Report:
Cross Visit in Seinäjoki Finland
June 13-16 2016

by Hannu Haapala

Cases:
1. Eerola: developing environmental technologies on farm level
2. Tikka: developing feeding wall on farm level
3. Kirkkokallio: agroecological concept
4. Keisala: ProAgria Investment Support Team & using a blog as a tool to communicate

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1. Introduction

Period 13.-16.6.2016

Participants

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Setting the scene

The four Finnish cases were selected so that they would represent quite mature innovations. No ideas or initial level developments were accepted. “Real innovations” that already gave their benefits for their users were selected. The potential for wider success and significant positive impact on agricultural systems were important criteria for the selection. The impact of AgriSpin was assumed to be valuable on these cases and, on the other hand, AgriSpin had not evaluated many of these kind of cases before. Especially the Finnish user-centred innovation processes, where companies work together with end-users, was considered as an important issue to look more into.

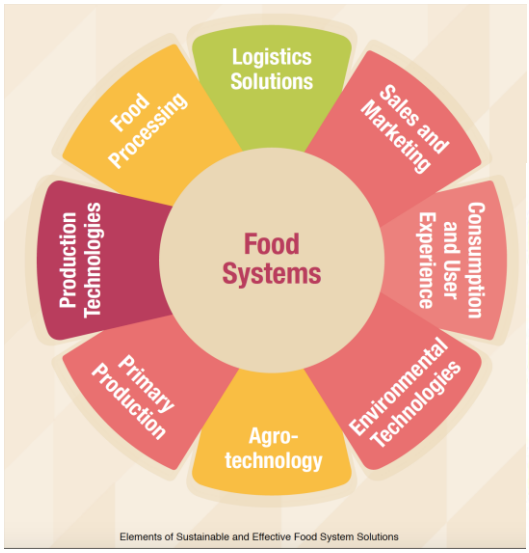
The fact that in South Ostrobothnia there are a lot of companies who manufacture machinery and develop them with the end users gave reason for selecting two cases. Both cases, a small company (led by the innovator, architect Jouni Pitkäranta) and a mid-size company (Pellon Group Ltd, Mr Juha Takala) had a long history of co-operation with research, education and farmers. They also had goals to spread the innovation and make business out of them.

One case (Keisala) was selected because it represented a true multi-actor approach and was based on an extensive role of the host organisation, ProAgria South Ostrobothnia. The Investment Support Team made it possible for the Keisala farm to make a profitable long-term investment where the needs of next generation were important. Evaluations of the AgriSpin team was expected to boost the use of the Investment Support Team concept in future.

Eventually, the Kirkkokallio Agroecological Concept was selected because of its special establishment history and future potential in bioeconomical business.

2. The regional AKIS

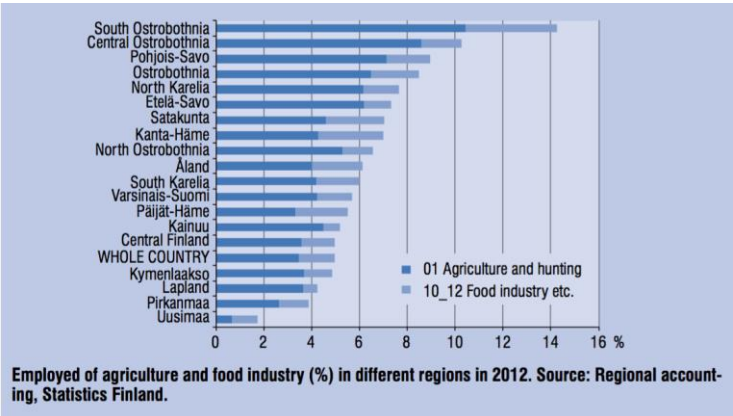
The Agricultural Knowledge and Innovation System in the South Ostrobothnia region has been developing through the Finnish innovation policy that acts through companies, universities and support services. The region of South Ostrobothnia has the most of agricultural machinery manufacturer and food processing companies in Finland, and trade on these products is important. There are six science universities and an applied science university acting in the area. Support services consist of both public and private actors.



Green Creative Garden

The central elements of Green Creative Garden, the innovation platform of South Ostrobothnia Region in Finland.

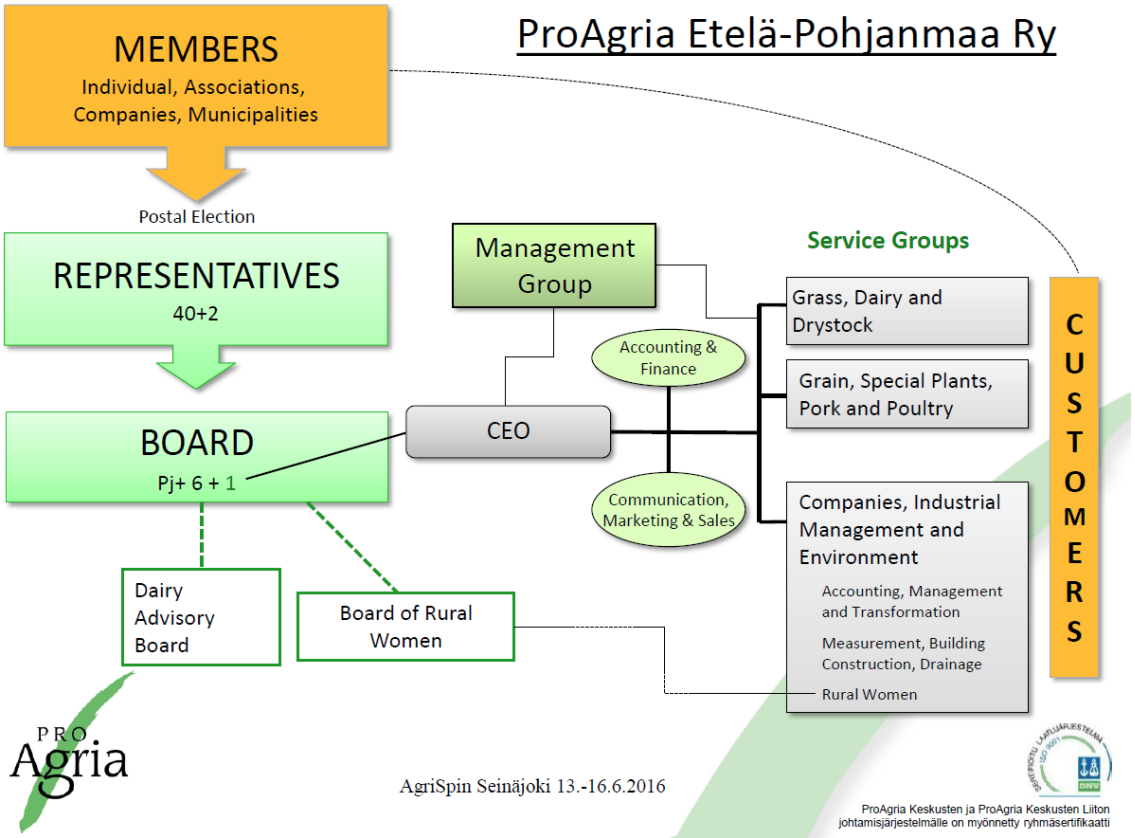
The regional strategy is based on Bioeconomy. Even in the strategy of Seinäjoki, the capital of the region, Bioeconomy has been set as the number one priority. This gives advantage to the actors in agriculture and related branches so that funding and support is available.



