AGRISPIN

Space for Innovations
in Agriculture

INTRODUCTION

'AgriSpin – Space for Innovations in Agriculture'

Dear reader,

We don't have to explain that innovations are crucial for the agricultural sector as well as for society, in order to cope with the challenges of this period of time.

As you all know, innovations emerge from interaction between people with a variety of backgrounds and knowledge. Many actors are involved in an innovation process: advisors, researchers, technology suppliers, retailers, civil society groups, administrators and so on. Investing in the quality of such partnerships means investing in the innovation capacity of a system.

This booklet offers you a collection of examples of good working practices, from 12 different European countries, in the different stages of an innovation process. We also offer you some tools and lessons learned which can help you to better understand an innovation process in order to anticipate the possible pitfalls.

Let this inspirational guide do the job that it is intended to do: to inspire and support you with the start-up, further development and implementation of an innovation.

Good luck!

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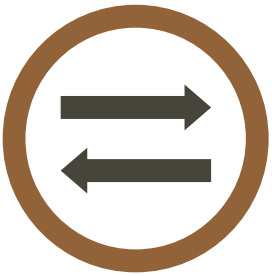
THE CROSS VISIT METHOD



THE CROSS VISIT METHOD

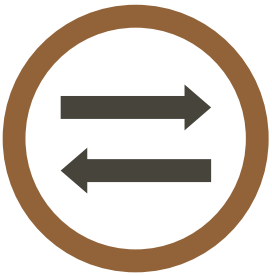
1. What is it about?

The 'Cross Visit' aims at collecting information about innovations that have taken place or that are in progress. During a Cross Visit there is an intensive exchange of information between the visiting team and the actors involved in the innovation process, i.e. farmers, advisors, scientists, managing authorities, technology suppliers, etc. The members of a visiting team are predominantly support agents, which allows for vivid exchanges of experiences. A cross visit creates space for intensive informal interactions between colleagues (advisors, scientists, ...) from different corners of Europe.

The desired outcomes of the cross visits are:

- Inspiration for improvements in the services being offered;
- A deeper understanding of innovation processes;
- A method for exploring innovation practices and the role of support service providers;
- A professional network of innovation support agents.

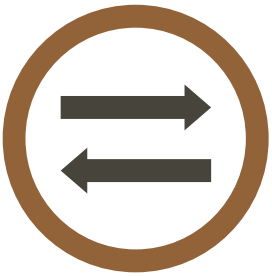
The challenge is how to collect information that is relevant for understanding both what mattered most in the innovation process the actors have gone through, and the impact of the interventions made by the innovation support service provider that has been involved.



THE CROSS VISIT METHOD

2. Advantages

- It creates opportunities to appreciate the way partners do similar work, to find out about solutions they found for problems they share and to inspire each other with practices that appear to work.
- It creates opportunities to reflect on the role partners play in their own system, by comparing what colleagues elsewhere are doing.
- Spending time together, travelling to places, meeting key actors, and reflecting together on what has been observed: this interaction is much more productive in terms of learning than attending a seminar or a training course where lecturers try to transfer their wisdom.
- The interactions form a good basis for professional relationships that continue after the cross visit.
- The exchange between practitioners on an equal basis shapes an environment where co-creation can emerge: finding new solutions together.



THE CROSS VISIT METHOD

3. Ways to collect information- Observation cards

The use of observation cards is one way to collect sufficient quantities of the information needed to analyse the innovation process. During the visit it is worthwhile to work with 8 themes of observation.
The themes are: Innovation, innovation process, innovation support, actors and networks, environment, critical incidents, dissemination and future perspectives.

Each team member chooses 2 cards with questions to focus on during the field visits.

Each card shows suggestions for questions to ask. This method feeds the visiting team with more detailed questions to ask. However, facilitation can be needed for stimulating the participant to ask what (s)he is supposed to ask.

THE CROSS VISIT METHOD

3. Ways to collect information - Observation cards

INNOVATION

- What is new?
- For whom is it new?
- What problem does it solve?
- What is the benefit?
- Who benefits?
- Does it affect the interests of other actors?
- Are there any side effects (positieve/negative)?

INNOVATION PROCESS

- What was the first spark?
- Who took initiative?
- What stages can be recognised in this process?
- How far is it now?
- What are the current obstacles?
- What do key actors expect from the near future?

ENVIRONMENT

- Which external factors play a role in here?
- Which changes in the environment influenced the actors to take initiative?
- What external factors were helpful?
- What external factors were obstacles?

CRITICAL INCIDENTS

- Have there been any crisis in this process?
- What was the cause?
- Who did what to overcome this crisis?
- Have there been big surprises in this process?
- What have been the consequences?
- Has there been a turning point in this process?
- How did it change the course of the process?

INNOVATION SUPPORT

- What is the contribution from the host partner?
- What would not have happened without this support?
- What is the potential for the near future?
- Do the key actors have wishes regarding the support they can obtain?

ACTORS AND NETWORKS

- Wich actors play a key role in this innovation process?
- Who are the main drivers?
- Are there any actors who actively resist the changes?
- Which networks are important for this innovation process?
- What is their importance?
- Who keeps these networks healthy?

DISSEMINATION

- What is the influence of this innovation on the environment?
- Do others show interest in what is happening here?
- Do others change their practises because of what they see here?
- Is dissemination being actively promoted? By whom?

FUTURE PERSPECTIVES

- Suppose all their dreams come true, what will be the situation after a few years?
- What will be the main challenges to overcome, for realising this dream?
- What will be their strategy to do so?

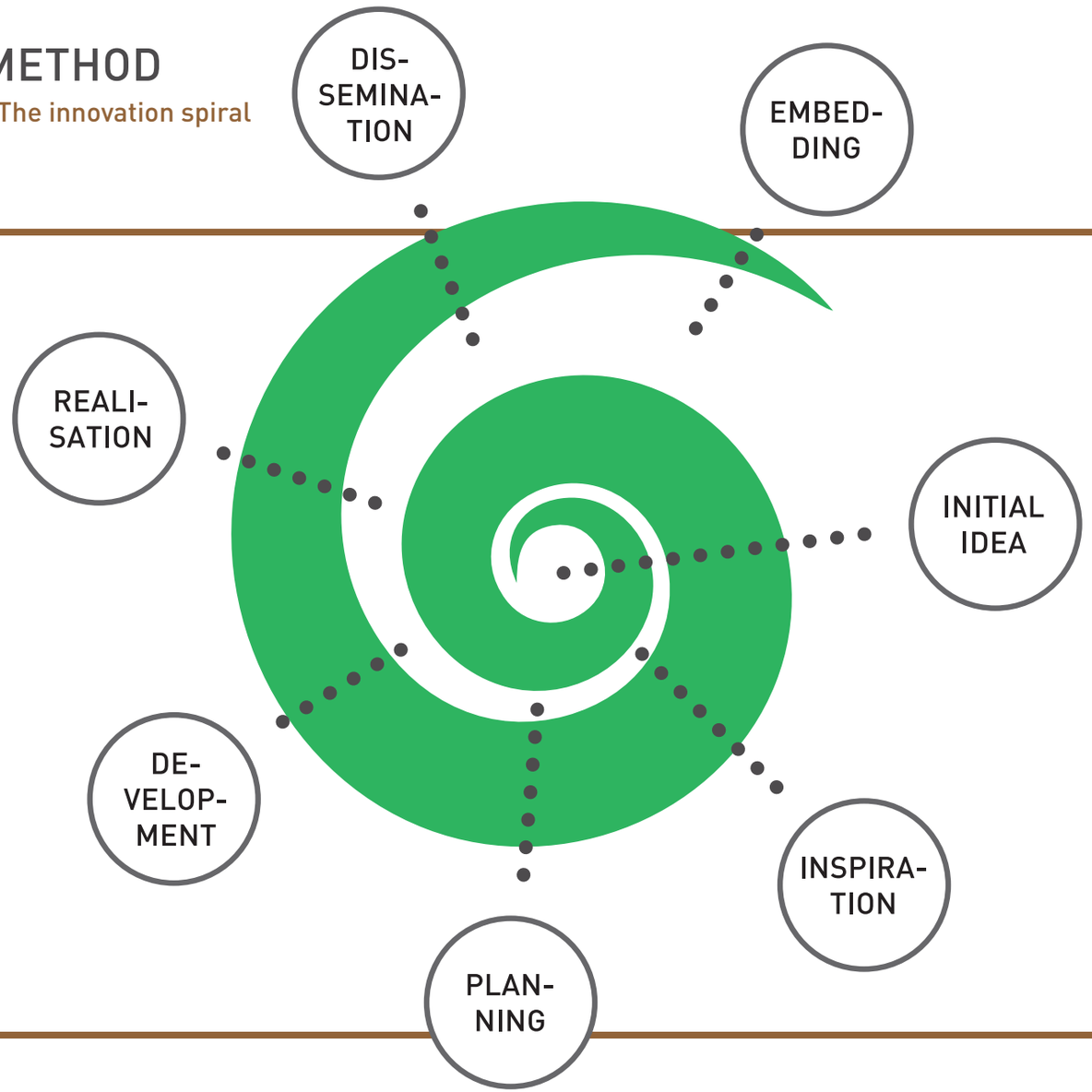
THE CROSS VISIT METHOD

THE CROSS VISIT METHOD

3. Ways to collect information - The innovation spiral

The spiral of innovation gives you further insights into the different stages of an innovation process. The spiral distinguishes seven phases in an innovation process. Each phase requires specific actions and connections with different people in the system. Furthermore, each phase has its own pitfalls to avoid.
Innovation processes are not linear: sometimes it is necessary to step back and start again in a previous phase.
The tool helps to recognize what needs to be done to get ready for the next step in the process.

