

ENRD Coordination Committee
Focus Group
Knowledge Transfer & Innovation

ANNEX 1
**Collection of examples
supporting KT&I**

FINAL DRAFT

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Table of Contents

1. The collaboration between stakeholders to promote the cultivation of organic plums in Austria	5
2. The project ECO2 implemented by agro-environmental cooperatives in Flanders Belgium.	6
3. The Sietinet initiative - Linking the research and the ornamental plant production sector in Flanders Belgium.....	7
4. The establishment of organic farmers networks in Flanders, Belgium.....	9
5. The production of a brand new product - fruit fillings in the Czech Republic.....	11
6. The development of a new type of fresh cheese in the Czech Republic	13
7. The modernisation of a dairy unit in the Czech Republic	15
8. The innovative processing of hops into concentrates in the Czech Republic.....	17
9. The renovation of a cheese processing unit in the Czech Republic.....	19
10. The development of a new method for separating fibre from straw / stalks in the Czech Republic.....	21
11. The activities of the Grassland Centre in Lower-Saxony and Bremen, Germany.....	23
12. The establishment of a competence centre for organic farming in Lower-Saxony, Germany	25
13. The upgrading of the operations of a canning industry in Germany	27
14. A selection of examples from Estonia.....	28
15. The development of a platform for monitoring beehives remotely in Spain	30
16. Introducing a series of innovations in the dairy production sheep farms in Spain	32
17. The development of an innovative curriculum for training farmers in Cataluña, Spain..	34
18. The internet platform "Chil" bringing together actors of the agrifood sector in Spain ...	36
19. The use of infrared technology for improving the quality of olive oil in Spain	38
20. The development of a new method for controlling pests in Spain	39
21. The development of a new program for testing seeds in Spain.....	41
22. Establishing a Methodology for rural innovation enterprises promotion in Spain.....	43
23. The collaboration between farmers and the supply industry in Finland.....	46
24. The creation of a new type of voluntary work for supporting the elderly in Finland	48
25. The transformation of an old school building into an international hub of cultural activities in Finland.....	50
26. A project introducing mechanical puzzles as a leisure and training activity in Finland ..	52

27. The development of a purchase platform to boost catering services in France	54
28. Cluster VALBIOM - a new form of cooperation between farmers and local industries in France.....	55
29. The Dairyman Compost project in France	57
30. The Dairyman Dehydration project in France	58
31. The Dairyman project – Huilerie, in France.....	60
32. The project Redbio in France	62
33. The Joint Technological Network “Innovative Crop systems” in France.....	63
34. The project ‘CASDAR Simplified Implantation Techniques’ in France	65
35. The production of organic aromatic and medicinal plants in Greece	67
36. The promotion of renewable energy in rural communities in Hungary	68
37. A new form of entrepreneurial education for rural schools in Hungary	70
38. The cooperation of the advisory services with a research institute in Hungary	72
39. A new form of vocational training in renewable energy and resource management in Hungary	74
40. The development of a network to improve the tourist services in a sub region of Hungary	76
41. The “Dairy Efficiency Programme” in Ireland	77
42. The production of energy from wood in Ireland	80
43. The Burren LIFE project in Ireland.....	81
44. A network disseminating information about the food and agricultural sectors in Italy .	83
45. The “Catalogo verde” network in the region Emilia Romagna, Italy.....	84
46. The project “Alimais” introducing new high quality food products from wheat in Italy .	86
47. The joint development by growers of new potato varieties adapted to the local conditions in Emilia Romagna, Italy	87
48. The production of native plants certified for ornamental and natural use in Lombardy region, Italy.....	89
49. The use of biosensors for producing quality wine in Italy	91
50. The project “Hand in Hand: Enhancing E-inclusion of Farmers at Rural Public Libraries” in Latvia	92
51. The project “DEMO FARM” for the development of Latvian-Estonian network demonstrating environmentally friendly farming practices.....	94
52. The evaluation of Measure 124 in the Netherlands.....	96
53. The evaluation of Measure 111 in the Netherlands.....	98
54. The fruit and berry improved production programme in Norway.....	100

55. The exploitation of solar energy by an agricultural holding in Poland	102
56. The establishment of a centre for practical training in small-scale processing in Poland	104
57. The instalment of anti-hail equipment in a blueberry orchard in Poland.....	106
58. The production of bean-based chips from locally grown beans in Sweden	107
59. The establishment of a "Hotel" for heifers as a new service for farmers in Sweden ...	108
60. The joint company of grain farmers improving their position in the market in Sweden	109
61. The new form of cooperation between farmers and a commercial firm specialising in biogas technology in Sweden	110
62. The creation of a system for travel arrangements between car drivers and potential passengers in Sweden	111
63. Baltic Deal - vocational training for agri-environmental practices and measures	113
64. The new approach to getting young people into employment in Scotland.....	115
65. The creation of Carbon Smart Organisations in Scotland.....	117
66. The Queensbury Initiative for improving the employability and entrepreneurial skills of young people in Scotland.....	119
67. The initiative "Savour the Flavour" to promote the local food in Scotland	121
68. The establishment of network of Scottish growers for improving their position in the market in Scotland	124

1. The collaboration between stakeholders to promote the cultivation of organic plums in Austria

Country: Austria

Type of innovation: New Process or Practice

FUNDING

RDP Measure / Axis: Measure 124

Other: N/A

A. WHAT & ACTORS

Description: This project brought together farmers, marketers and research institutes in order to find out what are the requirements for promoting the commercially successful cultivation of organic plums.

Initiator: Plum farmers

Actors involved:

- Farmers' or Producer group or association or Cooperative;
- Private institution / organisation;
- Extension / advisory service / business advice;
- University or Education Institute or Research centre.

B. WHY & BENEFICIARIES

Problem/Need: Strong price pressures in the conventional plums farming.

Opportunity: The increasing demand for organically grown fruit.

Beneficiaries: Farmers

Benefits from KT: The project was feasible only due to the involvement of many relevant scientific institutions, including experts on the use of beneficial insects, the application of biological pesticides as well as extension services.

Roles of existing networks / advisory services or NRN:

- The consulting services (Chamber of Agriculture) played a key role in the coordination of the project and on providing crucial technical advice;
- There was no involvement of Local Action Groups or the National Rural Network.

C. CONCLUSIONS

Results:

- The project provided clarifications on open questions concerning cultivation techniques, varieties and plant protection;
- It conducted a market analysis to investigate the *status-quo* of fresh products and processed products on the European market;
- The amount of organically grown plums is expected to be significantly increased due to the results of the project.

What worked (not) well: N/A

Lessons learned / Recommendations: N/A

2. The project ECO2 implemented by agro-environmental cooperatives in Flanders Belgium.

Country: Belgium

FUNDING

RDP Measure / Axis: Axis 2

Other: N/A

Type of innovation: Innovative form of organisation

A. WHAT & ACTORS

Description: Agro-environmental co-operations are formed at the initiative of local farmers. Organised in groups based on landscape, nature or water conservation projects, they commonly deliver green & blue measures. The co-operatives of farmers help determine how the management of an area is undertaken and the farmers implement jointly or as individuals the management options agreed.

Initiator: Farmer's union

Actors involved: • Farmer • Producer Group • Business advisors • Press • Farmers Union

B. WHY & BENEFICIARIES

Problem/Need: • Declining biodiversity • Need for sustainable landscape maintenance • Declining water availability.

