



acta

LES INSTITUTS
TECHNIQUES
AGRICILES #



76

**H2020 European research
and innovation projects**

for a productive and
sustainable agriculture

Edition
2021

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L. pelec APVALIS

The presentation of the projects is split into 5 themes and organized according to the year of the start of the projects.

These projects have received funding from the European Union's Horizon 2020 research and innovation programme



Introduction



As early as 2012, Acta and the network of Agricultural technical institutes (known as ITA in French) had identified the European Horizon 2020 programme (the European Union's 8th Framework Programme for Research and Innovation) as a promising route for development, allowing the ITA network to continue innovating.

Indeed, the launch of the EIP-AGRI (European Innovation Partnership “for a productive and sustainable agriculture”) and the generalisation of the multi-actor approach in Horizon 2020 projects has enabled applied research institutes to play a pivotal role in these new research and innovation projects, at the interface between research institutes and universities on the one hand and advisory, and development actors on the other.

The strong involvement of the ITA network in the Horizon 2020 programme, which in operational terms resulted in the implementation of a European strategy in 2014 and its revision in 2017, has paid off since at the end of the programme the Acta network has a very positive record of participation in 76 Horizon 2020 projects, including the coordination of seven projects.

This booklet illustrates both the strong vitality and involvement of ITAs in the Horizon 2020 programme but, above all, the wide range of subjects, themes and issues dealt with by the network. Agricultural Technical Institutes have a great diversity of skills and know-how, and have forged numerous collaborations with a wide variety of partners from all European countries and beyond.

European cooperation has been a priority for the development of the Acta network since a new and ever-more ambitious strategy was introduced in 2021 in order to firmly register our actions within the framework of the new Horizon Europe programme (9th Framework Programme for Research and Innovation) which will allow us to participate in and coordinate even more European projects in order to generate the innovations and solutions needed by our sectors to meet current and forthcoming challenges.

Anne Claire Vial - ACTA President

Editorial



The introduction in 2014 of the European Innovation Partnership (EIP-AGRI) within the framework of the Common Agricultural Policy (CAP) responded to the need to increase and accelerate innovation in order to help the agricultural sector meet various sustainability challenges. This priority has materialised in the Horizon 2020 Framework Programme with sharply increasing resources for agricultural research and innovation and a multi-actor approach that is used for two-thirds of the projects.

One of the crucial objectives of the new approach taken in Horizon 2020 was to ensure that the results of applied research are effectively implemented in the field. Such an approach means that technical institutes, experimental stations and all organisations where applied research is at the heart of their activities, their primary vocation, must participate as much as possible in Horizon 2020. Given this background, I welcome the fact that applied research organisations such as Acta and the network of agricultural technical institutes (ITA) have a very positive track record in 76 Horizon 2020 projects and are fully participating in this renewed approach to European research and innovation.

With the new CAP and Horizon Europe, the EU has proven its willingness to further chart the course that was set a few years ago. In fact, it is even more necessary than it was seven years ago. It is up to Acta, to the technical institutes in all Member States, and to the vast community of researchers and other actors involved in the agricultural knowledge chain to play their part in this ambition.

Disclaimer: This editorial represents the point of view of the author in his personal capacity and not the point of view of the Directorate-General for Agriculture as an institution.

Marc Duponcel - Head of Sector Research to the European Commission

Key figures

Acta manages 18 Agricultural Technical Institutes in France. With almost 2,200 collaborators, Acta's network adds value to unique French know-how, the source of encouraging developments and sustainable partnerships.

Acta in figures

€ **5,3** million annual budget

64 years since its creation

44 collaborators

60 Research-Development-Innovation projects under way

€ **1,2** million in sales and services

Agricultural Technical Institutes (ITA) in figures

€ **211** million annual budget

18 Agricultural Technical Institutes qualified in 2018 and Acta as coordinating body

2,200 collaborators including **1,700** doctors, engineers and technicians

39 European H2020 projects underway

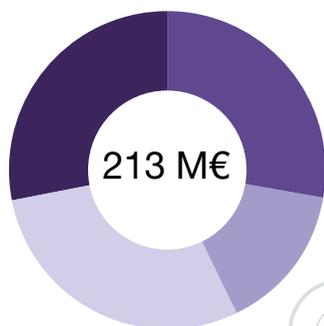
210 European projects between 2014 and 2020

30% success rate for Horizon 2020 calls for projects

37 PhDs in preparation

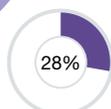
250 scientific publications

675 training sessions with **5,000** participants



Sources of the ITA resources

*National Fund for agricultural and rural development (CASDAR)



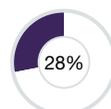
CasDAR*



Other public credits (ministries, agencies, regions, European Union)



Inter-professional funding



Own Funds

Source Acta 2021

The vocation of ITAs

Facilitating knowledge transfer and peer to peer learning



Fanny Prezman - IFV - Institut français de la vigne et du vin

Agricultural innovation is everywhere and everyone can, at their own level, contribute to the development of agriculture. Many innovations are implemented by farmers and directly tested in real conditions. These innovations are often not widely shared and disseminated, and their results remain little known to the profession. A network of demonstration farms makes it possible to promote these innovations by making the farmer a direct actor in the transfer of the innovation. Thus, pilot farmers can receive their peers on their farm to show them their innovation, share their experience and discuss various agricultural issues. They are supported by a network facilitator who facilitates knowledge transfer and peer-to-peer learning. In the framework of the H2020 NEFERTITI project, numerous European-wide demonstration networks have been set up. These European networks are composed of several national networks (called hubs) and are focused on innovative themes for agriculture. Each network is led by a network facilitator who provides guidance in line with the network's theme, coordinates demonstrations, and supports national networks to promote learning. The national networks identify pilot farmers and implement demonstrations at the local level. Since 2019, IFV has been coordinating the network "reduction of pesticide use in grape, fruit and vegetable production". This network is composed of 5 national hubs: France, Spain, Portugal, Germany and Bulgaria. The demonstrations of this network aim to highlight the initiatives carried out on farms to limit the use of pesticides: new technologies to detect diseases, more efficient spraying techniques, biocontrol, innovative approaches.

The 'Living Labs' system: Involving stakeholders in jointly developing locally relevant solutions in a given context



Sonia Ramonteu - Acta

ITAs have developed and implemented multi-actor facilitation skills in territorialized case studies, in order to characterize, test, evaluate, co-design and deploy technical and organisational solutions, based on innovative farmers networks and trials in experimental farms associating advisors, researchers, SMEs and industries, as well as politicians, citizens and consumers. The objective is to involve stakeholders in jointly developing locally relevant solutions in a given (agro-pedo-climatic, but also socio-economic) context, towards a common goal: overcoming a shared challenge. For example, in the CieNfarms project, which aims to deploy climate neutral agricultural practices, Idele will run two living labs. One of them will be in a dairy farming area in the Trévarez experimental station in Brittany (France). It relies on a network of 10 pioneering farmers who are developing innovative practices with a low climate impact, with the objective of deploying low-carbon virtuous practices in 100 surrounding farms. It will bring together regional chambers of agriculture, cooperatives and agri-food industries, but also financial players who can finance carbon credit systems.

Digitalisation of agricultural value chains and systems



Emmanuelle Gourdain - Arvalis - Institut du végétal

The digitalisation of data, and more particularly that produced on farms, can be a real plus to producers, but to be of value and interest for farmers, this raw data must circulate and be transformed into data compiled within decision support systems (DSS).

The development of such tools requires substantial financial and human resources with the intervention of many professions, ranging from marketing for market research, to IT developers for interfaces, including modellers and data managers, not to mention validation in the field through dedicated experimentation.

These activities are central to the European SmartAgriHubs project, funded by the European Horizon 2020 programme, which brings together more than 160 European partners from across the agri-food sector with the aim of accelerating the digitalisation of agriculture. Arvalis is working on two innovations. The first is based on the exploitation of satellite data, and more particularly of indicators such as chlorophyll content or leaf area index, measured periodically and for which information can be obtained at the field scale. Then, data on the technical management of the plot is entered by producers. Finally, a crop model linked to reference data (variety, weather and soil) simulates the conditions of the plants every day and, in particular, their water and nitrogen needs. The combination of all this information now makes it possible to offer so-called tactical DSS, for real-time crop management.

The second, first initiated in the ioF2020 project and continued as part of the Digipilote innovation platform, consists of making this information available in a web application, called é-Pilote, co-developed with the Duransia cooperative. Farmers can enter field information via a chatbot and, once the data has been entered and GPS trimming of the plot has been conducted, the satellite data is retrieved and coupled to the CHN crop model (developed by Arvalis) which provides the plant's water and nitrogen deficits in the weeks to come in the form of a graph.

Communication and diffusion through our dissemination networks



Anne-Christine Lefort - ITAVI (Technical Institute for the poultry, rabbit and fish sectors)

European thematic networks are projects funded by the European Union (H2020 programme) which bring together key players in agriculture around a need identified by farmers. They have two main objectives:

- Collecting scientific knowledge and best practices and promoting their use by farmers and their advisers.
- Translating this knowledge into a source of information that is easily understandable and usable by end users.

The project partners rely on their local multi-stakeholder networks to gather the necessary information, and then to share the results of the project as widely as possible with stakeholders in the field.

Knowledge and practices are shared with stakeholders in the field in the form of recommendations and solutions ('summaries of useful practices'), brochures, good practice guides, videos, podcasts, slide shows etc. and are available on project websites, via the main existing dissemination channels most often used by producers.

So, for the Netpoulsafe project, a network of actors is gradually being set up in the seven participating countries. Led by ITAVI, Netpoulsafe is a thematic network addressing support methods designed to improve compliance with biosecurity on European poultry farms.

Once collected, analysed and validated on pilot farms, the best methods will be disseminated and shared with the help of these networks of actors, with a view to making them known by country, type of production or for species for which they are currently not very well known or applied. They can also be highlighted during technical days, seminars, webinars or through online courses and summer schools.

Experimentation - evaluating practices

CTIFL team (interprofessional Technical Centre for Fruit and Vegetables)

The EUCLID project, addressing integrated protection in protected tomato and lettuce crops, was designed to improve existing control levers and develop new ones but also to transfer knowledge to end users in Europe and China. As part of this project, Benjamin Gard, responsible for the integrated protection programme for protected vegetable crops at CTIFL, worked with Acta. He was responsible for experimentation for CTIFL.

He explains: “We carried out tests under semi-controlled conditions (in glasshouses using off-ground cultivation and soil-grown crops in polytunnels) and under controlled conditions in the laboratory (in cages) to evaluate biocontrol products against various pests such as root-knot nematodes in lettuce and powdery mildew and whitefly in tomato. Each biocontrol product has been evaluated according to a specific study protocol developed specifically for the trio ‘crop, pests and biocontrol product studied’. “In testing, biocontrol products against nematodes were not shown to be effective even when the test conditions were intended to improve the action of the product. This lever does not seem suitable for nematode control.

“The COS OGA-based tomato powdery mildew biocontrol product, already approved in tomato crops, has shown good results. This product could constitute an interesting additional lever to integrate into powdery mildew management strategies.

“For the management of whiteflies, essential oils have shown interesting results but further studies are needed to improve the use of this product such as an improvement in the formulation, a reduction in the dose and the creation of a registration dossier.

“Thanks to these results, the integration of more biocontrol products in management strategies for powdery mildew in tomato crops should be encouraged among producers.”

Knowledge capitalisation through a unique European platform



Patrick Sarzeaud - IDELE – French Livestock Institute

One of the main challenges of H2020 projects is to have a direct and assured impact in the field, in other words with farmers. Very often generated by scientists and researchers, the knowledge produced by these projects remains compartmentalised in media that are difficult to reach or on little-known websites. The main barriers to overcome relate to communication, language being the first limiting factor, but there is also the choice of the right format (written, oral or video, for example).

The H2020 Euraknos project, and subsequently the EUREKA project, is seeking to produce a European knowledge platform that is useful to as many people as possible. The evaluation carried out on around 30 thematic networks and on the outputs of EIP operational groups showed the great diversity of the subjects concerned and the wealth of knowledge produced. But it seems that the impact of these projects has increased tenfold if two key factors are combined: listening to the needs of farmers and the involvement of everyone, including farmers, in the development of content through multi-actor co-creation approaches.

By producing a common technical knowledge base, the EURAKNOS project is deploying substantial resources concerning the organisation of information systems and content provision. However, this platform will reach its audience thanks to the involvement of facilitators committed to listening to needs and transcribing knowledge into adapted, feasible and useful practices and solutions.

ITA engineers connected to territories and value chains in order to meet expectations in the field



Frédéric Muel - Terres Inovia

Engineers from ITAs (France's Agricultural Technical Institutes) are deployed in the field to support production stakeholders, mainly producers and livestock farmers as well as cooperatives. ITA engineers are also called upon to play the role of facilitator in the development of territorial value chains, bringing stakeholders together through the facilitation of meetings and workshops. ITA engineers are important relays in disseminating information on markets, outlets and prices, which helps to ensure the proper functioning of value chains. They can initiate the creation of new chains in the territories for the benefit of all stakeholders.

For example:

- The FILEG project led by engineers from Terres Inovia in the Occitanie region, designed to bring together stakeholders for the development of seed legumes in the area (<https://www.fileg.org/>).
- The LEGGO project (Legumes à Graines Grand Ouest, seed legumes in north-west France) which is an association bringing together three regions (Brittany, Pays de Loire and Normandy). LEGGO is aiming to support the development of a legume sector (peas, field beans, lupin, lentils, chickpeas, soyabeans and haricot beans), both from a commercial and technical point of view with the support of engineers from Terres Inovia. These engineers have benefitted from the analyses carried out within the H2020 LegValue project, which is promoting the development of legume value chains in Europe.



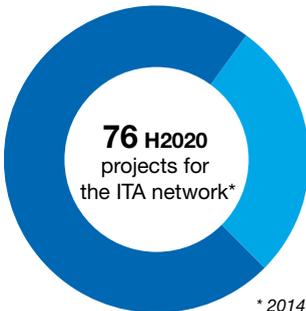
European schemes and programmes

Horizon 2020

Horizon 2020 is the most important research and innovation programme in the history of the European Union, with a budget of almost € 80 billion for a period of seven years (2014-2020). This policy follows the willingness to implement the Innovation Union, aimed at supporting European competitiveness and promoting smart, inclusive and sustainable growth. Calls and projects funded by the EU in the H2020 framework are based on three pillars: excellent science, industrial leadership and societal challenges. Within Societal Challenge 2 ('Food security, sustainable agriculture and forestry, marine and maritime and inland water research, and the bioeconomy'), the European Commission fosters a multi-actor approach, gathering actors from different backgrounds (advisers, researchers, universities, farmers, agronomists, decision-makers, companies, technicians, civil society, NGOs etc.).

The Horizon 2020 programme funds both research and innovation projects and thematic networks dedicated to the exchange and transfer of applicable know-how and knowledge.

The French Agricultural Technical Institutes are applied research structures and are therefore particularly adapted to these new paradigms of multiple actors and interdisciplinary projects. They are essentially but not exclusively concerned by the H2020 Societal Challenge 2, that's why some projects corresponding to calls from other pillars such as 'Earth observation' or 'infrastructures' are also included in this booklet.



- Partnerships with the other 26 EU member states
- 7 H2020 projects coordinated
- 30% success rate for Horizon 2020 calls for projects
- The network of ITAs is in the top 10 of European beneficiaries for Research and Innovation funds in agriculture through Horizon 2020

* 2014-2020

Horizon 2020 projects in numbers

Horizon Europe



Horizon Europe is the most ambitious research and innovation programme ever launched in Europe, with funding of € 95.5 billion over seven years (2021-2027). This programme follows on from the Horizon 2020 programme which ended at the end of 2020 and which was, in 2014, the most significant research and innovation programme ever rolled out by the European Union (EU).

The objectives of the new programme are to strengthen the scientific and technological foundations of the Union; to stimulate its competitiveness, including that of industry; to give concrete form to the Union's strategic political priorities; and to help respond to global issues, including the sustainable development goals.

To achieve these objectives, all calls for projects and the projects funded by the EU under Horizon Europe fall under one of three pillars: Excellent Science; Global Challenges and European Industrial Competitiveness; Innovative Europe.

The French agricultural technical institutes (known as ITAs) will be mainly concerned by the second pillar on 'Global Challenges and European Industrial Competitiveness'. Indeed, it devotes a chapter to 'food, bioeconomy, natural resources, agriculture and the environment'. The ITAs, as well as other national and European institutes, will respond to calls for projects on this theme in order to advance applied research and agricultural innovation.

Green Deal

The Green Deal is the flagship policy of the new European Commission presented at the end of 2019 in order to make the European economy sustainable and achieve climate neutrality by 2050. To achieve these objectives, all economic sectors must invest in technologies which respect the environment; support innovation in industry; deploy cleaner, more affordable and healthier private and public transport; decarbonise the energy sector; improve the energy efficiency of buildings and work with international partners to improve global environmental standards. For this, the European Commission has allocated funds through major programmes such as Horizon Europe.

Agriculture is an important part of Europe's economy and will therefore be greened through a specific policy called 'Farm to Fork'. These new measures impacted the French agricultural technical institutes which had already responded in 2020 to calls for Green Deal projects specifically created to boost the green transition in European agriculture.

Farm to Fork

Farm to Fork is one of the two main strategies of the Green Deal along with Biodiversity. This strategy aims to make the food chain more sustainable. For this, the European Commission is devoting part of the budget of the Common Agricultural Policy, Horizon Europe and the fisheries fund in order to guarantee European citizens a sustainable and affordable diet, to combat climate change, to protect the environment, preserve biodiversity and strengthen organic agriculture. The ITAs will mainly respond to calls for projects on these themes via the new Horizon Europe research programme.

EIP-AGRI

The European Innovation Partnership for Agricultural productivity and Sustainability (EIP-AGRI) is an instrument implemented in 2014 by the European Union, aimed at fostering and stimulating innovation in the farming sector. Know-how and knowledge exchange between the different actors participating in research and innovation projects as well as the dissemination of best practices are two objectives of this initiative.

EIP-AGRI is based on two European policies: the second pillar of the Common Agricultural Policy (CAP) and the European research and innovation policy (Horizon 2020). In the Horizon 2020 framework, EIP-AGRI finances multi-actor projects gathering actors from different professional backgrounds and European nationalities. Within the CAP and European agricultural fund for rural development (EAFRD) framework, EIP-AGRI supports the establishment at the regional level of Operational Groups, designed on the multi-actor model of H2020 projects. This approach fosters the networking and coherence between the two project levels (regional and European) when they work on similar or close themes.

EIP-AGRI also initiated the constitution of Focus Groups at the European level. Some 20 European experts take place in these groups, dealing with one specific research theme in agriculture and trying to identify the situation, to remove barriers and propose practical and operational solutions linked to this question (organic farming, smart farming, circular economy, water and farming etc.).

