

eip-agri
AGRICULTURE & INNOVATION



EIP-AGRI Seminar

“Moving EIP-AGRI implementation forward”

10 – 11 May 2017

OPERATIONAL GROUPS REPRESENTED AT THE SEMINAR

Table of contents

Belgium – Flanders

SOCROSense – Soil and crop sensing technologies **3**

France – Occitania

Pig farmers, development and research structures: triple performance laboratories in pig farming..... **4**

Germany – Mecklenburg-Vorpommern

Nutrition for human health: Aquaponic systems in Western-Pomerania **5**

Germany – Niedersachsen and Bremen

PIG HEALTH – learning network **6**

Germany – Sachsen

Fertilization using locally applied biogas slurry and pelleted green legumes – A new approach to fertilization and weed control in organic rapeseed production **7**

Italy – Emilia-Romagna

ValorInVitis – Broadening and improving biodiversity for a more competitive and sustainable viticulture in the Colli Piacentini area **8**

Spain – Catalonia

Control of *Monilinia* spp. In stone fruit: use of prediction models and cultural practices **9**

Sweden

Planning tool for reindeer husbandry companies – technology development in reindeer herding **10**

Infographic

Setting up an Operational Group **12**

This booklet has been created for the EIP-AGRI Seminar “Moving EIP-AGRI implementation forward”, 10-11 May 2017 in Athens, Greece. For more information on Operational Groups, download [the EIP-AGRI brochure on Operational Groups – update 2016](#) (available in English, Czech, Hungarian, Romanian and Spanish) from www.eip-agri.eu

SOCROSense – Soil and crop sensing technologies

SOCROSense – Bodem- en gewassensortechnologieën

BELGIUM - FLANDERS

Starting date - expected end date | 01.12.2016 - 30.11.2018

The aim of SOCROSense is supporting pioneer farmers who have experience with the use of GPS close-sensing techniques, focused on soil and crop sensors. These pioneer farms are a mixed group of farmers, market gardeners, tree nurserymen and agriculture contractors. Together with actors from research institutes and relevant business companies this group wants to create a surplus value and develop a vision for a mid-long term for these sensors. Therefore an analysis shall be made how data of these sensors can be used in a farm and can be exchanged by third parties. Furthermore an approach on how the data flow of different sensors can be combined and the opportunities that can be reached, is investigated.

At first an inventory of GPS-sensor technologies will be made up with pro's, contra's, potential and technical requirements of commercial or nearly-commercial sensors. Also the potential of how GPS sensor technology can influence/steer the company crop management will be studied. Moreover, there is a knowledge gap on how data from different sensors can be combined to answer specific questions from pioneer farms. According to the farm type, the best combination of GPS-sensors data will be determined. This OG will also carry out a benchmark study in foreign companies with experience of GPS-sensors. For dissemination 3 demo activities will be held besides articles in specialized media.



Lead partner: Proefstation voor de Groenteteelt (research institute)

Other partners

Research

- ▶ Hooibeeckhoeve (applied research)
- ▶ Instituut voor Landbouw- en Visserijonderzoek (ILVO) (research institute)
- ▶ KULeuven (university)

Farmers

- ▶ Groentenhof
- ▶ Boomkwekerij De Bruyn
- ▶ Carolus Trees

SME

- ▶ Agrometius bvba
- ▶ Hillaire van der Haeghe NV

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Pig farmers, development and research structures: triple performance laboratories in pig farming

Eleveurs de porcs, structures de développement et de recherche: laboratoire de la triple performance en élevage porcin

FRANCE, OCCITANIA

Starting date - expected end date | January 2016 – December 2020

Family pig farms in Occitania have strong historical and cultural characteristics in the area with a low density of pigs. The actors in the pork sector, and in particular the farmers, are engaging in large-scale multidisciplinary work on the following hypothesis: Can the resilience of pig farms be increased in a sustainable way through innovation, according to the criteria of triple performance?

The choice of partners and the method of operation allow to create brain storming of innovation transfer between farmers, land owners and researchers within a structured framework and a work schedule over 5 years. The major challenge of the project is to identify, evaluate and quantify technical, economic, and organizational innovations that increase the resilience of farms and strengthen the social acceptability of production and its link to the territory. The expected measurable aims of the project are to produce transposable references easy to distribute, in particular regarding:

- production systems economical on inputs, with low emission levels for environment,
- tools and systems for the energetic transition of pig farms,
- design and organization of resilient operating systems,
- methodological and analytical tools for a renewal of the agriculture / society contract.