Opportunity: To deliver green & blue services to society

Beneficiaries: Farmers and the society as recipient of these services

Benefits from KT: The main tools used for KT were partnerships discussions, interactive demonstration events etc. The knowledge is exchanged between different participators. The organised events were very interactive and easy for farmers to follow. These events contributed significantly to the realization of the vision for a more sustainable agriculture.

Roles of existing networks / advisory services or NRN: To disseminate the start up of the co operation, among the initiatives of the farmers were included: announcement in farmers' weekly newspapers, activating farmer advisory groups, local advisor groups, and farm business advisors of VLM. This project was also disseminated through different existing networks. Exchanges between Flemish and Dutch farmers were organised (IVA project SOLABIO) to share best-practices and knowledge.

C. CONCLUSIONS

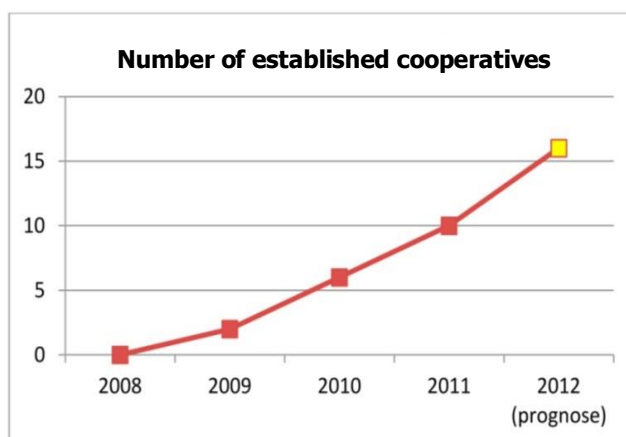
Results: It became evident that group agreement creates confidence among farmers and enables delivering green + blue services efficiently in the long-term.

What worked (not) well:

- It is difficult to convince farmers to work together;
- Only 10 groups were created in 4 years intensive field work;
- Cooperation against competition.

Lessons learned / Recommendations:

- There is a need to have specific contracts between collectives of farmers and the administration;
- A legislative framework at EU level is desirable.



Evolutie oprichting ABG's

3. The Sietinet initiative - Linking the research and the ornamental plant production sector in Flanders Belgium

Country: Belgium / Flanders

FUNDING

RDP Measure / Axis: N/A

Other: Public funds - Agency for Innovation through Science and Technology 80% & 20% private funds

Type of innovation: Innovative form of organisation

A. WHAT & ACTORS

Description: The novelty is the linkage created between research and the ornamental plant production sector to better address the companies' needs for knowledge. A scientist/technical consultant was hired and employed by one of the participating research institutes to facilitate the collaboration and the flow of useful information and updates between knowledge institutes active in the ornamental plant production sector and the participating companies.

Initiator: According to the logic of the funding scheme the beneficiaries commenced the initiative, but in reality the research institutes played an important role.

Actors involved: • companies Universities • experimental station • Consultant specialist.

B. WHY & BENEFICIARIES

Problems/Needs:

- The fierce competition in the global markets;
- The necessity to invest in and keep up with innovations and technological advances in order to remain competitive;
- It is almost impossible for farms/small businesses to continuously monitor the developments.

Opportunity: For a scientist (the technology consultant employed on the project) it is easier to follow the developments and make this knowledge available in an accessible way for the participating companies. Knowledge institutions have also international access to information.

Beneficiaries: Farms.

Benefits from KT: Transfer of new knowledge from the researchers to the producers

Roles of existing networks / advisory services or NRN: The collective approach of the companies and the interaction between research and production was new and it was the core objective of the initiative.

C. CONCLUSIONS

Results: The farms benefitted from the improved knowledge access. The project helped them to become very innovative and competitive.

What worked (not) well:

- A dense network with many interactions between the members was successfully established;
- A great diversity of actions was organised by the technological consultant: e.g. technological advice by phone, e-mail and farm visits, profound technological advices tailored to the specific needs of the companies, workshops, symposia, newsletter, bimonthly mailing of scientific literature, website etc.;
- The specificity of the knowledge needed by each of the participating companies ensured that the companies did not act as competitors in their knowledge needs.
- The activity ended when funding stopped.

Lessons learned / Recommendations:

- When the type of required knowledge is different per company/farm, there is little competition between them;
- A clear mandate for the consultant is required;
- Funding is crucial. Although the project was successful the producers did not pay to continue the knowledge collection and transfer themselves after the funding of the project ended.

4. The establishment of organic farmers networks in Flanders, Belgium

Country: Belgium / Flanders

FUNDING

RDP Measure / Axis: N/A

Other: Flemish Government – Department of Agriculture and Fisheries

Type of innovation: New Process or Practice / Innovative form of organisation

A. WHAT & ACTORS

Description: Bioforum is the umbrella and chain organisation of the Flemish organic farming and food sector. The Bioforum organisation and the Belgian Knowledge and Innovation Centre 'Landwijzer' with the collaboration of a Dutch institute for Knowledge and Innovation 'Louis Bolk' launched a number of discussion groups between Flemish organic farmers. Today, there are 6 such organic farmers' networks aiming to: exchange knowledge and innovation between the members; identify knowledge gaps and identify research questions in a bottom-up and demand-driven manner.

Initiator: Bioforum in collaboration with Landwijzer and the Dutch Institute Louis Bolk.

Actors involved: • Individual Farmer • Farmers' or Producer group or association or Cooperative • Extension / advisory service / business advice • University or Education Institute or Research centre.

B. WHY & BENEFICIARIES

Problems: There is a lack of technical assistance and research in the organic sector. The private advisors are not interested to give advice to the organic producers. This is due to the fact that it requires very specific and challenging knowledge while there are limited commercial possibilities due to the rather limited number of organic farmers.

Beneficiaries:

- Farmers;
- Researchers (demand driven research questions).

Benefits from KT: Knowledge transfer and exchange are at the heart of the objectives of the organic farmers' networks.

Roles of existing networks / advisory services or NRN:

- The organic farmers' networks were initiated and facilitated by an existing umbrella organization (Bioforum, Landwijzer and Louis Bolk Institute);
- There was no direct link with the networks involved in rural development.

C. CONCLUSIONS

Results:

- Better knowledge exchange;
- Farmers can learn from each other's experiences;
- Researchers learn from the farmers and private advisers. They become aware of how their research is interpreted or how it can be applied and adapted to the farmers' needs;
- Demand-driven research questions are identified and picked up through the Coordination Centre for applied research and extension on organic agriculture. The organic farmer evolves from being a study object to a colleague in the search for knowledge;
- Increased interaction with (mainly applied) research.

What worked (**not**) well

- A significant starting period (2 years) was required to get acquainted, gain trust and to get really operational;
- Significant effort was required from the farmers;
- Almost no funding was available for on-farm research and experimentation;
- In the beginning, farmers need to be persuaded to participate in on-farm experiments. A farmer driven approach gives more satisfaction, but it is also more demanding for the farmer. Therefore a clear framework is needed.

