

**TRACEABILITY
IN THE
AGRI-FOOD,
LIVESTOCK,
AGRICULTURE AND
FORESTRY SECTORS**



OPERATIONAL GROUPS AND INNOVATIVE PROJECTS



Unión Europea
Fondo Europeo Agrícola
de Desarrollo Rural
Europa invierte en las zonas rurales



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OPERATIONAL GROUPS AND INNOVATIVE PROJECTS

**Traceability in the agri-food,
livestock, agriculture and
forestry sectors**

EsRuralEsVital

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Introduction

This publication is a compilation of Operational Groups and Innovative Projects on the theme of traceability in the agri-food, livestock, agricultural and forestry sector carried out in Spain and Europe. The National Rural Network (NRN) has been entrusted with creating this publication to meet its purpose of disseminating and raising awareness about innovative initiatives and fostering knowledge exchange and transfer from the sphere of research to practical applications. Innovation is a fundamental instrument in all areas, but especially in rural areas since this is a disperse environment with difficult access to knowledge, the results from research, training, market developments and new technologies.

The main instrument to promote innovation in rural areas is the European Innovation Partnership for agricultural productivity and sustainability (EIP-AGRI). The EIP-AGRI aims to speed up innovation in the agri-food and forestry sector, and therefore in rural areas, as well as to disseminate successful examples of experience in the territory through specific innovative projects. In addition, it seeks to match the range of science available to the demand from different sectors and help solve specific problems or make the most of opportunities in order to help increase competitiveness and improve living conditions in rural areas.

The Operational Groups (OGs) are groups of stakeholders from different sectors: agriculture, livestock, forestry, agri-food and forest-based industries, from public or private R&D&I training and consultancy centres, technology centres, non-profit institutions and more. These parties get together to solve a problem or make the most of an opportunity using an innovative, multisectoral and collaborative approach via an innovative project. Their work is subsidised by EAFRD through national and regional rural development programmes to set up the group and prepare its innovation project, as well as to implement it.

Furthermore, in the European context, there are other policies with synergies appearing within their commitment to innovation in rural areas. The Horizon 2020 research framework programme covers matters related to the agri-food and forestry sectors. Under this umbrella, there are thematic networks like the ERA-NET programme and research projects. The COSME programme for the Competitiveness of Enterprises and SMEs helps entrepreneurs and small and medium-sized companies to start up operations, access funding and make their business international.

This dossier presents the outcomes from the exchange of experiences between Operational Groups and Innovative Projects on traceability in the agri-food, livestock, forestry and agriculture sector organised by the NRN. It includes information units describing the Operational Groups and Innovative Projects, fostered by Measure 16 of the rural development programme in Spain in this matter, thematic networks, Horizon 2020 projects and EU COSME, whether or not they participated in the conference, with the aim of helping to disseminate them and enabling the different stakeholders to consult them.

Conference to exchange experiences between Operational Groups and Innovative Projects on the theme of traceability in the agri-food, livestock, agricultural and forestry sector

On 28 January 2020, the National Rural Network (NRN) organised an exchange of experiences between Operational Groups, Innovative Projects and others from Horizon 2020 (H2020) and EU COSME, the support programme for SMEs working on the matter of traceability. The exchange took place via a virtual meeting attended by more than 105 people representing operational groups, research centres, private companies, foundations, public government administrations, producer organisations and associations, and rural development cooperatives and groups.

Objectives addressed:

The meeting was held with the following aims:

- To bring different stakeholders from the agricultural, agri-food, livestock and forestry sectors together to reflect on innovative solutions and technologies to improve traceability and transparency in the value chain.
- To raise the visibility of innovative processes and good practices for traceability throughout the supply chain.
- To foster networking and information sharing among different Operational Groups and the Innovative Projects within the EAFRD and the European Horizon 2020 and EU COSME programmes that are working on the cross-cutting theme of traceability or have an interest in it.