Lead partner: MIDIPORC – Pork Inter-industry in Occitania

Other partners

Farmers

- ▶ A group of fifteen pig farmers
- ▶ The cooperatives APO and CAPEL PAISO

Advisory

- ▶ The Aveyron Chamber of Agriculture

Research

- ▶ L'Institut technique de la filière porcine (IFIP) – Recherche et Développement (The French Pork and Pig institute - Research and Development)

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Nutrition for human health: Aquaponic systems in Western-Pomerania

Ernährung für die Gesundheit: Aquaponiksysteme in Mecklenburg-Vorpommern

GERMANY, MECKLENBURG-VORPOMMERN

Starting date - expected end date | 01.11.2015 – 31.10.2018

This project aims to build upon the results of the successful FishGlassHouse project. The FishGlassHouse is a modern state-of-the-art aquaponic facility at the University of Rostock. Aquaponics combines aquaculture (fish production) and hydroponics (soilless plant cultivation). In aquaponics, the nutrients for plant growth originate directly from fish feed that is digested by the fish and converted by bacteria to soluble nutrients for the plants.

This project aims to increase the quality of the fish and plant products produced at the FishGlassHouse. It also aims to create a new sustainable supply chain, based on the ecologically friendly aquaponics, for regional farmers, gardeners and food processors in order to meet needs of the local market in Western-Pomerania (Germany), where the products will be sold. We are going to vary the feed ingredients (for example proteins, lipids, minerals in the fish feed) in order to improve the quality of the fish produced. We are testing possibilities to increase the quantity of the n-3 essential fatty acids as well as the amount of certain minerals inside the fish fillets. At the same time we intend to improve the nutrient composition of the recirculating water (process water from the aquaponic system) in order to support plant growth. Additional fertilizers, if needed, are reduced to a minimum.



A more extensive description and an info video of this project can be found [on the website of the Scottish rural network](#).

Lead partner

- ▶ Prof. Dr. rer. nat. habil. H.W. Palm, Department of Aquaculture & Sea-Ranching, Faculty of Agricultural and Environmental Sciences (AUF), University of Rostock, Germany
- ▶ Representative: Dr. U. Knaus, Department of Aquaculture & Sea-Ranching, University of Rostock, Germany

Other partners

Farmers

- ▶ Fischgut Nord eG (18510 Abtshagen, MV, Germany) and "filetas" (Fischgut eG & Co OHG, Abtshagen, MV, Germany) – a farmers' cooperative involved in African catfish production and processing in the region
- ▶ Groenfingers GmbH (18146 Rostock, MV, Germany) – garden centre
- ▶ F&F Fisch und Feinkost Handelsgesellschaft mbH (18069 Rostock, MV, Germany) – fish marketing company

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PIG HEALTH learning network

PIG HEALTH Lern-Netzwerk

GERMANY, NIEDERSACHSEN AND BREMEN

Starting date - expected end date | 18.05.2016 – 15.08.2019

ENHANCING THE AWARENESS AND WILLINGNESS TO IMPROVE HYGIENE AND HEALTH MANAGEMENT IN PIG PRODUCTION TO REDUCE THE USE OF ANTIBIOTICS | VERSTÄRKUNG DER SENSIBILISIERUNG ZU EINER VERBESSERUNG VON HYGIENE- UND GESUNDHEITSMANAGEMENT IN DER SCHWEINEPRODUKTION ZUR REDUZIERUNG DES ANTIBIOTIKAEINSATZES

The use of antibiotics has to be reduced to a minimum within the next years. To achieve this objective, pig farmers have to conduct farm-specific measures. As the use of antibiotics depends on many different factors, pig farmers need an approach that takes into account the farm-specific challenges as well as the variety of factors influencing animal health.

In mechanical engineering the concept "learning factory" is often used to continuously improve work processes and therefore to increase productivity and reduce waste. Based on the findings and experience of the learning factory, a learning network (including pig farmers, advisors, veterinarians and scientists) will be developed to implement a continuous improvement process which focuses on reducing the use of antibiotics in pig production. To implement the learning network successfully, existing obstacles and fears of pig farmers, advisors and veterinarians need to be detected. Furthermore, a guideline will be created to ensure the transferability of the developed methods and results to other workgroups / networks.