Commonly, in an innovation process three phases are distinguished:
the initiative phase, the development phase and the dissemination phase.
The spiral adds four more stages that appear to be important while they are often overlooked. We need to mention that the spiral is not a timeline.
Due to feed-backs and loops occurring in innovation processes, some planning and development activities can occur when other dissemination activities take place.



THE CROSS VISIT METHOD

THE CROSS VISIT METHOD

3. Ways to collect information- Pearls, Puzzlings & Proposals

At the end of the cross visit, the visiting team formulates pearls, puzzlings and proposals, based on what has been observed and discussed.

Central questions are:

- What did the support service do to enable farmers and other entrepreneurs to innovate?
- What was the influence of the particular circumstances?
- What can be learned from it?
- What is still unclear or questionable?
- And which ideas still need improvement?

Result

The result is summarized on a poster with three columns. This can be presented to the visiting actors and stakeholders during a 'feedback moment'.

Pearls: inspiring observations, appreciations, lessons

Puzzlings: question marks, things that need clarification, doubts

Proposals: feedback for the support service to consider, ideas for action

THE INNOVATION SPIRAL

THE INNOVATION SPIRAL

THE DIFFERENT STAGES OF AN INNOVATION PROCESS

1. Innovation Spiral: how does it work?

In order to get a clearer picture of the different stages in an innovation process, it is important to reflect on each stage of the innovation process. For this you can use the information gathered with the observation cards. It adds value if you can do this together with the actors involved in an innovation process. What are the different phases about?

Initial idea

At this phase, actors get a new idea because of a problem or an opportunity.
The innovation support service provider (ISSP) identifies the actors (pioneers and others) and new ideas (to think outside the box) and provides support to articulate ideas and actors (demand articulation). Such an issue can be addressed within a large organisation or with several organisations.

Inspiration phase

During this phase, others become inspired and form a network around the initiative. The ISSP supports key actors and strengthens emergent networks.

Planning phase

During this phase, initiators formulate plans for action, and they negotiate space for experiments. The ISSP connects people who need to work together and access key resources and fine-tunes advisory services.

THE INNOVATION SPIRAL

THE DIFFERENT STAGES OF AN INNOVATION PROCESS

1. Innovation Spiral: how does it work?

Development phase

This is the phase of experimentation to develop new practices and to collect evidence. The ISSP provides creation and access to knowledge, advice and back stopping and then networking and access to resources.

Realisation phase

Here the innovation moves to full-scale implementation. The ISSP formalises networks, documents learning from the previous phases and increases support intensity towards connecting with new networks and improving dissemination strategies in order to start scaling up the innovation.

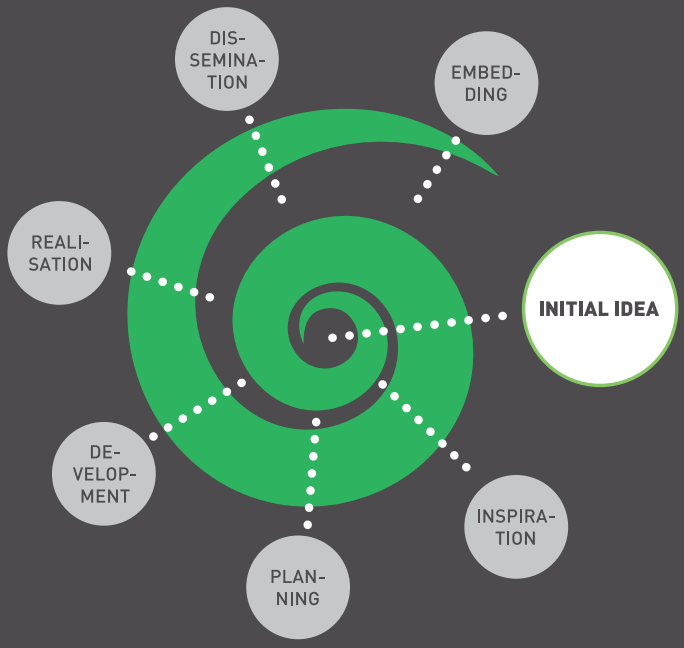
Dissemination phase

This is the phase where effective new practices are being picked up by others. During this phase more "standardised" (transfer) services are needed, mainly directed at farmers. Documenting and learning is key as well.

Embedding phase

As the last phase in the process, the new practice becomes widely accepted. What matters are new rules, laws, subsidies, taxes, etc. to mainstream the innovation.

DIFFERENT STAGES OF AN INNOVATION PROCESS SUPPORTED BY GOOD WORKING EXAMPLES FROM PRACTICE



- Food Innovation Academy (BE)
- Stevia Cooperative (GR)

FOOD INNOVATION ACADEMY (BE)

Innovation Support Service: capacity building

- Boosting individual competences to think outside the box, generate new ideas.

FOOD INNOVATION ACADEMY ON TOUR, A WAY TO INSPIRE ABOUT PRODUCT INNOVATION

1

Today's consumers expect more than just commodities in a store. Food has to fit their current needs and habits. Therefore user-friendly and ready-to-eat products are very popular. In response to these needs, active entrepreneurs and food companies are continuously working on product development and innovation. Also farmers selling farm products on their farm want to invest in new product development. But how does one start with this? Where do you get your ideas?

And how do you channel them into a marketable product? These questions are addressed during a food innovation academy tour.

Linda & Mark have been saffron growers since 2013. They sell their saffron and saffron-based products on local markets and in local food stores and became interested in expanding their product range. Therefore they attended the Food Innovation Academy on Tour.

FOOD INNOVATION ACADEMY ON TOUR, A WAY TO INSPIRE ABOUT PRODUCT INNOVATION

2

The Food Innovation Academy on Tour concept was initiated by Flanders DC and Innovation Support Centre for Agricultural and Rural Development (Innovatiesteunpunt). During a bus tour to supermarkets in Canterbury (UK), farmers were immersed in the world of marketing and product development. A product design consultant and a concept design consultant joined this innovation tour. Linda & Mark attended the tour with an open mind, to learn firsthand about product and packaging design. Together with the product designer they discussed the packaging of their saffron. From the supermarkets visited in Canterbury, they brought home some refreshing ideas. As a result of participating in this Food Innovation Academy on Tour, Linda has developed 2 new products together with a chocolatier, in which saffron is processed.

One of the products is the Saffron praline, with which they won the Belgian Beauty award for Best Souvenir 2016.

In addition, Linda started thinking about a new labelling concept together with a communications expert, since the product designer on the bus tour had some comments on the packaging and labelling of the saffron product.

Due to being in contact with farmers from other sectors, they also gained new ideas about cultivation methods, which in turn gave them fresh insight to deal with some saffron cultivation problems.

https://youtu.be/bis7LbXKIlg

Quote

"I think that there are still a whole host of opportunities out there, and we are absolutely raring to go."

Linda Van den Bulck, farmer

STEVIA COOPERATIVE (GR)

Innovation Support Service: access to resources

- Competitive grants for generating new ideas.

THE AGRICULTURAL STEVIA COOPERATIVE, ASYST

1

ASYST aims to develop the cultivation and production of high added value stevia products, responding to the increasing interest of consumers in a healthy diet, while also ensuring maximum profitability for its members. It was established by professional farmers under adverse financial circumstances due to the persistent economic crisis in Greece. This initiative came as a response to the abandonment of traditional crops (tobacco, cotton, sugar beet) and the need to replace them with more profitable ones.