Conference held in two stages:

- An analysis was made of the work being carried out by the NRN as regards disseminating the work by the Operational Groups and the Innovative Projects. Furthermore, the innovative measures in rural development programmes encouraged by EIP-Agri were also examined.
- In order to bring about an exchange of innovative solutions in the cross-cutting field of traceability, the attendees saw presentations by nine Operational Groups, Innovative Projects and projects from the H2020 programme and the EU COSME European programme for SMEs, given in three parallel sessions, after which the key points discussed in each room were shared. The theme-based sessions dealt with blockchain technology to improve traceability in the agri-food sector, improving transparency in the value chain through new technologies and ICT tools for traceability.

Key ideas:

- In a globalised world in which supply chains are becoming increasingly complex, it is essential to seek out innovative solutions to improve traceability and ensure transparency in the value chain.
- Technology and digitalisation through different tools such as the blockchain, ICT tools, big data, sensors and NIRS techniques, all provide efficient solutions to optimise traceability and food safety while preventing fraud and unfair competition throughout the supply chain.



- However, it should be noted that there is still a significant digital technological gap in the sector that mainly affects producers, whether individual farmers or micro- and small businesses.
- In order to accompany the agri-food, livestock, agricultural and forestry sectors in their digital transformation and improve traceability, it is necessary to involve producers and SMEs in designing innovative solutions that are truly adapted to their situations, production processes and needs.
- Coaching workshops, monitoring, pilot plants and virtual demonstration spaces are all powerful tools to familiarise the sector with innovation and the use of innovative tools to improve traceability.

For more information about the conference, click [here](#)



TIMBERTRACK: Design, development and implementation of blockchain technologies in timber supply chains in Spain.

1

RURAL DEVELOPMENT PROGRAMME

NRDP

YEAR CREATED

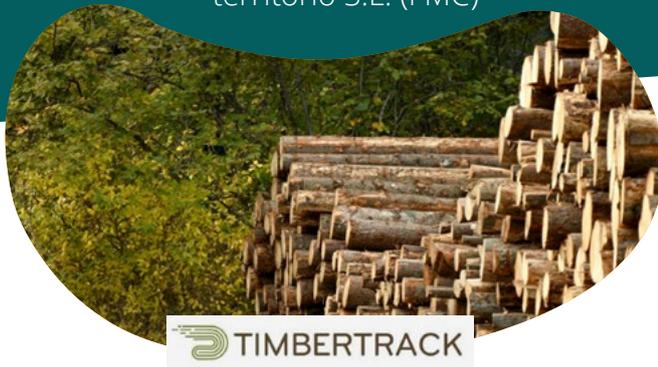
2018

PROJECT COORDINATOR

Sistemas de desarrollo integral del territorio S.L. (FMC)

PARTNERS

FMC | Emergya Ingeniería S.L. | Centro Tecnológico Metalmecánico y del Transporte (CETEMET) | Clúster da Madeira e o Deseño de Galicia (CMD) | Tag Ingenieros Consultores S.L. | Financiera Maderera S.A. (FINSA) | Dingoma S.A.



Description

The Timbertrack project combines the wood and forestry sector's capabilities with technology companies and centres so as to progress towards a specific application of labelling or marking technology for the timber supply chain, applicable to the entire Iberian Peninsula. It provides an innovative labelling system based on blockchain technology which, by recording information throughout the value chain, enables the timber to be tracked from the forest to the industry. The system allows all of the information to be gathered by sensors and can be made available and used by industry and society to manage wood more efficiently in terms of cost, traceability and sustainability. The project provides benefits for all parties in the sector's value chain: producers, owners, contractors and forestry intermediaries.

Objetivos

- Developing a labelling or marking solution for units of material (logs) and batches of timber.
- Creating the complementary features to enable it to be integrated into the forestry machinery currently used in the work of timber exploitation and logistics.
- Drawing up a plan to apply the technological solution to the sector, allowing for a gradual transition and integration with the current data systems.