Employed of agriculture and food industry (%) in different regions in 2012. Source: Regional accounting, Statistics Finland.

Agriculture and food industry are important in the region of South Ostrobothnia.

The host organisation, ProAgria South Ostrobothnia, is a private farmer-owned support organisation providing advisory and innovation support. The services of ProAgria cover basically all aspects of farm operation. Economy, environment, business and production are covered. Innovation support has been a traditional topic for ProAgria so that advice on the application and use of new methods and technologies has been in the core of operation right from the beginning, for 220 years in 2017. During the course of time priorities have been changing and currently we need to re-think our innovation support. AgriSpin was expected to give some important signals where to concentrate in the future.



ProAgria South Ostrobothnia provides consultation services for all branches of agriculture and related businesses. It is owned by its member-customers.

3. Learning History of the cases

Case 1: Eerola

Environmental technology development at Eerola Farm

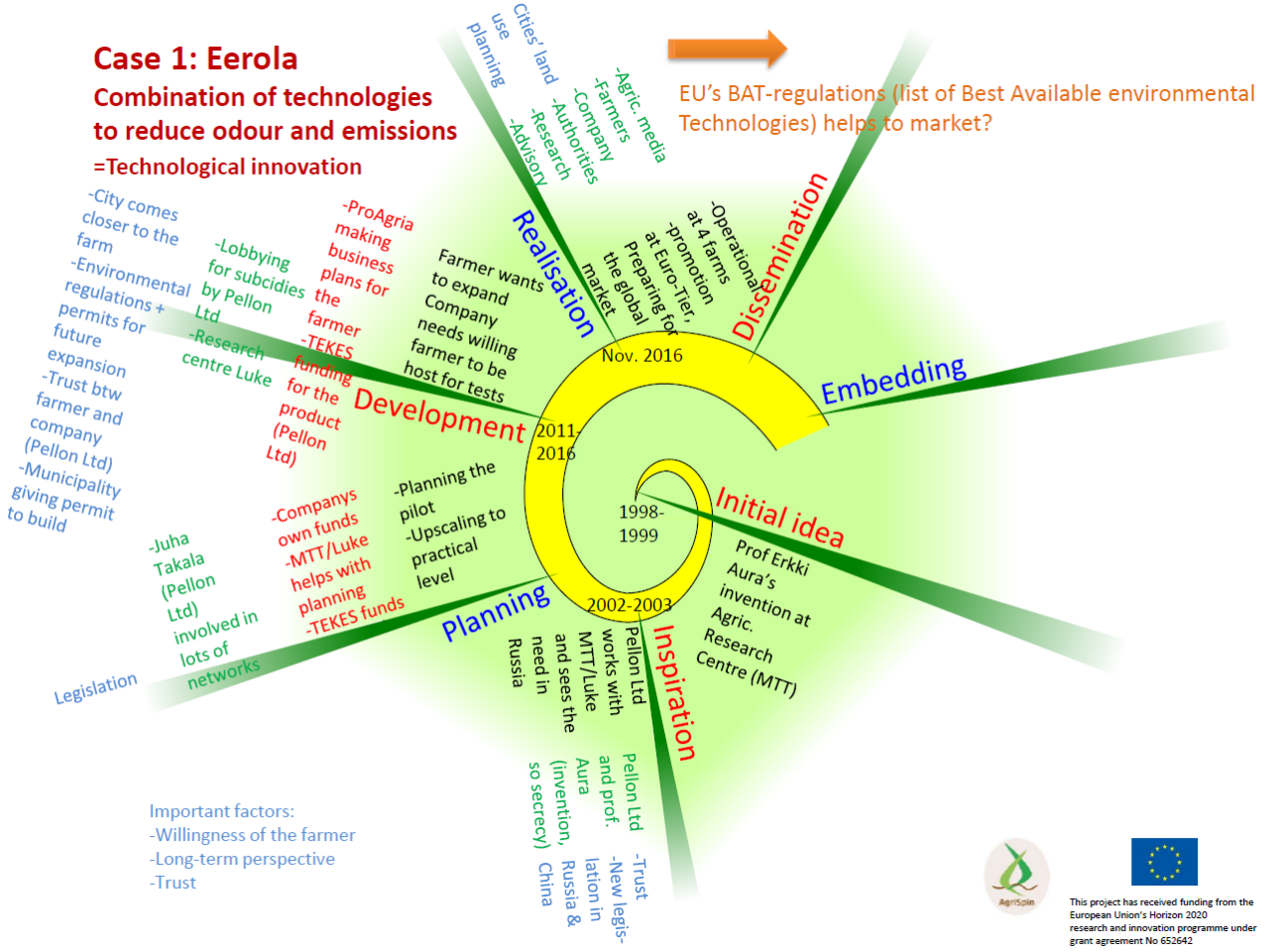
The group visiting the Biosampo at Eerola pig farm.

The Eerola pig farm is situated near the City of Seinäjoki. Since the urban area is closing the challenge is odour annoyance. Environmental issues demand that slurry has to be transported far away which is causing extra costs.

Sami Eerola, the farmer, has a long-term vision. He thinks that it is important to be proactive in developing the farm processes so that the coming restrictions could be overcome. He wants to stay in the area and enlarge the farm. That's why he has adopted new technologies that reduce odour emissions and make the slurry suitable for application in the near-by fields.

Sami Eerola has worked together with a manufacturer of environmental technologies, Pellon Group Ltd. They have tested a new biological process, The Biosampo, in full-scale at Eerola farm. Besides that, they have used additional technologies such as manure cooling and high pressure water spraying inside the pig house.

This case is concentrating on Biosampo trials and development at Eerola.



The Spiral of Innovation of Case 1: Eerola.