Lessons learned / Recommendations:

In the next programming period, it should be possible to fund:

- On-farm research;
- Facilitation costs;
- Practical experiments to verify the earlier results (also from abroad);
- Interactions with similar networks in other countries;
- Networks for facilitators/advisers to keep up with knowledge and exchange the national knowledge within a broader network;
- The funding of such networks should be maintained for a longer period (at least 4 – 5 years), in order to have a good initial period and then still have time to do the real work;
- It would be easier if the networks would have their own budget to spend on on-farm research or if they could easily access such budgets when needed.

5. The production of a brand new product - fruit fillings in the Czech Republic

Country: Czech Republic

FUNDING

RDP measure / Axis: Measure 124

Other: N/A

Type of innovation: Innovative product

A. WHAT & ACTORS

Description: The company produces fruit fillings for use in bakery, confectionery products and in gastronomy. By responding to the market demands the company invested in developing an innovative product and for that purpose it worked together with a research institute for creating a new type of fruit processing. The novelty rests in the improved quality, the new packaging and the non-preserved fruit fillings. The innovation also covers the production of fruit fillings with big whole fruit pieces which are required mainly by confectionery industry.

Initiator: The aid beneficiary in response to the market requirements

Actors involved: • Agrifood business • Institute of Chemical Technology

B. WHY & BENEFICIARIES

Problems/Needs: Large scale consumers of fruit fillings in the CZ are traditionally supplied with products with relatively low fruit content. This was compensated by adding higher quantities of sugar beet. This approach is suitable in case of cheaper bakery products. The beneficiary was focused mainly on traditional less expensive product range.

Opportunities: The aid beneficiary decided to respond to market requirements and to avoid using preservatives while ensuring the longer shelf life of the product through an innovative method of product processing. The new product improved the position of the company in the market, generated higher profits and helped to improve the company's competitiveness.

Beneficiaries: The agri-food company

Benefits from KT: Putting the new innovative product into production was preconditioned by the transfer of new knowledge – outcomes of the research into practice. A major part of the project implementation consisted in the development of a new product by the research entity on a cooperative basis.

Roles of existing networks / advisory services or NRN: The NRN contributes to the dissemination of information about the project and its results.

C. CONCLUSIONS

Results:

- A brand new quality of fruit fillings with up to 70% fruit content has been achieved;
- New packaging reducing the environmental load has been introduced;
- The chemical preservatives have been successfully removed and the content of added sugar was reduced, while safeguarding the long shelf life of products;
- An indirect effect was the increased qualification of company staff and the exploitation of new knowledge in training of food industry experts;
- Better economic results were achieved with higher labour productivity and company profits;

- During the project implementation the originally compulsory cooperation with the Institute of Chemical Technology turned into some sort of a “symbiosis” of theory and practice, and a new relationship were established which outlasted the life of the project.

What worked (not) well:

- The cooperation with a research entity is a precondition for getting the measure support;
- The obligation to prepare a very complicated tender for receiving support from measure 124.

Lessons learned / Recommendations:

- This type of innovation support should continue.

6. The development of a new type of fresh cheese in the Czech Republic

Country: Czech Republic

FUNDING

RDP measure / Axis: Measure 124

Other: N/A

Type of innovation: Innovative product

A. WHAT & ACTORS

Description: A dairy company in Czech Republic applied to receive support from Measure 124 for developing a new type of product (quark - type of fresh cheese - with probiotic culture). This included the development of new manufacturing technology and packaging. In cooperation with a research institute and with the support of the RDP funds, the project investigated the optimum composition of the product in terms of the suitable probiotic culture, it developed a new way of extending the shelf life, as well as shaping and identifying the best flavours for the product.

Initiator: The beneficiary / agrifood business

Actors involved: Agrifood business Private institution / organisation (research)

B. WHY & BENEFICIARIES

Problems/Needs: Originally, three different types of quark cheeses were produced in a triangle shape varying in fat content and packed in a shrink wrap. Such packaging, however, did not allow keeping the unconsumed quark for a long period and the shelf life could not be extended. The aid beneficiary therefore decided to invest in innovation by launching a new product and packaging.

Opportunities: Since no probiotic quark had so far been available on the market, the launch of a brand new product would be a competitive advantage.

Beneficiary: The agri-food company

Benefits from KT:

- Thanks to the publicity of the Rural Development Programme, the beneficiary was aware of the possibility to be granted assistance for introducing innovations in manufacturing and the project could thus be successfully implemented;
- During the implementation of the project the results of the research conducted by a cooperating entity were exploited.

Roles of existing networks / advisory services or NRN:

- Spreading the information;
- Sharing good practices;
- Lead to enhancing awareness of possibility to implement innovative projects

C. CONCLUSIONS

Results:

A new product (with probiotic culture) with:

- Positive effect on consumer's health;
- Longer shelf life;
- Due to packaging is also practical and consumer friendly;
- Increased effectiveness of production;
- Increased competitiveness;
- Extend the range of functional food on the market.

What worked (**not**) well

- The project implementation brought about the anticipated results;
- Fairly high administrative burden associated with the compilation of documentation needed and payment claim.

Lessons learned / Recommendations:

- The administrative requirements are fairly high particularly in more complicated projects focused on innovation of products based on the cooperation with a research entity;
- High administrative requirements might discourage certain entities, particularly the smallest companies, from applying for projects which could help to increase their competitiveness;
- Remove the bureaucratic burden from the RDP implementation, already at the level of EU legislation.

7. The modernisation of a dairy unit in the Czech Republic

Country: Czech Republic

FUNDING

RDP measure / Axis: Measure 121

Other: N/A

Type of innovation: New Process or Practice

A. WHAT & ACTORS

Description: RDP support under measure 121 was used for the modernisation of the dairy unit in an agricultural co operative in Czech Republic. The modernization included the renovation of two cowsheds, the construction of a new cow shed, the introduction of slurry management including the investment in a slurry separation unit; air-cooling equipment; milking unit; tuck mixer for feed.

The modernisation was realised in two stages:

- i) the standard modernisation, bringing the production to the typical quality standards;
- ii) the innovative modernisation which aimed at the over-standard economy of milk production and the highest standards of animal welfare and environmental management (slurry).

Initiator: The agricultural cooperative

Actors involved: • Individual Farmer • Formal / informal networks

B. WHY & BENEFICIARIES

Problems/Needs: N/A

Opportunities: The modernisation of the unit offered significant opportunities for improving the milk yield and the economy of milk production.

Beneficiaries: The farm

Benefits from KT:

There were two streams of Knowledge Transfer:

- a) The (common) external one including internet sources, agricultural exhibitions, other farmers from informal networks; and
- b) The internal one coming from the other enterprise of the beneficiary - in this case the intensive turkey feeding unit. The management learned from the other production line which was under the advisory support of input suppliers (of chicken and feed) how critical is controlling air conditions (ventilation, temperature) and feed for achieving profit. This concern of "control" was transmitted to the dairy cow production. In that way KT related to investment, training of workers and organization of work.

Roles of existing networks / advisory services or NRN:

- The farming company relied on its own experience (from the turkey production and of course from the cow production) and on the other farmers through informal networks;
- The cooperative contracted economic and business management advisors, who later entered the management of the farms and now they are important co-owners of the farm;
- There was no involvement of technological advisory (some support was required for preparing the support application);
- There was no involvement of the National Network for Rural Development, a LAG, or transnational co operation.

