealth and employment and conserve the forest.

PROJECT OBJECTIVES	OBTAINED RESULTS
Design in detail an economically viable, environmentally sustainable, socially responsible forestry business model that is tested by potential clients, ready for implementation and replicable in other regions of the country.	Development of a mixed-ownership business model for the use of high-value public forests. The economic viability of the business model has been validated. The minimisation of environmental impact has been demonstrated. Measurement of the environmental footprint of the production system: favourable, fulfilling the hypothesis that wood products are carbon sinks and can therefore make a significant contribution to reducing the impact of industry on the natural environment. Identifying ecosystem services or environmental benefits provided by FSC-verified projects.
Provide consumers with sufficient traceability information to make informed and responsible purchasing decisions based on social and environmental criteria.	Measuring the social footprint and contribution to the SDGs of wood products manufacturing. Implementation of a traceability system based on blockchain technology, so that consumers know the steps that the wood has gone through, which serves as a guarantee of its sustainable management, and to know the certifications, such as FSC®, Fairtrade Wood and the measurement of the Social Footprint

Forestry

QUERCUS SELECCIÓN

In Cádiz, Extremadura and Madrid, to breed cork oak varieties with high cork production and tolerance to drought

Beneficiary members

- Asociación Agraria de Jóvenes Agricultores (ASAJA)
- Instituto Madrileño de Investigación y Desarrollo Rural, Agrario y Alimentario (IMIDRA)
- Asociación Agraria de Jóvenes Agricultores de Cádiz (ASAJA Cádiz)
- Montarsa Medioambiente S.L.U.
- Asociación La Veguilla
- La Almoraima

Subcontracted members

- Centro de Investigaciones Científicas y Tecnológicas de Extremadura (CICYTEX)

CALL 2019

THEMATIC AREA: Forestry / **SUBSECTOR:** Cork

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Community of Madrid, Extremadura

GRANT AWARDED: € 315.375,23

PROJECT OPERATING PERIOD: March 2019-September 2021

MORE INFORMATION:
Website: https://quercusseleccion.es/
Mail representative OG: alvaro@asaja.com

Summary

QUERCUS SELECCIÓN selects cork oak trees that have survived periods of drought and are strong cork producers. These trees are cloned using somatic embryogenesis and tested for resistance to *Phytophthora cinnamomi* before being propagated on a commercial scale. The goal is to establish them in areas of Cádiz, Extremadura and Madrid affected by the disease

PROJECT OBJECTIVES	OBTAINED RESULTS
Investigation into areas of drought in Extremadura and Cádiz and identification of more resilient trees in the prime cork-producing sites.	Updating the GIS database of seca outbreaks and chosen trees in Cádiz and Extremadura.
Cloning of selected cork oaks to obtain genetic material by somatic embryogenesis and conservation in clone banks.	Obtain 40 samples of each selected variety, define a system for early detection of resistance and create clonal banks in Madrid, Extremadura, and Cádiz of the selected varieties for their conservation.
Transfer of technology and material for commercial development by nursery producers.	Transfer of 100 embryos per variety to producer nursery for commercial scale development.
Dissemination of technology and project results to the sector.	Project objectives and results dissemination conferences in Mérida and Cádiz.
Establishment of plots with the varieties obtained.	Establishment of plantations with material obtained from plots in La Almoraima and from owners selected by ASAJA.

Forestry

RESINLAB

Network of participatory experimental areas to create innovations adapted to the resin sector's real needs

Beneficiary members

- Asociación para el Desarrollo Integral de Sierra de Gata (ADISGATA)
- Confederación de Organizaciones de Selvicultores de España (COSE)
- Federación de las Asociaciones Forestales de Castilla y León (FAFCYLE)
- Fundación Centro de Servicios y Promoción Forestal y de su Industria de Castilla y León (CESEFOR)
- Industrial Resinera Valcan S.A.
- Jogosa Obras y Servicios S.L.U.
- Luresa Resinas S.L.
- Pinaster Servicios Medioambientales S.Coop.