<https://timbertrack.es/>



info@timbertrack.es

Expected results

- ▶ A blockchain solution to make the Spanish forestry sector more efficient.
A label or mark based on any of the existing technologies, paying special attention to RFID (radio frequency), which is technically and economically viable for the sector.
- ▶ Introduction of recorders and readers which, once installed in the forestry machinery in use, will enable automatic labelling and marking to be carried out, as well as label reading.
- ▶ Creation of the sectoral implementation plan, ready to be applied. This plan will take into account all of the parties in the supply chain, successfully guiding the implementation process.



“TIMBERTRACK aims to design and develop a labelling system to unequivocally identify the timber as a raw material, enabling exploitation of the entire set of data generated throughout the supply chain”.

IBERCHAIN: Implementing blockchain technology in the value chain of meat labelled as 100% Iberian Native Breed.

2

RURAL DEVELOPMENT PROGRAMME

RDP

YEAR CREATED

2019

PROJECT COORDINATOR

Asociación Española de Criadores de Cerdo Ibérico (AECERIBER)



Description

Despite current regulation on the quality of Iberian pork, there remains a lot of fraud in the sector. Such fraud occurs in various ways: by slaughtering pigs without the necessary minimum age; by changing the certificates issued from animal feed to free-range acorn-fed; fraud in the labelling; or through a lack of control over fresh and sliced Iberian meat. Hence, there is a very significant need to ensure the traceability of the pieces (ham, foreleg and sirloin) and of the fresh meat from Iberian pigs by using an infallible system. The IBERCHAIN Operational Group intends to respond to this need by using two technologies that have become the most reliable and effective ones today: blockchain and NIRS.

NIRS technology (Near Infrared Spectroscopy) is an analytical method based on electromagnetic radiation interacting with the product falling in the near infrared region. Blockchain is a decentralised data management technology that uses different data blocks in a chain to reliably record information throughout the supply chain. In order to improve the sale of pig produce related to the dehesa (free-range agro-forestry area), a commitment has been made to give the products added value by differentiating its quality compared to other meats that abound in the market but which do not meet the purity of the 100% Iberian breed. The Operational Group especially demands livestock practices that respect the dehesa natural environment more, with internal advice from the scientific community and private companies specialising in the matter.

PARTNERS

ACERIBER | Cedes Digital S.L. | Coveless Ingeniería S.L. | Sánchez Romero Carvajal Jabugo S.A. | Ibérico Comercialización S.C.L (IBERCOM) Renacens Sistemas S.L. | Señorío de Montanera S.L. Cooperativa Ganadera del Valle de los Pedroches (COVAP) | Universidad de Córdoba (UCO) | Imasde Agroalimentaria S.L. | Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria (INIA)



<https://iberchain.es/>



zafra@aceriber.es

Objectives

- An improvement in the traceability of the meat and the implementation of a differentiated quality mark (iberian seal 100% Raza Autóctona) that is easily identifiable via blockchain and NIRS technology.
- Bolstering economic sustainability of extensive livestock farms to produce meat labelled with the iberian seal 100% Raza Autóctona”.

Expected results

- ▶ Fostering the sector’s safety and reliability.
- ▶ Creation of a more transparent production system.
- ▶ Fostering an economically viable, productive and competitive livestock sector, preventing fraud, and doing so in harmony with the essential natural resources of the dehesa on which it depends.
- ▶ Increasing the added value of the pieces and/or meat based on the 100% Native Iberian Breed quality mark.
- ▶ Bolstering trust from the supplier and the consumer.

“IBERCHAIN responds to the significant need in the Iberian meat sector to improve and ensure traceability, providing transparency and security for producers and the end consumer by integrating blockchain technology and the NIRS system into the value chain and bolstering trust in the quality brand of the 100% Native Iberian Breed”.

TICS4FRUIT: Designing ICTs to optimise the post-harvest chain and fruit distribution.