The idea of ASYST came from a series of workshops organized by an informal group of actors of local origin, living elsewhere, to inspire and support farmers in replacing crops and the farming model. The Lab. of Food & Biosystems Engineering, the Technological Educational Institute of Larissa, professionals who voluntarily offer advice (without charging fees), the Cooperative Bank of Karditsa and the local Development Agency (ANKA S.A.) contribute to the project and help farmers to deal with a series of problems.

https://youtu.be/lUCHoErVJlQ

THE AGRICULTURAL STEVIA COOPERATIVE, ASYST

2

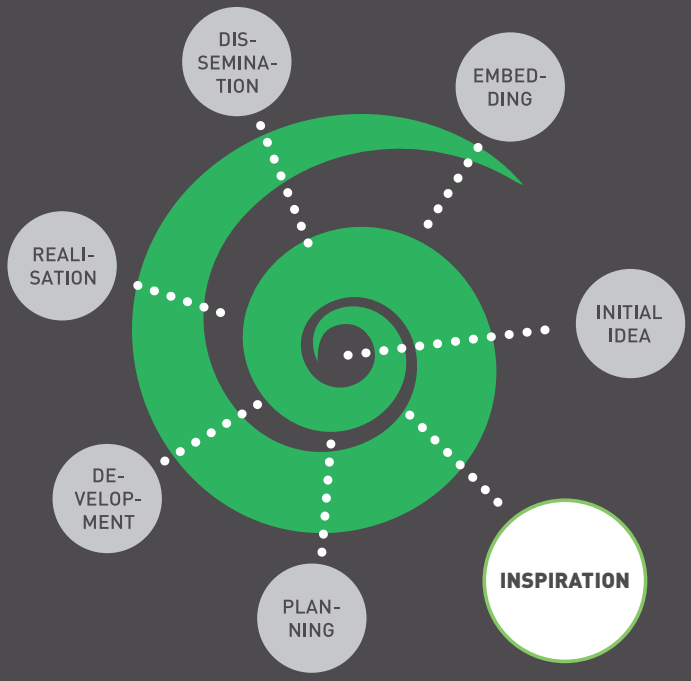
What differentiates ASYST from the other stevia growers, is their processing unit. It allows for the production of steviol glycosides and the control of its quality. This is important for gaining access to the European market, which currently depends on imported stevia products from China. Major problems for ASYST have been the attraction of new members and the scarcity of financial resources. These have made the collection of funds for the establishment of the ASYST processing unit hard. At a technical level, the challenge concerned the experimental production of steviol glycosides without using organic solvents, and the transition from an experimental to an industrial scale. In parallel bureaucratic obstacles - caused by the absence of legislative and regulatory framework at European and national level - had to be overcome.

The benefits for ASYST members come from the restructuring of their cultivation system under a new, integrated collective scheme. During the crisis, new ideas emerged and were enthusiastically embraced by the initiators and the co-op membership, especially vis-à-vis the 2015 capital controls. The role played by the 'intermediaries', 'supporters' (informal group, professionals, AN.KA. S.A.) and scientists have been crucial.

Quote

"We see that we have to help each other to get somewhere and that is what we do."

George Roussos, cooperative ASYST



- Mini wetland (DK)
- Dutch Quinoa Group (NL)
- Organic farm Felice Maio (IT)

MINI WETLAND (DK)

Innovation support service:
creation and access to knowledge

- Searching for relevant information from outside.
- External visits to centres where innovative ideas are being practiced around learning and acquisition of knowledge.

A MINI WETLAND IS AN OPEN RESERVOIR WHICH HELPS REDUCE THE EMISSION OF NUTRIENTS, THUS SECURING ARABLE FARMS A FINANCIALLY VIABLE PRODUCTION

1

The challenge for many arable farmers in Denmark is to achieve a financially viable production in the field while still complying with the EU Water Framework Directive and the Nitrate Directive with regard to the emission of nitrate and phosphorous. The environmental legislation in Denmark is restrictive with regard to the emission of nutrients. This has led to insufficient fertilisation by 10-20 % over a number of years. In 2016, fertilising optimally was allowed again, but environmental requirements still had to be met. Mini wetlands have proven to be instrumental in securing this.

In 2005 some researchers and agricultural advisors went on a research trip to Sweden to see an early version of a mini wetland. Ole Lyngby Pedersen, a farmer from Jutland, did not go on the trip but picked up on the idea and wanted to put it to the test. A working group was established, consisting of the farmer Pedersen, nine other local farmers, the local farmers' association, SEGES, Danish as well as international universities, local authorities, and private companies. The combined knowledge and funding of all these actors contributed to the setting up of the first successful mini wetland in Denmark, which was established in 2008.

A MINI WETLAND IS AN OPEN RESERVOIR WHICH HELPS REDUCE THE EMISSION OF NUTRIENTS, THUS SECURING ARABLE FARMS A FINANCIALLY VIABLE PRODUCTION

2

By means of field experiments, it has since been demonstrated that by implementing a mini wetland, an arable farmer is able to fertilise higher-lying areas without a high emission of nitrate and phosphorous to lower-lying plots. The drainage water is led to an open reservoir in the mini wetland, where the oxygen-free environment, carbon in the form of plant residue, as well as microorganisms reduce the concentration of nutrients before the water moves on. This enables the farmer to fertilise optimally.

https://youtu.be/MaDvEKuizwg

Quote

"This is a good example of how far we can get when all stakeholders work together towards solutions."

Irene Wiborg, SEGES

DUTCH QUINOA GROUP (NL)

Innovation Support Service: access to resources

- Provision of seed money for generating new ideas.

A NEW ARABLE CROP IN A SHORT SUPPLY CHAIN. DUTCH QUINOA: SUCCESSFULLY INTRODUCED IN THE NETHERLANDS

1

Quinoa is a heavily imported crop in the Netherlands to be used as a (super) food because of the high protein content. This import has dramatic effects on the environment and on the prices of quinoa in the country of origin. Prices have risen so steeply that the local community is no longer able to buy the crop for their own consumption. Therefore, Dutch Quinoa Group (DQG) triggered farmers to grow quinoa for human consumption.

Rens Kuijten, who grew up on a dairy farm was looking for a more protein-rich fodder for the cows. As the demand for imported quinoa was and still is growing in the Netherlands, he started to explore the possibilities of growing quinoa in the Netherlands. Besides the cultivation of this crop, he was also interested in organising a short supply chain for quinoa, with fewer links in the value chain and more revenue for the farmers.

https://youtu.be/zv4B6aPnj10

Both the farmers' organisation ZLTO and the Steering group LIB were involved in sharing their network and offering seed money for starting up this new project. They offered Rens 6000 euros, which allowed him to follow a training course on quinoa cultivation in the US.

A NEW ARABLE CROP IN A SHORT SUPPLY CHAIN. DUTCH QUINOA: SUCCESSFULLY INTRODUCED IN THE NETHERLANDS

2

Back in the Netherlands, Rens recruited a marketing and a cultivation expert, and launched the Dutch Quinoa Group (DQG). The aim of the DQG is to help farmers with the cultivation of quinoa and to establish a transparent, short supply chain that makes quinoa more accessible for consumers. Growing quinoa in the Netherlands reduces the need to import protein rich crops food and creates a new business opportunity for farmers. By diversifying their cultivation, they also ensure biodiversity in the field.

For Dutch farmers, growing quinoa is a new business opportunity. Competition is still low, since only a few farmers grow this crop. The new crop fits in nicely in the Dutch landscape, and as it is a popular food at the moment, it is expected that this combination will provide new revenues for these farmers. The Dutch Quinoa Group, which is responsible for the marketing, shares the knowledge gained between all engaged farmers. The packaging of DQG looks similar to a milk carton, as a reference to his parent's farm.

The farmers involved in the DQG gained knowledge of a new crop, learned about new marketing, learned how to think more from the consumer's perspective, and spread their risks as they grow more varieties of crops. In 2014, a total of 33ha of quinoa was cultivated on 13 different farms.

Quote

"A plant that has a similar amount of protein to milk ...
I had to get to know more about this seed."

Rens Kuijten, Dutch Quinoa Group

ORGANIC FARM FELICE MAIO (IT)

Innovation Support Service:
institutional support for niche innovation and scaling mechanisms stimulation

- Endorsement of an initial idea from the start by established institutions.
- Public actors give it the institutional support and impetus (driving force) needed at the beginning.

"FELICE MAIO" ORGANIC FARM BECAME A MULTIFUNCTIONAL FARM DUE TO BEING INVOLVED IN THE CILENTO BIO-DISTRICT

1

In Italy's Campania region, an innovative partnership between organic farmers, local governments, and the catering and hospitality industries has led to the creation of bio-districts. These are territorial networks that promote short supply chains, preserve local traditions and resources, and support rural development.

The Cilento Bio-district emerged back in 2004 as a response to the plea of organic farmers for help in marketing their products and promoting organic agriculture. At that time, farmers in the Cilento area (Campania region) were facing difficulties in reaching consumers and sustaining their businesses. Farmer Felice Maio and his wife Anna Nigro, who run an organic farm producing extra virgin olive oil, vegetables, figs and wine, and the annexed agriturismo called "Anna dei Sapori" ("Anna of flavours" in English) were facing the same difficulties.

https://youtu.be/17ZKG6jx7HE

"Anna dei Sapori" emphasises the promotion of traditional local cuisine. As they were convinced that being part of the Cilento Bio-district could revive their cooking model, they became a founding member and worked on its development.