C. CONCLUSIONS

Results:

- The yields increased and the costs were reduced. The farm is among the farms with the highest milk yield in the country;
- The experience and innovations are disseminated through the informal networks of the farm;
- Hardly to judge how fast is the information spreads. Followers might be discouraged by the high investment costs.

What worked (**not**) well:

- The transfer of the experience and the innovation elements from the other enterprise of the farm functioned well. The success of the other production line (turkey production) led to innovation and thus improvement of the other production line (dairy production);
- However, in respect to the actual dairy innovations the farm management lacked support of advisory service or research institutions. To verify its decision – the management had to rely on its informal network - experience of the other farmers - which in respect to air cooling and truck mixer was rather scarce.

Lessons learned / Recommendations:

- Extension service ought to be strengthened in the new programming period;
- The EIP network should gather also experience/good practices resulting from the other support programmes (it should consider also the near past).

8. The innovative processing of hops into concentrates in the Czech Republic

Country: Czech Republic

FUNDING

RDP measure / Axis: Measure 124

Other: N/A

Type of innovation: New Process or Practice

A. WHAT & ACTORS

Description: A hop processing unit in Czech Republic used RDP support (measure 124) to introduce innovations in its production methods and thus to increase its competitiveness. Under the support scheme the company cooperated with a university and a technology supplier for the development of improved techniques in its production line. The innovation can be characterized as a mixture of technical and organizational innovations. Two innovations were developed for the hops processing into hop concentrates:

- The introduction of new cleaning equipment in the granulation line based on a rotary cylindrical sieve;
- The application of short term cleaning during the processing period. For this purpose vapour cleaning equipment was deployed.

Initiator: Co operative

Actors involved: • Cooperative • University • Supplier of the technology

B. WHY & BENEFICIARIES

Problems/Needs: N/A

Opportunities:

- The challenge rested in improving the quality of the product (hops concentrates) in terms of its mechanical purity;
- The solution should not affect the already high quality of the product in terms of aroma and other parameters concerning beer brewing;
- By solving this problem the Czech producers which are associated with the cooperative would gain an advantage over their international competitors.

Beneficiaries: Producers

Benefits from KT: The university used its knowledge and experience from the other agricultural or food production systems as they had no experience with hops, and merged it with the knowledge and experience of the mechanization unit of the hops cooperative. The mechanization unit collaborated with the technology supplier on developing a prototype of the rotary cylindrical sieve which was tested in the university facilities and later in the practice in the cooperative.

Roles of existing networks / advisory services or NRN:

- An informal network brought the university into the collaboration;
- A hops research institute which had tight relationship to the hops cooperative and is also located in the same town, collaborated successfully with the university mainly in the area of plant physiology and genetic;
- Good experience from previous cooperation with the university was transmitted to the hops cooperative and led to the collaboration on the development of the improvements in the hops processing;
- There was no involvement of the NRN, LAG, or TNC.

C. CONCLUSIONS

Results:

- The quality of hops concentrates improved. They are now clean of any mechanical impurities, lowered costs due to intermediate cleaning;
- The beneficiaries which are the hops cooperative and the farmers who are members gained a competitive advantage; reclamations have been reduced and the customers – breweries have reduced production complications;
- The result has not been disseminated – actually it is perceived as competitive advantage over other producers;
- The collaboration with the university worked well.

What worked (**not**) well:

- The cooperative complained that the input of the mechanisation unit which was considerable could not be covered by the support.

Lessons learned / Recommendations:

- A good example of solving problem in a new way. The collaboration with the university for transferring knowledge and to turn it into practice;
- However, the absence and in principal the lack of interest in dissemination of the innovation (due to the need to gain competitive advantage) is questioning if the policy should provide financial support to it;
- The policy should definitely facilitate the communication between research institutions and practice (farming, processing) and bring all interested parties together.

9. The renovation of a cheese processing unit in the Czech Republic

Country: Czech Republic

FUNDING

RDP measure / Axis: Measure 124

Other: N/A

Type of innovation: New Process or Practice

A. WHAT & ACTORS

Description: A cheese processing unit received support from RDP measure 124 for upgrading its production technology. In cooperation with a research institute the company improved its production process. This included achieving the stability of the cheese parameters throughout the year thanks to a better balanced mix of cow, sheep and goat milk. The cooperation also resulted in improvement of the cheese's properties by making it suitable for grilling or other thermal preparation by heating fresh cheese in whey. The project activities included improving the marketing of the product through branding (product differentiation) and new packaging.

Initiator: The agricultural cooperative and the research institute

Actors involved: • Individual Farmer • Research institute for cattle breeding • Formal / informal networks

B. WHY & BENEFICIARIES

Problem: The agricultural cooperative has its own cheese processing unit – a small scale business of high quality products distributed directly or in a short supply chain. The original product – mixed sheep/cow cheese exhibited variable parameters depending on seasonal composition of sheep milk. The problem was how to make the parameters stable throughout the year.

Opportunity: N/A

Beneficiaries: The agricultural cooperative

Benefits from KT: KT from the research institute concerned experience and research results on properties of milk and its components. The institute also provided ideas on how to improve the product. In addition it suggested marketing improvements in: branding (use of a logo) and improved packaging (better appearance).

Some ideas came from a visit in Austria including a broad assortment of cheese varieties (clearly departing from the traditional products), heating cheese in whey for getting thermic properties of the cheese, etc.

Roles of existing networks / advisory services or NRN:

- The networks transmitted the information about the demand for quality cheese and the problem with variable properties of the cheese product;
- However, there was no support of the networks in respect to the innovation itself;
- No rural network, no LAG, no transnational cooperation were involved.

C. CONCLUSIONS

Results:

- The innovation enhanced the marketing opportunities of the agricultural cooperative. The improved quality triggered higher interest from the consumers of the product and the demand doubled;
- It satisfied the demand for cheese with particular thermal properties;

- The research institute gained important experience in working with farmers (processors) for applying practical solutions relating milk and consequently milk product properties.

What worked (not) well:

- At the beginning it was not easy to find a way of collaboration. It was uncertain what actually could be offered by the research institute, what research results would be relevant and how to turn them into practical solutions;
- The representatives of the cooperative were sceptical about what can be offered by research. The language was different and seemingly far from their practical needs;
- Later (now), the input of the institute is highly appreciated;
- €40 000 for the participation of a research institution is deemed as constraining.

Lessons learned / Recommendations:

- The programme (measure 124 as defined in the Czech RDP) is too much designed as an investment - supported by a research institution, while the practice looks for the support of experimental work, making prototypes, testing them, modifying the solution etc.

10. The development of a new method for separating fibre from straw / stalks in the Czech Republic

Country: Czech Republic

FUNDING

RDP measure / Axis: Measure 124

Other: N/A

Type of innovation: New Process or Practice

A. WHAT & ACTORS

Description: Measure 124 supported the development of an innovation for separating fibre from straw / stalks. The innovation is about developing the technology, a new processing line which is able to separate fibre from straw/stalks of the oilseed flax. The outputs are clean fibre – high quality cellulose and pellets suitable for heating (renewable energy).

Initiator: Farmer (former researcher of technical (fibre) crops)

Actors involved: • Farmers Research centre • Informal network of farmers • Technology supplier

B. WHY & BENEFICIARIES

Problem/Need: N/A

Opportunity: The project responds to the opportunity to process flax straw which remains after harvesting flax seeds for oil crushing. The straw is usually difficult to dispose. The innovation – straw processing unit – produces flax fibres (perfectly clean cellulose) and pellets suitable for heating. There is increasing demand for both – particularly the paper industry and the car industry are ready to pay good price for flax fibre.