RURAL DEVELOPMENT PROGRAMME

NRDP

YEAR CREATED

2018

PROJECT COORDINATOR

Instituto Tecnológico del Embalaje, Transporte y Logística (ITENE)

PARTNERS

ITENE | Fundación Parque Científico Tecnológico Aula Dei (PCTAD) | Instituto Agroalimentario de Aragón de la Universidad de Zaragoza (IA2) | Geezar Soluciones S.L. Mercados Centrales de Abastecimiento S.A. (MERCASA) | Federación Española de Asociaciones de Productores Exportadores de Frutas, Hortalizas, Flores y Plantas Vivas (FEPEX)



<http://tics4fruit.com/>



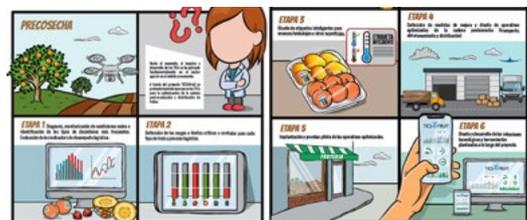
earias@pctad.com

Expected results

- ▶ Identification and monitoring of the most frequent bottlenecks and causes of damaged fruit in the post-harvest stages.
- ▶ Defining the critical traits or thresholds for each type of fruit and logistics procedure.
- ▶ Developing smart labels for containers, packaging and other surfaces to enable the products' level of quality to be controlled and monitored.
- ▶ Defining measures to improve and draw up good practices for the post-harvest chain.
- ▶ Carrying out pilot tests on these good practices in chosen sites.
- ▶ Launching the TIC4FRUITS platform and its mobile app to obtain information in real time.

Description

Until now, ICTs have fundamentally been fostered and developed in the agricultural sector in the pre-harvest sphere. However, when the harvest is over, the subsequent processing phases in the logistics and transport centre and in distribution have a similar influence on the product's commercial quality. In this sense, work has scarcely been done on these critical steps in the chain, where it is necessary to act to maintain the product's initial quality. According to FAO estimates, 45% of fruit and vegetable produce worldwide is discarded, with a similar percentage in Europe. Approximately a third of this waste occurs between harvesting and the end consumer, with 5% lost in post-harvest handling and storage, 2% in processing and packaging, and another 10% in the last stage of distribution. This project seeks to set up a traceability procedure including different types of ICTs such as wireless networks, smart sensors, electronic devices and deterioration indicators that will enable the most appropriate conditions for each stage to be monitored and detect incidents in real time that could cause a loss in the fruit's quality.



Objectives

- Creation of a fruit supply chain that minimises deterioration and loss of produce in post-harvest and distribution by using ICTs.
- An improvement in the performance of logistics and the ability to respond in the most critical stages of the chain.

“The development of solutions to prevent loss of quality after harvesting and subsequent distribution will have a great impact on the sector”.

ETIC4FOOD: ICT tools for smart labelling of sustainable fruit and vegetable produce.

4

RURAL DEVELOPMENT PROGRAMME

RDP Andalucía

YEAR CREATED

2016

PROJECT COORDINATOR

Fundación para las Tecnologías Auxiliares de la Agricultura (TECNOVA)

PARTNERS

TECNOVA | Parque Científico Tecnológico de Almería (PITA) | Caparros Nature S.L.
Grupo Hispatec Informática Empresarial S.A.



glopez@fundaciontecnova.com

Objectives

- Greater added value for fruit and vegetable produce by responding to consumers' new demands for information.
- Creation of an ICT tool for smart labelling of sustainable fruit and vegetable produce.

Description

Current marketing systems require ongoing change and improvement in order to catch the customer's attention. Along these lines, the way food is marketed is changing at a very fast pace, with these changes influenced by an evolving society and lifestyle.

The eTICs4FOOD project came about in response to the demands of a more socially aware consumer committed to the environment, with an innovative solution for smart labelling of fruit and vegetable products providing added value in the market, based on ICT, QR and NFC technologies (Near Field Communication).