The innovation is a combination of technologies to reduce odour and emissions in pig farms. It is a technical innovation in nature. The initial idea of the central part of the process was presented by prof. Erkki Aura 1998, then working at MTT Agrifood Research Finland, the national research centre for agriculture in Finland (later 'MTT'). The invention is about the type of microbes and the process how they operate in the process in order to remove odour and reduce emissions. The microbes and the process are patented.

Pellon Group Ltd (later 'Pellon') is a family business with considerably large repertoire of agricultural technology in their product list. They started manufacturing and sales piggery products such as cages and later manure handling in 1960's. Soon they started with liquid feeding which was a new innovative way of feeding pigs. Throughout the years Pellon has been very active in cooperation with research. The basics of the processes have been evaluated together with various research institutes both in Finland and abroad. The users, the farmers, have been included in testing and piloting right from the beginning of operation.

The Eerola Farm has had a long relationship with the Pellon. Various testing operations have occurred during several decades, starting in the 1980's with bovine equipment during the father's time and continued with the current pig production during the son's ownership of the Eerola farm.

During the years, trust has been built between the parties so that it is considerably easy to cooperate.

At the end of 1990's, as prof. Aura made the discovery, Pellon made research cooperation with MTT. As the invention had been protected, MTT offered Pellon the possibility to buy the rights to it. The parties came to an agreement and continued to secretly develop the process in larger research scale.

In 2002-2003, as the development was active, Pellon found out about new legislation in both Russia and China. In both countries, the new environmental legislation included the demand of having some kind of treatment for slurry in new barns and piggeries. The basic idea of the modular design of Biosampo was then created by Pellon. The goal was to offer the flexible solution first to emerging Chinese and Russian markets. Simultaneously, Mr. Juha Takala, a son of the owner family of Pellon, joined actively several networks and groups who worked on different aspects of environmental technologies in Finnish agriculture. Mr. Takala also lobbied for subsidies for the Biosampo investments. These efforts were in practice funded by the company itself.

During the first part of 2000's the system was scaled up with the help of MTT and funding from Pellon and TEKES (the Finnish Funding Agency for Innovation). A real farm pilot was needed. That's where Sami Eerola happened to talk with Juha Takala. Sami was planning to build a new piggery and was visiting the Pellon plant to get information of the alternative solutions for installations inside the pig house. Juha Takala asked Sami to also consider the new idea of Biosampo. Sami got interested and the negotiations did not last too long before an agreement was made to try it out. The parties trusted each other because there was the long history of cooperation behind. For the same reason, the agreement was not very detailed.

The motivation of the farmer, Sami Eerola, was high because he wanted to look far in the future. The City of Seinäjoki was about to come closer to the farm. Environmental regulations and the permits needed were about to include elements that needed a slurry treatment. Biosampo was promised to have this kind of effects. Permits were applied and Seinäjoki gave them. ProAgria helped with economical calculations and business planning.

In 2012 the new piggery with Biosampo pilot was finally completed. The pilot had fractioning, biological treatment and Nitrogen reduction of the slurry. The solids were simply stored and composted. In addition to Biosampo, there were also cooling of manure with a heat pump and cooling of inside air with high-pressure water spraying. The technologies were tried out and research was conducted both on the process and its effects on odour and nutrients.

Currently there are altogether four operational Biosampos in Finland. The product is about to be launched to the markets. In November it is promoted in Hannover at Eurotier 2016, marketed as the World's leading trade fair for animal production, where it is a candidate for the EuroTier 2016 Innovation Award.

Dissemination of the Biosampo has been assisted with extensive visibility in professional media. The cooperation with research, authorities and advisory has helped to awake the interest of

important stakeholders and farmers as well. In several potential market areas, the environmental legislation and related regulations have rapidly changed to a beneficial direction for Biosampo. One example is the EU's BAT regulation (list of Best Available environmental Technologies) that includes Biosampo.

Analysis

- What is the **innovation**?

  Technological innovation where an invention in research is turned into a sellable product using full-scale farm testing. The core of the product is the biological process that treats slurry so that the liquid part can be spread near the pig farm and the dry fraction is converted into valuable fertilizer that can be transported further. Furthermore, the odour is reduced so that spreading is possible even near inhabited areas.

- **Key actors and their role** in the process

  Prof. Erkki Aura in MTT Agrifood Research Finland, the national research centre for agriculture that is nowadays merged into a new larged research unit, Luke - Natural Resouces Institute Finland, making the initial invention about the process.

  Mr. Juha Takala in Pellon Group Ltd, who discovered the business potential of the process and lead the product development using live connections to farmers.

  Mr. Sami Eerola, the farmer who saw the possibility to survive though the application of new environmental technologies, even though the City of Seinäjoki grew near the pig farm.

- **Role of the support agency**

  ProAgria advisory services giving consultancy in the production and investments. Luke making research on the prototypes on farms.

- **Success factors**

  Trust between the actors that made it possible to build a full-scale prototype at Eerola farm. Co-operation of authorities and funders in the South Ostrobothnia region that enabled permits and funding for the development.

- **Fail factors**

  Some technical details were not operational so that there was a lot of iteration in the process. However, this is typical for product development.

- Regional and/or historical **particularities**

The region is famous for its innovativeness and entrepreneurial spirit. New developments are often tried and it is common practise to take risks. The actors knew each other from previous product development activities.

- **Specific recommendations**

  More involvement of independent advisory is needed. There could also be the possibility to diversify the farm business, e.g. selling the fertilizer and utilising excess heat from the process.

- **Lessons** that can be generalised

  Successful farm level product development is built on trust between the actors. Visionary forward thinking is required. Open feedback from the process is needed. Win-win of all the parties involved must be achieved.