Useful links:

- <https://www.reseaurural.fr/>
- <https://ec.europa.eu/eip/agriculture/>



ITA network:

- Heads up **22** OGs in France*
- Participates in **65** EIP OGs*

*(2019)

OG principal themes:



An OG can be involved in several themes

EIP-AGRI Operational Groups in numbers

Exploiting the results of EIP-AGRI European (H2020) and regional (Operational Groups) projects

Optimising the transfer and appropriation of knowledge concerning the herbivore sector

 January 2021 - June 2023

 € 200,000

Production: Idele (Livestock Institute)

IMPACT⁺

Strengthening the exploitation of EIP-AGRI project results

The projects supported through EIP-AGRI are sources of knowledge, references, technical recommendations, methods and tools. As part of H2020 projects their production is rarely in French and as part of EIP Operational Groups they often have limited regional distribution. These are factors limiting the use of these resources.

Sharing this observation with the National Rural Network, in charge of coordinating EIP-AGRI on behalf of France's Ministry of Agriculture, the Idele - The livestock institute launched IMPACT+ in the first half of 2021 seeking to strengthen the dissemination of results and outputs from European H2020 and regional OG EIP projects.

A transversal project targeting EIP-AGRI projects concerning the herbivore sector

Since 2015, the Idele - The livestock institute has been or is currently involved in around 50 H2020 and OG EIP projects on a wide variety of themes contributing to the economic, environmental and/or social sustainability of herbivore value chains.

Among these projects, IMPACT+ is aiming to identify and promote the most relevant outputs available to help ensure that the innovations identified or produced can diffuse more efficiently to their different types of potential users, first and foremost farmers, advisers and actors involved in local collectives, education and vocational training.

ITA's missions:



- An exhaustive review of H2020 and OG EIP projects in order to provide a homogeneous characterisation of them despite their diversity and to identify the outputs available.
- The characterisation, prioritisation and exploitation of the outputs most likely to interest the different types of priority target users.
- Sharing these outputs and multiplying their distribution via the usual information channels of target audiences (websites, social and professional networks, events and trade shows etc.).

Around the "Sustainable Forest" topic

 **May 2021 - July 2023**

 **212 K€**

Implementation: CNPF/IDF + ECOFOR + IEFC

The EIP-AGRI Sustainable Forest thematic animation (2021-2023), initiated by the National Rural Network (NRN) and conducted by the CNPF (National Forest Property Centre) in collaboration with public interest group ECOFOR and IEFC (European institute for cultivated forests), aims to promote the results of the most relevant European (multi-stakeholder projects and thematic networks) and regional (operational groups) EIP-AGRI forestry projects of the 2014-2020 period to French forestry stakeholders through the implementation of a programme of transfer and communication actions (summary sheets, videos, webinars, regional field workshops).

The aim of this projet is to identify, characterise and collectively develop the most relevant projects related to the "Sustainable Forest" topic and responding to national and regional forestry issues (e.g. risks and climate change, silviculture, sustainable management, ecosystem services). Synergies could be developed with the agricultural sector on cross-cutting issues (soil preservation, renewal of farmers/forest owners, etc.).

This coordination aims to encourage the emergence of new partnerships via the submission of EIP-AGRI projects (Horizon Europe and EAFRD) and to encourage the development of work integrating forest owners and managers as well as the various forestry actors from Research - Development - Innovation (RDI).

The CNPF, via the IDF (ITA) and its regional delegations (CRPF), has been or is involved in several H2020 and OG projects of the EIP-AGRI.

Partners:

CNPF/IDF (coordinator): Benjamin CHAPELET

GIP ECOFOR: Nicolas PICARD

IEFC: Christophe ORAZIO



Sylvain Gaudin CNPF

ITA's missions :



- Exhaustive inventory of H2020 and EIP OG projects on the "Sustainable Forest" topic and selection of the most relevant projects in regard to French forestry priorities.
- Characterisation, prioritisation and capitalisation of knowledge and practices that can respond to the concerns of French forestry stakeholders.
- Sharing and transfer of this knowledge and these practices through the production of summary sheets, educational videos and the organisation of regional workshops and national webinars.

Resource management (soil, water, biodiversity...)

In its long-term strategy, the Directorate General of the European Commission dealing with Agriculture and Rural Development (DG AGRI) established several priorities, one being resource management. The objective behind this priority is to find an equilibrium between productivity and environmental protection. As a consequence, a consideration of the links between ecosystems, resource use and climate is necessary. Moreover, new information and communication technologies can provide new uses and practices in this sphere. It can also concern the circular economy. Finally, smart land use is a possible answer to high greenhouse gas emissions and climate change.



Feed-a-Gene



📅 March 2015 – February 2020

💰 € 10 Millions

👤 Coordinator: INRA – France

👥 23 partners from 9 countries

Adapting feed, animal and feeding techniques to improve the efficiency and sustainability of monogastric livestock production systems

Reconciling efficiency and environmental issues

The competition between food, feed, and fuel encourages actors to look for new solutions to increase the efficiency and sustainability of livestock production systems. To do this, the EU has to rely to a greater extent on locally produced feed sources. This can be achieved by unlocking the potential of existing feedstuffs, by identifying new and alternative feed sources but also breeding animals able to exploit them more efficiently. Because of the diversity in feed sources and in feed technologies, there is not a single solution to improve the utilisation of locally produced feedstuffs and to attain protein self-sufficiency. An approach where different actors combine their expertise and skills is essential to ultimately reach this goal.

New resources, technologies, and livestock methods

Feed-a-Gene aimed to better adapt different components of monogastric livestock production systems (i.e., pigs, poultry and rabbits) to improve overall efficiency and reduce the environmental impact.

This involves:

1. The development of new and alternative feed resources, non-GMO and locally produced.
2. The development of methods permitting the characterisation of nutritional values of feedstuffs.
3. The identification and selection of robust animals, adapted to varied conditions.
4. The development of precision feeding techniques making it possible to optimise nutritional supplies and animal potential.

ITA's missions:



- Contributing to the production of alternative feed proteins from European rapeseed and soybean
- Technological improvement of rapeseed crushing processes



- Construction and validation of prototype precision feeding systems
- Assessing interactions between genetics and diet characteristics
- Evaluating the interest of breeding new feed efficiency traits concerning the ability of pigs to digest feed



- Development of precision feeding for poultry and the assessment of new livestock system sustainability using these practices
- Estimation of animal needs thanks to modelling
- Environmental impact assessments using Life Cycle Analysis



March 2016 – August 2018

€ 2 Millions

Coordinator: University of agriculture of Athens - Greece

13 partners from 8 countries

Smart Farming Thematic Network

Sustainability and competitiveness

The farming community will have to face an important challenge from now through to 2050: producing food for 9 billion people. In relation with this, other issues are also at stake such as the sustainability and competitiveness of European agriculture. Digital innovations are credible solutions to meeting these challenges and improving farm performance.

Disseminate smart farming technologies

SMART AKIS is a network of various actors involved in European research and innovation, especially on the theme of smart farming technologies. By bringing together farmers, advisers, researchers and technology providers,

the project has promoted innovative projects and developed new solutions combining farming and the digital sector. As part of its approach, SMART AKIS has established an inventory of applicable and under development solutions answering farmers' needs. Dissemination has been targeted in two ways: at the regional level thanks to seven innovation hubs in Europe, but also at the European level with a web platform in which actors can directly place their own solutions. This platform has had more than 1.000 connections per month and 650 registered users with varied profiles (farmers, researchers, advisers, teachers and industry).

ITA's missions:



- Technical coordination of workshops in France
- Design of multi-actor innovative projects



- Technical coordination of workshops in France
- Knowledge on the use and assessment of new technologies in arable crops
- Design of multi-actor innovative projects



- Extensive overview of new technologies in agriculture
- Coordination of multi-actor workshops in France and analysis of European results
- Technical and research recommendations





📅 November 2016 – October 2019

💰 € 2 Millions

👤 Coordinator: IDELE - France

👥 9 partners from 7 countries



Sharing of practices and innovations to improve sheep productivity

A thematic network project about practice-driven innovation

Sheep productivity is a critical component of farmers' income and therefore of the sustainability and attractiveness of sheep farming in the EU. SheepNet has established the durable exchange of scientific and practical knowledge among researchers, farmers and advisers, exchanging scientific and practical knowledge through a multi-actor and transdisciplinary approach.

ITA's missions:



- Coordinating the European project
- Leading a thematic network
- Linking with Operational Groups

Functioning on 3 pillars

SheepNet brought together together six leading EU sheep producing countries, plus Turkey, Australia and New Zealand. It has:

1. Produced a technical and practical knowledge database thanks to the contribution of numerous innovating farms,
2. Fostered cross-fertilisation through multi-actor workshops at the national and international scales, with a broad and interactive participation of the 'sheep community'
3. Developed learning and communication materials, mainly digital

SheepNet was strongly supported by EIP-Agri's existing Operational Groups and their research.



Idèle



February 2016 – January 2019

€ 2 Millions

Coordinator: AHDB/DairyCo – United Kingdom
20 partners from 15 countries



A Europe-wide thematic network supporting a sustainable future for EU dairy farmers

14 countries accounting for 60% of European dairy output

EuroDairy was an international network to increase the economic, social and environmental sustainability of dairy farming in Europe, at a time of unprecedented challenge for the sector. EuroDairy has fostered the development and dissemination of practice-based innovation in dairy farming, targeting key sustainability issues following the abolition of milk quotas: socio economic resilience, resource efficiency, animal care, and the integration of milk production with biodiversity objectives. EuroDairy spans 14 countries, encompassing 60% of European milk output.

A central role for the sectors

The priority themes were identified through consultation with farmers and industry, and had a direct impact on the economic, environmental and social sustainability aspects of European dairy farming: resource efficiency, biodiversity, animal welfare and socio-economic resilience. To promote the appropriation of innovations in the field in different production contexts, the project stimulated the creation of 42 EIP-Agri Operational Groups in Europe.

ITA's missions:



- Coordination of the network of 120 innovating pilot farms
- Technical support: efficiency of resources, biodiversity, dairy cattle welfare and health, socio-economic resilience



C. HELSLEY CHIFFEL



eurodairy.eu @eurodairy

#DairyFarmers #Sustainability #biodiversity #AnimalWelfare



eUFRUIT

📅 March 2016 – February 2019

💰 € 1.8 Millions

Coordinator: Aarhus University - Denmark

21 partners from 12 countries

Ensuring viability and efficiency of fruit production systems in Europe

Four main issues identified

EUFRUIT identified four main thematic areas to be addressed within its network, in order to stimulate competitiveness and the innovation potential of the European fruit sector: new cultivar development and evaluation, minimising residues on fruit and in the environment, optimising storage and fruit quality and securing sustainable production systems.

EUFRUIT's research and innovation approach optimised access to knowledge in the sector to avoid redundancy in the different national research efforts.

Diffusion of information and knowledge

Stakeholders in the farming sector have access to updated, ready to use information. The project gathered and analyzed state-of-the-art knowledge, summarising national and regional best-practices within the four thematic areas and sharing this knowledge through the EUFRUIT network. Value was created both for the industry with respect to competitiveness, sustainability and efficiency and for society through ensuring the security and safety of fruit, the consumption of which underpins human health and wellbeing. EUFRUIT also identified brakes and barriers which made it impossible to introduce practices in the field.

Finally, EUFRUIT established an online knowledge platform: <http://kp.eufrin.org/>.

ITA's missions:



- Monitoring the 'reduction of pesticide residues' section of the project
- Major expertise: reduction of pesticide residues, plant health, market studies, consumer perceptions etc.
- Diversity of fruit and vegetable species



Ctiff

 **October 2016 - January 2021**

 **€ 7 Millions**

Coordinator: INRAE – France

34 partners from 12 countries

No agricultural waste

Unavoidable agricultural waste

The No Agricultural Waste (NoAW) project was tackling the challenge of zero waste. NoAW applied the idea of a circular economy by reusing agricultural residues (tendrils, straw, manure etc.). A certain amount of agricultural waste is unavoidable; their quantity depends on the production volume. NoAW perceived this waste as a true resource in itself, able to benefit from a rehabilitation strategy and be reused and transformed in high added value products. This would reduce environmental impacts on water, air and soil.

Reuse agricultural residues

The ambition was to explore the potential benefits of converting agricultural waste in eco-efficient products (bioenergy, biofertilisers etc.). The project had a particular consideration for environmental and human security, linked to the circular management of this agricultural waste.

ITA's missions:



- Sharing experience on sustainability for wine production, from plant to grape, using Life Cycle Analysis (LCA)
- Practical case in the Languedoc region for developing a method to quantify and map wine and vine by-products
- Contribution to the knowledge exchange platform, and participation in the multicriteria environmental assessment of agro-waste management plans and solutions tested in the project



AdobeStock



📅 March 2016 – February 2020

💰 € 7 Millions

📍 Coordinator: INRA – France

👥 28 partners from 18 countries

Innovative management of animal genetic resources

Conservation of animal genetic resources

A quarter of domestic animal races are under the threat of disappearance even though they have a high potential for adaptation to future livestock. As a consequence, the conservation of animal genetic resources is a priority. IMAGE goal's was to enhance the use of genetic collections and to improve the management of animal bank genes (seed, DNA etc.) by developing genomic methodologies, biotechnologies and bioinformatics, thereby obtaining better knowledge and better exploitation of animal genetic resources. So, IMAGE aimed to demonstrate that gene banks provided a better sustainability for livestock production systems. These banks were to help breeds in their adaptability and ability, in order to make them accomplish their role in the food chain, particularly considering the variability in conditions and circumstances.

IMAGE 4 objectives

More precisely, IMAGE had 4 objectives:

1. Improving the utility of biological materials to respond to environmental constraints and market needs;
2. Minimising genetic accidents as anomalies or genetic variability factors;
3. Optimising the complementarity among ex situ and in situ conservation in order to maximise resources in the future;
4. Using the latest developments in DNA technology and reproductive physiology in collection, conservation and organic resource use. IMAGE established a dialogue platform (forum), to permit discussions between stakeholders (decision makers, NGOs, companies, researchers, field actors), mainly about the future of gene banks.

ITA's missions:



- Compiling a survey on genetic resource banks in Europe
- Conducting a typical case of biological material use to characterise French goat breeds in small numbers
- Participation in the coordination, dissemination and training tasks



📅 January 2017 - March 2021

💰 € 30 Millions

👤 Coordinator: Wageningen University - Netherlands

🌐 70 partners from 14 countries



Internet of food and farm

Providing precision farming

Internet of Food & Farm 2020 (IoF2020) had a revolutionary potential. It aims at considerably improving the level of control and automated decision-making in agriculture. Until which level can the Internet of Things be integrated and revolutionise the agricultural world and the food industry?

The objectives were principally to provide farmers with practices and tools for precision farming, but also to obtain a more sustainable production system and food chain.

Developing internet technologies in European farms

To achieve these goals, the IoF2020 project has organized case studies around five sectors (fruits, arable, vegetables, dairy and meat). Thanks to these studies, IoF2020 developed, tested and demonstrated the benefits of internet technologies within the European farms.

The IoF2020 project considered both the supply and the demand side. For the first, the expectations were to maintain and consolidate the position of the European technological industry in the world, by using these models inside European agriculture. For the second, it was to foster the use of these instruments in agriculture in order to secure and elaborate a coherent food system for future European generations.



ITA's missions:

ARVALIS
Institut du végétal

- Developing observation-based measuring tools that help farmers to make better informed decisions on fertilisation and irrigation
- Creating innovative services in the arable farming chain based on IoT technologies and data management platforms
- Showing how IoT-based agricultural monitoring systems can help to reduce the ecological footprint of farming, save costs and improve the working environment

Actia



📅 June 2017 – May 2022

💰 € 7 Millions

👤 Coordinator: INRA – France

👥 21 partners from 11 countries

Genomic management tools to optimise resilience and efficiency in cattle

Why livestock efficiency and resilience?

In today's modern animal agriculture there is an increasing need to balance resilience and efficiency. Animals need to be more resilient because future farming conditions will expose them to increasing challenges under different production systems and grazing environments. They also need an ability to recover from challenges like diseases which can vary across environments and farm systems. The problem is that it is still difficult to measure resilience and efficiency on research farms, and almost impossible under commercial conditions.

Developing or improving genomic management tools

GenTORE is developing innovative genome-enabled selection and management tools to empower farmers to optimise cattle resilience and efficiency (R&E) in different and changing environments. GenTORE's combined research and outreach programme contributes to addressing the challenges facing farming in a changing and volatile world. A web platform has been created in order to link interested actors and disseminate the tools developed.

ITA's missions:



- Characterisation of livestock systems
- Studying the biological aspects of resilience and efficiency
- Predicting resilience and efficiency
- Identifying genomic prediction tools



DR



📅 January 2017 – December 2020

💰 € 2 Millions

👤 Coordinator: Centre for grassland studies – Germany
20 partners from 8 countries



Shared innovation space for sustainable productivity of grasslands in Europe

Bridging the gap between researchers and field actors

Grasslands are vital for European agriculture. However, there is a crucial need to share knowledge and good practices between researchers and practitioners from the dairy, sheep and goat sectors in order to implement innovations. So bringing grassland research and practice closer together was the main objective of Inno4Grass, which comprised partners and stakeholders from eight European countries. The aim was to facilitate the implementation of innovative systems, moving towards profitable European grasslands which also provide environmental services.

Providing tools for grassland innovation

Inno4Grass set up a network of Facilitator Agents to capture and discuss novelties from innovative farms scrutinised via 85 case studies. It upgraded this knowledge basis via a multi-actor approach. A strong dissemination component was implemented, through national and European events, a European Wikimedia, decision support tools, grassland awards and material to feed existing MOOCs and training programmes. Around 100 written papers and at least 104 videos were released describing innovative practices. Inno4Grass fed the implementation of EIP-Agri and connected with existing Operational groups.

ITA's missions:



- Interviews to identify farmers' expectations
- Development of new decision support systems
- Farmer training sessions

INRAE





My Sustainable Forest

 November 2017 – October 2020

 € 2 Millions

Coordinator: GMV – Spain

11 partners from 8 countries

Satellite data to support forestry

Lack of recent and precise data, unsuitable tools

Covering 42% of the European territory, forests are crucial for the European economy. They provide both social and environmental benefits. The management of these forests must be driven by sustainability, following the European Union forestry strategy. However, to ensure such a management, forest managers need recent and precise data. Moreover, the making of traditional inventories is costly and too long (about five to 10 years). To be in accordance with their needs and planning, European forests require more powerful tools, able to annually follow forest extension, tree characteristics and emerging ecosystem services.