"FELICE MAIO" ORGANIC FARM BECAME A MULTIFUNCTIONAL FARM DUE TO BEING INVOLVED IN THE CILENTO BIO-DISTRICT

2

In Anna dei Sapori's case, the involvement of the mayor of Castelnuovo Cilento and the support of the whole municipality, facilitated by the organic farmers' association (AIAB), was crucial for expanding their customer network. In addition, an official endorsement by the authorities raised the profile of the farm and allowed it to market its products to school canteens. Furthermore, a link to the travel agency ArcheoTrekking was made possible due to the personal friendship of Salvatore Basile, representing the bio-district, with one of the organisation's leaders. As a result of the recognition of the value of organic produce, Anna dei Sapori and ArcheoTrekking started to shape the tourism offering in the area together, bringing eco-tourists directly to organic farms and encouraging them to tour the area. In time, a small group of actors from the territory with the same approach and shared values around the sustainability of the bio-district came together to make the Anna dei Sapori 'agroturismo', a spontaneous AIAB meeting place, with it functioning as the promotional entrance door to the Cilento Bio-district. As a result, in 2009 it became the headquarters of Cilento's AIAB branch.

Together with AIAB, the Municipality of Castelnuovo Cilento and the ArcheoTrekking for the eco-tourism, both local consumers and tourists were brought to the farm to purchase organic products, and lovers of social trekking and eco-tourism were also given an organisational support service to discover the Bio-district territory.

Quote

"Thanks to the Bio-district we could increase our presence and strength in the area."

Anna Nigro, farmer

- Investment support team & building blog at Keisala farm (FI)
- Orti ETICI (IT)
- Advisory board (BE)

INVESTMENT SUPPORT TEAM & BUILDING BLOG AT KEISALA FARM (FI)

Innovation Support Service:
networking facilitation and brokerage

- Facilitation of an informal network by connecting people who matter (pioneer, entrepreneur, and others) and/or influential people able to move the idea forward.
- Temporary association of actors.

A MULTI-ACTOR INVESTMENT SUPPORT TEAM AND AN ONLINE BLOG HELPED THE FARMER IN THE PROCESS OF BUILDING AN ECONOMICALLY VIABLE BARN

1

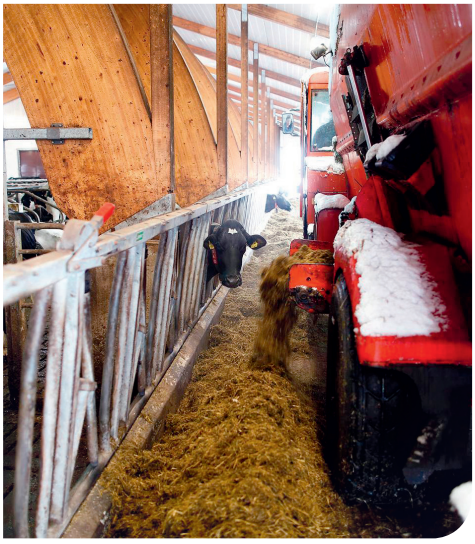
A farmer builds a barn only a couple times in his/her life. The project management of this investment is mostly challenging. External consultancy is often needed. But the need for consultancy also changes as the construction phase progresses. An investment support team can help the farmer with making choices. The team consist of experts with different backgrounds: design, economics, plant production, dairy production, etc. according to the needs of the project. It is an example of how an advisory service can help the farm to run a large investment.

A MULTI-ACTOR INVESTMENT SUPPORT TEAM AND AN ONLINE BLOG HELPED THE FARMER IN THE PROCESS OF BUILDING AN ECONOMICALLY VIABLE BARN

2

The Keisala farm, a dairy farm in Töysä, Western Finland, wanted to build a new barn. ProAgria, the Finnish expert organisation providing a wide range of services to rural entrepreneurs, suggested the farmer make use of an Investment Support Team. This team consisted of experts in design, economics and production. Experts from both dairy and plant production were involved. Thanks to the flexibility of the support team, it was possible to have a systemic approach to the investment process so that different aspects of the solution were discussed. The construction phase itself went rapidly because of the extensive planning phase.

ProAgria also suggested starting up an online blog, which was used as a communications tool throughout the process. The farmer used this blog to share daily the progress of the constructions, the challenges and the pitfalls. The farmer received a lot of mental support from other farmers through this blog. As an additional result of the blog, a large number of farmers who were planning to build a new barn ended up visiting the Keisala Farm. The blog provided publicity for the ProAgria advisory service and others involved in the Investment Support Team. A blog could be useful in similar situations where a large investment is being made.

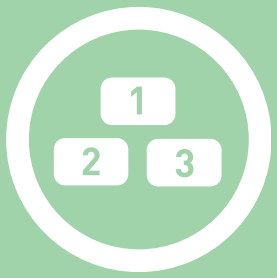


https://youtu.be/6EPQGrdxjZc

Quote

"The success was based on the fact that we got so much help from experts from different professions."

Merja Keisala, farmer



ORTI ETICI

Innovation Support Service: networking facilitation and brokerage

- Facilitation of an informal network by connecting people who matter (pioneer, entrepreneur, and others) and/or influential people able to move the idea forward.
- Temporary association of actors.

INNOVATIVE SOCIAL INCLUSION

1

The main goal of Orti ETICI is to promote social integration (social farming) through the production of food around the principle of social economy. Hereby providing innovative services to the local community through a partnership between farmers, social cooperatives and local authorities.

The project Orti ETICI started with promoting the idea of 'responsible innovation' in the field of agricultural production and social inclusion. The project combines sustainable farming and social rehabilitation through the employment of people who belong to vulnerable groups, or who have low contractual capacity.

INNOVATIVE SOCIAL INCLUSION

2

The main idea behind this project is to create a model of cooperation that can be replicated in other territories. This innovation is currently implemented on a local scale. By far, 60 people with disabilities have been included in the project and among them around 40% developed a good technical competence to produce vegetables for selling direct to local consumers. One of them is working on a stable basis at the organic farm partner in this project.

Different partners are involved in the project: the University of Pisa (Dept. of Veterinary Science), Cooperative Ponteverde (social cooperative), Bio-Colombini organic farm, and the Centre for agro-environmental research of the University of Pisa (CIRAA).

The organisations involved gave themselves a formal structure (temporary association of enterprises) in order to share rights, duties and tasks. The task of the co-operatives is to manage the job placement process, monitoring and evaluating individual outcomes. The CIRAA manages the processing, and provides the land and buildings and the experience of its technicians. Moreover, it utilizes Orti ETICI as "place of experimentation and research in the agricultural sector". The Department of Veterinary Sciences provides the skills acquired over the years on social farming and promotes the creation, within the university, of a training centre on these issues. Additional outputs of this project are: the establishment of permanent working and training courses on social farming, organised jointly by ARISA and University.

Quote

"Orti E.t.i.c.i is a place where organic vegetables are produced and where relationships are built."

Alessandra Funghi, cooperative Ponteverde

ADVISORY BOARD (BE)

Innovation Support Service: advisory, consultancy and backstopping at organization level

- Key consultancies to generate new ideas at farm level.

AN ADVISORY BOARD: MIRROR FOR THE PRESENT, STRATEGY FOR THE FUTURE

1

Farmers are sometimes in doubt about how to develop their businesses. Should they reduce or enlarge their broad product range? Should they respond more to the opportunities of tourism in the area? What would the financial impact of these decisions be on the farm? Since farmers often don't have an education in strategy and financial management, they lack the specific knowledge they need in order to make some decisions. The establishment of an Advisory board, composed of external experts, who give advice on these topics, can help farmers to make these decisions.

https://youtu.be/KtC1CQCgZn4

AN ADVISORY BOARD: MIRROR FOR THE PRESENT, STRATEGY FOR THE FUTURE

2

Paul and Veerle run the 'De Polle' goat farm with 600 goats. About 60 % of the milk is processed to produce a variety of products such as cheese and ice-cream. These are sold on their farm, at local markets and in catering establishments. The farmers had doubts about how to develop their business. Innovation Support Centre for Agricultural and Rural Development, Innovatiesteunpunt, helped them to establish an Advisory Board that consisted of a CEO of a biscuit factory, a manager of a hospital and a retired CEO of a cheese factory.

Prior to the board's first meeting, Paul and Veerle made a SWOT analysis of the farm's strengths, weaknesses, opportunities and threats, to clearly determine what they stood for and wanted to achieve. Based on this analysis, the first meeting with the advisors determined the issues that they would tackle in the first year.

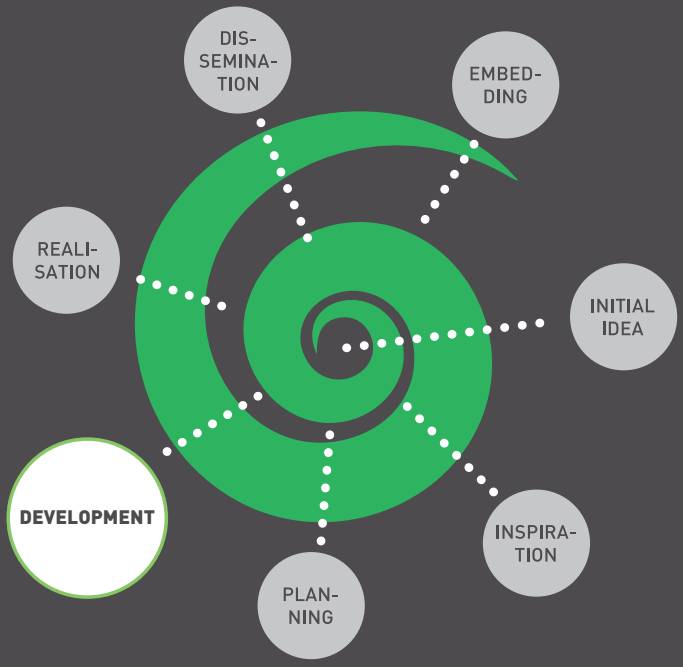
Four focus areas were determined: finding a better bank, improving the pricing, improving the product flow in the cheese production and improving the production planning with regards to personnel. For each of these topics, one of the external advisors had specific knowledge which could be brought into play.