Case 2: Tikka

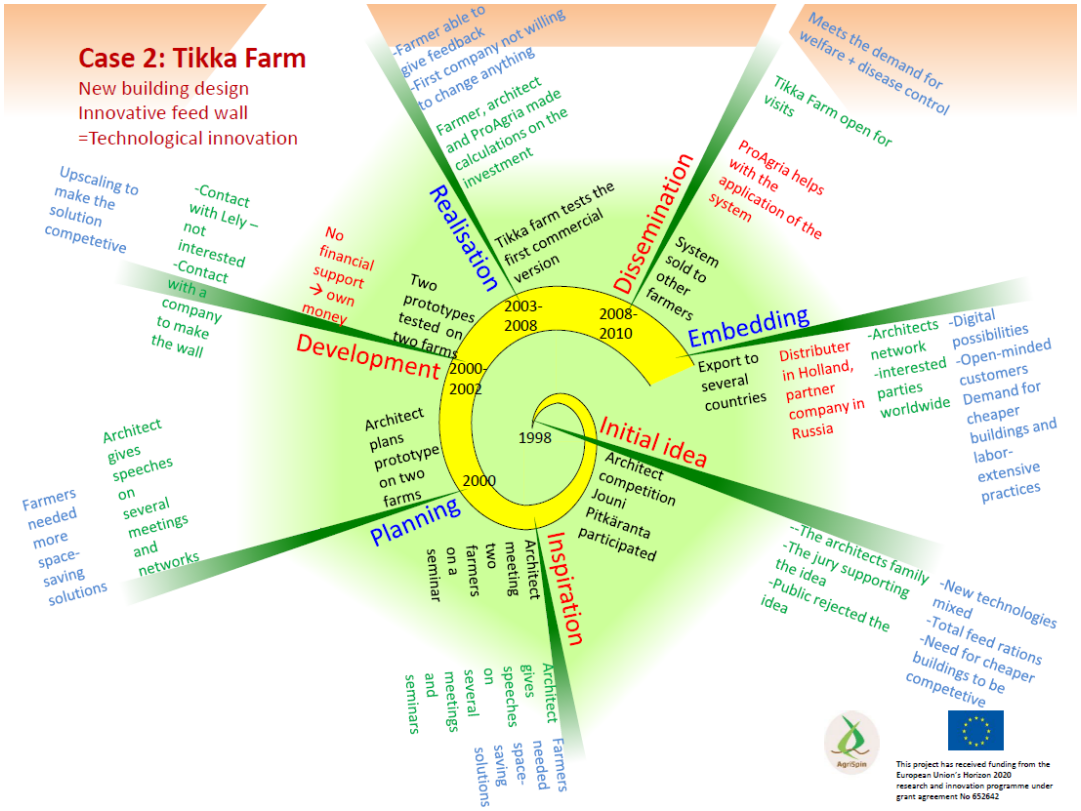
Feed Wall System development at Tikka Farm

The Tikka organic dairy farm needed to build a new barn. The available choices were quite expensive so the farmers tried to find alternatives. Architect Joni Pitkäranta had designed a new solution for an architect competition that made the barn narrower and cheaper to build. Vesa Tikka happened to listen the architect's presentation and got interested.

They started cooperating and built altogether three versions at Tikka farm. During the process they had also cooperation with manufacturers. The present version is patented and sold to several countries including SWE, DEN, FR, NO, D, RU and NL.

The enthusiasm of the architect and innovativeness of the farmer has led to a real, embedded innovation.

The group visiting Tikka farm. The Feed Wall System means that the cows are fed through the specially designed wall of the barn. The barn is narrow and the feeding wagon is not driven inside so that the building is lower and there is less risk of contamination. The quality of feed is better and cows eat more.



The Spiral of Innovation of Case 2: Tikka.

The innovation is a new building design, an innovative wall design. It is a technological innovation. The initial idea was presented by Jouni Pitkäranta in an architect competition in 1998. The goal of the competition, 'Maatila 2000 (Farm 2000)', was to gather designs of futuristic agricultural buildings for the next millennium. The idea has led to sellable products that are exported into several countries worldwide.

The feed wall concept reduces the width of a barn. In doing so, it reduces building costs since less and thinner materials are needed in wall construction. Furthermore, the operation of the wall is more hygienic since the feed wagon is not driven inside the building. This reduces the risk of contaminants in the feed.

Architect Jouni Pitkäranta began to design buildings already as a young student. The applications in agriculture were his speciality during his studies in Helsinki University of Technology, Department of Architecture. The spark for agriculture came from his home and neighbouring farms. During the competition, Jouni was still a student.

As the jury of the competition in 1998 supported the idea of feed wall, Jouni began developing it with close connection to farmers. Most people who heard about the idea rejected it as non-realistic. This did not stop him because he was sure that the benefits could be large.

Jouni started to give speeches in various meeting. In one seminar he met two farmers who were interested in the idea. The farmers needed space-saving solutions, and it did not take a long time as the talks led to building prototypes on these farms in 2000.

Then Jouni decided upscale the system to make it more profitable. He believed in the design so he even talked to Lely Ltd. As the negotiations did not lead to co-operation Jouni decided to build the up-scaled prototypes together with a small local workshop. As no external funding was available all the work was paid by Jouni's own money.

In 2003-2008, Tikka Farm began testing the first commercial version of the feed wall. Three different versions were tested in Tikka. The first commercial version was too weak in construction and had problems with the pneumatic operation as well. As the manufacturer of that version denied to change anything in the construction Vesa Tikka, the farmer himself, decided to convert the operation into hydraulics. He also made a completely new structure based on greenhouse components. The third version that lead to the current commercial version was also tested in Tikka.

During the same period Tikka was enlarging the organic milk production and ProAgria helped the farmer to make calculations on the profitability of the needed investments and also helped to scale-up the production. The feed wall was an important part of those investments.

In 2008-2010 the feed wall system was ready for markets and it was already sold on a regular basis. Tikka Farm was open for visitors who considered buying the system. ProAgria helped Tikka's to optimise their production. The dissemination continued and connections abroad were utilized to open tests and sales there.

The Tikka's have now a long-lasting history of operation with Jouni Pitkäranta. Trust has been built between them so that it is rather easy to cooperate. Farmers who plan to build barns still visit Tikka farm to talk and reflect on alternatives.

Jouni Pitkäranta has built a warm network of farmers, authorities, researchers, and advisors. The operation is reaching from domestic into international. The latest development has been a new company where advisory is an integrated part. The 4DBarn Ltd consults farmers about the efficiency of operation and offer them tools to plan more efficient barns.

Analysis

- What is the **innovation**?

  Technological innovation where the idea of a young architect was turned into a sellable product using full-scale farm testing. It is a new barn wall design that reduces width and building cost of barns. It also reduces the risk of contamination and enhances animal health.

- **Key actors and their role** in the process

  Architect Jouni Pitkäranta who attended a futuristic design competition, making the original design of Feed Wall and leading the development on farm level.

  The Tikka family, who had the need to build economically, chose the Feed Wall, and actively participated in the tests.

- **Role of the support agency**

  ProAgria advisory services giving consultancy in the production and investments. Making the needed plans to get funding for the barn.

- **Success factors**

  The farmers' willingness, enthusiasm and dynamics to try something new. Inventiveness of the farmer. Continuous co-operation btw the farmer and the architect. The architect's engagement in agricultural production, initiated at his home farm.

- **Fail factors**

  There were several points in the product development process where the speed of innovation was slow, mainly because the partners involved. The choice of materials led to weak constructions and industrial partners withdrew from development.

- Regional and/or historical **particularities**

  The region is famous for its innovativeness and entrepreneurial spirit. New developments are often tried and it is common practise to take risks.