Development of decision support tools

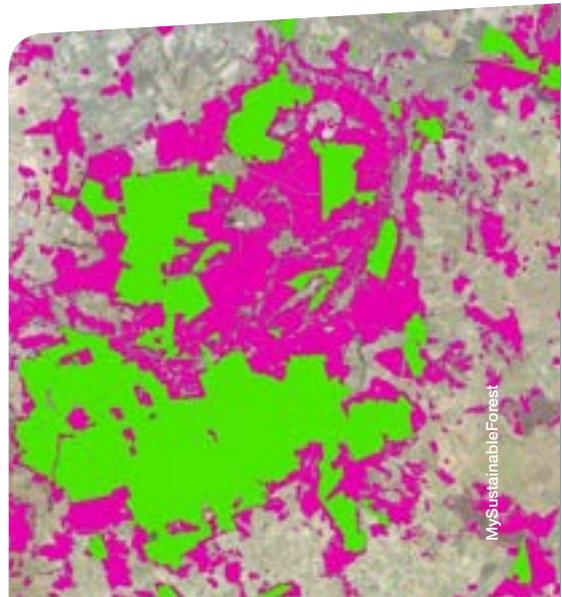
MySustainableForest partners were aware of this challenge and aimed to develop a pre-commercial service. They also established a platform for foresters in order to integrate earth observation in their decision-making process. The project was considering six different climates (Croatia, France, Portugal, Spain, Czech Republic and Lithuania) with different management methods. Finally, it was analysing the economic viability of the service and validating its business model.

In terms of final results, MySustainableForest expected to optimise final users' operations by 10% and to increase the competitiveness of SMEs in the forest sector.

ITA's missions:



- Case studies in France: (CRPF in the Centre and Nouvelle-Aquitaine regions): identification of needs and uses, testing tools; training and dissemination
- Mobilising managers, owners and other stakeholders on the programme's dynamics



📅 May 2017 – April 2022

💰 € 6 Millions

👤 Coordinator: INRA – France

👥 25 partners from 14 countries



Solutions for improving agroecosystem and crop efficiency for water and nutrient use

Limiting water and nutrient use

SOLACE has a major objective for European agriculture: facing the challenge in the coming decades of a progressively limited use of water and nutrients. To find solutions, the project is focusing on the design of new crop genotypes and on innovations in terms of agroecosystem management. The project's aim is to improve the use and efficiency of water and nutrients.

Discovering the best performing genotypes in this context

Essentially, the project partners conduct experimentation on three types of crops potato, bread wheat and durum wheat. In particular, based on these three crops and their experiments, actors are targeting the discovery of better performing genotypes with a reduced association of water and nutrients. Moreover, they would like to establish new practices to make better use of interactions between plants or plants/microbes in the access to water or N and P resources.

ITA's missions:



- Field experimentation
- Management of farm network on conventional durum wheat production
- Studying the impact of Mediterranean climate



ARVALIS



📅 February 2018 – January 2022

💰 € 5 Millions

👤 Coordinator: INRA – France

👥 14 partners from 9 countries

An integrated infrastructure for increased research capability and innovation in the EU cattle sector

A network of RIs to address global issues

With a projected increase in worldwide demand for meat and dairy products, livestock production is vitally important for Europe's future. There is therefore a major challenge for the EU cattle research community to maintain and improve its global leadership. Coordination, harmonisation of services and measurement methods and access to EU research infrastructure (RI) are essential to support research and innovation, and to contribute to a sustainable, smart and competitive Europe. At the same time, livestock RI is notoriously expensive to equip and maintain.

Easy access to high quality services and resources

SmartCow provides the academic and private research communities with easy access to 11 major RIs in seven countries offering its services as well as its global leadership services and resources. It combines skills in animal nutrition, genetics, health and welfare and ethics in animal experimentation.

A transnational access to RIs provides access to experiments in the context of projects outside SmartCow. Networking activities will harmonise and standardise procedures in animal care and measurements, design of experiments, data recording and analysis. Joint research activities will produce refined methods and proxies to evaluate feed efficiency and emissions, develop new protocols to reduce the use of animals or to exploit sensor data for cattle husbandry.

ITA's missions:



- Mapping of European RI
- Training and study tours
- Stakeholder engagement



 May 2018 - April 2022

 € 4 Millions

Coordinator: FiBL – Switzerland

28 partners from 11 countries



Replacement of contentious inputs in organic farming systems

Reduction of contentious input use

European organic farming systems are highly dependent on contentious inputs. This is a problem RELACS wants to address. Its answer concerns about the reduction of copper and mineral oils, manure from conventional farms and antibiotic and anthelmintic use in livestock production.

Development of efficient and green tools and technologies

RELACS wants to enhance the development and adoption of economically efficient and environmentally friendly tools and technologies. Project partners are evaluating the current use of inputs in organic farming systems.

They are seeking to ensure the effective dissemination and adoption of tools and techniques providing a reduced use of contentious inputs. Vitamin use is also considered in RELACS, with the ambition of using fewer synthetic vitamins and to develop innovative approaches.

The project takes into account the diversity of climates in Europe in its analyses. Through its scientific work, RELACS aims to guide European decision-makers towards regulations to improve current practices in organic farming.

ITA's missions:

iteipmai



- Characterising essential oils
- Milk marker analysis
- Bibliographic work
- Co-management of training programme for the dairy farmers involved
- Monitoring trials
- Statistical and bacteriological analysis of results
- Replacement of antibiotics in organic livestock
- Developing an animal health and welfare protocol
- Developing a protocol on essential oil use to replace antibiotics to treat mastitis in dairy cows
- Results analysis and dissemination



Efficiency and resilience of small ruminant livestock production

Increasing animals' ability to adapt to changing environments without compromising production, health and welfare

In Europe, small ruminants predominate in difficult environments: mountains/hills, arid, humid or forage-poor areas, where cattle cannot (easily) be raised. They help to maintain human populations in these environments where other agricultural production is less feasible. They enhance the value of grasslands and rangelands and contribute to maintaining an open environment, promoting biodiversity and preventing fires in dry areas.

An ambitious multi-stakeholder initiative between research and industry stakeholders

SMARTER will build on new and collaborative strategies to improve the resilience and efficiency of the sheep and goat sectors at the levels of animal, population/breed and farming system. These will be developed through the following activities:

- 1) generation and validation of new resilience and efficiency traits;
- 2) improvement and development of new genomic solutions and tools relevant to the data structure and size of small ruminant populations;
- 3) establishment of new selection strategies for different breeds and environments.

ITA's missions:



- Contributing to and enhancing phenotype collection systems in farms or in experimental stations
- Contributing to characterization of the environmental adaptation of resistant or under-used breeds using existing and newly generated data
- Developing new selection methods for resilience and efficiency traits
- Developing practical selection tools



GISID64

June 2017 – May 2021

€ 4.8 Millions

Coordinator: Wageningen University - Netherland

15 partners



Towards sustainable and resilient European agricultural systems

Developing a comprehensive framework for the resilience of agricultural systems

SURE-FARM aimed to define a framework for the resilience of European agricultural systems. It developed and applied resilience assessment tools and co-creating implementation roadmaps. Indeed, the resilience and sustainability of European agricultural systems can no longer be taken for granted, as the economic, social and ecological environment of the various sectors becomes more complex and unstable.

Implementing various objectives to build a comprehensive resilience framework

SURE-FARM's objectives were to: measure the determinants of resilience; improve farmers' decision-making and risk management; assess agricultural demographic changes and their links to labour markets; assess the current policy framework and develop policy options that strengthen resilience; make long-term integrated projections of the resilience of agricultural systems; and identify ways to implement a resilience-building environment.

ITA's missions:



The Bourbonnais, a suckler cattle area in the Allier department, was selected as the study area. Idele is responsible for all of the actions conducted in the study area:

- Conducting quantitative and qualitative surveys and mini-case studies with breeders.
- Organising and coordinating 5 focus groups of actors to address the different facets of resilience.
- Exploiting and summarising the results (publications, book articles, conferences and webinars)



BEST4
SOIL



 **October 2018 – September 2021**

 **€ 2 Millions**

Coordinator: DELPHY BV - Netherlands

11 partners

Stimulating best practices for soil health in Europe

Maintaining, improving and restoring soil health

Healthy soils are of major importance for the future of European agricultural and horticultural production. Principally in intensive production systems, soil-borne diseases are one of the major factors having a negative impact on soil health. Newly developed good practices and appropriate crop rotations help maintain, improve or restore soil health in Europe.

Practicing and promoting effective methods

BEST4SOIL created a network of communities of practice across Europe by connecting producers, advisers, educators and researchers. Through this network, ready-to-apply knowledge on the following soil-borne disease control practices was promoted:

- Compost/organic amendments
- Green manures/cover crops
- Anaerobic soil disinfestation (ASD)
- (Bio)solarisation

ITA's missions:



- Presenting the knowledge acquired within the project through approximately 20 events per year.
- Ensuring the translation into French of communication materials produced by the project partners.
- Reflecting on methods for popularising science for audiences comprising of producers, advisers and students of different nationalities
- Writing outreach articles
- Hosting webinars



DR

<https://www.best4soil.eu>





📅 November 2018 – April 2022

💰 € 3 Millions

👤 Coordinator: Stichting Wageningen Research - Netherlands

👥 15 partners

Preparatory action to increase global crop yields for food and nutrition security and to supply the bioeconomy

Adapting agricultural productivity to future issues

Increasing agricultural productivity has become essential due to the growth in the world's population, energy transition and climate change. Agriculture in the future will require crops that combine sustainability with high resistance to adverse climatic conditions.

Creating a roadmap to prepare for adaptation

CROPBOOSTER-P is identifying priorities and opportunities to stimulate and adapt the productivity, sustainability and nutritional quality of plants to environmental and societal changes. The partners have demonstrated a commitment to society through the mobilisation of European plant sciences to produce a roadmap to sustainably double Europe's agricultural yields by 2050 and prepare these crops for the future needs and climates of the continent.

ITA's missions:



- Participating in the assessment of economic, social and environmental impacts.
- Organisation of a workshop on the 'Assessment of the impact on agricultural production'.
- Participating in communication and dissemination actions.



- Identifying current and future methods/ technologies for improving yields and nutritional quality in different species.
- Studying the impact of climate change on agricultural practices.
- Mapping of existing research networks and ongoing projects, and identifying levers for optimising international cooperation.



DR



Genetic resources for food-secure

January 2019 – December 2021

€ 3 Millions

 Coordinator: European Forest Institute - Finland
 16 partners

Joining forces for the management of genetic resources and biodiversity

Strengthening the conservation and use of genetic resources

Genetic resources are essential for long-term food security and adaptation to climate change as they are the mainstay of agricultural and forestry production, yet their potential is under-exploited. GenRes Bridge aims to strengthen their conservation and sustainable use.

Collaborating with pan-European networks

To achieve this, GenRes Bridge is accelerating collaborative efforts and expanding capacity in the areas of plants, forests and animals. GenRes Bridge shares perspectives, exchanges best practices and is harmonising standards within three European networks:

- European Cooperative Programme for Plant Genetic Resources
- European Forest Genetic Resources Programme
- European Regional Focal Point for Animal Genetic Resources

ITA's missions:



- Managing the secretariat of the European Regional Focal Point for Animal Genetic Resources (ERFP).
- Participating in the project steering committee and in writing the future strategy for genetic resources.
- Organising a seminar to share experiences on cryobanks.



DR

📅 July 2019 – June 2023

💰 € 6 Millions

👤 Coordinator: INRAE- France

👥 11 partners



Annotating genomes or understanding the regulation of gene expression for agricultural purposes

Contributing to sustainable animal breeding and production

The activation status of functional genomic sequences varies across time and space, and in response to environmental disturbances. GENE-SWitCH aims to provide new basic knowledge on the functioning of the genomes of two widely farmed monogastric species (pig and chicken) and to allow immediate use of this knowledge for sustainable animal production.

Developing innovative genomic predictive models

GENE-SWitCH is producing cutting-edge research paving the way for new studies and strategies for sustainable production. This includes evaluating the influence of maternal diet on the epigenome of the pig foetus and seeing whether these effects persist until post-weaning. From this type of results, GENE-SWitCH is developing innovative genomic predictive models that integrate functional annotations. The project thereby seeks to demonstrate how the functional annotation of genomes can find applications in genomic selection for immediate benefit for the breeding industry.



ITA's missions:

ifip —
Institut du porc

- Providing and sampling of pure-breed animal tissue
- Linking with Alliance R&D breeding companies to facilitate knowledge transfer
- Participating in the stakeholders committee



 **November 2019 – October 2022**

 **€ 2 Millions**

Coordinator: Naturland - Germany

16 partners

Boosting innovation in organic fruit production in Europe

The BIOFRUITNET project envisions a future where organic fruit production in Europe is easy to conduct, profitable and sustainable in the long term. To achieve this objective, the project partners are contributing to:

Collecting and summarising existing knowledge that is ready to be disseminated

The practical technical knowledge available regarding stone fruit, pome fruit and citrus fruit will be collected and summarised. The priority themes are pest management, soil maintenance methods and knowledge about the varieties suitable for organic cultivation.

Creating a sustainable European innovation network

The BIOFRUITNET project network will help facilitate the exchange and co-creation of knowledge between organic fruit producers, researchers and advisers.

Strengthening established networks active in organic fruit cultivation

Existing networks will ensure a solid flow of information and promote the transfer of information between researchers and practitioners in different European regions.

Widely distributing solutions

Knowledge ready for practice will be widely disseminated in the EU and will target different audiences (arborists, technical advisers and students) using new tools such as short instructional videos and podcasts tailored to the needs of producers.

Extending the knowledge platform on organic farming

– BIOFRUITNET is actively contributing to the provision of information to an existing platform (www.organic-farmknowledge.org) in order to share knowledge widely in Europe.

ITA's missions:



- Conducting a European survey on the needs and practices of organic tree fruit producers and advisers in Europe 249 farmers and advisers have been surveyed in 26 countries and the results are being analysed in 2021.
- The compilation of more than 300 European technical and scientific documents. A selection of the most relevant will be translated to make them accessible to arborists in each Member State and will be available on the www.organic-farmknowledge.org website.



ITAB

📅 May 2020 – April 2025

💰 € 8,8 Millions

📍 Coordinator: Università Politecnica delle marche - Italy

👥 24 partners

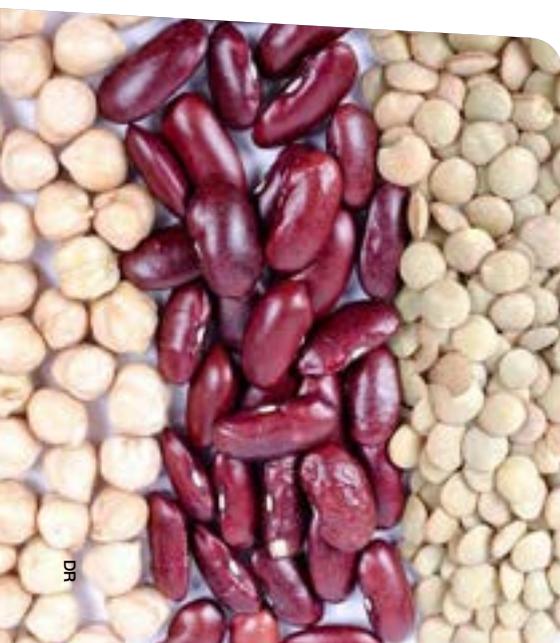
Legumes to boost European agrifood systems

Improving the management and use of legume genetic resources

Legumes are essential for sustainability, food security and human health. INCREASE is improving the management and use of legumes genetic resources by expanding their use and targeting user needs in terms of accessibility, quality and quantity of information available.

INCREASE is based on four pillars:

- Innovative data management solutions to develop benchmarks for sharing and integrating data into a central infrastructure.
- Developing new tools and principles for germplasm management.
- Adopting cutting-edge technologies for genotyping and phenotyping combined with the potential of artificial intelligence.
- An international effort through the participation of non-European partners and international organisations.



ITA's missions:



- Coordinating the 'Stakeholder Consortium' which provides the interface between the project and all the actors from beyond the project (seed companies, value chain actors, researchers and teachers).
- Developing collaborations with the project.
- Developing activities around the four species studied: chickpea, common bean, lentil and lupin.



📅 January 2021 – December 2023

💰 € 2 Millions

👤 Coordinator: Idele - Institut de l'Élevage - France
18 partners

Transnational cooperation to increase sustainability in the dairy sector

Bringing together dairy stakeholders to promote cooperation

Europe is the world's largest producer of milk. R4D is developing a network to address the needs of the EU dairy cattle sector. This project brings together dairy farmers, farmer organizations, advisors, researchers, and all relevant stakeholders from 15 countries with the aim of promoting cooperation and facilitating the exchange of knowledge on a larger scale.

Gathering and sharing innovative methods in the dairy sector

R4D focuses on three key themes : (a) economic and social resilience, (b) technical efficiency, and (c) environment, animal welfare, and socially responsible production systems. The project gathers and shares innovative production techniques across Europe and identifies and highlights research results that have not yet been adopted, to improve their potential for integration into practice.

ITA's missions:



- General coordinator of the project.
- Responsible for WP1, which consists in creating the networks of breeders and the national steering committees supporting the actions of tests and demonstrations of innovative techniques.
- Coordinates the actions carried out in France with 5 regional partners : the three regional chambers of agriculture of Brittany, Hauts-de-France and Normandy, the CEDAPA (member of the CIVAM network) in Brittany and the FIDOCL (Fédération Conseil Elevage du Sud-Est) in the AURA region.



📅 June 2021 – May 2026

💰 € 7 Millions

👤 Coordinator: INRAE- France

👥 21 partners



Breeding monogastrics based on their genome and epigenome

Rethinking selection by taking advantage of new knowledge

To cope with the growth of the human population, increasing environmental constraints and changes in socio-cultural values, production systems must evolve to improve production efficiency and product quality while promoting resilience, health and animal welfare, and ensuring the sustainable use of resources. GEroNIMO is rethinking selection by leveraging a better understanding of the genetic and epigenetic determinants of trait variability.

Improving protein source species and characterising genetic and epigenetic diversity

GEroNIMO is working on hens and pigs to develop new tools for analysing genomes and epigenomes (transmissible, non-genetic changes in gene expression). Innovative breeding methods will be offered to breeders to improve efficacy and quality traits by integrating environmental, genetic and non-genetic inheritance factors. The project also aims to characterise the genome and epigenome of breeds in selection and local breeds in order to suggest new strategies for the conservation of their genetic and epigenetic diversity.

ITA's missions:



- Coordinating the Work Package on biodiversity management.
- Acting as the link with breeding companies in the R&D Alliance
- Responsible for the task of evaluating management schemes for local European breeds
- Working towards the breeding of local breeds with the implementation of a case study for the Nustrale breed
- Participating in the integrated assessment of the applicability of innovations in genomics, integrating an ethical and societal dimension (with IDELE)
- Leader for the knowledge transfer and exchange activities conducted in France



DR

📅 June 2021 – May 2026

💰 € 6 Millions

👤 Coordinator: INRAE - France

👥 20 partners

Innovative tools for assessment and authentication of chicken meat, beef and dairy products' qualities

Performing multi-criteria assessments

Stakeholders in the agrifood chain lack objective, solid and reliable information to meet consumers' expectations regarding multiple aspects of product quality from different European livestock systems. INTAQT is conducting in-depth multi-criteria assessments of the relationships between farming systems and the intrinsic quality traits of animal products.