Paul and Veerle increased their management knowledge via discussions with the experts and the Innovation Support Centre. This resulted in a better financial situation for the farm, which in turn persuaded their son to join the company. They are now getting the farm ready for the future by executing the necessary investments.

Quote

"When you're carrying out different activities at the same time, you lose sight of some things."

Veerle Minsaert, farmer



- SOP and LEAN (DK)
- BIO DISTRICTS (IT)
- GEOPOS (ES)

SOP AND LEAN (DK)

Innovation Support Service: capacity building

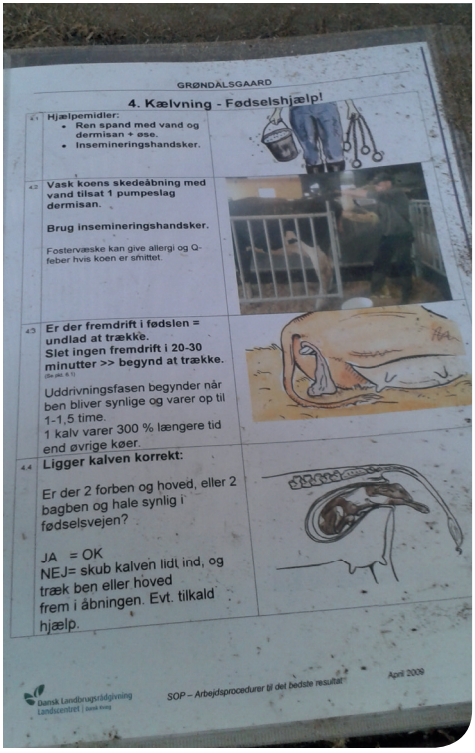
- Support to key individuals in form of capacity building (pioneer, entrepreneur, change agent).

THE STANDARD OPERATIONAL PROCEDURES (SOP) AND LEAN MANAGEMENT TOOLS ASSIST THE FARMER IN OPTIMISING WORK ON THE FARM AND HELP HIM MINIMISE ERRORS AND IMPLEMENT IMPROVEMENTS

1

In agriculture, the trend is towards bigger and fewer farms. On the dairy farms in Denmark, this has resulted in bigger herds and more employees, many of whom are from abroad. The farmers therefore need a standardised approach to the tasks at the farm. They also need a way to make their employees focus on improving the work-flow. By using the LEAN tools, the farmers create a culture in which they and their employees always look for smarter ways of organising the work. The SOP tools consist of work instructions which the farmers can display in cowsheds. All SOPs are available in Danish and English.

The idea of using LEAN and SOP at dairy farms arose among SEGES' advisors who saw the need for more efficient work-flows and better communication between the farmers and their employees. SEGES discovered LEAN and SOP in the manufacturing industry and translated the concept to agriculture. They started developing the SOP tools for 5 farmers in 2008. When realising in 2009 that SOP is part of LEAN, SEGES visited several companies, including LEGO, and started testing LEAN tools used in the industry on Danish farms.



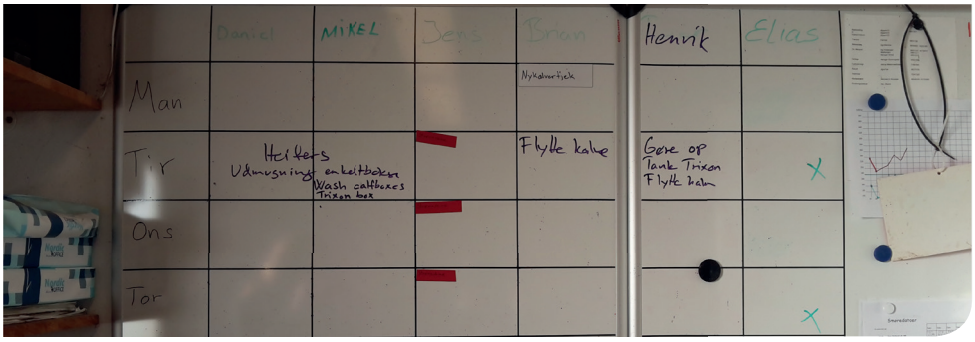
THE STANDARD OPERATIONAL PROCEDURES (SOP) AND LEAN MANAGEMENT TOOLS ASSIST THE FARMER IN OPTIMISING WORK ON THE FARM AND HELP HIM MINIMISE ERRORS AND IMPLEMENT IMPROVEMENTS

2

Today, the LEAN tools are used by 800 dairy and pig farmers. The SOP tools are used by approx. 120 farmers and the agricultural colleges.

LEAN is about understanding what creates value on the farm, identifying activities that do not create value, and creating a production flow with as few stops and shifts of responsibility as possible. It is also about letting the customer's needs determine what to produce, and to be taken in account- when making ongoing improvements. By using LEAN tools, this can be achieved by eliminating "waste" at any level on a farm. Typical waste areas are surplus production, transportation, wait time, excessive processing, inventory, errors and mistakes, movement, and unexploited knowledge. The first LEAN tool that SEGES introduced on a dairy farm was the week planner, which helps the farmer create an overview of the workflow at his farm. The continuous feedback from the farmers was collected by the advisors and SEGES and used for further improvement of the week planner.

The SOP tools are work instructions which can be dispalyed in the cowshed. They are pedagogical descriptions of how to best solve the tasks at the farm. They help the farmer streamline the production, save time and money and improve results.



Quote

LEAN optimises the work processes and creates improvements on an ongoing basis."

Ulrik Toftegaard, SEGES

BIO DISTRICTS (IT)

Innovation Support Service:
networking facilitation and brokerage

- Strengthening informal networks.
- Building innovation platforms.
- Organizing permanent workshops.

BIO-DISTRICT: INNOVATIVE TERRITORIAL GOVERNANCE INVOLVING ORGANIC PRODUCERS AND LOCAL STAKEHOLDERS

1

As a response to the plea of organic farmers for help in marketing their products and promoting organic agriculture, the Cilento Bio-district emerged back in 2004. A bio-district is a bottom-up organisation where farmers, citizens, tourism operators, associations and public authorities enter into an agreement for the sustainable management of local resources, based on organic production and consumption..

In 2004, farmers in the Cilento area (Campania region) were facing difficulties reaching consumers and sustaining their business. The organic farming association, AIAB, saw this request as an opportunity to launch a new initiative based on the district model. The key point of this bio-district model is that, instead of helping individual farms through measures, AIAB brings together a variety of local actors. So, public administration, restaurants, canteens, tourism business and so on worked out a common strategy for the development of organic food & farming in Cilento and the area itself, based around organic principles.

BIO-DISTRICT: INNOVATIVE TERRITORIAL GOVERNANCE INVOLVING ORGANIC PRODUCERS AND LOCAL STAKEHOLDERS

2

The idea behind this approach is to create and reinforce links that benefit everyone involved: organic farmers get better market access and exposure; consumers benefit from transparency about the origins of their food and enjoy fresh, organically grown local products; the tourism operators offer new sights or destinations (eco trails and agriturismo farms); and public authorities ensure food security, i.e. define the ways of meeting the food needs of local communities.

Examples of activities within the Bio-district are short food chain, purchasing groups, and organic canteens in public offices and schools. In Bio-districts, it is a must to link the promotion of organic produce to the promotion of the land and its special characteristics. This way it can fully realise its economic, social and cultural potential.

The Cilento Bio-district now includes 33 municipalities and 450 organic farms (23% of all organic producers in Campania). 14 more bio-districts were set up across Italy as well as several more in other countries.

The impact for the Cilento area is diverse. In the last 2 years a 20% increase in the turnover of organic farmers and companies was registered. The Bio-district created a network of 20 restaurants promoting local produce. Finally, the share of organically managed land has increased.

https://youtu.be/17ZKG6jx7HE

Quote

"Bio-district is a mutually enriching experience for farmers and citizens to get to know each other which establishes trust and deeper connection."

Salvatore Basile, founder of Cilento Bio-district

GEOPOS (ES)

Innovation Support Service:
creation and access of knowledge

- Searching relevant information.
- Innovative ideas are being practiced for learning and acquisition of knowledge.