Beneficiaries: • Farmers • Industry (new resource) • Society (new recourse)

Benefits from KT:

KT (provided by the research institute for technical crops) concerned experience and research results concerning properties of fibre crops and new ways on how fibre can be separated from plants/stalks.

The technical solution (the new processing line) was invented by the initiator-farmer and then developed by the machinery plant (owned by the farmer as a separate business).

Roles of existing networks / advisory services or NRN:

- The networks transmitted the information on the availability of flax straw and on the growing demand for natural fibres;
- Note that the quality paper industry is very fundamental in the region;
- No rural network, no LAG, no transnational cooperation.

C. CONCLUSIONS

Results:

- Flax straw (otherwise waste) is now used as a renewable material by the industry and as a renewable energy source;
- The inventor aims to build a business on the invention (processing flax straw);
- Oilseed-flax farmers can now sell flax straw;
- The industry found a new resource of natural fibres;
- Society gained another source of renewable energy;

- Information on the new possibilities for flax straw use is spreading quickly through the informal networks of farmers - (flax farmers receive information also through the research institute) as well as to the paper and car industry;
- The invention itself will be patented – licenses might be sold.

What worked (not) well:

- At the beginning it was not easy to find a way of collaboration - what actually could be offered by the research institute, what research results will be relevant and how to turn them into practical solutions;
- The minimum of €40 000 for participation of a research institution is deemed as constraining. In this particular case, the farmer thinks that the research institute was included in the project to larger extent than necessary;
- The participation of the other business of the farmer - the machinery plant - which was crucial for the project could not be covered financially by the project.

Lessons learned / Recommendations:

- The programme (measure 124 as defined in the Czech RDP) is too much designed as an investment which choice is supported by a research institution (at least it was the way how it was understood by agricultural public and ministerial/paying agency regional offices);
- However, practice seeks for the support of experimental work – development of a technology – making prototypes, testing them, modifying the solution etc.

11. The activities of the Grassland Centre in Lower-Saxony and Bremen, Germany

Country: Germany / Lower-Saxony and Bremen

FUNDING

RDP measure / Axis: N/A

Other: ELER 2014-2020: EIP, operational group Co-Financed 2011-2013 by a pilot of regional and federal state funds

Type of innovation: Innovative form of organisation

A. WHAT & ACTORS

Description: The Centre for Grassland Lower-Saxony and Bremen was established with the aim of finding integrated and smart solutions for the local farmers and act as an interface between science, policy and practice. It aims at practising technology transfer for both on a project and organisational level. With their approach they bring together stakeholders with sometimes conflicting goals aiming at supporting a resource-efficient green and competitive economy on grassland and grassland dominated areas.

Initiator: N/A

Actors involved:

- Farmers • Farmers Union • Agricultural chamber • Nature Conservation • Regional advisory services
- LAGs • Ministry of Agriculture • Regional administration • NRN • Businesses • Science sector

B. WHY & BENEFICIARIES

Problems/Needs:

- Address the need for water and climate protection;
- The farms suffer from structural change pressures and land scarcity;
- There is an increasing need for regional dialogue, advice and new strategies cantering around use and protection of grassland.

Opportunities:

- The Region is the most grassland rich region in Northwest Germany;
- The intensive dairy farming is the most important farming activity;
- The area has very important nature protection areas, especially for birds.

Beneficiaries:

- Farmers;
- Science (cooperation with farmers);
- Region (new potentials for development tourism etc.).

Benefits from KT:

The centre provides KT by using the proposed approach of the EIP operational groups.

Roles of existing networks / advisory services or NRN:

- The (agricultural chamber, regional advisory services, etc.) participate in the activities of the grassland centre;
- There are close connections to regional LAGs and other regional development processes and actors promoting economic development;
- The federal state agriculture Ministry of Lower-Saxony supports financially the setting up of the grassland centre;
- The German NRN offered advice and support to the activities of the centre.

C. CONCLUSIONS

Results:

- A successful cooperation has been established between scientists/ farmers/ the chamber for agriculture;
- Increased awareness about the management of the grassland;
- The partners cooperate to make the use of the grassland more productive while improving the ecosystem and offer public services through the landscape management;
- Science: tied a European grassland science network of intensive dairy and grassland farming regions. Learned about the needs of the practical farmers;
- A strategy for network towards tourism and business.

What worked (**not**) well:

- By trying to follow the EIP approach, it is difficult to find a common understanding of regional, national and European players.

Lessons learned / Recommendations:

- It is important to bring together regional strong partners really willing to invest into the partnership;
- EIP will be an important tool to improve cooperation and to strengthen the dialog between farmers, science/development and other regional actors. A process involving farmers, scientists, regional stakeholders from agriculture, nature conservation and administrations needs a lot of freedom in defining the process for developing the dialogue, understanding the problems and define a concept for solve them.

12. The establishment of a competence centre for organic farming in Lower-Saxony, Germany

Country: Germany / Lower-Saxony

FUNDING

RDP measure / Axis: N/A

Other: It is mostly financed through different projects by the federal state of Lower-Saxony.

Type of innovation: Innovative Product / New Process or Practice / Innovative form of organisation

A. WHAT & ACTORS

Description: The Competence Centre for Organic Farming (KÖN) was founded in 2002 in order to form a cluster of different advisory services supporting ecological farming. It aims to boost ecological farming, processing and retailing and it bundles competence and know-how of the organic sector. It elaborates knowledge in organic farming as well as organic processing and spreading information. The approach to the organic sector is to circulate practical solutions as a support for the stakeholders and actors.

Initiator: Association of organic farming associations in Lower Saxony and Ökoring Niedersachsen.

Actors involved: • Farmers • Farmers associations • Federal state of Lower-Saxony • Advisory services • Universities and research institutes

B. WHY & BENEFICIARIES

Problem/Need: N/A

Opportunity: Lower Saxony has an intensive agricultural and animal husbandry sector. Organic farming is a rising market niche in need of specific knowledge and guidance. At the beginning it was difficult to find an organisation bringing together several actors with similar interests and the customers. Thus the KÖN became the focal point for collaboration.

Beneficiaries: Organic farmers

Benefits from KT: The KÖN is involved in several national and federal networks and has contacts to the farmers associations. It uses KT for training, marketing and business-related inputs. Their staff includes agricultural consultants who elaborate recommendations for politicians and other actors, market studies, performing trials with a practical approach. KÖN transforms knowledge into practical consultancies with the farmers. Close collaboration between the stakeholders and other actors enables KÖN to work more efficiently than single institutions. Resources such as expert knowledge of the consultants can be combined at KÖN so that better quality and wider range of consultant services can be offered to farmers, processors and retailers. Customers also benefit from this knowledge exchange at the KÖN. Customers know that the KÖN is a focal point where they can refer to when they have questions in various fields, as these questions will be transferred to the appropriate consultant to be answered.

Roles of existing networks / advisory services or NRN: There were no other actors involved

C. CONCLUSIONS

Results:

- All actors along the in the organic sector chain producing added value benefit from the work of the KÖN;
- KÖN was the first institution for organic agriculture with a consultant engineer for nature conservation in organic farming;
- KÖN was pioneer in that working area. Several other institutions in Germany followed the same approach;

- During the 10 years of existence of the KÖN, approximately 30% of organic farmers and processors in Lower Saxony made use its services.