Developing evaluation tools and ways to improve practices

To achieve this, INTAQT is developing tools for evaluating product quality and for authenticating their production systems. INTAQT is also offering breeding levers to achieve high quality animal products and their sustainable production. INTAQT will bring new market opportunities for the products concerned, while ensuring their quality, their sustainable production and animal welfare, thereby meeting the expectations of decision-makers, industries, farmers and consumers.

ITA's missions:



- Interacting with actors in the three sectors involved for the construction and orientation of the project
- Contact point and trainer on the methodology of focus groups and participatory surveys, and centralisation of information
- Investigations and sampling in the beef meat and milk/dairy product sectors
- Consumer testing of products from the three sectors
- Standardisation of MIR spectra from different partners
- Advice on knowledge management and intellectual property
- Coordination of the activities of IDELE and ITAVI
- Dissemination and communication
- Forming French focus groups for poultry
- Sampling of matrices from batches of poultry from different livestock systems in France and Poland
- Developing the multi-criteria assessment tool and creating the model to link intrinsic product quality and livestock management system
- Disseminating results

 July 2021- December 2026

 € 7,5 Millions

Coordinator: INRAE- France

18 partners



Towards an improvement in ruminant livestock through genomic and epigenomic approaches

Evaluating the social perception of selection objectives and technologies in ruminants

To ensure the sustainability of livestock production, breeding programmes and associated biotechnologies must allow for the maintenance of genetic diversity, adaptation to global change, in particular climate change, and take into account the societal acceptability of the techniques used. The objective of the RUMIGEN project, which brings together European partners representing the main ruminant breeding programmes, is to develop cattle breeding programmes adapted to future climatic conditions, based on genomic and epigenetic approaches, the societal perception of which has been assessed.

Developing various approaches and having them evaluated by different actors

In order to anticipate the impact of global change on livestock and to preserve their genetic heritage, RUMIGEN will develop methods integrating genomic and epigenetic information and take advantage of new biotechnologies. The societal acceptance of these new approaches will be assessed by RUMIGEN using multi-stakeholder panels.

The teams will be proposing methods to integrate adaptation to thermal stress resulting from heatwaves into dairy cattle breeding programmes. Their work also aims to characterise the genome of numerous breeds of cattle, in order to improve the consideration of genetic diversity in breeding programmes. RUMIGEN partners will analyse the impact of climate change on changes in genome expression, in particular on offspring health, and identify the epigenetic signatures responsible for these changes. Finally, the project will study the value and limits of genome editing for maintaining genetic diversity and improving genetic progress.

ITA's missions:



- Leader of WP3 - Impact of climatic stresses on the trade-offs between production traits and robustness of dairy cows.
- Leader of task 3.3 - Impact of stress during gestation on the performance of offspring.
- Leader of task 7.3 - Impact of foetal programming on postnatal immunity and respiratory diseases in calves.
- Contributing to WP8 - Modelling & integration: societal acceptability and sustainability of breeding programmes to define new breeding strategies and the establishment of selection criteria on heat resistance.

ClieNFarms

📅 December 2021 – December 2025

💰 € 12 Millions

👤 Coordinator: INRAE - France

👥 33 partners

Climate neutral farms

Achieving climate neutrality and creating farms that are resilient to climate change

ClieNFarms' aim is to co-develop and deploy locally relevant systemic solutions (organisational, financial and technical) to achieve climate neutrality and produce farms that are resilient to climate change in Europe. This will be achieved through interaction, improving existing solutions and defining viable economic models for agricultural production systems, involving farmers, advisers, agri-food industries, politicians, financial actors and citizens.

Offering innovative solutions to achieve climate neutrality in agriculture

The aim is to demonstrate, assess and improve technical, organisational and financial solutions at the farm scale that contribute to achieving climate neutrality in European agriculture by 2050. These solutions will be systemic and innovative, and in some cases will be developed beyond the farm to integrate a network of farms via cooperation between farms on the principle of a circular bioeconomy, with the transformation of livestock effluent, low carbon solutions, the development of bioenergy and collective biorefineries, in connection with value chains in order to support their implementation. These solutions will be disseminated and young farmers will be trained.

ITA's missions:



- Coordination of two I3S on dairy cattle and beef cattle
- Climate performance benchmarking for the two I3S
- Design of systemic solutions
- Support tools for farmers in transition
- European networking of I3S and deployment on farms



- Coordination of an arable crop I3S
- I3S climate performance benchmarking
- Providing knowledge on levers in cropping systems
- Evaluation of a specific solution to guide farm decision-making



- Coordination of an arable crop I3S
- Providing knowledge on levers in cropping systems
- Evaluation of a specific solution to guide decision-making at the farm scale



- Coordination of an arable crop I3S

Healthier plants and animals

Projects in this category have the objective of providing European agriculture with healthier plants and animals. In other words, those projects must have the ambition of increasing the resilience of animals and plants to pests and diseases. DG Agri has put the emphasis on the necessity of developing a large range of tools to prevent, manage and control pests and diseases, in combination with the development of risk management strategies. Research on alternatives to contentious protection and antimicrobial products is favoured. It is also hoped that links will be formed between health and other aspects of production, as well as with other disciplines.





 September 2015 - November 2019
 € 3 Millions
Coordinator: INRAE – France
18 partners from 8 countries

Europe-China Lever for IPM Demonstration

Development of sustainable pesticide management

Pesticide use in European agriculture has some negative effects on human health and the environment. To tackle this, more sustainable and environmentally friendly approaches need to be adopted for pesticide management.

This challenge has been taken up by EUCLID, a H2020 project based on a partnership with China. EUCLID had a double ambition:

1. Optimising existing Integrated Pest Management (IPM)
2. Developing new biocontrol agents and promoting their rapid adoption through ready to use IPM solutions and their use by end users. In France, biocontrol is defined as methods of plant protection based on the use of natural mechanisms.

Reducing dependency on chemical pesticides

EUCLID's objective was to ensure food security in terms of quantity, using sustainable production approaches.

The trials on tomato, lettuce and salad provided results which could be generalised for EUCLID stakeholders.

This means EUCLID was to contribute to reducing the dependency on chemical pesticides in the European and Chinese farming systems the project was studying.

Missions des ITA :



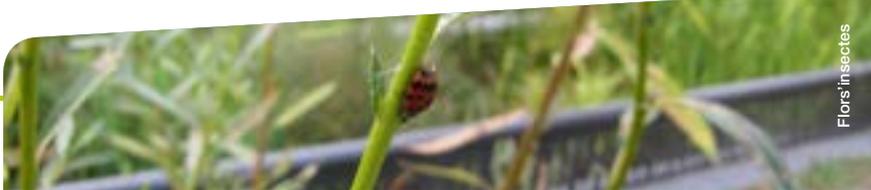
- Efficacy trials using natural-based products against pests in lettuce and tomato
- Studying the efficacy of biocontrol agents



- Assessment of pest management methods and products
- Setting up a demonstration plot in grapevine
- Pesticide residue analysis



- Coordination and organisation of the field demonstration network
- Creating e-training material





📅 April 2015 – October 2017

€ € 2 Millions

Coordinator: IFV – France

11 partners from 7 countries



European knowledge exchange about vine diseases

Grapevine trunk diseases and Flavescence dorée

WINETWORK was a knowledge and innovation exchange project between European vineyards seeking to increase the productivity and sustainability of the wine sector. More specifically, WINETWORK allowed winemakers and project partners to exchange on grapevine trunk diseases and Flavescence dorée.

Stimulate knowledge transfer

The WINETWORK approach was participative and interactive. It was supported by a network of facilitating agents, of regional technical working groups and two European scientific working groups. Thanks to adapted and efficient dissemination tools, WINETWORK hoped to be a catalyst for the transfer of scientific results and practical knowledge towards actors working in European vineyards.

WINETWORK regrouped 10 regions from seven countries, representing 90% of European wine production.



Fotolia

ITA's missions:



- Project coordination
- Technical expertise in viticulture
- Communication and knowledge transfer



 November 2016 – October 2020

 € 2 Millions

Coordinator: AHDB – United-Kingdom
19 partners from 13 countries

Supporting the implementation of innovative practices in pig production

Connecting producers and favouring exchanges between actors

The European Union (EU) is the world's second biggest producer of pig meat and is the market's largest exporter. Innovation is a key factor in order to continuously improve the economic viability and sustainability of the EU pig industry. EU PiG specifically connected producers with the latest science, husbandry techniques and technologies from within their industry via fellow producers, academics and advisers connected through thematic and regional platforms.

8 challenges prioritised each year on 4 main themes

The network included a range of partners from pig producer groups to researchers and economic advisers. EU PiG shared best practices on four key project themes, identified as the main focus areas for pig producers currently: pig health, meat quality, animal welfare and precision production. Almost 300 producers were engaged in the EU PiG Grand Prix contest that made it possible to identify best practices. Among them, eight producers were chosen as EU PiG ambassadors and invited to showcase their best practices. Each country also had its own Regional Pig Innovation Group, which linked pig producers and other experts to identify emerging issues for EU PiG, and to share knowledge and best practice.

ITA's missions:



- Participating in expert networks on animals, welfare, health and meat quality
- Census of practices and knowledge developed by the pork industry
- Presence in the project's regional networks



📅 June 2017 – November 2022

💰 € 6.5 Millions

👤 Coordinator: Aarhus University - Denmark

👥 37 partners from 8 countries



Integrated Weed Management

Better sustainability and profitability of production systems

IWMPRAISE, as its name suggests, aims to promote integrated weed management as a method to control these plants, often considered as pests. More precisely, it strives to demonstrate that this management offers better sustainability for production systems and better resilience without affecting the profitability or stability of the supply of food and organic materials.

Development of several management strategies

With IWMPRAISE, the objective is to develop, test and evaluate several management strategies considering the specificities of the various crops established in Europe. The project wants to identify the socio-economic and agronomic barriers to using this management approach. Another goal is to highlight alternative control methods of and to create a toolbox of validated methods. The economic and environmental sustainability and performance of these management strategies will be demonstrated. Finally, IWMPRAISE is focusing on the dissemination of the results towards end users in order to optimise the implementation of methods.

ITA's missions:



- Communication
- Dissemination of results



- Study of IWM tools
- Farmer networks to test IWM strategies
- Evaluation of IWM strategies



- Design of IWM strategies
- Trial, evaluation and data feedback
- Organisation of technical days



ACTA A. R.



HealthyLivestock

健康畜禽

 September 2018 - February 2023

 € 5 Millions

Coordinator: Wageningen University - Netherlands

22 partners from 9 countries

Reducing antimicrobial resistance through improved livestock health and welfare

Same productivity with fewer antibiotics

The ambition of the HealthyLivestock project (in partnership with China) is to reduce the use of antibiotics in pig and poultry farms while maintaining their productivity. It is also interested in controlling the risks of antibiotic resistance and problems in terms of public health. Four levers for animal welfare and health have been identified: biosecurity, improving resilience, early detection of diseases and better targeted use of antibiotics and their alternatives.

Biosecurity, animal behaviour, welfare and health at the core of the developments expected

This project aims to design biosecurity protocols with indicators providing results. It also expects to integrate automated animal behaviour measurement methods. It is focusing on the importance of animal welfare in livestock systems and the actors are also considering medical precision. The economic and social viability of HealthyLivestock innovations is being assessed and private partners will be able to develop promising application tools.

ITA's missions:

ifip —
Institut du porc

- Reducing the time needed to detect, diagnose and intervene
- Precise use of medical treatments
- Tools to improve health and welfare



IFIP

<https://www.wur.nl/en/article/Healthy-livestock-farming.htm>

#AntibioticUse #Livestock #Pigs

 **May 2018 – October 2021**

 **€ 2 Millions**

Coordinator: Polytechnical University of Catalonia - Spain

15 partners from 8 countries

Accelerating innovative practices for spraying equipment, training and advising in European agriculture

Sustainable use of plant protection products

INNOSETA is a European thematic network seeking to accelerate exchanges about spraying and application techniques in the context of sustainable agriculture. The network has focused on application material, equipment, training and innovations to bring research and farmers closer together in order to push forward these practices.

Improving the diffusion of innovative spraying solutions

New ideas and information exchange between industry, research centres and the farming community must permit a larger and more efficient diffusion of innovative solutions, as well as their broader application. INNOSETA's aim is to regroup in one network all spraying innovations and to disseminate them to farmers. Inversely, INNOSETA must identify needs in the field in order to better orientate R&D work.



ITA's missions:



- Expertise on spraying in viticulture, spraying innovations census and identifying field needs
- Coordination of network implementation and organisation of regional workshops and transnational conferences
- Research on maximising exchanges between partners and dissemination of project impacts towards the agricultural community, manufacturers and public authorities



 **May 2018 - April 2022**

 **€ 5 Millions**

Coordinator: Wageningen University - Netherlands
25 partners from 13 countries

An early warning system for wheat rust diseases

Surge of wheat rust diseases

In 2016, European agriculture was affected by the most important wheat stem rust epidemics in 50 years. Moreover, wheat yellow rust has been replaced by non-European invasive races.

Due to this emergency, the RUSTWATCH project aims to develop an early warning system to improve preparation and resilience against these emerging wheat rust diseases.

Several actions are being managed in the RUSTWATCH project: exploration of the factors facilitating the emergence of these new wheat rust populations and an assessment on their impact on productivity, taking into account the Integrated Pest Management context. It will also create research and communication infrastructures based on stakeholder networks, on their expertise and on the collaboration with global networks.

Development of diagnostic tools

It is expected that RUSTWATCH's new diagnostic tools will be able to easily and rapidly identify new invasive races and their aggressiveness. It also gives strong consideration to phenotypes in order to obtain information at the cellular level about resilience abilities.

The plan is to test the early warning system in five case studies per region. This should mean easier implementation, development and validation by stakeholders and farming advisers.

ITA's missions:



- Resistance specificity at the seedling stage
- Collection of data on the deployment of resistance genes and contribution to data analysis
- Hosting IPM trials and trials for assessment of rust susceptibility of varieties exposed to natural populations of yellow rust and leaf rust





January 2019 – June 2022

€ 2 Millions

Coordinator: ILVO - Belgium

15 partners from 10 countries



Disseminating innovative solutions for antibiotic resistance management

Mobilising a large network of actors

The DISARM thematic network is working with a large panel of 600 actors (farmers, veterinarians, advisory services, researchers and livestock sector) and aims to disseminate effective practices to strengthen animal health and reduce the need for antibiotic treatments in animal husbandry. The ruminant, pig and poultry sectors are involved.

Disseminating solutions to a wide audience

Four actions are carried out in parallel: 1) coordination of a Facebook group where a network of multidisciplinary actors discusses best practices in the use of antibiotics; 2) updating a database on the current state of knowledge and techniques related to the prudent use of antibiotics in livestock production; 3) setting up multi-stakeholder progress plans in pilot farms; 4) disseminating the results in the form of guides, videos, reports and case studies.

ITA's missions:



- Development and coordination of tools for the community of practice
- Establishing 5 pilot farms
- Developing good practice guides and knowledge collections
- Disseminating videos



- Translating newsletters into French
- Participating in discussions in the Facebook group
- Creating and distributing a video on the French GVET approach (Management of on-farm veterinary treatments with digitalisation of the treatment register)
- Presenting the project to livestock farmers



- Creating and coordinating a community of practice for poultry professionals
- Creating videos on automatic purging in poultry farming
- Creating good practice guides on the 10 subjects of interest of the project



- Coordinating ITAs
- Dissemination and communication



<https://disarmproject.eu/> @ProjectDisarm

#AntibioticResistance #ResistanceStrategies #BestPractices



CATTLE
CHAIN

📅 April 2019 - March 2022

💰 2,5 Millions

Coordinator: Management, Construction and Trade, Innovative solutions

3 partners

Improving farm productivity and ensuring traceability and cattle welfare by using connected tools and blockchain

Developing new connected tools to ensure the traceability of animal welfare

Animal welfare has now become a major issue for livestock farmers and will continue to be so in the future. Indeed, consumers are increasingly attentive to the production conditions of farm animals.

CATTLECHAIN 4.0 is aiming at developing innovative tools capable of guaranteeing the total transparency of the production chain. The idea is to record various parameters for cattle, using connected objects and to analyse this data with artificial intelligence algorithms. Livestock farmers will thereby have management tools to help them manage their herd more efficiently and take immediate action in the event of a problem. At the same time, consumers and public authorities will be able to trace the origin of products through a blockchain system.

Example of application: traceability of dairy cows on pasture

One scenario for the use of this approach receiving particular attention in the project is the monitoring of dairy cows on pasture to guarantee the origin of milk in so-called 'pasture' products. Using GPS collars and artificial intelligence, the daily duration of each cow equipped with a collar can be estimated automatically. Following development on an experimental farm (Derval, Poisy), this system is being implemented on 25 commercial farms in the Cotentin and Aveyron areas of France in collaboration with two dairies. This application may eventually lead to a commercial service.

ITA's missions:



- Testing of sensors (GPS, accelerometer, connected scales) on experimental farms.
- Developing algorithms for the traceability of grazing cows.
- Establishing a network of dairy farmers using GPS collars.



DR

 July 2019 – June 2024

 € 8 Millions

Coordinator: INRAE - France

28 partners

Innovative methods for predicting the performance of plant varieties

Improving the efficiency of variety trials in Europe and increasing the information provided to stakeholders

In order to improve crop production for human and animal food, it is important to promote and introduce varieties that are better suited to sustainable crop management practices and more resilient to climate change. INVITE is studying 10 species and identifying bioindicators associated with productivity, sustainability and resource use efficiency. The project is also making it possible to develop new high-throughput phenotyping and genotyping tools to characterise varieties.

Introducing new models and tools

INVITE is introducing models and statistical tools to predict varietal performance in a range of diverse crop management environments and practices, while taking into account economic returns to farmers. INVITE is offering organisational innovations to improve the management of testing networks and reference collections.

ITA's missions:



- Identifying physiological indicators
- Designing a protocol to assess the adaptation of apple varieties to sustainable cropping systems



- Expertise and testing of high-throughput phenotyping tools for sunflower varieties
- Co-construction of a prototype tool to help in sunflower variety selection



- Recommendations on the performance of wheat and maize varieties
- Carrying out an inventory of genome-wide markers
- Tests on high-throughput phenotyping platforms



- Implementing and updating a DMP to provide a framework for data use and exchange
- Creating a data exchange system to choose the most suitable platform
- Coordinating a working group between users and data providers



📅 June 2019 – May 2023
 💰 € 6 Millions
 Coordinator: INRAE - France
 9 countries, 17 partners

Rethinking of antimicrobial decision-systems in the management of animal production

Contributing to the transition towards the prudent use of antibiotics in animal husbandry

The emergence, selection and spread of antimicrobial resistance is amplified by the inappropriate use of antibiotics. It is therefore necessary to combat bacterial infections and to use antibiotics more responsibly in order to maintain their effectiveness. For several years, the livestock sector has been experiencing a significant reduction in antibiotic use and these efforts must be sustained. ROADMAP is contributing to this transition by analysing the socio-economic factors in antibiotic use, developing strategies for appropriate changes and proposing pathways for transition and impact.