GEOPOS, LIVESTOCK GEO-LOCALISATION VIA SATELLITE

1

Due to the mountainous topography of the Basque Country, livestock breeders often lose track of their herds. Every day they lose time searching for their herd in the mountains. This is especially stressful for part-time farmers. The livestock breeders expressed a need for a change in livestock management. This need was identified by The Sectorial Network team of HAZI Foundation, the public foundation of the Basque Government for rural and coastal development. In response, HAZI developed, a livestock geo-localisation device in close collaboration with some farmers GEOPOS.

With the support and knowledge of several farmers, a very motivated technician from HAZI Foundation developed the GEOPOS device in 2012. This innovative device is a robust, small and light necklace with great features, including:

https://youtu.be/bis7LbXKIlg

GEOPOS, LIVESTOCK GEO-LOCALISATION VIA SATELLITE

2

- Photovoltaic panels, together with high-performance batteries, giving unlimited autonomy, allowing the farmer to forget about charging the device.
- An alarm system to the user via SMS / mail when the livestock enters/leaves the plot, inactivity, low battery...
- A follow-up of the herd through a technological platform (available both for computers and mobile phones) that has been adjusted to the needs of the farmer.

From the beginning, the aim in creating this device was to make the life of the mountain livestock farmers easier. There was close collaboration with the farmers, who tested the device in real conditions, and HAZI, who carried the risks and costs of this development.

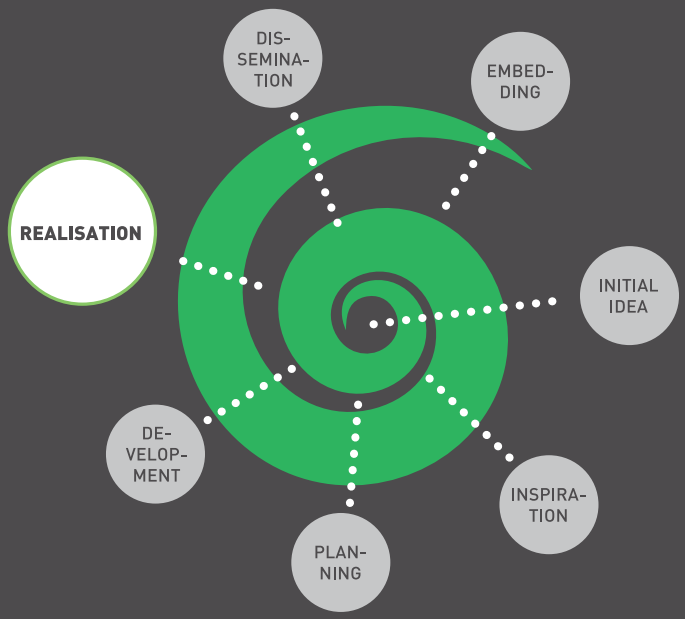
Today, the device is being used by around 20 small and medium farmers, with extensive livestock production. Using the GEOPOS device has improved the working conditions for the farmers through:

- Improved safety.
- Saving time for the farmers as they don't have to make daily visits to their plot anymore.
- Reducing costs, especially by saving fuel because unnecessary car journeys can be avoided.
- Contribution to animal behaviour research as the device shows the pattern of movements that can be analysed in different growth phases, seasons, weather conditions, ...

Quote

"Thanks to the GEOPOS device I know where my horses are all the time, which is a great advantage."

One of the farmers using the device



- Andrea Hermes Academy (DE)
- YAM Platform (FR -GP)
- Agrocoach (BE)

ANDREAS HERMES ACADEMY (DE)

Innovation Support Service: capacity building

- Training programme based on learning from the development phase.

ANDREAS HERMES ACADEMY, INNOVATION TRAINING ON DEVELOPING PERSONAL SKILLS

1

When a farmer is no longer able to see 'the wood for the trees' it can be helpful to consider his own operation from the outside. This is not always that easy. In addition, farmers are often too busy keeping the farm running. The Andreas Hermes Academy (AHA) has introduced advanced vocational training courses for farmers, hereby focusing on the entrepreneurs' competencies in order to strengthen their entrepreneurial soft skills.

In the late 1980s, a former organisation of the Andreas Hermes Academy (AHA) introduced the trainings "bus" an advanced vocational training course for entrepreneurs. It was Mr. Gerd Lohmöller, the creative and visionary head of this farmers' training organisation, who created an advanced vocational training course that was innovative in several points. Over the years, the training course was adjusted in order to meet the new challenges farmers are

ANDREAS HERMES ACADEMY, INNOVATION TRAINING ON DEVELOPING PERSONAL SKILLS

2

dealing with. Currently the training course focuses on 3 pillars of success: individuality, structure and vision.

In the meantime, more than 16000 agricultural entrepreneurs have participated in this training course.

Nowadays AHA-training innovation is about the qualification of human beings on three levels: (1) training sessions for farmers in order to find their own and individual way in their personal development and also in the development of their farms, (2) training sessions for advisors to enable them to become advisors with a triple expertise as an advisor, coach and moderator, who guides the development process of the farmer, (3) the mutual influence between both for further steps to success.

One example: New challenges for farmers and changing conditions make it necessary to create new ways of building farmers' capacities. In particular, fresh criticism of agriculture in Germany provided the impulse for a new training session, called "coach-dialogue agriculture". The training session enables advisors to support farmers in their work on public relations. In the face of these challenges, the goal of both advisors and farmers is to make advising more efficient.

Activities and results of the training sessions include:

- Creating training sessions especially along the need of the target group.
- Creating training tools especially for the farmer training sessions.
- Creating training tools especially for advisor training sessions.
- Adapting tools from other businesses for agriculture.

AHA can count on the support of the Chambers of Agriculture to disseminate the ideas of advanced vocational training in agriculture, to raise awareness among farmers of the benefit of this kind of education programme.

Quote

"There is not just one way for everyone but for everyone a way."

Dr. Gerd Lohmöller

YAM PLATFORM (FR - GP)

Innovation Support Service:
networking facilitation and brokerage

- Strengthening networks to become more formalised.

YAM – PROVISION OF DISEASE-RESISTANT YAM VARIETIES IN LINE WITH LOCAL EXPECTATIONS

1

In Guadeloupe, there is the desire of local authorities to preserve local yam (edible tuber) production, despite strong competition with imports from Central America and Cost Rica. RITA (Réseau d'Innovation et de Transfert Agricole dans les DOM) facilitates and supports the creation of a multi-stakeholder varietal breeding programme and an evaluation platform to meet the needs of the consumers and market expectations.

In Guadeloupe, the yam is a local product with a traditional value and characterised by a wide varietal diversity. Currently, 40 yam varieties are grown and each farmer usually cultivates several varieties. It has become common practice for farmers to use vegetative multiplication for replanting. But this practice fosters a high level of anthracnose pressure (and other diseases).

https://youtu.be/FtosqHiGffU

YAM – PROVISION OF DISEASE RESISTANT YAM VARIETIES IN LINE WITH LOCAL EXPECTATIONS

2

In the 70s there was an outbreak of anthracnose disease. The lack of a farmers' organisation wasn't helping to solve the problem. As a response, two independent yam breeding programmes were launched by two research institutes, INRA and CIRAD, to create anthracnose-resistant varieties. These breeding programmes resulted in new resistant yam varieties that have been adapted and have evolved over the years as result of the recurrent anthracnose crisis...

Collective thinking and planning between ACTA and CIRAD, IT2 and the Chamber of Agriculture will lead to the implementation and monitoring of a collective breeding programme. In this way, new anthracnose-resistant yam varieties shall be developed by research organisations and shall be adapted to farmers' needs thanks to the technical Institute IT2 and the Chamber of Agriculture. Several extension flyers and technical meetings will be used to spread the results of the programme.

Quote

"We want to find a Yam variety that resists anthracnose, but that is also the white and very firm variety of yam that consumers are asking for today."

Franck Buffon, farmer

AGROCOACH (BE)

Innovation Support Service:
creation and access to knowledge

- Creation and access to knowledge based on experiences from group training sessions, lifelong learning and coaching.

AGROCOACH, A LEARNING NETWORK THAT HELPS FARMERS TO ORGANIZE THEIR BUSINESS, WITH SPECIFIC FOCUS ON INNOVATIVE LABOUR ORGANISATION

1

The question is: "How can I make my company stronger and simultaneously increase my employees' involvement?"