- **Specific recommendations**

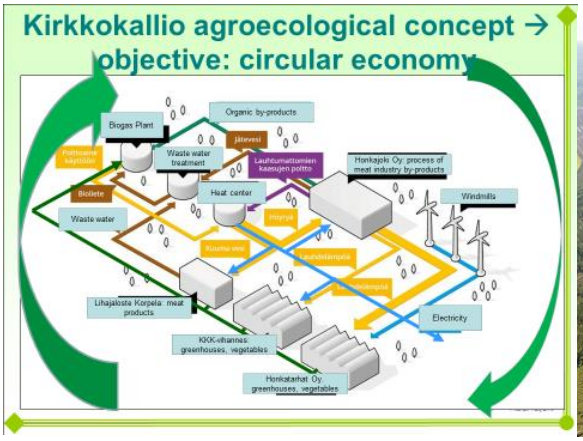
  ProAgria could support the innovation more actively. More publicity for the innovation support possibilities could be reached through the use of multiple communication channels.

- **Lessons** that can be generalised

  Enthusiasm helps to survive the hard times in innovation. Vision needs to be kept clear.

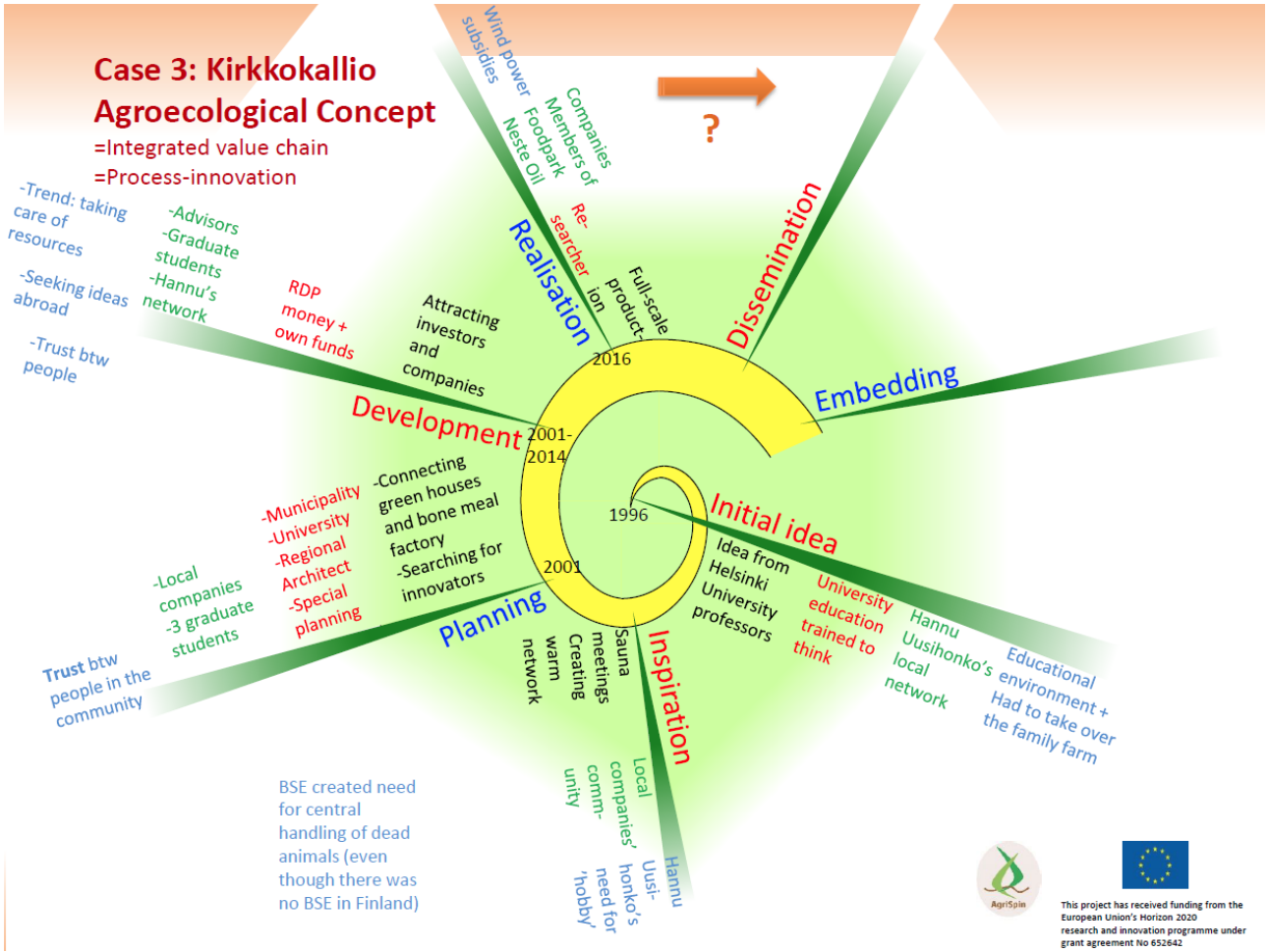
Case 3: Kirkkokallio

Agroecological Concept



The principle of the Agroecological Concept. It utilises the idea of circular economy where energy and by-products are effectively used. The concept has been built systematically in Honkajoki area, now consisting of over ten co-operating companies. The key person has been Mr. Hannu Uusihonko who has acted as a free actor in the development.

Surface area: approximately 150 hectares including the wind farm.
Employs more than 200 people directly and indirectly.
Over 10 companies involved.
Total revenue of the companies has reached around 100 million euros.
Total investments over the past five years 100 million euros.
Attracts a growing number of business and environmentally-oriented visitors yearly.



The Spiral of Innovations in Kirkkokallio.

The innovation is an integrated value chain. It is a process innovation. The idea of an agroecological cluster was presented by professors in Helsinki University in 1996. As Hannu Uusihonko studied in Helsinki for his MSc degree he picked up the agroecological thinking. The basic idea is that industries waste a lot of energy and produce by-products that could be utilized more intelligently. Clusters of companies could benefit from these energies and by-products. An ecological cluster where suitable industries are situated near each other enhances the total efficiency of its members. Industries that use agricultural materials have a good opportunity to utilize these principles. There is a lot of usable energy in biological materials and their by-products are mostly suitable for recycling. An agroecological industrial cluster is definitely an interesting business.

As Hannu Uusihonko had to move back to his home village and take over his family farm he started to think how to apply the ideas.

In Honkajoki, there is the habit that locals have informal meetings in saunas. In sauna meetings everyone is more equal than in formal ones. People talk quite freely about their ideas and businesses. Agreements are made on a trust basis. You give your word and keep the promises you

make. Hannu Uusihonko presented his ideas to several people and asked if such concept could be actual for them.