Setting up a variety of solutions adapted to the context

To achieve this, ROADMAP is moving forward through three stages: 1) Drawing up an inventory of the mechanisms leading to disease prevention and the use of antibiotics in the beef, pig and poultry sectors in the project's partner countries. Quantitative and qualitative information is being collected through interviews and surveys conducted at several stages in the production chain and the medication circuit. 2) Co-constructing solutions with different actors to promote the creation of innovations and to remove certain social, technical, economic and institutional obstacles that have been identified. 3) Evaluating the impact of transition scenarios towards livestock systems that are more parsimonious in their antibiotic use.

ITA's missions:



- Studying the mechanisms leading to disease prevention in the cattle, pig and poultry sectors
- Collecting information on antibiotic use within the production chain
- Participating in think tanks on the search for solutions co-constructed by Living Labs
- Mapping of actors in the bovine milk sector involved in health management
- Conducting surveys to understand the barriers and motivations for antibiotic use
- Organising a working group on the sustainability of health management approaches
- Surveys to analyse 'pigs raised without antibiotics' approaches
- Participating in Living Labs to co-construct transition solutions towards prudent antibiotic use



 September 2019 - August 2024

 € 10 Millions

Coordinator: INRAE - France

23 partners

Poultry and pig low-input and organic production systems' welfare

Improving welfare of poultry and pigs reared in free-range systems

Pig and poultry production in organic and free-range systems is expanding in Europe and enjoys a positive image with consumers. To help meet this growing demand and constantly improve the welfare of animals reared in these systems, the PPILOW project aims to co-construct technical innovations through a multi-actor approach.

Involving all the players in the production chain

PPILOW proposes a multi-stakeholder approach, involving farmers, consumers, citizens, scientists and political decision makers, to study and suggest levers for improving the welfare of pigs and poultry reared in free-range systems. The aim is to create tools for the self-assessment of animal welfare and explore innovative livestock strategies that improve the health and robustness of animals while avoiding mutilation. Innovations are being studied experimentally and the most promising will be tested on farm. These solutions will have to be applicable on a pan-European scale, allowing for specific adjustments according to different situations.

ITA's missions:



- Developing and improving tools to assess the welfare of poultry and pigs
- Presenting the EBENE® tool and evaluating its benefits
- Choosing the conceptual framework for evaluating innovations



- Focus groups
- Surveys of consumers and producers



- Coordinating pig and poultry multi-stakeholder groups
- Suggesting alternatives to the elimination of male chicks
- Implementing and monitoring of dual-purpose trials on commercial farms



- Identifying good practices to improving pig welfare
- Developing a multi-criteria analysis method to evaluate solutions
- Constructing a tool for evaluating pig welfare in the organic and free-range sector



 **January 2020 – December 2022**
 **€ 2 Millions**
Coordinator: IDELE - France
11 partners

Exchanging knowledge to maintain the viability of the European sheep sector

Deploying a thematic network for sheep stakeholders

The profitability of dairy and suckler sheep herds is an important issue to ensure the sustainability and impact of sheep value chains in European territories and to improve the attractiveness of the profession. EuroSheep is rolling out a European thematic network on 'The profitability of sheep farms through the management of health and the management of feeding of herds'. It aims to facilitate the exchange of practical and scientific knowledge between different actors and will disseminate the good practices identified.

Adopting a multi-actor and participatory approach

To meet its objectives, EuroSheep is implementing a multi-actor approach that involves farmers, producer organisations, scientists, trainers, veterinarians and technical advisers involved in the sheep sector. EuroSheep encourages the exchange of existing knowledge through an innovative participatory approach during practical workshops. These multi-actor workshops enhance cooperation between actors and better disseminate information and good practices.

ITA's missions:



- Management of the project.
- Ensuring the network dynamics of the project by coordinating various events with the project's different actors (national and international workshops, technical and scientific groups etc.).
- Coordination of the network in France and ensuring the link with operational groups involving sheep farmers.





May 2020 – April 2023

€ 4,4 Millions

Coordinator: Greencell - France

9 partners



BIOBESTicide

A natural way to maintain healthy vineyards

Developing a biopesticide

Grapevine trunk diseases can be destructive and reduce the lifespan of vineyards. They are a worsening problem, the incidence of which is increasing around the world. BIOBESTicide is developing an effective and profitable biopesticide to combat these diseases.

Validating the product and assessing its durability

The BIOBESTicide project will be validating the efficacy of the formulated product in vineyards in different geographical areas. A demonstration will be based on an innovative value chain based on organic production from the exploitation of sustainable biomass. A life cycle sustainability assessment will be conducted to assess the environmental, economic and social impacts of the products developed.

ITA's missions:



- Responsible for field trials designed to evaluate the efficacy of the biopesticide against trunk diseases in different regional contexts that are representative of France's vineyards.



DR



 September 2020 – August 2024
 € 6 Millions
 Coordinator: SRUC - UK
 19 partners and 9 countries

Integrating innovative technologies along the value chain to improve small ruminant welfare management

Integrating innovative technologies along the value chain to improve small ruminant welfare management

Ruminant farming in Europe plays an important role in maintaining economic activity in regions with the most difficult soil and climate conditions. Today, small ruminant farming sectors must be able to assess, monitor and improve animal welfare conditions and by doing so help to respond to societal demands. Digital technologies offer new perspectives, providing innovative solutions that can meet the challenges of livestock value chains.

Creating and validating innovative solutions for monitoring the welfare of small ruminants

The TechCare project is seeking to ensure the emergence of digital solutions that will provide early warnings to improve the welfare of small ruminants (milk sheep, meat sheep and goats). These innovative technologies should provide monitoring throughout the production chain (farm, transport and abattoir). Their validation by the agri profession is undergoing and they are subject to trials on both pilot and large-scale farms. The project is also aiming to provide economic models facilitating the deployment of the selected innovative solutions.

ITA's missions:



- Coordinating pilot farms and large-scale trials
- Coordinating multi-stakeholder groups at the national scale
- Coordination between French project partners
- Participating in various project actions



Fotolia



 **October 2020 – September 2024**

 **€ 6 Millions**

Coordinator: INRAE - France

30 partners

Protecting crops without pesticides

Reducing the dependence on pesticides

Integrated Pest Management (IPM) seeks to reduce the use of inputs and in particular the pesticides used to control pests. Reducing dependence on pesticides relies in particular on prevention methods and the use of non-chemical control methods.

Sharing and exchanging practices via demonstrations in networks of pilot farms across Europe

IPMWORKS encourages the adoption of IPM strategies in a European network of demonstration farms made up of farmers and advisers who are implementing integrated crop protection practices. The objective is to demonstrate the benefits of IPM practices and promote collective learning for farmers using conventional methods. The project also provides for the organisation of training.

ITA's missions:



- Coordinating a hub of demonstration farms in the wine sector
- Participating in cross visits
- Disseminating information on the project and its results



- Participating in WP1 'Approaches, methods and lessons for the development of IPM demo networks'
- Participating in WP6 'Dissemination, communication and training'
- Participating in WP7 'IPM policy engagement and sustainability strategy'



DR



NetPoulSafe



 **October 2020 – September 2023**

 **€ 2 Millions**

Coordinator: ITAVI - France

14 partners

Improving biosecurity compliance in poultry farms

A European network of actors focusing on biosafety

To prevent disease transmission, biosecurity is a major issue for the poultry industry. Good practices are often well known but not always well applied. The NetPoulSafe project is aiming to share knowledge and practices between Europe's seven main poultry producing countries to improve biosecurity compliance, from hatchery to abattoir.

Improving compliance by sharing methods to support stakeholders

Support methods to improve compliance with biosecurity will be collected, validated on pilot farms for different types of livestock and species, and then shared with national multi-stakeholder networks bringing together more than 500 poultry professionals. These methods will be available on an online platform in the form of tools (videos, e-learning, guides etc.) for their direct application in poultry production.

ITA's missions:



L'INSTITUT TECHNIQUE DES FILIÈRES
AVICOLE, CŪNICOLE ET PISCICOLE

- Project coordination
- Creating a European thematic network based on poultry farming



 **October 2020 – September 2024**

 **€ 5.5 Millions**

Coordinator: IRTA - Spain

18 partners

New integrated strategies to reduce the use and impact of pesticides: towards sustainable mediterranean vineyards and olive groves

Combining alternative products and developing smart technologies

NOVATERRA brings together farmers, researchers and SMEs to study new methods to reduce the use of plant protection products in the two main Mediterranean crops in Europe, vines and olives, and limit their negative effects.

Three different approaches are being studied:

- Developing new combinations of non-synthetic ALTERNATIVE PRODUCTS and biological control techniques for plant protection.
- Optimising the application and dose of plant protection products using SMART FARMING technologies.
- Mitigating the appearance of pests and diseases through the use of new SOIL MANAGEMENT strategies.

These approaches are being evaluated and validated in a combination of integrated solutions to update and improve Integrated Pest Management (IPM) strategies. Indicators making it possible to measure the impact of crop management and protection on human health,

air, water, soil, biodiversity and energy will be established. Further analyses will be carried out in terms of the economic cost-benefit for farmers in adopting the different techniques and the willingness of farmers and consumers to pay for it. NOVATERRA's results will also be essential for further discussions with policy makers in terms of European Union phytosanitary policies and risk assessments related to the use of plant protection products.

ITA's missions:



- Coordinating a grapevine case study in France.
- Implementing the testing of new natural alternative phytosanitary products, biopesticides and biocontrol techniques in vineyards: combinations of natural products or microorganism-based products (products with phytosanitary action and bio-stimulants) and innovative technologies (ozonated water and formulations of copper and sulphur).
- Contributing to the evaluation of smart agriculture technologies in the field.
- Participating in the validation of solutions for an effective and adapted IPM strategy.



Mas Piquet IFV



📅 January 2021 – December 2023
 💰 € 2 Millions
 Coordinator: SRUC - UK
 11 partners

Precision livestock farming and new technologies for small ruminants

Promoting knowledge acquisition and transfer in precision livestock farming of small ruminants

Small ruminant farming systems represent a huge sector in Europe's rural economies. The almost generalised use of smartphones coupled with a growing range of sensors and mandatory electronic identification in small ruminants makes the context favourable for the development of precision farming. However, to date, the use of new technologies and digital tools in small ruminant value chains remains very low due not only to the cost but also a lack of knowledge about existing solutions.

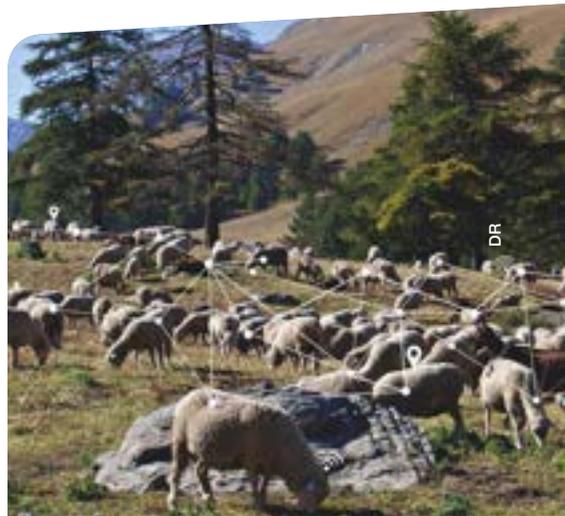
Identifying needs and sharing technological solutions adapted to the rearing of small ruminants

Sm@RT is seeking to create a European thematic network based on the use of new technologies for small ruminants. It is aiming to promote the exchange of knowledge on existing digital and technological solutions in Europe through a multi-actor, participatory approach. Research and sharing of technological solutions will consider the expectations and needs of livestock producers, technicians and value chains. The emphasis will be on communication and the transfer of suitable solutions. For this, Sm@RT will rely on demonstration sites such as 'Digifarms' (digital-oriented experimental farms) and innovative commercial farms.

ITA's missions:



- Responsible for actions structuring the multi-actor approach
- Coordination of actions at the national level
- Coordination of 'Digifarms' and innovative commercial farms at the national level



 July 2021 – June 2026

 € 9 998 805

Coordinator: Utrecht University – Netherlands
19 partners



Management of unregulated contagious animal diseases: from data collection to prioritisation of control methods

Developing decision support tools

The DECIDE project is seeking to develop mathematical models/decision support tools and data transfer flows to facilitate the control of high-impact contagious diseases for the most commercially important animal species at the European scale, namely pigs, poultry, cattle and salmonids. For each of these species, the targeted diseases are those considered to have the greatest impact on animal health and welfare, and on the sustainability of production. The targeted diseases are respiratory and gastrointestinal diseases for the three terrestrial species. For salmon, the project specifically focuses on pathogens that have a negative impact on growth and mortality. Despite this focus on certain species and diseases, the concepts and tools developed should be relatively easy to adapt and apply to other species and other contagious diseases.

Prerequisite: defining the needs to develop adequate solutions

For each species and disease, DECIDE will define not only the needs and expectations of stakeholders in terms of decision support tools, but also the obstacles, motivations and conditions for data sharing.

ITA's missions:



- Contributing to the development of a decision support tool for the management of respiratory diseases in fattening units for young cattle.



Martène Guiraud

HoloRuminant

📅 September 2021 – September 2026

💰 € 11 Millions

👤 Coordinator: INRAE – France

👥 25 partners in 17 countries

Elucidating the role of microbiomes associated with ruminants and producing standardised methodologies to address their implications in ruminant production

A better understanding of the role of microbiomes associated with ruminants can lead to recommendations and innovations to improve the health, welfare and 'environmental efficiency' of ruminant farming. There is a need for knowledge to precisely link the causes and mechanisms of microbial influence on ruminant performance. Rooted in the concept of the holobiont - the host and associated microbiomes forming a functional unit - HoloRuminant will use a holistic, multi-omic approach to characterise the establishment and dynamics of microbiomes. HoloRuminant will determine the connectivity between microbiomes from different bodily sites, their heritability and their influence on production efficiency, growth, disease resistance, methane emissions, carbon footprint and phenotypic resilience to changing environmental conditions.

The acceptability and socio-economic impact of innovations will be assessed. The main results will be the creation of an expandable reference dataset on microbes associated with ruminants and the provision of specific standardised methodologies for the study of ruminant microbiomes for use by EU researchers and suppliers of animal health products, animal feed and additives.

ITA's missions:



- Methodological input, training of partners and the organisation of European and French multi-stakeholder meetings associated with the promotion and transfer of project results.
- Designing and implementing a focus group of livestock producers, industry stakeholders and consumers on knowledge and issues around microbiota and on the acceptance of a selection of innovations. Summarising the results of French and European focus groups.
- Providing data on livestock systems (test cases) for the study of the benefits of innovations for farmers.



Integrated ecological approaches from farm to landscape level



Through this approach, DG Agri is seeking to obtain through its research projects a better understanding and better use of the ecosystem for primary production. More precisely, it considers the role of biodiversity in the ecosystem in order to improve the resilience of farms and territories against specific threats. So, the development of new systems and methods in European agriculture such as organic or mixed systems can be envisaged. It also offers the possibility of new forms of agroforestry. Finally, the ecological aspect is strongly involved in this theme, linked to the needs of European forestry and farming.

Terres Inovia





📅 March 2015 – August 2018

💰 € 4,5 Millions

👤 Coordinator: Higher Council for Scientific
Research - Spain

👥 16 partners from 8 countries

Enhancing genetic diversity in tomato

Preserving traditional tomatoes

Tomatoes are the second most consumed vegetable in the European Union and the source of numerous nutrients, vitamins and antioxidants. TRADITOM was enhancing the genetic diversity of traditional tomato varieties, traditional in order to increase their resilience and to avoid their replacement by more robust, higher yielding but less tasty alternatives. Behind this objective, one could also find a desire to improve the competitiveness of traditional tomatoes in local and global markets.

ITA's missions:



- Two experimental centres at the heart of a suitable area for fruit and vegetable production, with sensory analysis laboratory
- Expertise on quality studies
- Expertise on consumer preferences and sensory analyses.

A double approach based on 1,500 varieties

The project, based on gathering together 1,500 traditional tomato varieties, proceeded through a double approach:

1. The identification of genotypic and phenotypic diversity in traditional tomato varieties and their sensorial traits offering a more appealing taste for the consumer.
2. Overcoming the weaknesses of traditional tomatoes to diseases through breeding and improving their yields without affecting their good sensorial and nutritional traits.

For tomato producers, TRADITOM provided a web platform compiling scientific knowledge about the identity and variability of these tomatoes (cultivation methods, environmental characteristics of producer regions, and new resilient and efficient versions of tomatoes).



CTIFL

📅 April 2015 – March 2019

💰 € 3.5m

📍 Coordinator: Agricultural Institute - Slovenia

👥 25 partners from 9 countries



Diversity of local pig breeds and production systems for high quality traditional products and sustainable pork chains

For a sustainable and quality pig production

TREASURE was a European research project focusing on local breed pork chains in Europe and hoping to find results and solutions that could benefit the sector. Societal and consumer expectations drove TREASURE's idea and approach: quality and health of pork products, with a regional identity, preserving the environment and concerned by the development of local agroecology.

A global approach

To deal with those expectations, new genomic tools were being used to describe and assess local pig breeds. The assessment of local livestock in TREASURE gave strong consideration to the production system. Feed resource management, with a focus on local supplies, and feed strategies were also at the heart of TREASURE. Traditional product quality as well as the quality of newly established regional products were assessed. The project partners were also interested in understanding consumer behaviour concerning these two types of product. In this context, marketing strategies were also considered. Finally, the project was driven by the will to improve sustainability, for local pork sectors.



ITA's missions:



- Summarising the data available on two French breeds: Basque and Gascon
- Collecting material to analyse genetic diversity (Gascon)
- Conducting, with INRAE, an experiment to assess the impact of seasonal and natural resources on product quality (Gascon)
- Developing a phenotypic database with regard to the future selection programmes of local breeds
- Contributing to the dissemination of results



📅 March 2015 - February 2019

💰 € 3,5 Millions

👤 Coordinator: INRAE – France

👥 21 partners from 11 countries

Diversification for resilient agroecosystems

Improving resilience, performance, quality and the use of agroecosystems

DIVERSIFOOD's main objective was assessing and enriching the diversity of cultivated plants in agroecosystems. The project was seeking to improve their performance, resilience, quality and use. DIVERSIFOOD aimed to strengthen the viability of local chains based on a greater diversity in production. The project also wanted to strengthen the particular cultural identity of these local chains. This would be supported by pre-existing networks and pertinent European cases. A particular strength of DIVERSIFOOD was its consortium, representing the entire production chain, from genetic resources to marketing.

Another ambition of the project was to facilitate cooperation and exchanges between researchers and practitioners. Cooperation with public actors was scheduled, in particular to discuss the international treaty on plant genetic resources and its bargaining over farmers' rights.