A lot of farms are growing and as a consequence they are hiring employees. In order to enhance the involvement of these employees, farms need to learn how to arrange their organisation. Besides, in a rapidly changing world, farmers need to reflect on their strategy, think about how to organise their business in a better way and how to increase the involvement of the employees. All these topics are looked into during an Agrocoach session. Agrocoach is a learning network that helps farmers to become more entrepreneurial, more problem solving. During 8 evenings, 8 to 10 agricultural entrepreneurs from different sectors learn about and discuss the concepts of innovative labour organization at their farm.

https://youtu.be/ZmoTbrOv3J0

AGROCOACH, A LEARNING NETWORK THAT HELPS FARMERS TO ORGANIZE THEIR BUSINESS, WITH SPECIFIC FOCUS ON INNOVATIVE LABOUR ORGANISATION

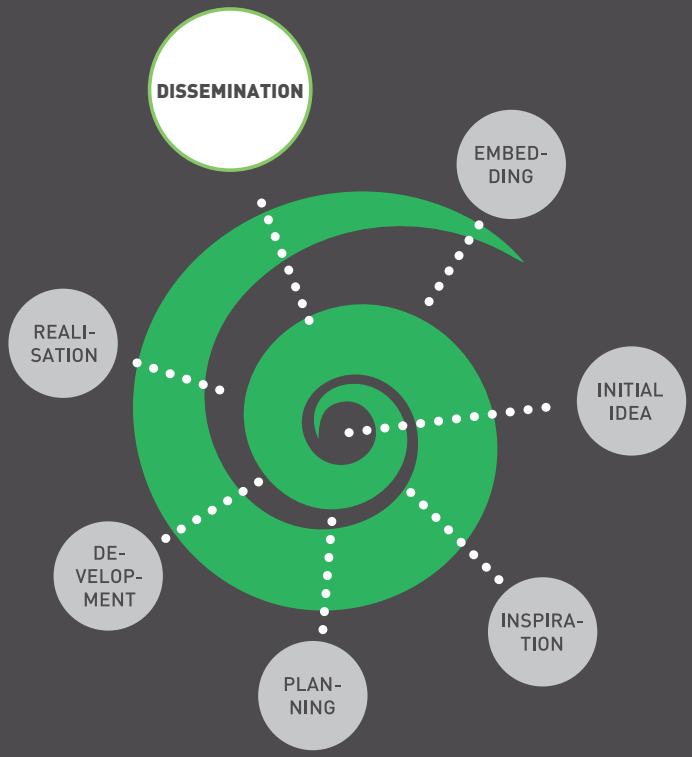
2

One of the companies that have used the Agrocoach concept is Belgicactus, an ornamental company. Belgicactus is run by Jan Gielis together with his parents, brother and 6 permanent employees. During busy periods they are assisted by 5 to 10 seasonal workers, a few student workers and 15 unemployed people gaining work experience. They grow Sempervivum, succulent plants, cacti and Aloe. Belgicactus has a very diverse workforce, which needs special attention. Jan Gielis attended Agrocoach because he realised his company needed an organisational change at the level of people and business management. The trigger for his reflection was the upcoming generational change and the growth of the company. During the Agrocoach sessions, Jan designed a first action plan. After finishing Agrocoach he further elaborated this plan together with a private consultant, specializing in labour organisation and the Innovation Support Centre for Agricultural and Rural Development (Innovatiesteunpunt). As a result, Belgicactus revised their vision and strategy. Their current aim is to produce one new speciality every year and to link the communications strategy to product innovation. They have also taken steps to encourage their employees to work more as a team and to be more entrepreneurial, e.g. the staff are now responsible for quality control and hold team meetings regularly.

Quote

"Agrocoach is a tool that fills you with enthusiasm"

Jan Gielis, farmer



- Precision Agriculture (NL)
- CECRA (DE)

PRECISION AGRICULTURE (NL)

Innovation Support Service: access to resources

- Building alliances and networks to be eligible for subsidies and collaboration with national and international projects.
- Short-term financial support to boost the sustainability of the innovation.

UNDERSTANDING THE EFFECTS OF PRECISION AGRICULTURE BY COMBINING INFORMATION FROM THE ENTIRE MANAGEMENT CYCLE

1

How do farmers get better yield and environmental results by using precision agriculture (PA) and how can they better understand the data obtained? PA is a promising concept: farmers can produce more with less input and smaller environmental impact. Jacob Van den Borne, an arable farmer, uses PA. He gathers a lot of data from preparing the land, managing the crops and measuring the yield. By combining all this information he knows the effects of the applied new practices.

With 400ha, Jacob Van den Borne is a large-scale potato farmer from a Dutch perspective. He is a pioneer in using smart farming technologies, with a passion for innovation. Jacob is always looking for the best available techniques to use. He adjusts and improves them in order to integrate them optimally into the farming system. He measures soil quality with EM-conductivity, checks soil structure with ploughing resistance, uses some plot-based weather stations and soil moisture poles, explores field and crop characteristics by satellite and drone, and measures quality and harvest yield with the newest vision techniques. Subsequently, he gathers all the collected data in his 'cloud farm' database, from which he analyses the effect of the applied techniques. Through smart farming, Jacob can increase his yield by 10-15% with current technology. He also lowers inputs by about 2-5% on average. For him, this means higher efficiency and thus better revenue.

https://www.youtube.com/watch?v=ULIvevQ5hlU

UNDERSTANDING THE EFFECTS OF PRECISION AGRICULTURE BY COMBINING INFORMATION FROM THE ENTIRE MANAGEMENT CYCLE

2

Jacob himself is the main driving force behind the establishment of his innovation support network. He is supported by ZLTO (farmers' association in the Netherlands), LIB (Landbouw Innovatie Brabant, from ZLTO and Province), Boerenbond (farmers' association in Belgium), agricultural education (HAS, Helicon, UGent), research organisations like WUR (NL) and ILVO (BE) and technicians from machine industry and ICT. The main role of ZLTO is to actively support the farmer in building an alliance and network to be eligible for subsidy, and to collaborate with national and international projects.

Subsequent funding projects have led to:

1. optimisation and evaluation of new techniques,

2. development of a PA information management approach,

3. a better understanding and better proof of effects of PA,

4. open communication on what is possible with PA, and what not (yet).

Quote

"I pay everyone with my data,
the most valuable thing I have."

Jacob van den Borne, farmer

CECRA (DE)

Innovation Support Service:
institutional support for niche innovation and scaling mechanisms stimulation

- Design of new certifications

(for products, process or advisors).

- Identification of certification bodies.

CECRA HELPS TO IMPROVE THE ADVISORY SKILLS OF AGRICULTURAL AND RURAL ADVISORS

1

In order to deal professionally with innovation in agriculture, rural advisory services have to adjust to rising requirements in the qualifications of their staff, especially regarding the personal, methodological and communicative competences of their advisors. CECRA (Certificate for European Consultants in Rural Areas) meets these requirements by offering practice-oriented advisory method training sessions. The co-operation of many advisory services, having agreed on common goals and contents for the CECRA training sessions, guarantees a European quality standard.

If an advisor wants to support a farmer or a farmer's family effectively, she/he needs training in advisory methods. Advisory services in Central and Eastern European Regions in particular show great interest in CECRA, and formulate a need for the competence development of consulting personnel. This is necessary because in general the consultants have good technical qualifications, but largely lack competences in the methodical and social field.

https://youtu.be/TwjVimgbfNM

CECRA HELPS TO IMPROVE THE ADVISORY SKILLS OF AGRICULTURAL AND RURAL ADVISORS

2

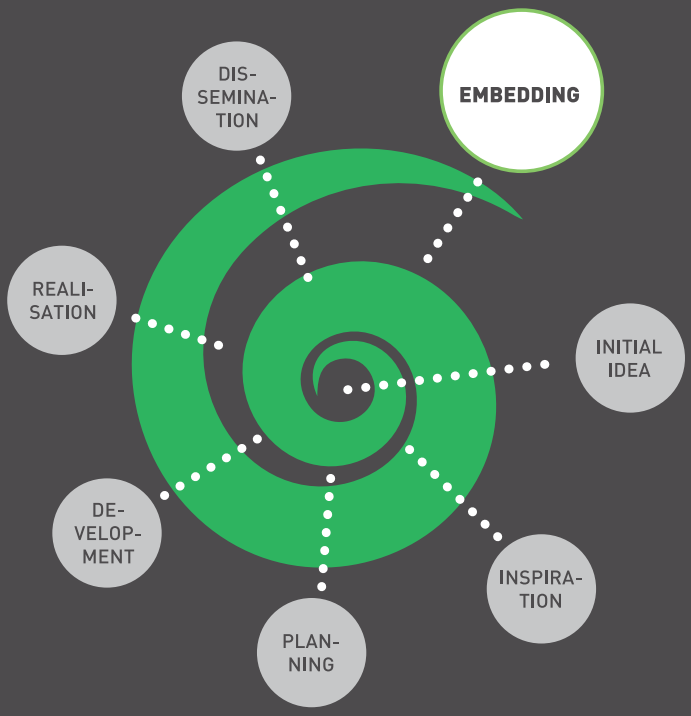
Today, innovations often requires a cooperative strategy. Rural advisory services automatically find themselves in situations where they have to facilitate and steer cooperative learning processes. In such a process, the interests of different partners have to be mediated. Handling social learning, conflict management, organizational development and negotiation professionally becomes an important task. These skills are being dealt with in CECRA advisory training courses.

The Foundation of the Rural Advisor Services' Network EUFRAS in 2013 canalised and catalysed the CECRA expansion process. In June 2015 a cooperation and usage agreement was established between IALB (Internationale Akademie land-und hauswirtschaftlicher Beraterinnen und Berater) and EUFRAS (European Forum For Agricultural and Rural Advisory Services). In 2017, a train the trainer programme has been rolled out within Europe.