Subcontracted members

- Ambienta Ingeniería y Servicios Agrarios y Forestales S.L.
- Asociación Forestal de Segovia (ASFOSE)
- María Carmen Segura Rodríguez
- Universidad de Castilla-La Mancha (UCLM)
- Universidad Politécnica de Madrid (UPM)
- Asociación Civil y de interés particular El Rodenal
- GEA Forestal

Collaborating members

- Junta de Castilla y León

CALL 2020

THEMATIC AREA: Forestry / **SUBSECTOR:** Resin

AUTONOMOUS COMMUNITIES EXECUTION: Castile and Leon, Castile La Mancha, Community of Madrid, Extremadura

GRANT AWARDED: € 568.335,67

PROJECT OPERATING PERIOD: January 2021-April 2023

MORE INFORMATION:
Website: https://GO-resinlab.com/
Mail representative OG: raquel.puntero@cesefor.com

Summary

RESINLAB promotes a network of experimental territories where the different stakeholders of the resin value chain can co-create solutions to ensure innovation focused on users and territories.

PROJECT OBJECTIVES	OBTAINED RESULTS
Promote new models for the professionalisation of the resin trade.	Creation of 3 provincial associations of resin workers. Study and analysis of aid to resin producers by municipality and province. Transfer of knowledge, training, advice, and experience between resin manufacturers
Ensure sustainability of harvesting by developing new extraction technologies.	8 Living Labs to implement, monitor and compare mechanised and traditional resin harvesting. Produce a best practice manual for mechanised resin harvesting. Quality analysis and characterising of resin samples from 6 Living Labs.
Establish a data observatory. This will ensure traceability and transparency and facilitate decision-making.	Develop a database of the sector, including a viewer and map of the best areas to produce resin. Create a network of experts and an online resin library. Develop decision support tool and profitability calculator for resin growers and landowners (https://observatorioresinasnaturales.es/).

Forestry

SIGCA

Quality timber producing forest management systems

Beneficiary members

- Agresta S.Coop.
- Fundación Centro de Servicios y Promoción Forestal y de su Industria de Castilla y León (CESEFOR)
- Fora Forest Technologies S.L.L.
- Fundación Centro Tecnológico Forestal y de la Madera (CETEMAS)
- Madera Plus Calidad Forestal S.L.
- Fundación Hazi Fundazioa
- Exfopino S.L.

Subcontracted members

- Universidad de Lleida (UDL)
- Universidad de Santiago de Compostela (USC)
- Universidad de Valladolid (UVA)

Collaborating members

- Confederación de Organizaciones de Selvicultores de España (COSE)
- Consejería de Desarrollo rural y Recursos naturales. Principado de Asturias
- Dirección General del Medio Natural. Consejería de Medio Rural, Pesca y Alimentación. Gobierno de Cantabria
- Dirección General del Medio Rural de la Junta de Castilla y León

CALL 2018

THEMATIC AREA: Forestry / **SUBSECTOR:** Wood

AUTONOMOUS COMMUNITIES EXECUTION: Castile and Leon, Galicia, Basque Country, Principality of Asturias

GRANT AWARDED: € 538.000,01

PROJECT OPERATING PERIOD: July 2018-July 2020

MORE INFORMATION:
Website: https://www.sigcamaderadecalidad.info
Mail representative OG: agresta@agresta.org

Summary

SIGCA promotes the competitiveness of the maritime pine forestry and industrial sector by developing tools to optimise its capacity to produce quality timber

PROJECT OBJECTIVES	OBTAINED RESULTS
Develop silvicultural standards using wood quality as a criterion to improve the silviculture of maritime pine.	Quantitative inventory and collection of a representative sample of maritime pine stands at national level to analyse the influence of silviculture on wood quality.
Provide managers and assessors with innovative tools to assess and classify timber harvesting.	Tools for assigning technological quality and for calculating and classifying wood volumes according to the morphological characteristics of the standing tree.
Implementation of timber industry validated technologies and grading standards for the different products in the forest industry value chain.	Technological quality standardisation. Develop the first mechanical grading system based on acoustic techniques. Take a qualitative inventory of maritime pine stands and developing a SiGCa label.
Improve the traceability of wood along the forest industry value chain.	Tool for marking and scoring wood.