Meanwhile, the BSE disease abroad created the need for building facilities to handle dead animals in a centralized unit in every EU member state. Even there was not BSE in Finland we had to comply with the new legislation. Finns decided to build the handling plant in Honkajoki.

The new situation gave new interest in the cluster thinking. Hannu Uusihonko acted as a facilitator and managed to make the entrepreneurs start cooperating. As there was the tradition to trust in each others promises, the agreements were mostly oral. No formal contracts were made. Everyone joining the cooperation was first accepted by others.

The building process started around the bone meal factory. Greenhouses were first built in 2001. The local authorities, including the regional architect, were helping in land use planning and building permits. Hannu Uusihonko had good contacts to the Helsinki University and managed to get three graduates to make their theses on the concept. He also helped in finding new innovators and companies to the area.

RDP funds were applied to develop the cluster. These together with the R&D funding paid by the companies and the National Fund for Innovations (TEKES) were crucial for the development. During the years 2001-2014 the cluster grew quite intensively. New investors were found and new companies joined. Eventually, as wind power subsidies became available, also windmills were built and foreign money got more involved.

Currently, the solution includes a local cluster of over 10 companies. The by-products and waste-heat are utilized in making biodiesel, biogas, and heating green houses. Wind energy is also produced. The efficiencies of material and energy use are improved because of the concept.

The concept is an example of how to complete local resources with the needed ones to form a harmonic ecological system. The concept can be applied in similar situations where there are enough excess heat and wastes available.

The co-operating principle of the companies is unique because it is based on trust between the actors so that the important decisions such as letting new companies to join the concept have been made together. It can be stated that the cluster has been created based on the strong will and motivation among the key persons in the area.

The principle may restrict the expansion of the system in future. New large investors are needed if the Kirkkokallio is further developed. The situation has put the development on hold so that the core players are now quite content with the size of the establishment.

If the concept is to be disseminated, as projected, there is the need to make formal agreements on the concept and its utilization.

Analysis

- What is the **innovation**?

  A process innovation, a cluster where side flows of different process industries are utilized in e.g. greenhouses and biofuel. A result of clever agroecological thinking that reduces environmental load of all parts of the system.

- **Key actors and their role** in the process

  Mr Hannu Uusihonko who acted as a free actor, applying his studies in Helsinki University together with local industries.

  Prof. Juha Helenius in Helsinki University who taught Hannu Uusihonko during his studies.

  Researchers and students who made their theses on the processes and the cluster.

  Local authorities, e.g. the regional architect Ilmari Mattila who made the growth possible.

  The leaders of the local companies who believed in the idea and invested a lot of their own money on the developments needed.

- **Role of the support agency**

  ProAgria advisory services giving consultancy for the involved farmers.

- **Success factors**

  Trust btw Hannu Uusihonko and the local small businesses creating a warm network that took risks. The excellent co-operation facilitation. Logical step by step development together with the companies.

- **Fail factors**

  The method based on mutual trust may not work when outsiders join. Doing too much on his own, not using external help. How to sell the whole concept?

- Regional and/or historical **particularities**

  The sauna-method where the local actors meet informally on a regular basis and build trust before doing business together.

- **Specific recommendations**

  External expert could be beneficial for the future of the process. A written agreement on the concept is maybe needed in the future.

- **Lessons** that can be generalised

The thinking models learnt in universities can produce great things when applied with enthusiasm. The utilization of warm networks helps with the realization. Everything, however, must not be done by the same individuals but external consultation needs to be used to get further in dissemination.

Case 4: Keisala

Investment Support Team & Building Blog

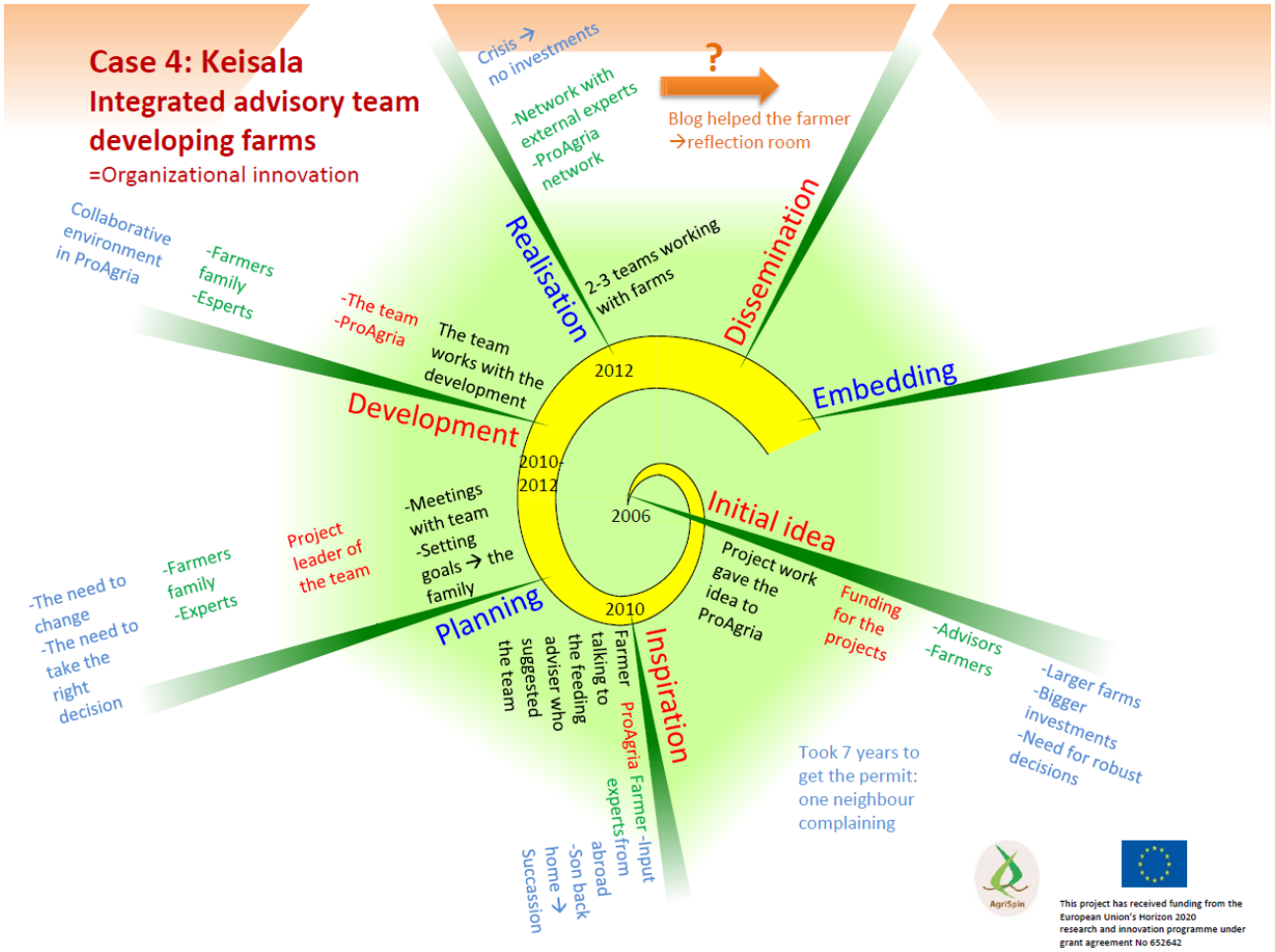

The team visiting the Keisala farm. The Investment Support Team helped the farmers to build an economically viable barn.