What worked (not) well:

- For an institution like the KÖN it is important to be generally known in order to develop a market for its services;
- Initial difficulties in becoming known were overcome with the help of the Ministry of agriculture in Lower Saxony and the associations of the organic sector;
- As KÖN is partly financed by the federal state of Lower Saxony, financial resources are partly dependent on the state budget made available for the KÖN. In this context of changes of government, financial resources of the KÖN are subject to temporal variations;
- Satellisation is prejudicial to the economic strategy of an organisation like the KÖN;
- Currently in many federal states of Germany the organic sector is reflecting about installing a competence centre for organic farming using KÖN as a model.

Lessons learned / Recommendations:

The KÖN supports farmers receiving RDP support for organic farming (M. 111, M.114, M.121 and M.124), however itself it has not yet received any funding from the RDP.

13. The upgrading of the operations of a canning industry in Germany

Country: Germany / Brandenburg-Berlin

FUNDING

RDP measure / Axis: Measure 124

Other: N/A

Type of innovation: New Process or Practice

A. WHAT & ACTORS

Description: A canning industry used Measure 124 support in order to improve its logistics and processing ability of different varieties of cucumbers. The innovation was based on testing and adapting a tomato harvester as well as the selection of a specific assortment cultivation process. The tomato harvester was first adapted to the conditions and specificities of the cultivation of gherkins with or without foil. The separation unit was retrofitted with respect shaking, gap distances and sorting quality. In addition, numerous tests were made in terms of vehicle speed, sort, grade, cucumber yields and enhancing the mechanical capacity.



Actors involved: • Agri-food business • University or Education Institute or Research centre

B. WHY & BENEFICIARIES

Problem/Need: N/A

Opportunity: The Spreewald region is one of the two largest areas at national level in cucumber production and has significant potentials to secure and expand the sector. Thanks to the new crop technology, the industry can continue to be competitive in the market.

Beneficiaries: • Farmers

Benefits from KT: The project valorised the knowledge and combining of competences among the partners including: i) the Gurkenhof Frehn company, ii) Biohof Schöneiche, iii) the fruit and vegetable processing industry "Spreewaldkonserve" Golssen GmbH and iv) the Leibniz Institute for Agricultural Engineering Potsdam-Bornim (ATB) from 2009 to 2013.

Roles of existing networks / advisory services or NRN: N/A

C. CONCLUSIONS

Results:

- The modification of existing technical solutions is unique in the selected conditions, and improves the environment;
- The developed technology is designed to help respond to the increasing economic pressure on labour costs and to counteract the cucumber production on an industrial scale.

What worked (not) well: N/A

Lessons learned / Recommendations: N/A

14. A selection of examples from Estonia

Country: Estonia

FUNDING

RDP measure / Axis: Various

Other: Various

Type of innovation: Innovative product

A. WHAT & ACTORS

Description: In Estonia a wide range of projects have been supported which promote KT&I. For example: The **micro-dairy project** which offers training for the dairy industry specialists and opportunities for cooperation between research and production; the **project "GoodFruit"** promoting fruit and berry storage and processing technologies in order to enhance regional business activities in an alternative economic area. For that purpose the project involves a series of investments, the organisation of study trips and seminars, the promotion of cooperation networks and the issue of publications on related issues; the **health and natural products competence centre in Polli** aiming to fully utilize plant material in food and non-food products, improving their quality, functionality and shelf life; **the e-ARIB project** which is the client portal of the Agricultural Registers and Information Board, through which clients can submit documents to the ARIB and check their details in its registers; the **Internet environment VISSUKE** intended for use by dairy farmers, milk recording data collectors, livestock farming advisers, field service zootechnicians and advisers of the breeders' association. Through this on-line platform the users are able to access basic data about their livestock; the advisory product **'shovel sample'** which is a visual test to assess the structure and quality of soil carried out by a crop farming adviser thus helping the farmers to make correct and expedient decisions; the **Agriculture and Rural Economy Advisory Service** (www.pikk.ee) which brings together advisers who support both farmers and rural entrepreneurs; the **Mobile slaughterhouses** project covering addressing needs of the Estonian islands and remote areas which are good places for sheep and beef cattle farming, particularly for the promotion of the organic production and processing; the **Bio-Competence Centre of Healthy Dairy Products** (BCCHDP) which is a private company, established by Estonian companies and universities performing studies on the biotechnological production and processing possibilities of milk as a healthy food and highly valuable biological raw material. The implementation of the results of the research will help to improve the competitiveness and innovation-mindedness of Estonian dairy industry; the Centre of Renewable Energy; the **I-plant protection** which is an advisory system available to agricultural producers. Being a web-based computer advisory system on the Internet, it offers real-time and specific situation plant protection related advice, aiming at reducing the use of pesticides; the **e-fieldbook** which is a computer programme enter field data, pictures, the works done in fields, work related materials, etc. etc.

Initiator: N/A

Actors involved: • Farmers • Farmers Union • Agrifood business • Private institution/org • Advisory services • Universities and research institutes • Networks (ERA-NET, Core Organic II, Euphresco II, Susfood, JointProgramming, FACCEJPI).

B. WHY & BENEFICIARIES

Problems/Needs:

- Need for improved quality and increased value of products to raise competitiveness;
- Need to protect the environment;

- Small producers' product development costs are high;
- The lack of cooperation between advisors, farmers and research institutions;

Opportunities:

- The Estonian farmlands are suitable for growing beef cattle and for organic production;
- The infrastructure of the Estonian research institutions (e.g. food testing laboratories) has been developed and modernised;
- Innovation, can create new products and create market opportunities;
- Protect the environment and strengthen the domestic production;
- Market provides opportunities for small producers to sell directly to the final consumer.

Beneficiaries: • Farmers • Market (new products).

Benefits from KT: Innovation benefits from knowledge transfer.

- For example, in Polli's Horticulture Centre, manufacturers developed new products which were successful in the Estonian and Latvian market;
- Producers are constantly receiving services from the micro-dairy project. The specialists from large manufacturers train themselves in micro-dairy and contribute to the development of new products.

Roles of existing networks / advisory services or NRN:

Estonia is very supportive to producers and research institutions. Many surveys are carried out in cooperation with companies and the results are immediately used. The development of cooperation and the network of advisers is the task of the Coordination Centre. Advisers cooperate with scientists to develop new advisory tools and offer high quality advisory services to agricultural producers. Advisers are intermediaries between farmers and scientists, transmitting the information, methods, etc., developed by researchers to producers for practical use.

C. CONCLUSIONS

Results:

It is difficult to assess the real benefit because of the small number of relevant surveys. Many surveys have been launched; however there are limited results currently available.

What worked (not) well:

- Producers have been actively cooperating with researchers and they show great interest in the new scientific information;
- The cooperation between researchers, advisers and producers could be better;
- The share of advisers is rather modest;
- The high prices required by centres and laboratories are considered a bottleneck by the producers.

Lessons learned / Recommendations:

- The government's role in developing the cooperation between science and practice should be greater;
- Strengthen the bottom-up approach for engaging the producers.