Results achieved

- ▶ Identification and evaluation of the scenarios in production and technology, consumer habits and the requirements for developing software and labels.
- ▶ Creation of an experimental phase in which the labelling system was designed and validated, based on NFC technology and QR codes.
- ▶ Dissemination of the project's results and its possibilities for improving the products' marketing and added value.

"The increasing speed of the digital revolution due to the health crisis and the greater use of ICT tools present an opportunity to sharpen the fruit and vegetable sector's competitiveness".

Thus, the end consumer is provided with a digital footprint of the product they are consuming, integrated into a two-way information platform between producer and consumer, referring to the areas of sustainability, safety, quality, corporate social responsibility policies and in general ensuring good practices and fostering healthy, sustainable food.

INNOQUESAR: Innovation applied to the artisanal cheese sector's comprehensive traceability and value chain. 5

RURAL DEVELOPMENT PROGRAMME

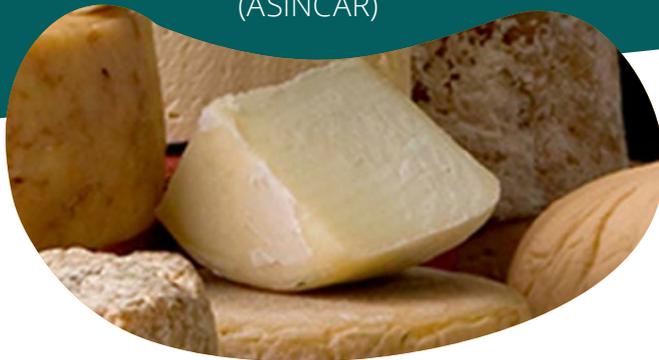
RDP Asturias

YEAR CREATED

2019

PROJECT COORDINATOR

Asociación de Industrias Cárnicas (ASINCAR)



PARTNERS

ASINCAR | Red Asturiana de Desarrollo Rural (READER) | Fundación Centro Tecnológico de la Información y la Comunicación (CTIC) | Asociación para el Desarrollo Rural e Integral del Oriente de Asturias (ADRIOA)



www.innoquesar.es



innoquesar@ctic.es

Description

Asturias is the largest cheese-producing area in Europe, with more than 40 varieties of artisanal cheeses made mainly by small family dairies in rural areas.

The vast majority of these companies keep track of their processes and food traceability with paper records. Such a system is not very efficient to keep economic and financial control or to quickly get the necessary information to respond to a possible health alert or take business strategy decisions.

Innoquesar is going to foster modernisation and the take-up of Industry 4.0 tools in these small dairies. To do so, it will put a computer app at their disposal for integral management of their procedures.

Furthermore, a virtual twin of an exemplary cheese factory will be created, so that these improvements can be seen at work with immersive virtual reality.

Objectives

- Encouraging the efficient use of resources to improve the sector's competitiveness and viability.
- Helping improve control over food traceability in the production of artisanal cheese.
- Improving control over economic, administrative and sales management.
- Narrowing the digital gap between SMEs or micro-SMEs and large companies in the sector.
- Fostering Industry 4.0 and all it entails in companies in rural areas, since such entities find more difficulties in accessing these new tools by themselves.

Expected results

- ▶ Fostering the cheese sector for the Protected Designations of Origin of Cabrales, Casín, Gamonéu and Afuega'l Pitu, and for the Protected Geographical Indication of Los Beyos and the ones linked to the Association of Artisan Cheesemakers of Asturias.
- ▶ Development of a user-friendly tool that does not require an Internet connection so as to make it easy to introduce it in as many dairies as possible.
- ▶ Development of a second web-based tool applied to integrated management of cheese factories.
- ▶ To help manage dairies and benefit consumers by being able to consult the traceability of their cheeses.



**INNO
QUESAR**

Innovación aplicada a la trazabilidad integral y cadena de valor del sector quesero artesanal

“With the same app, cheesemakers will be able to control all of the necessary aspects to manage their company by themselves, from purchasing and receiving the raw materials and the packaging, to dispatching and selling the products”.

DURCAT: Supplying the demand for durum wheat via local production, short distribution chains and complete traceability.