ProAgria helped the Keisalas to build a new barn through introducing an Investment Support Team service package. The team consisted of production advisory, design and investment specialists.

Basics: production advisory team, incl. economics, animal husbandry and plant production.
Design process: architect + engineer + production advisory team + farmers
Investment: advisory in economics + production (cows, fields)

The result is an economically viable barn: reasonable investment, good functionality and fast production start.

The farmer also kept a blog during the building project. Ups and downs were communicated. She got lots of followers, resulting in several visits of other farmers who were planning to build a new barn. The blog also gave good publicity for the ProAgrias advisory services and others involved in the Investment Support Team.



The Spiral of Innovations in Keisala.

The innovation is an integrated advisory team. It is an organizational innovation. The Investment Support Team is an example of how an advisory service can help the farm to run a large investment.

The idea for an integrated Investment Support Team emerged from project work in ProAgria around 2006. The need for support comes from the fact that a farmer builds a barn only a couple times in his/her life. Farms are getting larger and the investments grow. The farmers need to make robust decisions since the risks are high.

In the beginning of the millennium Keisala farm wanted to make a new barn. The motivation was to have better environment for both the animals and the workers. Robotic milking was wanted to the new barn so that the needs of related technologies were also guiding the planned construction.

However, it took seven years to have the environmental permit since a neighbor was complaining. Meanwhile the pre-planning of the project with investment calculations was going on. Discussions with advisors was active but not constant.

From 2010 on, as all the permits were ready, the Investment Support Team helped the farmer to plan the investment process on a regular basis. A feeding specialist of ProAgria was initially the key person to invite the needed experts together. The farmers were active in the process too.

First the team together with the farmers gathered relevant information of barn designs and equipment selections from domestic and foreign sources. There were visits to barns where interesting solutions had been made. In course of time the Investment Support Team was completed with experts from financing, building and authorities. The composition of the team was changing according to the needs of the project phase. Experts of ProAgria, however, stayed as the core of the team. Advisors of economy, construction design, plant production and dairy formed the core.

The project management of a large investment is mostly challenging. External consultancy is therefore needed. But the need of the consultancy changes as the project progresses.

During 2010-2012 the investment support team helped the farmer with setting goals and making choices. The team consisted of experts with different backgrounds: design, economics, plant production, dairy production, etc. according to the needs of the project.

In 2012 the embargo against Russia created a significant drop of milk price in Finnish markets. The building phase was active and the Investment Support Team helped the farmers to realize the barn. Building specialists were involved.

During the process Merja Keisala kept a blog in the web pages of ProAgria. She was asked to do that by ProAgria who wanted to help other investors in their processes. Openness and honesty of information was the key to success. There were a lot of followers who contacted Keisalas and asked for their opinions and also gave their experiences of their own projects to common use. Lots of visitors travelled to Keisala farm to discuss their situation. The blog acted as a reflection room for the Keisalas so that difficult moments and success were discussed. ProAgria got positive open image because of the blog.

The Investment Support Team concept has been used by ProAgria on other cases as well. It is, however, quite expensive to run so that it is not to applied on regular basis. The cases have to be selected carefully. In the future, the concept needs to be embedded in practical consultation work done by ProAgria. To do so, the process needs to be analyzed and systemized. Evaluation of the process should be part of the ProAgria service package.

Analysis

- What is the **innovation**?

  Organizational innovation where an Investment Support Team helps the farmer to run a large investment. It is a service package where the needed consultation services are coordinated by ProAgria. The service reduces risks in the process and ensures that the solution is viable. Selected experts see the process from different angles so that several aspects are covered simultaneously.

- **Key actors and their role** in the process

  ProAgria feeding expert initiating the team by suggesting it to the farmers. She also coordinated the meetings.

  The Keisala family, who had the need to build a new large barn and wanted to buy more consultation and to develop the Investment Support Team service.

  Merja Keisala who kept the blog and opened the investment process to the public.

  The young generation in Keisala who participated in the process actively.

- **Role of the support agency**

  ProAgria advisory services developing the package together with the farmers.

- **Success factors**

  The integrated approach where the farm is seen as a holistic system.
  Collaborative environment in ProAgria.
  The flexibility of team composition during the process, involving the needed expertise at right moment.
  Independence of the ProAgria advisors so that their advice could be trusted.
  Communication btw the generations in Keisala so that the needs of next generation were important criteria for the investment.
  Courage of the Keisalas to take new challenges.
  Openness of ProAgria so that the blog and social media discussions could be realized.

- **Fail factors**

  The Keisala case: It took seven years to get environmental permit because of one neighbour complaining. During the construction phase there were delays due to capacity problems of one supplier.

  The service: the difficulty to develop a clear sellable service package limits the sales of the service in future. Feedback and evaluation of the process has not been utilized as systematically as it should be.

- Regional and/or historical **particularities**

In most cases, it is the tradition to discuss future plans with the next generation taking over the farm. In the region, entrepreneurs have the courage to try new developments and it is common practise to take risks.

- **Specific recommendations**

  Evaluation of the process should be part of the ProAgria Investment Support Team service package. Study and knowledge exchange should be organized to develop and disseminate the service.

  ProAgria should be more active in helping young farmers in general.

- **Lessons** that can be generalised

  A successful support team can be realised when the facilitator has a close connection to the customer. Experts of an independent advisory service have the ability and position to act as facilitator.

  Openness in social media helps the farmer and the advisory service to effectively discuss, develop and disseminate new developments. Keeping a blog gives the farmer a reflection room where interaction with the followers supports decisions and creates a channel for dissemination. The advisory service, when acting openly, gains a lot of useful feedback from the audience. The resulting service is more useful in practical consulting cases when this user-centred development is utilized.