Forestry

SUBER

Corking modernisation for productivity improvement

Beneficiary members

- Trevinca Inversiones Medioambientales S.L.
- Coveless Ingeniería S.L.
- Confederación de Organizaciones de Selvicultores de España (COSE)
- Instituto Nacional de Investigación y Tecnología Agraria, O.A., M.P. (INIA)
- Agencia de Medio Ambiente y Agua de Andalucía (AMAYA)
- Fundació per a la Promoció del Sector Surer
- Centro de Investigaciones Científicas y Tecnológicas de Extremadura (CICYTEX)
- Jogosa Obras y Servicios S.L.U.

Subcontracted members

- Asociación de Dehesas Ecológicas de la provincia de Huelva (ADEHECO)
- Forestal de Catalunya S.C.C.L.
- Asociación de Propietarios de Monte Alcornocal de Extremadura (APMAE)
- Universidad de Córdoba (UCO)
- Fundación Conde del Valle de Salazar - ETSI Montes

CALL 2018

THEMATIC AREA: Forestry / **SUBSECTOR:** Cork

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Catalonia, Extremadura

GRANT AWARDED: € 531.994,36

PROJECT OPERATING PERIOD: June 2018-July 2020

MORE INFORMATION:
Website: https://gosuber.es
Mail representative OG: info@trevincaingenieria.com

Summary

SUBER promotes the modernisation of cork extraction through greater mechanisation, improved working practices and logistics, better characterisation of the product and the search for new innovative applications.

PROJECT OBJECTIVES	OBTAINED RESULTS
Increased productivity through bag mechanisation.	Performance and ergonomics analysis of current mechanised corking machines. Design, construction, and testing of complementary tools for cork extraction.
Improving working conditions.	Develop protocols for working with new and traditional technologies. Research and development of new health and safety systems specifically adapted to cork oak.
Improved extraction processes.	Establish the technical bases for a new subbiculture, adapting logistics to mechanised uncorking and analysing profitability.
Improving the marketing and valuation of cork and byproducts.	Product characterisation and development of new applications for granules and/or bornite.

Forestry

TIMBERTRACK

Development of a labelling system in the Monte-Industria wood supply chain

Beneficiary members

- Sistemas de Desarrollo Integral del Territorio S.L.
- Fundación Centro Tecnológico Metal-mecánico y del Transporte (CETEMET)
- Cluster da madeira e o deseño de Galicia
- Tag Ingenieros Consultores S.L.
- Emergya Ingeniería S.L.

Subcontracted members

- Indra Sistemas S.A.
- Risutec Ltd.
- Myruns Smart Control

Collaborating members

- Financiera Maderera S.A.
- Dingoma S.A.

CALL 2019

THEMATIC AREA: Forestry / **SUBSECTOR:** Wood

AUTONOMOUS COMMUNITIES EXECUTION: Andalusia, Galicia, Valencian Community

GRANT AWARDED: € 483.034,78

PROJECT OPERATING PERIOD: September 2019-July 2021

MORE INFORMATION:
Website: https://timbertrack.es
Mail representative OG: jesus.martinez@fmc-galicia.com

Summary

TIMBERTRACK promotes the development and implementation of a technically and economically viable solution for labelling timber in the forest industry supply chain, enabling its integration into logistics and transport machinery.

PROJECT OBJECTIVES	OBTAINED RESULTS
Development of a labelling/marking solution, both at material unit (log) and timber lot level.	Create a label or tag based on any of the existing technologies with a particular focus on RFID.
Develop complementary hardware (recorder and reader) to enable integration with forestry machinery currently used in timber harvesting and logistics.	Development of engravers and readers to automate the labelling and reading of labels.
Create a plan for the implementation of the technological solution in the sector, allowing for a gradual transition and integration with data systems.	Develop a sectoral implementation and results transfer plan that is ready for implementation, involves all actors in the supply chain, and successfully guides the implementation process throughout the country.