6

RURAL DEVELOPMENT PROGRAMME

RDP - Cataluña

YEAR CREATED

2017

PROJECT COORDINATOR

Productos Alimenticios Gallo S.L.

PARTNERS

Productos Alimenticios Gallo S.L. | Cereales Aragón y Cataluña S.A. (CAYCSA) | Instituto de Investigación y Tecnología Agroalimentarias (IRTA) | Centro Técnico Alimentario S.A. | Associació de Cooperatives de les Terres de Lleida, S.C.C.L. | Associació Catalana de multiplicadors de Llavors. | Organització Professional Agrària de Joves Agricultors



 jmas@pastasgallo.es

Description

Every year, about 150,000 tonnes of wheat are consumed in Catalonia. However, the production of durum wheat (*Triticum turgidum* ssp. *durum*) in the autonomous community region barely comes to 800 tonnes, meaning 0.5% of local consumption. Given this situation and in response to the new European strategy "From farm to fork", this project aims to help foster farming of durum wheat in Catalonia, promoting local production using a production model geared towards quality and traceability to meet the demand of the Catalan pasta industry. To this end, innovative tools have been developed to support decision-making, based on remote sensing and sensorisation, used to produce quality grain in an environmentally friendly and economically sustainable way. In addition, a traceability system from the field to the consumer was launched, with comprehensive monitoring from the seed up to the point of sale.

Objectives

- Helping introduce durum wheat farming in Catalonia as an added value alternative for the cereal sector.
- Setting up a quality-oriented, more local, traceable production model to meet the demand for durum wheat from the local pasta industry.

Results achieved

- ▶ Identification of the most suitable varieties for different Catalan production areas.
- ▶ Innovative tools provided for decision-making as regards traceability, based on remote sensing.
- ▶ Development of an integrated model for a short distribution chain from the field to the industry, based on using certified seeds and recommended varieties.
- ▶ An evaluation of the environmental and economic impact of the production model proposed.



"DURCAT aims to explore the agronomic, economic and environmental viability of durum wheat production in certain areas of Catalonia, as a model to integrate a short supply chain".

ARROZOREX: Traceability in rice farming and its value chain.

RURAL DEVELOPMENT PROGRAMME

RDP - Extremadura

YEAR CREATED

2017

PROJECT COORDINATOR

Cooperativas Agro-Alimentarias de Extremadura

PARTNERS

Cooperativas Agro-Alimentarias de Extremadura | San Agustín de Obando S.C.L.
Extremeña de Arroces S.C. | Solucionex Consultoría y Desarrollo S.L. | IaaS365 S.L.
Centro Tecnológico Agroalimentario Extremadura (CTAEX)



ctaex.com/transferencia-tecnologica/GOr-arrozorex

jgutierrez@ctaex.com

- Greater precision in evaluating crop yields, giving farmers a tool to help in decision-making and selection of the most productive varieties.

Description

The ARROZOREX Operational Group responds to the need of Extremadura's rice sector to create visibility for the origin of its rice and set it apart from others, as a result of the problems in importing rice varieties from abroad. It is concentrating on permanent monitoring of Extremadura's rice farming, ranging from when it is sown, stored and up to the processing industries, helping identify and separate the raw material and giving a fully traceable end product. To do so, work is being done to create a new method based on a computer tool that collects all the relevant information about the process in order for the end product to be perfectly traceable. The information gathered will make it possible to identify the producer, the production system and the variety of rice, as well as other data of particular importance such as the date of harvesting and the management of water and plant protection products during its cultivation.

Objectives

- Ensuring the crop's traceability in the field, enabling fast, efficient handling on receipt of the raw material in the industry and helping certify its origin.
- Creating an innovative tool to gather all the relevant information on the rice production process with a simple yet practical interface that is easy for farmers to use.
- Building a database in the cloud enabling the registered data to be processed quickly and efficiently by the processing industries.