New and coherent socio-economic and environmental diversity

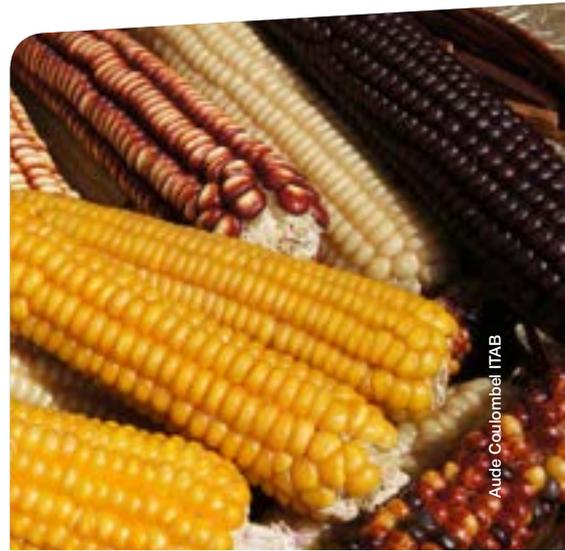
Concerning results, DIVERSIFOOD aimed to establish a new diversity, thanks to innovative production methods involving a greater intra-culture diversification.

DIVERSIFOOD was seeking to demonstrate the socio-economic added-value of 'on farm' seed systems. Locally and politically, they wanted to develop greater environmental and feed awareness. Finally, the project sought to obtain tastier and healthier local products emerging from regional production chains supported by networks.

ITA's missions:



- A study case on seven broccoli varieties under a Breton climate
- Comparison with other studies and identification of alternative varieties
- In charge of communication/ dissemination



Aude Coulibel ITAB

📅 March 2015 - February 2018

💰 € 2 Millions

👤 Coordinator: IFOAM EU – Belgium

👥 17 partners from 13 countries



Knowledge exchange on organic farming in field crops

A need for knowledge and skills in organic farming

As organic farmers require high levels of knowledge and skills, Ok-Net Arable aimed to develop knowledge exchange between farmers, advisers and scientists. As these exchanges were often rather limited, the aim was to increase the productivity and quality of organic arable crops in Europe.

An exchange platform on organic farming

Farmers were at the core of the project's approach. They were present in each step of the project and they contributed to the co-creation of knowledge. In creating a European network of innovative farmers and researchers, OK-Net Arable had the ambition of developing and strengthening Europe's organic sector. This network was accompanied by an inventory of available knowledge in arable organic farming (with tools such as videos, booklets, decision support tools, technical papers etc.) and the best methods in dissemination to farmers. The key to the project was the creation of a web platform for exchanges between peers about materials and knowledge and the possibility of online learning. This platform had five themes: soil quality and fertility, nutrient management, pest and disease control, weed management, cropping systems and specific crops.

The online platform:

www.farmknowledge.org

ITA's missions:



- Identifying and describing relevant tools in French to be available on the platform
- Creating practice abstracts ([link](#))
- Workshops with one group of farmers and one group of technical staff to assess and test some selected tools
- Shared on-farm trials with a group of farmers ([link](#))



📅 March 2016 - February 2020

💰 € 7 Millions

👤 Coordinator: Aristotle University of Thessaloniki - Greece
33 partners from 7 countries

Innovation for sustainable sheep and goat production in Europe

Sectors seeking sustainability, efficiency and innovation

The European sheep and goat sectors face unique challenges because they are generally in rural, isolated communities. This provides opportunities because they produce products for human consumption from otherwise unused resources. Therefore, they do not compete with other sectors or industries. Additionally, they face many challenges such as climate change, food security, fluctuating prices, resource use efficiency, shrinking rural populations and farmers becoming discouraged and leaving the sector.

A strong mobilisation of value chain actors

iSAGE was seeking to turn these challenges into opportunities while seeking solutions for the sheep and goat sectors. These solutions covered most parts of the sheep and goat sectors and aimed to benefit everyone in the value chain: the animal (finding the best way to obtain a healthy and efficient animal), the farm (making it productive and resilient), the farmer (improving quality of life and farm sustainability), the processor (understanding milk and meat production and greater sourcing), the consumer (understanding its demands) and policy makers (supporting European policies).

ITA's missions:



- Farm typology, socio-economic indicators, sustainability assessment
- On farm and multi-actor surveys, consumer focus groups
- Testing innovations on the farm
- Animal phenotypes for resilience, adaptability, sustainability, local breeds and recommendations
- Communication towards diverse targets



May 2017 – April 2021

€ 5 Millions

Coordinator: INRAE – France

23 partners from 13 countries



Redesigning cropping systems based on species mixtures

Exploring the benefits of species mixtures

ReMIX was a participative project with the objective of redesigning cropping systems based on species mixtures in order to provide benefits for farmers and the European farming community. ReMIX sought to produce new knowledge and practical solutions through the exploitation of the benefits of species mixtures. This was to create a more diversified and resilient arable production system.

3 species mixtures

ReMIX was aiming to develop more environmentally virtuous systems, less dependent on external inputs and adapted to both conventional and organic farming.

ReMIX was working on three types of mixtures: cereal-grain vegetable bi-specific cash crops, cereal cash crops associated with non-harvested companion species, and relay intercrops with under-sowing of annual or perennial legume crops in cereals.

ITA's missions:



- Summarising knowledge on crop-weed interactions in the field
- Analysing the effects of species mixtures on foliar diseases, insect pests and yields
- Defining of key genetic traits in mixed species
- Screening the performance of lines/populations in species mixtures
- Data analysis/proof of concept
- Providing farmers with references and tools to implement intercropping in their cropping systems, notably in organic farming
- Developing a serious game aimed at co-designing cropping systems including intercropping and co-learning within farmer groups

RemixIntercrops

Developing production systems with legumes for feed and food

Supporting the development of sectors based on legumes in Europe

Legumes are not largely cultivated in Europe, which is all the more surprising given their popularity in the rest of the world. LEGVALUE wanted to change this situation by considering production systems based on legumes with accompanying improvements in sustainability and competitiveness in feed and food chains. The project was assessing the economic and environmental added-value of legume-based systems. To do so, the project was working on 20 value chains and 20 farm networks representing the diversity of legumes and markets. LEGVALUE aimed to provide solutions to each value chain actor using legumes, which would also be beneficial to their economic interests. Finally, the project wanted to demonstrate the economic asset that legumes represent.

Fostering the introduction of legumes in crop systems

In terms of results, LEGVALUE provided farmers with tools to identify the most adapted legumes species and management methods for their particular systems and to demonstrate the economic and environmental added-value. LEGVALUE also assessed the more competitive supply chains to foster legume cropping. Thus, the project made recommendations towards European decision-makers about technological topics linked to the development of legumes in Europe. These recommendations also considered the coordination of actors and new trade standards for legumes in order to foster their cultivation in Europe.

ITA's missions:



- Supporting local sectors
- Expertise in legumes
- Project coordination



June 2017 - May 2022

€ 10 Millions

Coordinator: INRAE – France

34 partners from 11 countries



Characterising and expressing the potential profits of crop diversification at the farm, sector and territorial scales

Productivity, sustainability, ecosystem services

In order to improve farm productivity, to develop the entire expression of ecosystem services and to improve value chain sustainability, DiverIMPACTS has been selected to explore the potential benefits of crop diversification at the farm, sector and territorial scales.

Project stakeholders motivated by 3 common ambitions

1. Evaluating the performances of crop diversification through rotation, mixed crops and multiple crops.

2. Developing key tools for rural actors as well as innovations making it possible to break existing barriers and providing a real collection of diversification benefits for farms, value chains and territories.
3. Proposing recommendations to public decision makers, to improve the coordination of every actor along the value chain.

DiverIMPACTS began from experiences that have already been tested, from which it could go further with its own experiences of diversification.

ITA's missions:



- Case study on cropping systems
- Organisation of field workshops
- Supporting farmers in the design and field evaluation of diversified cropping systems



- Network of field experiments testing diversified cropping systems
- Designing specific indicators (mainly economic) for crop diversification
- Assessing the impacts of diversification for the territory and value chain



- Case study on cropping systems
- Organisation of field workshops



- Assessing the impacts of diversification
- Organisation of workshops and events
- Communication/dissemination



📅 June 2017 - September 2021
💰 € 7,5 Millions
👤 Coordinator: IFOAM EU – Belgium
👥 35 partners from 18 countries

Fostering organic seed and plant breeding

Increasing societal demand for organic farming

LIVESEED is exclusively interested in organic farming, driven by the search for performance and competitiveness. Both could be found through stimulating actions concerning organic seed and plant breeding. Due to increasing demand for organic food, production has to follow this trend and undergo adaptations. However, this adaptation faces some challenges that need to be overcome (technical difficulties, implementation of European law, lack of organic production programmes etc.).

Several diverse solutions

LIVESEED aims at finding solutions to these challenges. The project partners want to encourage the harmonisation of European rules on organic farming, improve the availability and quality of organic seed, and innovate in terms of production methods on organic farms.

ITA's missions:



- Expertise on the quality, production and health of organic seed
- Surveys involving organic seed producers and users in France
- Establishing European networks on organic farming



Laurence Fontaine | ITAB



BRESOV

 **May 2018 - April 2023**

 **€ 6 Millions**

Coordinator: University of Catania - Italy
22 partners from 10 countries

Breeding for resilient, efficient and sustainable organic vegetable production

Supporting the development of organic farming

BRESOV has two main objectives. The first is to develop new varieties for three vegetables (tomato, broccoli and green bean). These new varieties would have to respect the principles of organic farming. The second is to deliver recommendations about organic seed production, both quantitatively and qualitatively, for these three vegetables.

Selection and methods in organic farming for better quality and quantity

To achieve these objectives, BRESOV is exploring genetic bases of essential characters for organic farming. Markers are being established and serve seeds for their selection. New methodologies could be tested in BRESOV to improve the quality and quantity of existing organic seeds. The selection of new varieties will follow certain criteria: adaptability to organic farming, complementarity with other cultivars and positive interactions with soil microbiomes.

In terms of the dissemination of accumulated knowledge, BRESOV is aiming to establish demonstrations, tests and training courses.

ITA's missions:



- Leading on production of high quality organic seeds
- Enlarging European vegetable genetic bases
- Assessing genetic collections and new tomato varieties



FRANCK BETERMIN



Knowledge network on organic feeding for monogastrics

Towards 100% organic and regional feed sourcing

OK-Net EcoFeed's ambition was to help farmers, breeders and the organic feed processing industry in achieving the goal of reaching 100% use of organic and regional feed for monogastrics (pigs, broilers, laying hens and parent stock of broilers and laying hens).

The organic farming market has been expanding and has a key objective to close nutrient cycles. However, Europe imports some raw materials in animal feed from distant countries. Moreover, Europe farmers experience difficulties concerning the procurement of good organic raw materials.

Those two realities threaten the existence of organic farming and consumer trust in Europe.

Establishing an exchange platform

The OK-Net EcoFeed thematic network summarized practical and scientific knowledge about the production of food using organic and regional raw materials to feed monogastric livestock. It built a European network of farmers, industries, researchers and advisers to exchange and co-create knowledge. The development of new tools and a link with EIP-AGRI were also expected. Finally, Ok-Net Ecofeed was an extension of the OK-Net knowledge platform, previously launched by the OK-Net Arable project.

ITA's missions:



- Analysing the different support tools for monogastric feed formulation collated by project partners
- Establishing the most pertinent tools and/or development of a European shared tool



- Contributing to the selection of the best tools for pig farmers
- Supporting ITAB in the adaptation of end-user materials and tools for French use



- Assessing existing tools and development of new tools
- Coordination of two working groups (pig and poultry) bringing together French producers and advisers
- French contact for the project



ITAV



 **February 2018 – January 2020**

 **€ 1.5 Millions**

Coordinator: Steinbeis – Germany

15 partners from 10 countries

Connecting actors in the wood mobilisation value chain

Sustainability of wood resources

ROSEWOOD was designed to connect actors in the wood mobilisation value chain, from forest owners through to regional authorities, including the forestry industry. This connection was to raise answers to the main challenges facing the sector, particularly its sustainability.

Exchanging and sharing innovations, practices and know-how

By bringing together these different actors, the project established regional networks, fostering the sharing of technological and non-technological innovations. It also sparked exchanges on cases of best practices and know-how in the sector. The ROSEWOOD project was also concerned with the possibility of developing new partnerships and bringing science closer to practice. The project also focused on development and individual skills activities to ease innovation uptake.



CNPF

ITA's missions:



- Guiding private forestry management
- Advising and training
- Regrouping private ownership



📅 January 2020 – December 2022

💰 € 2 Millions

📍 Coordinator: TEAGASC - Irlande

👥 18 partners from 10 European countries

The innovation network for the beef sector

Establishing a transnational ecosystem focused on the needs of cattle producers

BovINE is an EU-funded thematic network project focused on identifying innovations and sharing and exchanging knowledge in order to help address the challenges and improve the sustainability of the cattle sector. The topics covered in BovINE are grouped around 4 themes: the socio-economic resilience of farms, animal health and welfare, the environmental sustainability of farms, and production efficiency and meat quality.

On each of these themes, livestock farmers are invited, through various meetings, to express their needs in terms of information, tools and guides that would enable them to strengthen the sustainability of their farms. At the end of this

phase, priority topics are being selected for each of the themes. Project partners are then being tasked with identifying, validating and sharing the operational solutions that can meet producers' needs, whether through a bibliographical analysis (scientific or grey literature) or through existing good practices, tools and operational supports.

Sharing knowledge, know-how and communicating about innovations: an important focus for the project

The project also aims to facilitate the exchange and sharing of innovations and experiences between stakeholders in European value chains by offering an open platform, called the BovINE Knowledge Hub, where livestock farmers, advisers, project partner organisations and researchers can exchange views.

ITA's missions:



- Co-leader of the animal health and welfare and environmental sustainability work packages.
- Contributing to the choice of priority subjects selected for each theme.
- Contributing to the identification of innovations for each theme.
- Supporting the FNB (France's national bovine federation) in the coordination of groups of French livestock farmers involved in the project.
- Contributing to the validation and sharing of operational solutions.



Marlène Guiaudeau - Idele

 November 2020 – October 2024

 € 7 Millions

Coordinator: Coventry University - UK
27 partners



Agroforestry and mixed farming systems: Participatory research for resilient and efficient land use in Europe

Promoting the transition to a resilient and efficient use of land through agroforestry and mixed crop-livestock systems

AGROMIX is aiming to conduct participatory research to foster the transition towards efficient and climate-resilient land use in Europe. The project focuses on operational agroecological solutions for the management of farms, territories and value chains. In addition, it is utilising a network of 83 sites, used for mixed farming, agroforestry or managed by value chain actors, to design and improve these solutions on 12 copilot cases.

6 specific objectives:

- Improving the potential of synergies in mixed farming (MF) and agroforestry (AF) systems.
- Developing and promoting value chains and infrastructure for MF and AF production.
- Developing a toolkit for co-designing and managing MF and AF systems in practice.
- Identifying and modelling transition scenarios.
- Developing recommendations for public policies and action plans for successful transitions.
- Maximising the impact of the construction of low carbon and climate-resilient agricultural systems.

ITA's missions:



ITAVI
L'INSTITUT TECHNIQUE DES FILIÈRES
AVICOLE, CUNICOLE ET PISCICOLE

- Bibliographic research (state of the art, resilience indicators etc.).
- Poultry farming expertise and knowledge of other livestock systems.
- Knowledge of European policies to encourage agroforestry and mixed systems.



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TECHNIQUES
AGRICOLES

- Inter-ITA coordination.
- Assessment of support measures for public policies to help existing agroforestry and mixed crop-livestock systems and support for scenarios.
- Coordination of multi-actor workshops with policies for discussions on the proposals for new measures.



itab
l'Institut de l'éleviculture
et de l'alimentation biologiques

- Coordinating the assessment of the sustainability and resilience of 12 MF/AF pilot sites in Europe.
- Implementing and testing the effectiveness of the system co-design approach at the French pilot site.
- Contributing to the choice of indicators to assess the resilience to climate change of mixed farming systems with agroforestry.

Stanislas Librac



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<https://agromixproject.eu/>

#ParticipatoryResearch #Agroecological solutions

Transition Pathways to Sustainability in Livestock and Food Systems

Providing transition pathways to meet demand

PATHWAYS aims to build and propose to stakeholders transition paths that respond to the demand towards livestock and food systems.

Co-developing responses and improving the role of livestock farming

The project will propose visions and scenarios for the transition of European livestock farming based on participatory approaches. Above all, the evaluation of the sustainability of livestock farming will take into account for the first time a very wide range of indicators such as biodiversity, circularity in the use of resources, animal welfare, greenhouse gas emissions and ecosystem services. The nutritional quality of animal products and food preferences will also be integrated into the scenarios for the evolution of the sectors.

ITA's missions:



- Identifying innovative case studies to detect future transition levers.
- Developing a holistic transversal 'farm to fork' evaluation methodology
- Studying the impacts associated with sustainable transition scenarios for the European livestock sector on international trade.
- Implementing a case study on 'low-carbon' milk production
- Defining future dairy systems committed to sustainability.
- Working on consumer expectations and the place of meat products in diets.
- Studying the impacts associated with sustainable transition scenarios for the European livestock sector on international trade.
- Exploring market expectations and eating habits in terms of health and sustainability.
- Testing innovative livestock techniques combining production with reduced environmental impacts.



New openings for rural growth

Under this theme, DG Agri is focusing on projects which seek to stimulate growth in rural areas by identifying factors, dynamics and policies that shape the development of these territories. Societal expectations are increasing for products based on natural resources and rural areas must meet these expectations in order to stimulate their growth and ensure their social progress. In this theme, projects take a territorial view on food and non-food systems and chains. New information and communications technologies must foster rural development and become integrated in a larger strategy of maintaining and stimulating rural economies. Moreover, those projects may consider improving the value of some public goods as well as rewarding the rural communities delivering them.



November 2016 – October 2019

€ 2 Millions

**Coordinator: Reading University - United Kingdom
13 partners from 9 countries**

Cereal renaissance in rural Europe: embedding diversity in organic and low-input food systems

An answer to the crisis in the traditional model

CERERE fostered innovation processes within the European cereal community. Confronted with a crisis in the traditional farming model, CERERE positioned itself in favour of establishing organic or low-input cereal systems. CERERE regarded these systems as local and based on short channels. Diversity in farming systems and agrobiodiversity are key to providing better resilience and adaptation to the diversity of approaches and actors in the chain (fabrication and marketing etc.).

Knowledge transfer and recommendations

CERERE disseminated existing and established best practices, research results and innovative solutions for organic and low-input cereal systems. Considering the field and its actors and to then help shape information for European decision-makers, CERERE identified and highlighted key questions (soil fertility, rotation use, crop protection strategies etc.) for the sustainability of these systems, as well as possible opportunities. With various targeted actor groups, adapted instruments were used including policy recommendations, technical manuals, multimedia tools, local and international events, field visits etc. This fostered exchanges and innovation among actors.