Forestry

TUBER LABEL

Developing local black truffle market promotion tools

Beneficiary members

- Fundación Centro de Servicios y Promoción Forestal y de su Industria de Castilla y León (CESEFOR)
- Arotz Foods S.A.
- Federación de Asociaciones Forestales de Castilla y León (FAFCYLE)
- Federación Española de Empresarios de Setas y Trufas (FETRUSE)
- Asociación para la Certificación Española Forestal (PEFC España)

Subcontracted members

- Consorci Centre de Ciència i Tecnologia Forestal de Catalunya (CTFC)

Collaborating members

- Associació de Productores de Tòfona de Catalunya
- Asociación Forestal de Truficultores de Soria (ATRUSORIA)

CALL 2022

THEMATIC AREA: Forestry / **SUBSECTOR:** Truffle

AUTONOMOUS COMMUNITIES EXECUTION: Castile and Leon, Catalonia, Community of Madrid

GRANT AWARDED: € 395.340,37

PROJECT OPERATING PERIOD: September 2022-February 2025

MORE INFORMATION:
Website: https://tuberlabel.es/
Mail representative OG: raquel.puntero@cesefor.com

Summary

TUBER LABEL promotes the strengthening of the value chain of the Spanish truffle sector, especially the local trade, by addressing aspects that have been identified by the sector itself as weaknesses, but which can become opportunities with a reorientation strategy.

PROJECT OBJECTIVES	EXPECTED RESULTS
Identify the profile of the black truffle consumer and extend consumption to new market segments.	Creation of a socioeconomic and technocultural ecosystem for the sector, homologation of quality standards or criteria for the marketing of black truffles by primary producers and development of pilot markets as an example for their establishment in other black truffle producing areas, contributing to the commercialisation of proximity.
Creation of added value through differentiation of the black truffle, promotion of its positioning on the market and direct marketing by the producer.	Cocreation of a Smart Label for the black truffle.

Operational groups index in alphabetical order

GOBIERNO DE ESPAÑA · MINISTERIO DE AGRICULTURA, PESCA Y ALIMENTACIÓN

Unión Europea
Fondo Europeo Agrícola de Desarrollo Rural
Europa invierte en las zonas rurales

PNDR
Programa Nacional de Desarrollo Rural 2014-2020

- A Crop production
- L Livestock
- AI Agrifood Industry
- I Rural Development
- I Irrigation
- F Forestry

OPERATIONAL GROUPS	THEMATIC AREA	BRAND
ACREMA	F	ACREMA
ADAPTACIÓN DEL SECTOR DE FRUTALES DE HUESO AL CAMBIO CLIMÁTICO	A	Cambio Climático · Frutales de Hueso
AGRICULTORES JÓVENES EN RED	I	raices.info
AGRICULTURA DE PRECISIÓN EN REGADÍO Y FERTILIZACIÓN DE CÍTRICOS	I	go citrics
AGROCHEF	AI	AGROCHEF
AGROTIG	A	agrotig
AGROVOLTAICA	A	AGROVOLTAICA
AGUACAVALUE	AI	AGUACAVALUE
ALGAVID	A	AlgaVID

OPERATIONAL GROUPS	THEMATIC AREA	BRAND
ALIMENTACIÓN PÚBLICA SOSTENIBLE 4.0	I	GOSA
AMSOS 360	L	GO AMSOS 360
ANPSTAND	L	ANPSTAND
AOVE-TRADICIONAL	AI	AOVE Tradicional
AP-WASTE	A	AP Waste
ARTEMIS	L	Sustainability
AVIENERGY	L	avienergy
BIOPOPTECH	F	BIOPOPTECH
BOSQUES 3.0	F	GO BOSQUES 3.0
BOVIEX 4.0	L	GO BOVIEX
CARBOCERT	A	carbocert

OPERATIONAL GROUPS	THEMATIC AREA	BRAND
CARISMED	A	
CAVALE	L	
CEREAL AGUA	I	
CHAINWOOD	F	
CHAMPLAST	AI	
CITRIAFORO	A	
CITRUS	A	
CITRUSTECH	A	
DETECCIÓN Y ERRADICACIÓN DE ALMENDRA AMARGA	A	
ECOPIONET	I	
EFFIREM	I	
EQUIGENOM	L	
ESJARA	F	
EXPORTGEN	L	