15. The development of a platform for monitoring beehives remotely in Spain

Country: Spain / Madrid

FUNDING

RDP measure / Axis: Technical Assistance (NRN)

Other: Ministry of Agriculture, Food and Environment

Type of innovation: Innovative product / New process or practice

A. WHAT & ACTORS

Description: Two universities in collaboration with beekeepers' organisations adapted remote monitoring tools which are used in other fields, in order to remotely obtain information from the beehive through sensors. These technologies and tools will help the beekeepers to constantly monitor the beehives while reducing the costs and to increase the productivity by better planning the work in the apiary and intervening in hives only when necessary. In addition, this technology will enable creating a database which is essential to carry out research on beehive mortality, climate change and ecology.

Initiator: The project is developed by the European University of Madrid in collaboration with the University of Cordoba. The Beekeeping Federation of Asturias and the ARNA Beekeeping Association also actively participate in the project.

Actors involved: • Individual farmer • Farmers union • University and research centre

B. WHY & BENEFICIARIES

Problems/Needs:

- The profitability of the sector has decreased;
- The increase of hives mortality rates;
- The need to update the beekeeping management techniques;
- The increased costs and the increasing competition from other countries.

Opportunities:

- The current technology allows the development of remote monitoring tools;
- The young people joining beekeeping are the ones with best predisposition towards the new techniques and they can modernize the current management techniques.

Beneficiaries: Farmers (young beekeepers)

Benefits from KT: The project is developed by the European University of Madrid in collaboration with the University of Cordoba. The Beekeeping Federation of Asturias and the ARNA Beekeeping Association also contributed in the project. The project also received support from NASA (National Aeronautics and Space Administration), the Regional Beekeeping Center of Castilla la Mancha, and APISCAM (Beekeepers Association "Sierra Norte" Community of Madrid)

Roles of existing networks / advisory services or NRN: The NRN support is fundamental and obvious. The subsidy given by the NRN allowed moving from prototype to pilot and to evaluate the project in practice (semi-professional and professional beekeepers).

C. CONCLUSIONS

Results:

- Reduced costs for the beekeeper as a web query may be enough in many cases to make the decision of making a trip or to postpone it;
- The mortality rates have been reduced;
- The information generated by the monitoring of hives does not get lost.

What worked (**not**) well

- The university decided to apply for the project mainly because doors were not closed such as rights of future exploitation for example;
- The attempts that have been made so far to integrate into an international group have been unsuccessful;
- Sometimes, the principal investigator loses all rights of exploitation in benefit of a company (usually of a third country) which joined the project at the last minute;
- Most programs do not fit with software or hardware projects;
- The increasingly widespread model 'R&D centre + company + beneficiaries' is not an option for a university;
- In relation to the Agriculture topic, the researchers think the environment is unclear.

Lessons learned / Recommendations:

- Projects with a research component are very uncertain and change constantly. The EAFRD is not flexible as needed;
- It is suggested to mobilizing funds from annuities, adapting to the development needs of the research project and its objectives.

16. Introducing a series of innovations in the dairy production sheep farms in Spain

Country: Spain / Castilla y León & Navarra

FUNDING

RDP measure / Axis: Technical Assistance NRN

Other: Ministry of Agriculture, Food and Environment and regional authorities of Castilla y León and Navarra

Type of innovation: New process or practice

A. WHAT & ACTORS

Description: Two non-profit organizations - research institutes cooperated with the aim to introduce innovations in dairy production sheep farms that would allow improving their profitability, sustainability and competitiveness. The project developed four actions:

- The optimization of feed supply;
- To evaluate and optimize the electrolyzed water use by the farms;
- To explore, evaluate, analyse the energy saving measures used in the sector;
- To development basic programs of technical-economic management. However the innovation of the project was to expand the field of comparison.

Initiator: • Two technical institutes

Actors involved: • Private organisation • Extension, advisory service

B. WHY & BENEFICIARIES

Problems/Needs:

In the future scenario without quotas the competitiveness of the sector is not guaranteed. The demise of many of these farms is expected, which would mean an important socioeconomic cost, due to the extend of the rural population engaged in this activity.

Opportunity: N/A

Beneficiaries: Farmers

Benefits from KT: The project was developed by the two organisations, among which there has been a continuous transfer of knowledge and results in order to achieve the objectives.

Roles of existing networks / advisory services or NRN:

- The project itself is a network of two partners working together in 4 innovation topics in dairy sheep ranching;
- The direct transfer of the results to the sector is made by the two organisations through their field technicians or across technical personnel of other organizations, such as cooperatives, which have received the information of the project itself;
- The Technical Advisory Services of ITG in Navarra are in charge of transferring information and training;
- No TNC.

C. CONCLUSIONS

Results:

- The milk production improved;
- The energy audits helped the farms to reduce their energy consumption;
- The extension of the management network allows strengthening the management of all farmers;

- The electrolyzed water technology can be a solution for improving the quality of the water which is used by the farms.

What worked (not) well:

- The project has been developed without problems;
- Limited time constraint the objectives and determined the global planning;
- The administrative management has been very complex.

Lessons learned / Recommendations:

- The main learned lesson has been to confirm the advantages of cooperation projects over the individuals;
- Promote the cooperation in projects, including the proactive exchange of technical knowledge between partners in order to better understand the work of each other.

17. The development of an innovative curriculum for training farmers in Cataluña, Spain

Country: Spain / Catalonia

FUNDING

RDP measure / Axis: N/A

Other: Public funds from the Government of Catalonia

Type of innovation: New Process or Practice

A. WHAT & ACTORS

Description: The novelty is a new way of training farmers:

It includes new course topics and activities including: communication skills; technical and economic management; management of agricultural enterprises and cooperatives, as well as production planning. The delivery of these knowledge areas is supplemented with visits and technical tours. The students also developed business plan individually with the supervision of an assigned mentor.

The type of training focused on training-action that is the knowledge imparted is immediately applicable. Moreover, this kind of training result a more dynamic and flexible program design.

The profile of the students was also specific. This training is not open to any member of cooperatives but introducing a candidate profile to receive training. They must be young members of cooperatives (between 18 and 40, according to current regulations) and should have entrepreneurial features and responsibilities in their holdings and also leadership qualities and skills.

Initiator: The Federation of Agricultural Cooperatives of Catalonia

Actors involved: • Farmers • Farmers cooperatives • Public administration

B. WHY & BENEFICIARIES

Problems/Needs:

- Loss and ageing of human resources in the farming sector;
- Increased and complex production demands (environmental, food safety and animal welfare);
- Changes in the production technology and increased competition in a globalized environment;
- Complex, uncertain and changing environment. Farmers need new qualities and personal skills, (management, communication, interaction with the environment), enabling continuous learning, making decisions and adapting to changes.

Opportunity: N/A

Beneficiaries: • Farmer • Agricultural cooperative (new training is conceived and aimed at detect leaders able to change the loss agrarian human resources tendency, and also to use the training as a tool for encouraging their capacities as a manager, entrepreneur, and of leadership).

Benefits from KT:

- Rural entrepreneurs of the agrifood sector trained to improve their marketing and business management skills;
- KT allowed the formation of groups of students and teachers for exchanging knowledge and experiences.