Quote

"The advisors from our local office support us a lot. Of course it makes a difference, if you talk to an advisor who is trained, is able to listen and who understands your individual needs."

A Bavarian farmer



- Hofgut Oberfeld (DE)
- Economic Breeding Index (IR)

HOFGUT OBERFELD (DE)

Innovation Support Service: networking facilitation and brokerage

- Internal actors are connected with external actors to share their experiences and get new ideas.
- Main core group leading and managing the innovation is separate from the general actors group that owns the innovation.
- The innovation is made an entity on its own within a wider network in order to keep the innovator s motivated and innovative.

HOFGUT OBERFELD - COMMUNITY SUPPORTED URBAN AGRICULTURE

1

The Oberfeld plot, close to the city and used for agriculture, in the past included 135 ha of arable land and a large dairy barn, but was destroyed during World War 2. The ownership of this plot by the State expired in 2006. That was the reason for the citizens to found the 'Hofgut Oberfeld' intiative, a community-supported urban agriculture, embedded in a warm network of local and regional actors.

Hofgut Oberfeld is a multifunctional farm located in the neighbourhood of Darmstadt managed by Kathrin and Thomas Goebel. They started in July 2006 as employees of a citizen-led foundation with close economic and social links to and cooperation with on-farm micro-enterprises for food processing, direct selling, on-farm-shopping, catering, on-farm-restaurant and social enterprises for care-farming with handicapped children. The farming business was set up as SME-limited company. Numerous Darmstadt families and individuals became shareholders of the new micro-stock company in agriculture that has been under 'Demeter' and organic farming directives since 2009. A new barn and a cheese factory have been built.

HOFGUT OBERFELD - COMMUNITY SUPPORTED URBAN AGRICULTURE

2

Hofgut Oberfeld was able to start up with the risk capital from local enterprises and international software companies, public funding for care farming under the umbrella of ESF-activities from the German state Hessen, and the personal drive of the secretary of this state who has handicapped children. Business-plans and investment for farming infrastructure were supported by public rural farm advisors from Hessen.

For many Darmstadt citizens Hofgut Oberfeld with its agricultural services (e.g. Hofcafé, historical on-farm-working-sessions) has become a popular destination. The "season gardens" project for Darmstadt citizens encourages them to undertake seasonal farming/gardening by themselves.

https://youtu.be/bis7LbXKIlg

ECONOMIC BREEDING INDEX (IR)

Innovation Support Service: institutional support for niche innovation and scaling mechanisms stimulation

- Taxes and subsidies for orienting individual and collective actions.
- New norms for production and processing
- New indicators for monitoring and assessing advisory services.

Innovation Support Service: advisory consultancy and backstopping at organization level

- Consultancy based on stabilized knowledge.

ECONOMIC BREEDING INDEX

1

Using an Economic Breeding Index (EBI) is a new way for farmers to select breeding stock. Previously, farmers used breeding information based solely on one animal trait. EBI uses multiple traits which is converted to a € value of extra profit per cow, per lactation.

Larry is a farmer who has adopted a new decision-making and benchmarking tool to help with choosing breeding stock for his farm. He uses the Economic Breeding Index (EBI) which gives a single € rating for bulls and cows based on seven sub components: (1) Milk production, (2) Fertility, (3) Calving performance, (4) Beef Carcass, (5) Cow Maintenance, (6) Cow Management, (7) Health. The farmer has been using the EBI since 2000, soon after the concept was introduced.

https://youtu.be/ssV66Fj1hvI

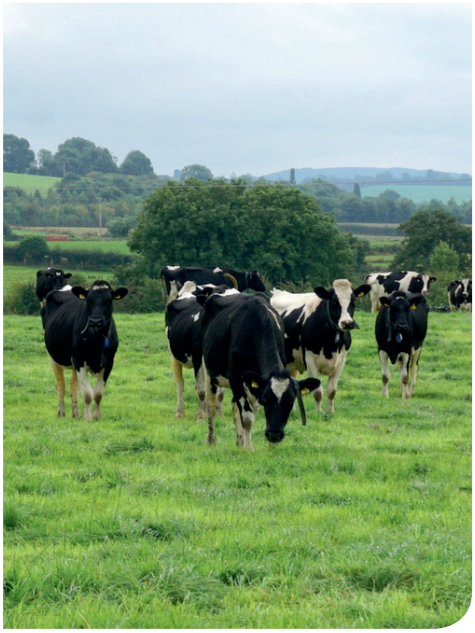
ECONOMIC BREEDING INDEX

2

Teagasc researchers developed the economic model which underpins the economic breeding values intrinsic to EBI. The Teagasc Advisory Service heavily promoted EBI through inclusion in the Teagasc dairy development programme, which set targets for herd EBI improvement. Extension methodologies employed included farm visits and consultations, group meetings and a breeding competition. The agricultural media promoted the index. The Irish Cattle Breeding Federation worked in conjunction with Teagasc to identify young high genetic merit bulls for selection by the AI companies. As the EBI was accepted by farmers, they began to look for more of such sires from the breeding companies.

Larry became involved in EBI because while his cows were producing good milk yields, he had great difficulty in maintaining herd fertility. Using EBI has allowed Larry to breed a more fertile dairy herd resulting in his current 8 and 11 week calving periods in autumn and spring respectively.

For all Irish herds, EBI was €62 per heifer born in 2000 and increased to €160 in 2016. In 2016, Larry has a herd EBI of €159 and the 2016-born heifers average €221.



Quote

"The (discussion) group structure was a major part of the development of EBI on our farm."

Larry Hannon, farmer

AGRISPIN LESSONS LEARNED

ADVISORS

ADVISORS

Different types of advisors are supporting farmers within an innovation process; sector specific advisors, innovation advisors, ...

Did you know that we observed that ...

- for all these types of advisors, personal characteristics like empathy, involvement, dynamism, critical and anticipative thinking capacities, and the ability of working in teams are very helpful and necessary for supporting farmers in making decisions.
- for an innovation advisor to be supportive in an innovation process, certain additional personal characteristics are required, like having a strong capacity to connect people, being proactive towards relevant actors in the innovation process, having the skills and tools to reflect with the network on the process.
- it is important for advisors to have relevant knowledge: technical insights, economic insights, etc. This knowledge must go hand in hand with the personal characteristics.

INNOVATION SUPPORT SERVICES

INNOVATION SUPPORT SERVICE PROVIDER (ISSP)

ISSP are institutions, including advisory services or technical, and individual actors providing services for stimulating innovations in agriculture.

Did you know that we observed that ...

- ... the AgriSpin project analysis showed that success emerged when there was there was a "free actor" involved in the innovation process who invested extra time and resources. Therefore ISSP could pay attention to involving and nurturing free actors (not industry driven/ independent) and their ideas, and to supporting and challenging these people.
- ... an innovation process consists of different stages and each stage requires specific personal characteristics, network, support and people. There is a role for the ISSP to identify the different stages and needs in the innovation processes, and to develop strategies and services that fit each stage. But don't forget to keep the holistic view.
- ... some ISSP bring farmers with the same idea or need together with some external experts. A group can do more together and they have more competences than a single person. This approach will also lead to better implementation.
- ... a farmer benefits from an ISSP that acts in a pro-active way. This implies that it is important for the ISSP to reach out and notice changes in society or detect problems that could involve farmers, and to search for innovative solutions.

ENABLING ENVIRONMENT (POLICY)

ENABLING ENVIRONMENT (POLICY)

Did you know that we observed that ...

- ...it is important that public authorities help to create and maintain an ecosystem for innovation (national/ regional/ local scale). This can be done by supporting the frameworks and conditions - without political influence/interest - which build warm networks of actors and stakeholders (public, private, farmers, RDI, economics etc....) that will foster innovation projects.

- ... all too often, public authorities still see an innovation project as a linear process, instead of as an iterative process (= adaptive experimentation). Therefore it would be good to evaluate the innovation process instead of evaluating milestones and pure outcomes, to admit failures and communicate more about them, and to explore new ways of monitoring personal characteristic development and learning.

- ... an innovation process consists of different stages and there may be funding sources available to match the different stages. There is a role for public authorities to communicate on this range of possibilities (public and private) towards actors and stakeholders, in order to foster synergies and plan innovation implementation more efficiently.

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Did you know that we observed that ...

- .... in order to get more useful scientific results, there is a need for more involvement of researchers in stakeholder activities and vice versa. This could be realized by promoting new arrangements to include researchers in multi-actor networks and other actors in research activities.

- ... for researchers to be able to be a part of the multi-actor approach and innovation process and to be closer to the farmers' needs and reduce the language burden, universities/research organizations should provide opportunities to develop researchers' interpersonal and personal characteristics like interaction, facilitation, communication etc.

- ... a participatory approach helps to prioritize research topics and design impact pathways for research. This ensures that the scope of a research project links to the needs of farmers and that it will be used by them.

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