Lead partner: Dr. Hubert Gerhardy (project coordinator)

Other partners

Farmers

- ▶ VzF GmbH Erfolg mit Schwein, Uelzen (farmer organisation); 9 pig farmers

Research and advisory

- ▶ Department für Nutztierwissenschaften, Georg-August-Universität Göttingen
- ▶ Institut für Fabrikanlagen und Logistik, Produktionstechnisches Zentrum der Leibniz Universität Hannover
- ▶ Institut für Biometrie, Epidemiologie und Informationsverarbeitung, Stiftung Tierärztliche Hochschule Hannover
- ▶ Marketing Service Gerhardy, Garbsen
- ▶ Landwirtschaftskammer Niedersachsen, Schweinegesundheitsdienst Oldenburg

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Fertilization using locally applied biogas slurry and pelleted green legumes – A new approach to fertilization and weed control in organic rapeseed production

Plazierte Düngung von Biogasgülle und Leguminosengrünmehlpellets zur Düngung und Unkrautregulierung in ökologisch angebautem Winterraps

GERMANY, SACHSEN

Starting date - expected end date | 01.07.2015 – 31.12.2018

Domestic demand for organic rapeseed oil currently exceeds domestic supply. Among the reasons for the gap between demand and supply are low and volatile yields in organic oilseed rape production, pests like the pollen beetle (*Brassicogethes aeneus*), an insufficient nitrogen supply during crop establishment and a widespread weed infestation in autumn. As previous research has shown, early harvested and pelleted fodder legumes (especially white clover) can serve as a good plant-based N-fertilizer in organic farming. Based on these results the operational group will evaluate the effects of such legume pellets on winter oilseed rape. The aim is to develop a new N-fertilization strategy for rapeseed production on organic farms – a strategy that improves crop establishment, reduces weed infestations and increases grain yields.



Lead partner

Dresden University of Applied Sciences (HTW Dresden)

Other partners

Farmers

- ▶ Landwirtschaftsbetrieb Faller Erben – organic farmer
- ▶ Agrargenossenschaft Großzöbern e.G. – organic farmer

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OPERATIONAL GROUP

ValorInVitis – Broadening and improving biodiversity for a more competitive and sustainable viticulture in the Colli Piacentini area

Ampliamento e valorizzazione della biodiversità per una gestione competitiva e sostenibile della viticoltura piacentina in un contesto di mutate condizioni climatiche e sociali

ITALY, EMILIA-ROMAGNA

Starting date - expected end date | 01.12.2016 - 30.11.2019

This project aims at boosting sustainable competitiveness of the Colli Piacentini viticulture area by providing solutions to the following pressing issues: i) adaptation to global warming through introduction and valorization of local biotypes able to retain high total acidity under heavy summer heat load; ii) evaluation and adoption of new rootstocks tolerant to drought; iii) finding a realistic solution to the alternate bearing pattern of the native cv Croatina by promoting the use of the cross-bred cv. Ervi; iv) achieving a significant reduction in the use of pesticides by evaluating adaptability of new downy and powdery mildew resistant genotypes and v) strengthen the adoption of ICT technologies in vine protection by testing the use of the decision support system vite.net on both resistant and susceptible genotypes.

The impact of the above actions can be summarized as follows: i) product differentiation based on introduction or valorization of new genotypes; ii) promote vineyard mechanization; ii) implement new strategies for plant protection and iv) promote the culture of "working in a vineyard" targeting two main working profiles: young generations and immigrants from overseas countries.



Lead partner: Università Cattolica del Sacro Cuore (UCSC), research institute

Other partners

SME

▶ HORTA s.r.l. | Vinidea s.r.l.