4. The symposium: Pearls, Puzzles and Proposals

During the final symposium on June 16th at ProAgria House the focus was on the process and how the innovation phases were realized in each case. The pearls, puzzles and proposals (PPP's) were communicated to the audience. The audience consisted of the CV team, ProAgria staff and invited actors from Seinäjoki area. The invitees came from the University Consortium, Rural Institute of University of Helsinki, farmers, Centre for Economic Development, Transport and the Environment, and press.

The PPP's were:

Case 1: Eerola

Pearls

- *Optimal circulation and use of plant nutrients*
- *Logistical benefits*
- *Open mind of the farmer*
- *Trust btw the people involved*
- *Visionary forward thinking of the farmer*
- *Entrepreneurial skills of the farmer*
- *Full-scale testing on farm level*
- *Continuous feedback for the company*

Puzzlings

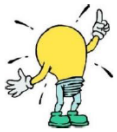
- *Win-win situation?*
- *Economics?*
- *No challenges at all?*
- *No formal agreements → risks?*
- *Communication with the neighbours?*
- *Company benefits from strict legislation but the farmers might not?*
- *Integrated spatial planning: why planning near farms?*

Proposals

- *More involvement of independent advisory needed*
- *Diversification of farm business (use of excess heat..)*

Case 2: Tikka





Pearls	Puzzlings	Proposals
• *The farmers' willingness, enthusiasm and dynamics to try something new* • *Visionary forward thinking* • *Inventiveness of the farmer* • *Continuous co-operation btw the farmer and the architect* • *The architects engagement in agricultural production*	• *When the architect is ready for additional radical innovations?* • *Why was the company not willing to realise the needed changes in design?* • *The dissemination process; what is the business plan of the architect?*	• *The farmers could blog on their experiences* • *ProAgria could support the innovation more actively* • *More publicity for the innovation support possibilities through multiple communication channels*

Case 3: Kirkkokallio



Pearls	Puzzlings	Proposals
• *Trust + local small businesses = warm network* • *Sauna-method* • *Dared to be different* • *Excellent co-operation facilitation* • *Development was done logically step by step together with the companies* • *Patient facilitator* • *Passionate facilitation* • *The foodbox concept*	• *What happens with the trust when 'outsiders' join?* • *Why doing everything on his own?* • *Finance – who is financing what?* • *Benefit for the local community?* • *Where does the revenue come from?* • *How to sell the whole concept?*	• *External experts could be beneficial to the process* • *A written agreement on the concept is maybe needed in the future*

Case 4: Keisala

Pearls	Puzzlings	Proposals
• *The integrated approach* • *Communication btw the generations* • *The flexibility of team composition* • *Independence of the advisory team* • *Access to expert network* • *Courage to take new challenges; open-mindness* • *The blog = openness of ProAgria* • *The use of social media in discussion groups*	• *The working methodology inside the team?* • *Knowledge exchange within the farmer community?* • *The next step after the active phase of investment?* • *How does the method apply with all farmers?* • *The role of farmers organisation in the process?*	• *Evaluation of the process should be part of the ProAgria service package* • *ProAgria should organise study and knowledge exchange* • *More attention is needed on the whole production process on the farm, incl. plant production* • *Diversification as a possibility to more added value for the production* • *Active way to find innovations* • *Helping young farmers*

After the PPP's had been communicated and briefly discussed there was a group discussion in four groups on the subjects. A member from each group gave a short report. The conclusions were:

-Entrepreneurs cannot have all competences needed so they need Advisory Boards, Free Advisors or eq. to help them.

-We must be aware of the cognitive distances in innovation-related groups; not too similar person profiles so that real innovative things come out.

-How to cultivate trust? In several Finnish cases trust was mentioned as a driving power. It is not, however, easy to maintain. There should be special methods to awake it and maintain it.

-Is Agrispin learning from bad examples too? The cases are selected on certain criteria that favor success. There could also be something to learn from failures.

-Lots of potential out there: How to find it and bring people together?

-How to make innovations profitable quicker, how to shorten the time span?

-When you enlarge the business you have to think more of the potential market. In some cases the innovation is restricted to a small area. How to disseminate and embed wider?

-Public financing is administratively demanding so that the need for support is there.

-We need to enhance the innovative culture in this area. Where to start?

-One possibility is to send innovative farmers abroad. Currently they already do it but it could be more systematic.

Finally, all the participants told their Take-home-messages. They were:

-Long-term vision / strategy / concern for nature of the farmer is innovative

-Everything is possible! Find knowledge!

-If you have questions you someday have answers / the need for eating challenges bite-by-bite

-Patience is important / need to believe

-Be passionate and curious!

-Need to be more open to look abroad

-Passion and belief!

-How to transfer ideas to rural environment, non-formal meetings as a starting point.

-Distrust vs. trust; build more on trust, cultivate it!

-Interaction decreases the risk

-Strength and capacity of the human cooperation

-Invest in people even in agriculture

-Advisory board, bringing different people together

-Open cooperation btw. organizations and companies → better results

-The younger generation coming up

-Decisions based on the decisions of children!

-The blog

-More social media

-Knowledge sharing and local FB groups for farmers

-AgriSpin is an ice-breaker-project! (this was a very encouraging message of an important local funder)

5. Conclusions

The Finnish Cross Visit was successful in many ways. It gave us in the region and in ProAgria South Ostrobothnia valuable feedback on the selected cases and, more generally, on the operation of

innovation support. The stakeholders got very good impression and it is easy to build on it. Maybe some new projects are initiated. When writing this, a Youth Council project inspired by AgriSpin has just begun. It will give ProAgria new insights about customers' future needs and evaluation of existing services as well.

AgriSpin is evolving into a good direction. The methods used in analysis have been developing a lot during the course of the AgriSpin project. The Finnish Cross Visit applied the latest version of Cross Visit Manual. The Spiral of Innovations was utilized and found to be successful, too. As the cases were quite mature the spirals were filled up to the dissemination or embedding phases. It was beneficial to discuss and agree on what was the actual current phase, which were the obstacles of development, and what actions could help to get further. The results are usable in future development of the cases.

There is still a lot to do. In future, there could maybe be more emphasis on the quality of the Proposals (in the PPP's). Now they are made based on quite brief discussions at the end of the Cross Visit when everyone is busy leaving home, and individual comments have a lot of weight in the conclusions. The role of the host in preparing the report is therefore crucial. Now the Cross Visit easily gives an inaccurate result. The analysis, at its best, gives just as good image of the target as the cases are, and how the host manages to organise the visit.

Finally, the impression is that AgriSpin Cross Visit has evolved to a quite useful tool. As the Take-home message of the local funder was:

AgriSpin is an ice-breaker-project!