ITA's missions:



- Based on local projects (in Pays de Loire and Poitou-Charentes) concerning the study of innovative practices in bread-making



ARVALIS ou Terres Inovia



PANACEA
Non Food Crops for a EU Bioeconomy

November 2017 - February 2021

€ 2 Millions

Coordinator: CRES – Greece

18 partners from 10 countries

Designing the penetration path of non-food agricultural crops into Europe

Promotion of non-food crops

The ambition of the PANACEA network was to develop non-food crops for the bioeconomy. Knowledge on these crops and their cultivation in Europe is still nears its infancy and PANACEA aimed to share the first feedback from both producers and biomass users, and communicate near-to-practice recommendations.

ITA's missions:



- Building a training session for farmers, agronomists and students
- Exploiting references on perennial crops
- Extending the French technological network on biomass and territories



- Communication/dissemination
- Links with EIP-AGRI

Inventory of results and impact analysis of these crops

PANACEA developed an inventory regrouping scientific results about those non-food crops, analysing their potential impact on rural renaissance. The needs of producers and the industry were identified thanks to a survey and discussed in regional, national and European events in order to identify development paths and training needs for stakeholders. A web platform has been developed to compile these previous elements, to create service and networking capacities, and to share and link various opportunities in EIP-AGRI and Operational Groups to expand the results of the project.



l'interprofession des huiles et protéines végétales

- *The partnership with Terres Univia, the interbranch association for vegetable oils and proteins, focuses on oil crops for biorefineries, an ambitious path with many stakeholders in France.*

 **November 2017 - April 2021**

 **€ 2 Millions**

Coordinator: EFIMED – Spain

13 partners from 8 countries

Sustainable forestry management: setting up a network for exchange and innovation on the development and valorisation of non-wood forest products

Challenges for the forest sector

Mediterranean forests are essential for local economies as they deliver numerous ecosystem services and goods. However, despite its real potential, the sector is in crisis: low profits, ageing population, abandonment of farms and land, an increase in devastating fires due to climate change etc. Potential solutions to these challenges exist, in particular those targeting the development and value creation in non-wood forest products, but these need to be relayed and the exchanges between the actors involved require stimulating.

Networking actors in non-wood forest products

INCREDIBLE was seeking to put actors in touch with each other, particularly researchers, decision-makers and producers of non-wood forest products. The project did this through five innovation networks (iNETs) concerning five non-wood forest products which were crucial for Mediterranean regions: resins, cork, aromatic and medicinal plants, mushrooms and truffles, and nuts and berries.

INCREDIBLE summarised and presented the information collected through the iNETs on an interregional web platform. iNET members also exchanged through regular transnational seminars. Through this networking, INCREDIBLE sought to make it possible to develop innovative business models as well as improvements in the expertise of rural regions on inclusive economic strategies.

ITA's missions:



- Establishing a knowledge database (R&D and practices)
- Creation of a collection of fact sheets for all partner countries, based on the five iNETs





 November 2018 – October 2022

 € 20 Millions

Coordinator: Stichting Wageningen Research
108 partners – 28 European countries

Creating a network of skills to unleash the innovation potential for the digital transformation of the European agrifood sector

Accelerating the digital transformation of the European agrifood sector

The objective of SmartAgriHubs is to accelerate the digital transformation of the European agrifood sector. To do this, it is creating a network of digital innovation centres that will stimulate the adoption of digital solutions by the agricultural sector.

Involving all European players to rapidly disseminate innovations

This objective will be achieved by integrating technology and business support into a local approach that involves all of Europe's regions and relevant stakeholders. At the heart of the project are 28 Flagship Innovation Experiments that demonstrate digital innovations in agriculture, facilitated by Digital Innovation Hubs in 9 regional clusters that bring together all European Member States. The idea is for digital innovations to be replicated across Europe and widely adopted by European farmers.

ITA's missions:



- Co-ordination of the French cluster with the Pays de Loire region
- Coordination of the 3 pilot experiments (AgriFarmLab, DigiPilote and Strategieek)



- Coordination of the DigiPilote and Strategieek pilot experiments
- Providing agronomic and technical expertise
- Coordination of monthly progress points with partners
- Technical actions (modelling, co-design workshops, monitoring of farmers' networks etc.)
- Dissemination (webinars, training etc.).



DR



📅 **November 2020 – October 2024**

💰 **€ 8 Millions**

Coordinator: INRAE - France

19 partners

Towards a balanced distribution of value in the fruit, vegetable and dairy sectors

Meeting the growing demand for high quality local products

Within the chain from production to consumption, many actors are involved but not all of them are winners. In order to boost competitiveness, FAIRCHAIN is inspiring and encouraging the most important stakeholders to resize their activities with the objective of meeting growing consumer demand for high quality local products.

Testing, managing and demonstrating technological innovations

To do this, FAIRCHAIN is testing, managing and demonstrating recently developed technological, organisational and social innovations and enabling small and medium-sized stakeholders to intensify and extend their production of affordable nutritious food while remaining competitive. The project focuses on the dairy, fruit and vegetable sectors, which occupy a strategic economic position in Europe.

ITA's missions:



- Providing recommendations for the market and public policies in order to promote the project's co-products in other areas (other than food).
- Identifying a means for exploiting whey, for example its use in crop protection.



DR

Enhancing human and social capital in rural areas

The aim of those projects is promoting and stimulating innovation, thereby fostering rural development and growth in rural areas. The activities of the projects focus on competencies, the human and social capital of farmers, foresters and inhabitants in rural areas. They can also focus on the functioning of AKIS (Agricultural Knowledge and Innovation Systems) to stimulate innovation. To optimise project results and in line with DG Agri expectations, these projects ones consider all the actors in supply chains and the rural economy. Finally, where appropriate, links may be established with urban areas.





March 2015 – September 2017
€ 2 Millions
Coordinator: SEGES – Denmark
15 partners from 12 countries

Good practices in innovation support services

Facing the challenge of failures in innovation processes

Observing numerous failures in innovation processes, the AgriSpin project tried to find solutions to these problems and to identify best practices for innovation in agriculture.

By establishing a European network, the project searched for the diffusion of accumulated knowledge from researchers, entrepreneurs and farmers in order to enhance the emergence of innovations within European farms. Indeed, innovation is the lever for the sustainable development of farms. AgriSpin explored change management practices in several European regions. The project organised field visits, stimulated dialogue and mutual learning to collectively analyse innovation process steps and the different roles in innovation support services. Professionals in innovation systems participated and studied the selected case studies to disseminate promising experiences.

Enhancing participative approaches, avoiding the linear view of innovation...

As the project is now over, some lessons can be learned from AgriSpin. In the scientific field, a participatory approach has made it possible to prioritise research topics and ensure that they are linked to farmers' needs. It was also pointed out that public authorities often analyse an innovation project according to a certain linearity which does not leave room for the acceptance of failure. Many other lessons have been learned and can be found in the project material.

ITA's missions:



- Collaborative creation of cross-visit methodology
- Organisation with CIRAD of a cross-visit in Guadeloupe (RITA: R&D network in West Indies)
- Participation in six other cross-visits: Belgium, Netherlands, Italy, Spain, Germany, Ireland
- Contribution to recommendations and dissemination of results (internally and externally, through SWG AKIS4, French Consultative Committee of EIP-AGRI)



- Involved in cross-visits of organic farming innovation cases in Germany and Italy, co-construction of an analysis framework
- Involved in final workshops to capitalise on the different visits,
- Involved in the exploitation and dissemination of results



📅 January 2017 – June 2019

💰 € 2 Millions

👤 Coordinator: The James Hutton Institute – UK
13 partners from 12 countries



PLAID
PEER-TO-PEER LEARNING:
ACCESSING INNOVATION
THROUGH DEMONSTRATION

Peer-to-peer learning: accessing innovation through demonstration

Better understanding of demonstration activities

PLAID was a project to stimulate innovation in agriculture through knowledge exchange between peers (farmers and advisers). These exchanges were stimulated through demonstration activities on commercial farms. The main objective of the project was to support an easier circulation of innovation, an enhanced exchange between peers and demonstration activities closer to field realities.

The project identified best practices and innovative approaches in the matter of demonstration, trying to understand practices in different European countries. More precisely, the key question was how we successfully achieve demonstration activities, in order to reinforce and develop them.

The first step for PLAID was to create a geo-referenced inventory of demonstration farms in 30 countries.

PLAID/NEFERTITI collaboration

PLAID worked in close cooperation with the NEFERTITI project (as well as AgriDemo), both based on demonstration activities to enhance the development and adoption of knowledge, innovation and peer-to-peer learning. NEFERTITI builds on the expected results of the PLAID project and works closely with its partners.

ITA's missions:



- Creating the inventory of demonstration farms
- Thinking about demonstration methodology thanks to case studies
- Inputs from the SYPPRE platform (national project)



- Good practices coming from livestock networks (INOSYS)
- Know-how in demonstration activities
- Communication/Dissemination
- Development and analysis of concrete demonstration cases



- Communication/Dissemination



📅 January 2018 - September 2022

💰 € 7 Millions

👤 Coordinator: Acta – France

👥 32 partners from 17 countries

Networking European farms to enhance knowledge exchange and innovation uptake through demonstration

10 thematic networks and 45 regional hubs

NEFERTITI is a unique project establishing 10 thematic networks covering three important farming sectors: animal production, arable crops and horticulture. Within these 10 networks there are 45 regional hubs structured around farmers and stakeholders from diverse backgrounds (advisers, NGOs, industry, education, researchers and decision makers).

Stimulating innovation and uptake through demonstration

The project chose to stimulate innovation, its adoption and knowledge exchange between actors through demonstration activities on commercial or experimental farms. This project establishes a web platform, offering broad dissemination of the demonstration farms directory and knowledge provided by the demonstrations. Moreover, a political dialogue will be held within the EU regions in order to bring farmers' expectations and interests closer to political decision makers. This will optimise the sustainability of these networks.

ITA's missions:



- Training of demonstration farmers
- Coordination of the 'Grassland and carbon sequestration' network
- Monitoring of regional groupings (hub)
- Follow-up and assessment of demonstration activities



- Participating in the 'Arable crop sensing and variable rate applications' network
- Involvement in a regional hub in eastern France



- Coordination, management and communication
- Agricultural Knowledge and Innovation Systems (AKIS) specialisation



- Coordination of the 'Reducing pesticide use in the production of grapes, fruits and vegetables' network

📅 May 2018 - April 2022

💰 € 5 Millions

📍 Coordinator: Eberswalde University - Germany

🌐 17 partners from 15 countries



Better rural innovation: linking actors, instruments and policies through networks

Optimising interactive innovation project approaches

The European Union has identified the need to stimulate rural renaissance. LIAISON is one of the projects participating in this desire, focusing on interactive innovation projects in agriculture, forests and rural areas. Based on feedback from nearly 200 projects and a detailed analysis of 32 projects, LIAISON partners are assessing multi-partner and interactive innovation processes within Horizon 2020 and rural development programmes.

Diffusion of tools and collective learning methods

LIAISON highlights the diversity of projects and practices through a mapping of innovation processes. Based on their critical analysis, the project produces and disseminates ready-to-use methods as well as protocols and tools co-designed with end users. The inventory covers tools and methods for co-creation and co-learning, communication and dissemination, impact assessment and self-evaluation. The project focuses on describing best practices from H2020 multi-stakeholder projects, thematic networks, operational groups and other initiatives contributing to the implementation of EIP-AGRI.



ITA's missions:



- Support in terms of process methods and tools
- Understanding and optimisation of the use of co-creation and co-learning methods
- Creating a practical guide
- Analysis of French cases
- Contribution to the general summary



 **November 2018 – October 2023**
 **€ 7 Millions**
Coordinator: TEAGASC - Irlande
22 partners

FAIRSHARE: Producing and sharing digital innovation tools for agricultural advice

Ensuring the digital transition of farmers through the sharing of tools and expertise

Today's digital technologies provide more efficient on-farm decision-making. Digital innovation in agriculture must keep pace with other sectors and be available to the entire farming community. FAIRSHARE wants to encourage and empower the community of agricultural advisors, through the sharing of tools, expertise and incentives, allowing them to take ownership of digital technologies.

Creating a database and a 'living laboratory'

In order to achieve its goal, FAIRSHARE is creating a database of digital tools and services used internationally, leveraging the social networks of partner institutions that cover EU countries and third countries. The results are available to users through an intuitively navigable online interface that has been co-designed using a multi-stakeholder approach. In addition, a participatory 'living laboratory' has been created and makes it possible to co-design and use digital tools.

ITA's missions:



- Contributing to the European inventory of consulting tools and to connecting pilots with users
- Coordinating tasks on highlighting good practices for consulting tools
- Highlighting good ideas concerning the development of tools and their maintenance
- Leading a use case, as it stands, of the COUPROD Multifilière software to illustrate good practices in terms of functionalities or even economic models



- Dissemination and communication actions
- General coordination and management
- Writing of 50 practice abstracts for distribution via the EIP-Agri platform
- Writing of an activity report on communication conducted via social networks.
- Creation and management of sub-working groups



 January 2019 – March 2021

 € 2 Millions

Coordinator: Universiteit Gent - Belgium

17 partners



EURAKNOS

Connecting thematic networks as knowledge reservoirs: towards a European agricultural knowledge innovation open source system

Networking actors in agricultural innovation and their practical knowledge

There is currently a lot of knowledge on a multitude of subjects, but few tools for sharing it. EURAKNOS compiles knowledge ready to be put into practice by intensifying the interaction between various agri-food or forestry networks, thereby maximising results for practitioners.

Stimulating the exchange of good processes and understanding how to impact end users

In order to achieve this objective, EURAKNOS has been stimulating the exchange of existing approaches, methodologies and tools between the different thematic networks (and EIP operational groups and H2020 multi-actor projects) and seeking out which approach would maximise the impact on farmers and foresters. This project has also explored the possibilities of setting up a European open-source system of agricultural knowledge and innovation that can connect all thematic networks.

ITA's missions:



- Promoting good practices in the development of a knowledge reservoir
- Writing an explorer's guide to thematic networks
- Exploration of the diversity of thematic networks completed or in progress
- Communication and dissemination



- Expertise on the Winetwork thematic network
- Knowledge transfer and communication
- Organisation of a cross-visit on the theme of knowledge exchange in viticulture
- Writing good practice sheets
- Participating to the French event to disseminate the project results



- Communication
- Drafting the communication plan, an analysis of good communication practices in thematic networks and a final communication report
- Coordination of social media and website

Advisory methods promoting interactive innovation

Expanding a network of advisors to innovate in agriculture

I2connect builds on networks that bring together over 40,000 advisors and other stakeholders. The aim is to promote a new culture supporting bottom-up innovation. The project aims to extend this network across Europe and to train it in order to support and facilitate interactive innovation processes that address the multiple challenges of European agriculture and forestry.

Listing practices to create new tools

To do this, I2connect is creating an inventory of current advisory approaches and best practices are being analysed to develop new approaches and tools. In addition, trainers will be trained to work with these new tools across Europe.

ITA's missions:



- Developing tools and methods to strengthen advisory capacity to support interactive innovation.
- Training in 'Stimulating interactive innovation in agriculture' to support groups seeking to innovate, developing interactivity and networks.



- Contributing to the reflection on networking and peer learning.
- Participating in the organisation of training sessions for advisers and cross-visits.
- Participating in the animation of the network of advisers



- Study of practical cases presenting innovative ways of connecting advisers and farmers.



- Coordination of ITAs (Agricultural Technical Institutes).



DR

📅 January 2020 – December 2021

💰 € 2.5 Millions

👤 Coordinator: Ghent University - Belgium

👥 21 partners



EUREKA

A platform to connect farmers and researchers

Bringing together knowledge from thematic networks

The EUREKA project's objective is to bring together knowledge and research from the various agricultural and forestry thematic networks within an online platform which is easily accessible to all stakeholders: farmers, advisers, policy makers etc.

Selecting relevant information for different actors

EUREKA analyses the available knowledge supply in order to obtain a complete overview of the data and its suitability for publishing on the platform. Best practices and recommendations are first formulated in a bible intended for PEI-AGRI and multi-stakeholder projects. From the recommendations made by experts and potential end users, the platform can be created.

ITA's missions:



- Helping to carry out an inventory of knowledge produced by around one hundred European multi-stakeholder projects
- Supporting the organisation of European regional workshops to consider the expression of the needs of future Farmbook users
- Supporting the development of Farmbook



Technical Institutes and their agricultural sectors in H2020 projects

Agricultural Technical Institutes	IDELE	IFIP	ITAVI	ARVALIS	Terres Inovia	FN3PT	ITB	VEGENOV	IFV	ITEIPMAI	IDF	CTIFL	ASTREDHOR	IFPC	ITAB **	ACTA	
	Sheep/goat	Beef	Pig	Poultry	Cereals, corn, Potatoes	Oil and protein crops	Potato plants	Beetroot	Plant biotechnology	Vine & Wine	Perfume plants	Forest	Fruits/vegetables	Horticulture	Cider apple	Organic farming	Transversal challenges
Horizon 2020 projects																	
AgriSpin																	
AgroMix																	
Best4soil																	
BIOBESTicide																	
Biofruitnet																	
BovINE																	
BRESOV																	
Cattlechain 4.0																	
CERERE																	
ClieNfarm																	
Cropbooster-P																	
Decide																	
Disarm																	
DIVERIMFACTS																	
DIVERSIFOOD																	
EUCLID																	
EUFRUIT																	
EUPIG																	
Euraknos																	
Eureka																	
EURODAIRY																	
Eurosheep																	
Fairchain																	

Agricultural Technical Institutes	IDELE	IFIP	ITAVI	ARVALIS	Terres Inovia	FN3PT	ITB	VEGENOV	IFV	ITEIPMAI	IDF	CTIFL	ASTREDHOR	IFPC	ITAB **	ACTA	
Agricultural sectors					Cereals, corn, Potatoes	Oil and protein crops	Potato plants	Beetroot	Plant biotechnology	Vine & Wine	Perfume plants	Forest	Fruits/vegetables	Horticulture	Cider apple	Organic farming	Transversal challenges
Horizon 2020 projects	Sheep/goat	Beef	Pig	Poultry													
Fairshare																	
Feed-a-Gene																	
Gene-Switch																	
GenRes Bridge																	
GERoNIMO																	
GenTORE																	
HealthyLivestock																	
HoloRuminants																	
I2Connect																	
IMAGE																	
Increase																	
INCREDIBLE																	
INNOSETA																	
Inno4Grass																	
Intaqt																	
Invite																	
IoF2020																	
IPMWORKS																	
ISAGE																	
IWMPRAISE																	
LEGVALUE																	
LIAISON																	
LIVESEED																	

Agricultural Technical Institutes	IDELE		IFIP		ITAVI		ARVALIS		Terres Inovia		FN3PT		ITB		VEGENOV		IFV		ITEIPMAI		IDF		CTIFL		ASTREDHOR		IFPC		ITAB **		ACTA							
	Sheep/goat	Beef	Pig	Poultry	Cereals, corn, Potatoes	Oil and protein crops	Potato plants	Beetroot	Plant biotechnology	Vine & Wine	Perfume plants	Forest	Fruits/vegetables	Horticulture	Cider apple	Organic farming	Transversal challenges																					
Horizon 2020 projects																																						
MySustainableForest																																						
NEFERTITI																																						
NetPoulSafe																																						
NoAW																																						
NovaTerra																																						
Ok-Net Arable																																						
Ok-Net Ecofeed																																						
PANACEA																																						
PathWays																																						
PLAID																																						
PPILOW																																						
R4D																																						
RELACS																																						
REMIX																																						
Roadmap																																						
ROSEWOOD																																						
Rumigen																																						
RUSTWATCH																																						
SheepNet																																						
Sm@RT																																						
SmartAgriHubs																																						
SMART AKIS																																						
SmartCow																																						

Horizon 2020 projects	Agricultural Technical Institutes		Agricultural sectors														
	Sheep/goat	Beef	Pig	Poultry	Cereals, corn, Potatoes	Oil and protein crops	Potato plants	Beetroot	Plant biotechnology	Vine & Wine	Perfume plants	Forest	Fruits/vegetables	Horticulture	Cider apple	Organic farming	Transversal challenges
SMARTER	IDELE																
SOLACE					ARVALIS												
SURE-Farm																	
TechCare	IDELE																
TRADITOM												CTIFL					
TREASURE			IFIP														
WINETWORK									IFV								
										ITEIPMAI							
											IDF						
												ASTREDHOR					
													IFPC				
														ITAB **			
																ACTA	

Presentation of the Agricultural Technical Institutes



About Acta: Agricultural Technical Institutes

Agricultural Technical Institutes (known by their French initials, ITAs) are professional tools for applied research and transfer, specialised by sector (field crops, livestock, fruit and vegetables, viticulture, specialised production (horticulture, medicinal plants, tropical plants, algae etc.), organic agriculture).