Farmers

- ▶ Mossi Aziende Agricole Vitivinicole srl Società Agricola
- ▶ Cantina Sociale di Vicobarone Società Cooperativa Agricola
- ▶ Azienda Vitivinicola Villa Rosa di Illari Andrea e C. SS Società Agricola
- ▶ Az. Vitivinicola "I Salici" di Gazzola Claudio
- ▶ Az. Agr. Il Poggiarello S.S. Società Agricola
- ▶ Az. Agr. La Pagliara s.s.
- ▶ Tenuta Borri Azienda Agricola di Andrea Pradelli
- ▶ Az. Agr. Currado Malaspina

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Control of *Monilinia* spp. in stone fruit: use of prediction models and cultural practices

Control de *Monilinia* spp. en fruita de pinyol: utilització de models de predicció i mètodes profilàctics

SPAIN, CATALONIA

Starting date - expected end date | November 2015 – September 2017

Brown rot caused by *Monilinia* spp. is the main disease that affects stone fruit in our area. It causes serious losses in the field and post-harvest, and it creates marketing difficulties. One feature of this disease is that at harvest, in the field, fruit may not show symptoms, and the infection usually develops when the fruit reaches the distribution channels and / or the final consumer. This causes significant production and economic losses for packinghouses. Currently, the main strategy to control *Monilinia* spp. is based on field programmes with application of synthetic fungicides. However, the massive and continuous use of synthetic chemical fungicides has induced problems such as the emergence of resistant fungal strains. This project aims to improve brown rot control in stone fruit through the use of predictive models, in order to apply treatments only when needed, to select the best products to apply depending on the stage of the fruit and on the existence of *Monilinia* spp. resistant strains, and to assess the feasibility of introducing cultural practices combined with the applied fungicide programme. With this information, stone fruit producers will have tools at their disposal to improve the management and control of this disease. Moreover, they will have a good practice guide indicating the best management strategy.



Lead partner

- ▶ ACTEL SCCL – Stone fruit producer and packinghouse

Other partners

Project coordinator and research

- ▶ IRTA (Institute of Agriculture and Food Research and Technology)

Stone fruit producers and packinghouses

- ▶ Fruits de Ponent SCCL
- ▶ Agropecuaria i SC Soses SCCL

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Planning tool for reindeer husbandry companies – technology development in reindeer herding

Planeringsverktyg for rennäringsforetag – teknikutveckling inom renskötsel

SWEDEN

Starting date - expected end date | 01.03.2017 - 30.06.2020

The main objective of this project is to develop a reindeer husbandry planning tool that will provide reindeer herders with:

- access to the national reindeer husbandry planning database (RBP) on the field, even in remote areas that lack Internet connectivity,
- seamless integration of new and existing herd tracking solutions for real-time monitoring,
- the possibility to record and share on-field relevant information from the grazing areas with other reindeer herders and organizations.

The following innovative products will be developed in the project span:

- Communication drones: A hovering drone equipped with directional antennas will be relaying data from 3G/4G masts to the herder on the ground. Thus, significantly extend mobile networking coverage in remote regions.
- Reindeer tracking module: Additional drone module for seamless collection of reindeer positions in areas lacking connectivity infrastructure.
- Reindeer herding mobile app: An app for Apple, Android and Windows mobile platforms that will integrate GPS tracking, national reindeer husbandry planning database (RBP) and reindeer herders' private records from the field.



Lead partner

Dalvadis Economic Association, lokkmokk, Sweden

Other partners

Reindeer husbandry companies involved in testing and development

- ▶ Twenty groups of reindeer herders involved in testing, using reindeers fitted with GPS-collars
- ▶ One reindeer herder from each Sami village involved, focused on RBP (reindeer husbandry planning database) functionality issues, user interface etc.
- ▶ Four reindeer herders trained as communication drone pilots
- ▶ One reindeer herder trained as technical support / service for communication drones

Innovation group

- ▶ Sirges Sami village, Jokkmokk, Sweden
- ▶ Tuorpon Sami village, Jokkmokk, Sweden
- ▶ Jåhkågasska Tjiellde sami village, Jokkmokk, Sweden
- ▶ Udtja sami village, Kåbdalis, Sweden
- ▶ Prof. Maria Udén, Luleå Technical University, Sweden

Scientific support

- ▶ Luleå Technical University (Sweden)
- ▶ Interplanetary networking Special Interest Group (USA)