OPERATIONAL GROUPS	THEMATIC AREA	BRAND
FAGUS	F	
FITONET	A	
FITOSCEREZO	A	
FORESCELTA	L	
FRUITCARE	A	
FUNGIGO	F	
GAYAS	AI	
GC4SHEEP	L	
GELOB	L	
GENMAC	F	
GESVAC 4.0	L	
GIASAT	AI	
GLOBAL DIMENSION SENSOLIVE OIL	AI	
GOPHYTOVID	A	

OPERATIONAL GROUPS	THEMATIC AREA	BRAND
GOSSGE	F	Gossge grupo operativo gonipterus
GOSTU	L	GOSTU TUBERCULOSIS
GOVALMAVIN	AI	GOVALMAVIN
IBERCHAIN	AI	iberchain
IDEAS	A	GRUPO OPERATIVO IDEAS
IMAI	F	go IMAI
IMECO	L	GO IMECO
INNOBANDAS	F	INNOBANDAS
INNOEXTRACT	AI	innoextract
INNOLAND	A	Go Innoland
INNOMIEL	L	INNO MIEL GRUPO OPERATIVO
INNOVACIÓN DEL AGUACATE	A	GO AGUACATE SPAIN
INNOVATRIGO	A	Innovatrigo
INNOWATER	I	INNOWATER

OPERATIONAL GROUPS	THEMATIC AREA	BRAND
INPULSE	A	INPULSE Innovando para usar leguminosas españolas en alimentación animal
INTERFAZ	F	go interfaz
INVERCONEC	A	GO INVERCONEC
ISAB	L	ISAB
LEGSAPIENS	A	legsapiens
LÚPULOS DE CALIDAD	A	LÚPULOS DE CALIDAD GRUPO OPERATIVO
MADERA CONSTRUCCIÓN SOSTENIBLE	F	Grupo Operativo Madera Construcción Sostenible
MAÍZ SOSTENIBLE	A	GO MAÍZ sostenible
MESRASA	L	MESRASA
MICOALGA-FEED	L	MICOALGA-FEED GRUPO OPERATIVO SUPRAAUTONÓMICO
MICROCLIMATT	A	MICROCLIMATT
MIKOGEST	F	Grupo Operativo MIKOGEST
MONTE DIGITAL	F	GRUPO OPERATIVO Monte digital
MOSOEX	A	MOSOEX materia orgánica - gestión sostenible
NEOWAS	L	GO neowas

OPERATIONAL GROUPS	THEMATIC AREA	BRAND
OLEOPRECISIÓN	A	
OLIVA	AI	
ORLEANS	AI	
OVINNOVA	L	
PDApp	A	
PHYTODRON	A	
PICA	L	
PINEA	F	
PLAN DE ERRADICACIÓN ALMENDRA AMARGA	AI	
PREVECO	A	
PREVPA	L	
PROMINIFUN	I	
PRORURAL	F	
PROTEINLEG	A	
QUERCUS SELECCIÓN	F	
REBO2VINO	AI	
RECOLECTA	A	
REDAPORC	L	
REPROVI	L	
RESINLAB	F	
RETA	L	
SAGEFER	I	
SALUD OLIVAR	A	
SALUDGIRASOL	A	
SEBASTIANA	L	
SELAMBQ	L	
SENSOLIVE OIL	AI	
SIEGA	L	

OPERATIONAL GROUPS	THEMATIC AREA	BRAND
SIGCA	F	SIGCA
SMARTOM	A	SmarTom
SOSTVAN	L	SOSTVAN
SUBALMA	I	Subalma
SUBER	F	SUBER
SUPERFOOD BIOTECH	A	Superfood Biotech
TAURO	L	Go Tauro
TECNOGAR	A	GO TecnoGAR
TICS4FRUIT	AI	TICS4FRUIT
TIMBERTRACK	F	TIMBERTRACK
TIRAC	L	TIRAC
TUBER LABEL	F	TUBER LABEL
VACUSOS	L	VACUSOS
VARROAFORM	L	Varroaform
VID-EXPERT	A	vid expert
VIGIASAN	L	vigiasan
VINGO	A	vingo
VITICAST	A	VITICAST
VITINNAT	A	govitinnat

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