Acta, leads this network, bringing them together and promoting their expertise in the field and their unique know-how in France and abroad. Collectively, this network is a model for supporting competitive and sustainable innovation and amplifies value creation within territories, agricultural sectors and agro-industrial companies.

Follow Acta on : www.acta.asso.fr  @Acta_asso,  www.acta.asso.fr/linkedin  Acta channel

Europe Contact:

Adrien Guichaoua, europe@acta.asso.fr

Communication contact:

Marie Sela-Paternelle, communication@acta.asso.fr



ARMEFLHOR - Technical Institute of the Indian Ocean (Reunionese Association for the Modernisation of the Fruit, Vegetable and Horticultural Economy)

The ARMEFLHOR ITA is part of Acta's RITA institutes network (agricultural innovation and transfer networks) covering France's overseas territories. As an associative structure, it was created by professionals in order to contribute to the improvement of the performance and competitiveness of horticultural companies in Reunion. It has been supporting those working in the sector for around 30 years and manages experimentation on new techniques to develop the fruit, vegetable, horticultural and organic farming sectors and improve crop protection in tropical areas.

Europe contact: Toulassi Nurbel, toulassi.nurbel@armefflor.fr



ARVALIS - Institut du végétal (Institute dedicated to arable crops)

ARVALIS - Institut du végétal is an agricultural applied research organisation financed and managed by cereal, maize, potato, flax fiber and fodder producers, with the support of inter-professional and research funds. The institute's 450 collaborators conduct more than 1,500 agronomic trials each year and are involved in around 190 research projects involving more than 500 partners. ARVALIS-Institut du végétal supports and advises through its training activities and the provision of decision support innovative tools.

Europe contact: Florence Leprince, f.leprince@arvalis.fr



ASTREDHOR - French technical institute of horticulture

ASTREDHOR designs and implements research programmes and innovation to improve the technical, economic and environmental performance of horticultural, florist and floricultural and landscaping companies. This horticultural technical institute has State approval since 2008, and boasts more than 100 employees across 10 experimental stations, conducting applied research programmes at regional, national and international scales. ASTREDHOR's research activities provide support services and expertise to companies and 1,100 members.

Europe contact: Laure Dreux, laure.dreux@astredhor.fr



CEVA – Centre for the study and valorisation of algae

CEVA is a technological transfer and innovation centre specifically dedicated to macroalgae, microalgae and aquatic plants. Thanks to its double qualification as an Agricultural Technical Institute and Agro-food Technical Institute since 2018, it offers an adapted response (advice, monitoring, training, auditing, experimentation, R&D etc.) meeting the needs of stakeholders and professionals in the sector, notably on sanitary and food security, sourcing security and supply quality of raw material. It conducts applied research on micro-algae and aquatic biotechnologies, and manages scientific and technological knowledge transfer towards the industry in order to enhance the development of new markets. CEVA has 25 staff, including 19 researchers and engineers.

Europe contact: Aurélie Rousset, aurelie.rousset@ceva.fr



CTIFL - Interprofessional technical center for fruits and vegetables

CTIFL seeks to improve techniques and innovation development across the fruit and vegetable sector. It ensures technological transfer to those working in the sector and supports company efficiency. It analyses the sector and markets and informs professionals through the creation of useful technical, economic and regulatory publications. It monitors partnership actions with research, education, professional and inter-professional groups. In 2019, CTIFL had 295 staff, 10 of them being PhD applicants and interns.

Europe contact: Dea Hvillum, dea.hvillum@ctifl.fr



FN3PT - National Federation of Seed Potato Growers

Along with its subsidiary company inov3PT and its producer regional organisations (Bretagne Plants and committees in northern, central and southern France), FN3PT conducts research and development seeking to develop innovation and reinforce the quality and productivity of French potato crops. This R&D technical organisation brings together 61 engineers, researchers, breeders and technicians and regroups the potato plant production sector and its regional producer groups (OP). FN3PT/OP are in charge of the technical improvement of French plant quality, developing production and promotion.

*Europe contact: Laura Demey, laura.demey@inov3pt.fr,
Yves Le Hingrat, yves.lehingrat@inov3pt.fr*



IDF - Institute for forestry development

IDF is the research and development service of CNPF. Its activities aim to reassemble new scientific knowledge to build decision support tools for foresters and knowledge diffusion. Its expertise is on trees and forests: forestry and climate change adaptation, afforestation and renewal, wood economics, sociological aspects and services (soil, water carbon sequestration, maintenance of biodiversity) and all aspects specific to the environment. IDF multiplies its actions through training (thematic or on demand internships) and publishing (practical manuals, Flore forestière and Forêt-entreprise journals). It currently employs 19 engineers and technicians.

Europe contact: Benjamin Chapelet, benjamin.chapelet@cnpf.fr



Idele - Institut de l'Élevage (livestock institute)

L'Idele- Institut de l'élevage's actions follow a general mission to provide innovation and compile knowledge, including economic, in the horse, sheep, goat and cattle sectors. Its activities, studies, experimentation, engineering, advice and training are designed to improve farm competitiveness, to adapt production and livestock systems to societal expectations and, finally, to meet the sector's expectations on product processing and quality processes. It has 300, who are involved in the institute's daily activities.

Europe contact: Florence Macherez, florence.macherez@idele.fr

ITA Qualifié
en 2018

ifce

institut français
du cheval
et de l'équitation



IFCE - French horse and riding institute

The French institute for horses and horseriding is the public operation supporting the equine sector. Its actions are deployed across the French territory to benefit all the publics concerned with horses and horseriding. Besides its traditional activities, notably sanitary security and zootechnical traceability of horses, its role as a technical institute concerns the organisation of technical, economic and social data, the development of applied research, the transfer and dissemination of results and professional training and the exploitation of France's horseriding heritage.

Europe contact: Marion Renault, marion.renault@ifce.fr

ifip
Institut du porc

IFIP - Institut du porc (French Pork and Pig Institute)

IFIP-Institut du porc is the technical tool for all French pig sectors, from the artisanal through to industrial processors, working on genetics, feeding, slaughter and breeding. It answers the economic needs of actors by contributing to the modernisation, competitiveness and sustainable development of the pork sector as well as the supply of diversified, healthy and quality products for consumers. IFIP-Institut du porc is composed of 85 staff of which around 50 engineers, divided across four R&D hubs: economy, meat and charcuterie, livestock techniques and genetics. The institute benefits from the double ITA and ITAI qualification.

Europe contact: Michel Marcon, michel.marcon@ifip.asso.fr



IFPC - Technical institute for the cider sector

IFPC is the applied research institute working for the French cider sector. It conducts research and innovation programmes for the benefit of businesses in the sector, ranging from agricultural production to processing, with the objective of enhancing competitiveness and sustainable development. It is recognised for its excellence through the official qualification of Agricultural Technical Institute (ITA) and Agro-industrial Technical Institute (ITAI). Fifteen highly qualified staff, based on two stations, contribute to the institute's missions, which comprise in particular the creation of technical references, the development of innovations and the coordination of partners in collective research and development programmes.

Europe contact: Rémi Bauduin, remi.bauduin@ifpc.eu



IFV - French vine and wine institute

The aim of the French Institute of Vine and Wine is to support the wine industry in its innovative projects, from the vine to the bottle, by disseminating technical progress and technology transfer to the vineyards to improve their competitiveness and sustainability. The IFV has 20 R&D (research and development) units, organised in a regional network, as close as possible to the vineyards and companies in the sector. The 160 IFV engineers (ampelographers, agronomists engineers, geneticists, oenologists, microbiologists) ensure partnerships and synergies with all the actors of research at the regional, national and international levels. The IFV has the double qualification of Agricultural Technical Institute (ITA) and Agri-food Technical Institute (ITAI).

Europe contact: Eirios Hugo, eirios.hugo@vignevin.com



ITAB - Technical institute dedicated to organic agriculture

ITAB, a national research and experimentation organisation recognised as being of general interest, produces and shares knowledge to develop organic production and processing. Created in 1982, ITAB currently has 60 members representing all the stakeholders from the organic sector, including civil society and training. Thanks to the skills and expertise of its 28 employees, the ITAB is able to multiply its action through technical partnerships (60 projects) and institutional partnerships (9 agreements).

This structure, which is unique in the agricultural and agri-food landscape, is positioned in a transversal manner on all sectors, from upstream to downstream, and facilitates the evolution of agriculture and agriculture and society towards diversified, resilient and sustainable models. ITAB is a member of ITAB Lab, an association for organic research and innovation created in 2017 by Acta and Actia and benefits from the double qualification as Agricultural Technical Institute (ITA) and as Agri-food Technical Institute (ITAI).

Europe contact: Frédéric Rey, frederic.rey@itab.asso.fr



ITAVI - Technical institute for the poultry, rabbit, foie gras and fish farming sectors

Since 1968, the ITAVI applied research organization has addressed issues and needs from the poultry, rabbit and fish sectors. The institute seeks to meet expectations from these sectors in terms of research and development. It provides expertise and tools to anticipate and adapt to structural changes. At the interface between fundamental research and the field, the institute plays the role of innovation activator. Teams are spread across France and numerous partnerships contribute to and consolidate the development of the sectors. ITAVI gathers experts around nine particular competences: economy and foresight, animal feeding, welfare, environment, product quality and precision livestock.

Europe contact: Isabelle Bouvarel, bouvarel@itavi.asso.fr



ITB - Applied agricultural research organization for sugar beet

ITB is the agricultural applied research organization for the sugar beet sector, including beet growers and manufacturers of sugar, alcohol and ethanol. In accordance with societal and environmental expectations, it leads studies on four main themes: genetics and varieties, weeding, pests and disease, and agronomy and agricultural equipment. In addition to its headquarters in Paris, ITB has an experimentation centre in Le Griffon (02) and eight regional delegations. This means that more than half of ITB's 40 employees are located as close as possible to beet growers.

Europe contact: Fabienne Maupas, f.maupas@itbfr.org

iteipmai ITEIPMAI - French research institute for perfume, medicinal and aromatic plants

ITEIPMAI is a professional research organisation, recognised by the Ministry of Agriculture, for the perfume, aromatic and medicinal plant sector and certified by the Ministry of Research. It includes 25 permanent staff of which 12 are engineers and managers. It conducts finalised applied research supporting the aromatic, medicinal and perfume plant sectors. Its main technical activity aims to improve farmers' incomes and to secure it in the longer term, making it possible for agricultural and industrial companies to achieve sustainable development and generating trust and guarding the welfare of consumers.

Europe contact: Guillaume Frémondrière, guillaume.fremondriere@iteipmai.fr



IT2 - Tropical technical institute

The IT2 tropical technical institute was created by those working in the banana sector in Guadeloupe and Martinique. It brings together 10 professional groups from both islands working in plant productions (except sugar cane). IT2 works in Guadeloupe and Martinique, and on the French mainland to support its team and establishing collaboration agreements with public research groups and other partners. IT2 works mainly on behalf of producers within its particular areas of competence: innovating crop systems, soil fertility and fertilization, varietal improvement, plant health improvement and assessment and management of environmental impacts. IT2's operational team comprises 10 engineers and technicians.

Management contact: Marie-Laure Lastel, ml.lastel@it2.fr



Terres Inovia – Technical institute of producers of oilseeds, protein crops, and hemp

Terres Inovia is the reference Technical Institute for those working in oil and protein crops and the hemp sector. Its mission is to improve the competitiveness of oilseed and protein crops and hemp, through innovation and independent advice, and by adapting agricultural production and downstream uses to different economic contexts and societal demands. Each year, its 170 employees are involved in 25 national and international networks, launching 25 new collaborative projects, coordinating a network of more than 600 trials, publish 300 articles and organise 200 technical meetings.

Europe contact: Etienne Pilorge, e.pilorge@terresinovia.fr

Other applied research structures in Acta's network (linked to an ITA or Acta)



AGPH - French hop producers association

The AGPH is an association whose purpose is to bring together the entire French hop production industry. It has currently 6 members: APHA (Association des Houblonniers d'Alsace), Coophounord, Houblons de Normandie, HOPEN - Terre de Houblon, Houblon de France, Bières de Provence. Its role is to defend the profession in a highly competitive global environment, with France representing less than 1% of the world market. The AGPH is also the representative of the producers within the hop interprofession (Interhoublon). In order to separate the association's trade union and technical actions, a technical institute (ITH) was recently created.

General Secretary: Antoine Wuchner, antoine.wuchner@agph.fr

ITH - Technical institute for hop

ITH - Institut technique du houblon, is the future technical tool for all the professions in the French hop industry. The ITH's objective is to enable French hop growers to master the production of a quality raw material that meets the needs and quality requirements of their customers, in order to ensure that they are marketed under economically profitable conditions.

The main areas of intervention are :

- the hop plant and cultivation techniques, development of new varieties and regional adaptations...,
- production systems and technological innovations, experimentation of new cultivation techniques, new materials and equipment...,
- quality control, treatment techniques and programmes, integrated farming...,
- communication and dissemination of information

ITH meets the needs of economic players by contributing to the modernisation, competitiveness and sustainable development of the hop industry, taking into account future challenges: climate change, new cultivation methods, etc.

Contact France: Antoine Wuchner, antoine.wuchner@agph.fr



ANIFELT

The National Interprofessional Association for Processed Fruit and Vegetables is a federative structure bringing together specialised professional and interprofessional organisations representing the sector's economy.

It makes it possible to organize, within a joint framework, relations between the agricultural producers grouped in producer organisations and the processing industries. ANIFELT represents 6,300 farms and 80 industrial sites.

For its sectors, ANIFELT

- provides structural and situational management tools,
 - supports the improvement of market segmentation,
 - assists them to better meet societal expectations,
 - promotes products in order to meet the objective of public health and food education.
- It allows them to implement collective actions of economic studies, applied research and transfer, collective communication,...



ARTB - Association for technical research in beet

The Association de Recherche Technique Betteravière (ARTB) seeks to conduct, promote and coordinate research and development projects focusing on:

- Exploitation of sugar beet
- Exploitation of beet pulp
- Expanding the opportunities for beet and pulp
- Economic analysis

Its work is partly subsidised by the French Ministry of Agriculture and Fishing as part of the National Programme for Agricultural and Rural Development (PNDAR).



CNPMAI - National Conservatory of Perfume, Medicinal, Aromatic and Industrial Plants

The Conservatoire National des Plantes à Parfum, Médicinales, Aromatiques et Industrielles (CNPMAI) is a tool created by producers to support those working in the perfume, aromatic and medicinal plant network (PPAM).

This organisation, unique in France, combines agronomy, botany and pedagogy to tackle the following activities:

- Preserving the large genetic diversity of PPAM (France and Europe)
- Exploiting and providing adapted, new, improved or clearly identified plant material to users
- Participating in the protection of France's natural heritage (particularly threatened species)
- Raising awareness among all publics of the richness of PPAM and the importance of preserving biodiversity.

Research activities fit in the network animated by Iteipmai.

Europe contact: Agnès Lemen, agnes.lemen@cnpmai.net



CRIEPPAM - Regional Interprofessional Centre of Experimentation in Perfume Plants, Aromatic and Medicinal

For more than 20 years, CRIEPPAM has conducted experimentation and provided support to perfume plants producers (lavandin, lavender and clary sage) and dried aromatic plant producers in Southeast France.

Experimentation is conducted in close partnership with ITEIPMAI, CNPMAI and technicians in the sector (Chambers of Agriculture and Producer Organisations).

Research and experimentation on machinery and processing plants are specific activities CRIEPPAM conducts for the perfume, aromatic and medicinal plant sector, integrated within the network coordinated by ITEIPMAI.

Europe contact: Bert Candaele, bert.candaele@crieppam.fr



FNAMS - National Federation of Seed Multiplier Farmers

From seed planting to harvesting, FNAMS studies and develops the best technical and economic management plans to produce quality seeds and improve the profitability of production. The work focuses on four species: forage plants, vegetables, cereal and protein crop seeds and industrial beet. Research programmes are defined in accordance with GNIS's sectional groups, within the framework of the GNIS sections, by representatives of seed producers and companies and with the participation of ARVALIS - Institut du végétal. The technical team of 41 full-time employees comprises 28 engineers and technicians working across seven experimental sites.



ITSAP - Technical and scientific institute for apiculture and pollination

ITSAP - Institut de l'abeille offers national coordination of research and experimentation work in apiculture: improving the health of bee populations, improving the genetic potential of bee populations, optimising the services bees provide to agriculture, ensuring the good quality of hive products and assessing the sustainability of beekeeping farms. It comprises 9 engineers and permanent managers, it leads a PrADE unit («Protection des Abeilles Dans l'Environnement» - Bee Protection) bringing together French public research organisations studying the bee (80 scientists) and brings together regional apiculture development groups and specialised groups (royal jelly producers) including 70 technicians.

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VEGENOV – BBV

Vegenov, linked to CTIFL and working in a complementary fashion with the national institute, provides advisory and applied research services to plant companies. Vegenov's key competencies (molecular and cellular biology, microbiology and agronomic experimentation and nutritional and sensory analyses) are applied to all types of species making it possible to respond to three research and development objectives:

- Supporting companies in varietal creation programmes
- Optimising protection systems and plant nutrition
- Improving the quality of plants

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