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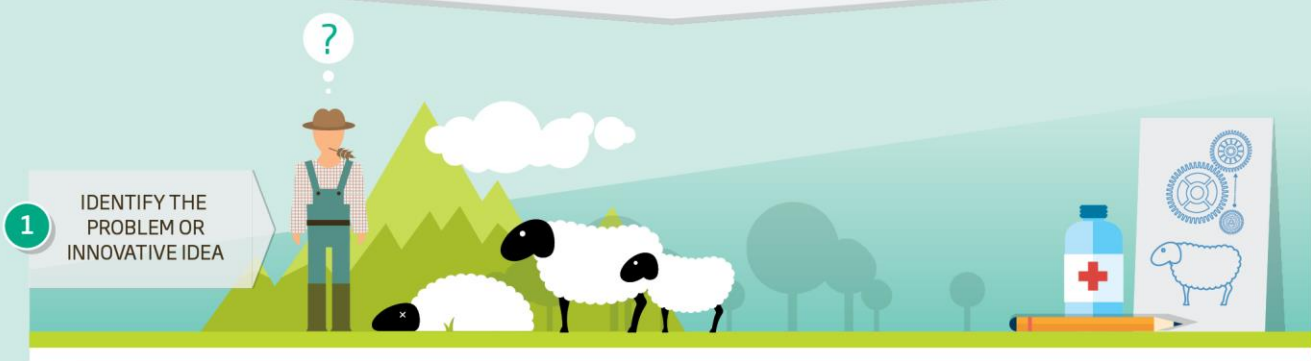
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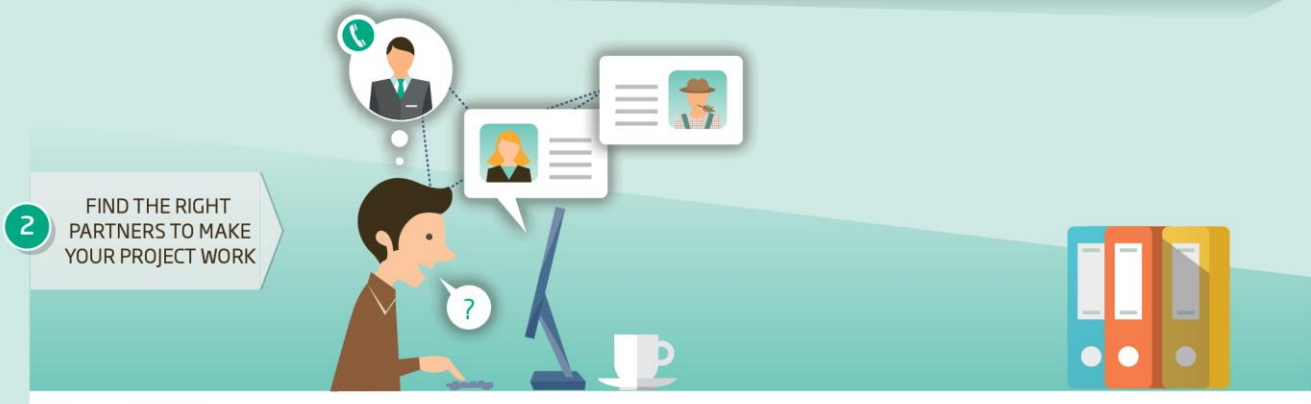
Setting up an Operational Group

1 IDENTIFY THE PROBLEM OR INNOVATIVE IDEA



The illustration shows a farmer in a hat and overalls standing in a green field with sheep. A thought bubble with a question mark is above his head. To the right, there is a clipboard with a drawing of a sheep and gears, a blue bottle with a red cross, and a pencil.

2 FIND THE RIGHT PARTNERS TO MAKE YOUR PROJECT WORK



The illustration shows a man in a brown shirt sitting at a desk with a computer. He has a question mark in a thought bubble. Above him are three circular icons representing different people. To the right, there are three colorful binders (blue, orange, yellow).

3 GET TO KNOW THE DETAILS AND MAKE A PLAN



The illustration shows a computer monitor with the word 'Funding' and a search bar. A green arrow points from the monitor to a blue piggy bank with the European Union flag. To the right, a hand is holding a pencil and pointing at a whiteboard with a flowchart and a lightbulb icon.

4 SPREAD THE RESULTS

Visit the EIP-AGRI website for relevant information and useful networking tools



The illustration shows a hand holding a megaphone pointing towards a map of Europe. To the right, there is a computer monitor displaying the 'eip-agri' logo and a toolbox with various tools.