Expected results

- ▶ Tracing the complete production cycle in rice farming.
- ▶ Giving information directly to the industry and the farmer.
- ▶ More efficient compliance by industry with traceability standards.
- ▶ Valuable information given to the consumer, providing the assurance that the product they are acquiring is perfectly traceable and that its origin from Extremadura is recognised.



"ARROZOREX helps the traceability process throughout the rice production and distribution chain, using a new technology that can be replicated in any agro-industrial sector".

BLOCKTAC: Blockchain technology to fight olive oil fraud.

8

H2020 RESEARCH AND INNOVATION PROGRAMME

PARTNERS

Hashed Blocktac S.L.

YEAR CREATED
2019

PROJECT COORDINATOR
Hashed Blocktac S.L.



<https://www.blocktac.com/>



fguillen@blocktac.com

Objectives

- Creation of a certificate based on blockchain technology to act as a digital seal of authenticity and enable original bottles to be easily identified with mobile phones, putting an end to fraud.
- Greater competitiveness for companies in the international arena by helping to monitor and check on the quality of their products.
- Improved traceability management at an affordable cost.

Results achieved

- ▶ Development of the BLOCKTAC tool, enabling quality certifications and digital seals to be introduced, with simple, user-friendly authentication of the product, as well as mechanisms to detect fraud throughout the food chain.
- ▶ A platform that is versatile and adaptable to the user, providing different functionalities by sector and type of use.

“BlockTac is a new type of digital seal based on blockchain technology that enables the authenticity of the oil to be checked with a smartphone”.

Description

Europe produces about €3 billion of olive oil every year, mainly in Spain, Italy and Greece. At the same time, market losses due to olive oil fraud are estimated at around €1.5 billion per year. Different cases of fraud have been seen, as well as with low-quality oil being mixed in, oil refined by chemical means or else oil that is out of date by the time it reaches the market.

The Blocktac project aims to take on this challenge using blockchain technology. Such technology gives the agri-food sector the necessary trustworthiness and traceability to ensure its products' quality, authenticity and sustainability. Manufacturers and consumers are sure that the products bearing a brand really come from the place indicated, that they have gone through all of the health and safety checks and are not counterfeit food. Based on the most widespread platform, Ethereum, Blocktac defines itself as a product authentication tool, enabling immediate verification by users and helping to monitor and manage the products sold.



MARLON: Monitoring the long-term risks related to genetically modified feed for cattle.

9

H2020 RESEARCH AND INNOVATION PROGRAMME

YEAR CREATED
2012

PROJECT COORDINATOR
Stichting Wageningen Research



PARTNERS

Stichting Wageningen Research (NE) | Freie Universitaet Berlin (DE) | Institut national de recherche pour l'agriculture, l'alimentation et l'environnement (INRAE) (FR) | Institut de Recerca i Tecnologia Agroalimentàries (IRTA) (ES) | Istituto Superiore di Sanità (ISS) (IT) | Royal Veterinary College (UK) | Sociedade Portuguesa de Inovação (SPI) (PT) | Università degli Studi di Camerino (UNICAM) (IT) | Universitat de Girona (UdG) (ES) | Università degli Studi della Tuscia (UNITUS) (IT)



www.wur.nl/en/show/marlon.htm



gjjs.kleter@wur.nl

Description

Food safety has gained great prominence, both for the industry and for political authorities. In recent decades, there have been food alarms with huge social repercussions, from the so-called “mad cow disease” in the 1990s to the presence of horse meat in beef products a few years ago, which have undermined consumers’ confidence in the safety of foodstuffs. The MARLON team decided to gather existing knowledge about genetically modified crops used in manufacturing animal feed. The IPAFEED database, one of the main outcomes of the MARLON project, contains information to examine the possible effects of genetically modified crops on the health of livestock. By providing guidelines and resources to check on risks, the project leaders intend to make it easier for the regulatory bodies and entities in the food supply chain to identify possible health risks in advance more effectively.

Objectives

- Recommendations given on how to control and evaluate the risks involved in feeding livestock with genetically modified feed.
- Monitoring and analysing the potential impact on health of this type of feed.

Results achieved

- ▶ Studies of controlled short-term, long-term and multigenerational diet trials with animal feeds in order to evaluate the animals’ health with this type of diet.
- ▶ Development of the IPAFEED platform, a free access database providing specific quantitative information about the health of animals fed with this type of feed, and recommendations for livestock farmers.
- ▶ Development of an epidemiological model capable of evaluating the suitability of existing surveillance programmes and detecting changes in the syndromes evaluated.

“Legislative authorities and food suppliers have a virtual database on transgenic crops free of charge, which could be very useful in avoiding the risks posed by some kinds of feed”.

TRACK: Tracking opportunities to develop and strengthen data collection and big data in the agri-food chain to increase the competitiveness of SMEs.

10

EU COSME PROGRAMME

YEAR CREATED
2017

END OF PROJECT
2020

PROJECT COORDINATOR
Vegepolys Valley

PARTNERS

Greenport West-Holland (NE)
Clust-er Agrifood Agroalimentare (IT)
Technological Corporation of Andalusia (CTA) (ES) | AgroTransilvania Cluster (RO)
Vegepolys Valley (FR)



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- Providing support for selected ICT SMEs in order to speed up the roll-out of their solutions in the agri-food sector.

Description

TRACK is a project belonging to the European Union's COSME programme, in which five clusters located in France, Romania, Italy, Holland and Spain took part, each one made up of various stakeholders from the agri-food sector. The project aimed to generate an interregional ecosystem to stimulate innovative solutions for the agri-food chain and encourage joint investments to head towards agri-business 4.0.

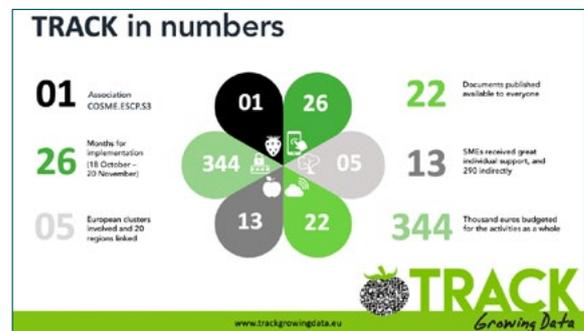
It put forward innovative solutions to improve traceability by digitalising the agri-food chain, focusing on the value chain of plant production and ramping up the connection between ICT sectors, big data and stakeholders in the agri-food industry, especially SMEs.

Objetivos

- Building a common vision among the consortium's member clusters in order to tackle the challenge of adapting to new technologies.
- A proposal for joint implementation of an action plan to stimulate innovation and investment, thereby helping to improve the food chain's efficiency and traceability.
- Creation of an interregional system to generate mutual stimulation between the ICT/traceability/big data sector and the agri-food sector, using collaborative tools among the stakeholders.
- Strengthening and fostering pilot projects to help develop promising solutions.

Results achieved

- ▶ The launch of different information and training activities such as webinars (11 in total) on different topics; for example, workshops on internationalisation and support for investment.
- ▶ Development of a coaching and mentoring service tailored to ICT companies to guide their business model towards the agri-food sector.
- ▶ Creation of a powerful, consolidated network and virtual community to exchange good practices as regards traceability matters in the agri-food sector.



“To date, 400 SMEs have benefited directly or indirectly from the project”.

The **NRN** is the hub connecting all of the people and entities related to the rural environment with the aim of raising awareness of Rural Development Programmes and providing access to them. At the same time, its purpose is to make the population aware of the importance of the rural environment for our present and our future.

The unit responsible for the NRN is the Subdirectorato General for Rural Revitalization within the Directorate General of Rural Development, Innovation and Agrifood Training of the Ministry of Agriculture, Fisheries and Food.

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TRACEABILITY IN THE AGRI-FOOD, LIVESTOCK, AGRICULTURE AND FORESTRY SECTORS



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