Roles of existing networks / advisory services or NRN: At the beginning, the agrarian associative movement (technical services network from agricultural cooperatives and the agricultural cooperatives themselves) promoted, designed and implemented the innovative training project. Afterwards, the Department of Agriculture was engaged more actively on implementing the entrepreneurship training.

C. CONCLUSIONS

Results:

- It is expected that participants will become the reference in the agrarian sector, either in their sectoral or territorial scope;
- They are expected to develop viable business projects, and contribute with their knowledge and energy to the agrarian cooperatives;
- 220 young people performed these entrepreneurship courses and it is estimated that approximately 15 to 20% are part of the Executive Council of their cooperatives.

What worked (**not**) well:

- It is necessary to improve the practical training on economic management because it is perceived by participants as something distant. The design needs to be more practical and dynamic;
- The guidance and support of projects derived from the training must also get better;
- Effort is made to support the business plans/projects, in a pilot way, to make them a reality.

Lessons learned / Recommendations:

- Training is a powerful tool to get young people to engage in agriculture and to have more assurance of success.

18. The internet platform "Chil" bringing together actors of the agrifood sector in Spain

Country: Spain

FUNDING

RDP measure / Axis: N/A

Other: European Regional Development Funds, INTERREG program

Type of innovation: Innovative form of organization

A. WHAT & ACTORS

Description: The innovation consists on a new internet platform called "Chil" which brings together all the actors involved in the agrifood sector. This platform (<http://chil.org>) is open to every person or organization active in this sector. The main aim of platform is to connect all the workers, companies and institutions of the agrifood sector. Its structure allows navigating easily through the different sections, groups, pages, blogs, etc. from the Chil main webpage.

Initiator: University

Actors involved: • Farmers' or Producer group or association or Cooperative • Agri-food business • Private institution / organisation • Extension / advisory service / business advice • University or Education Institute or Research centre • National or Regional Rural Network or Local Action Group

B. WHY & BENEFICIARIES

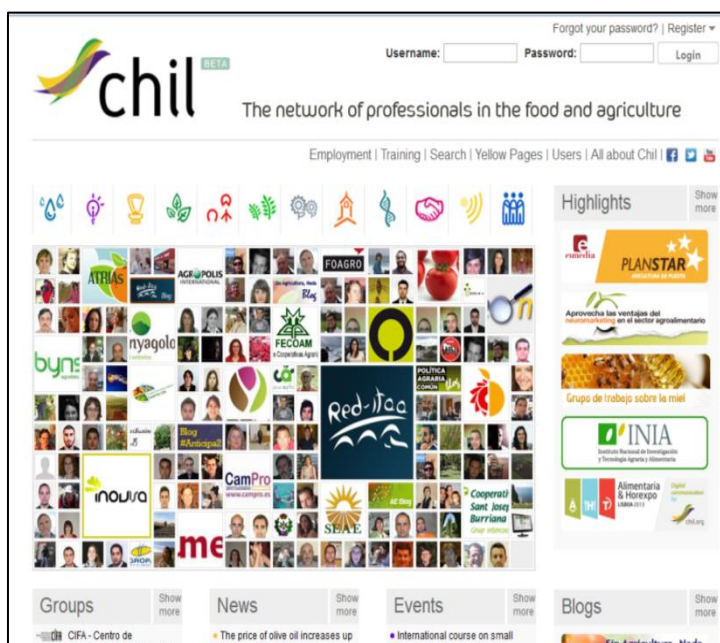
Problems/Needs: There was a lack of communication between entities, research centres and agrifood producers. There was no single internet place where "everything" regarding agrifood sector could be accessed.

Opportunities: N/A

Beneficiaries: Everyone interested in the agrifood sector, and also the research centres, producers, technicians, companies, cooperatives, associations, and public institutions.

Benefits from KT: The main benefits of the platform are the exchange of information, the knowledge transfer, and the possibility of sharing documents. Regarding investments the corresponding groups can publish information about calls, projects financing, partners searches, financial aids from the government, etc. The platform can offer training and to be used for marketing.

Roles of existing networks / advisory services or NRN: The agricultural advisory services use the platform to exchange information and documents with groups of stakeholders, discuss and offer help in determining a specific plague or disease, and communicate regularly with the farmers without the need to organise trips for meetings. Transnational cooperation exists as partners of the RED-ITAA project that promote the platform were not only from Spain, but also from France and Portugal.



C. CONCLUSIONS

Results:

- The results can be measured by the number of members already using the platform and the number of daily visits. The increase of these indicators' has overcome every prediction during the two years that the project has been running;
- The broad society can benefit from the platform since it offers a place where the consumer can follow initiatives or issues regarding the agrifood sector;
- Institutional support has increased after presenting the usefulness of the platform to the national and European authorities.

What worked (**not**) well:

The implementation of the project in three countries and three languages is complicated. The automatic translation did not work as expected and the transnational dissemination of news, events and initiatives is still incomplete.

Lessons learned / Recommendations:

- Transnational cooperation needs to work in a unique language, but for rural areas and rural environment it is difficult. There is need for easy (automatic) and reliable translation;
- The experiences in this project showed that the initial effort is decisive. The first task to be achieved is to gather the necessary amount of information in order to make the platform interesting for the rest of potential users;
- Knowledge transfer projects are essential;
- Making the experiences and information from a sector available as much as possible should one of the priorities of society.

19. The use of infrared technology for improving the quality of olive oil in Spain

Country: Spain

Type of innovation: New product; New Process or Practice; Innovative form of organization

FUNDING

RDP Measure / Axis: N/A

Other: N/A

A. WHAT & ACTORS

Description: A mill for extracting olive oil installed infrared equipment to detect and modify the oil extraction conditions in order to achieve the maximum quality possible.

Initiator: N/A

Actors involved: • Producers • Agro-food business • Cosmetics industry

B. WHY & BENEFICIARIES

Problem/Need: The prices of normal olive oil are not competitive compared to ones for extra virgin olive oil.

Opportunity: Improving the quality of the extra virgin olive oil produced in the region of the Sierra de Segura would help to compete with other areas with lower costs and normal quality.

Beneficiaries:

Benefits from KT: Advice for installing the new infrared equipment was received from cosmetics factory using it for its own production purposes.

Roles of existing networks / advisory services or NRN: N/A

C. CONCLUSIONS

Results:

- The extra virgin olive oil from the Picual variety in the Sierra de Segura, has characteristics that make it a high quality product from the nutritional point of view and the use of production technics inspired by the cosmetics industry gave to the product stable quality;
- The technic could be transferred to other mills as well;
- The image of extra virgin olive Oil produced in the Sierra de Segura will be improved;
- It will allow opening new market niches and new products development.

What worked (not) well:

- The innovation worked well in response to the quality improvement.
- Some complications were experienced due to the lack of industrial and non-technical assessment of the new working conditions.

Lessons learned / Recommendations: N/A

- Commercial work must be simultaneous with the production of the product;
- Subsidies should not focus only on production.

20. The development of a new method for controlling pests in Spain

Country: Spain

FUNDING

RDP measure / Axis: Measure 114 and Measure 115

Other: Own funding from the agro-food cooperatives

Type of innovation: Innovative Product / New Process or Practice

A. WHAT & ACTORS

Description: Biological control is a method of controlling pests (including insects, mites, weeds and plant diseases) by using other living organisms. A new process of pest control for farmers without using phytosanitary products means less costs and positive impacts for the environment. Experts from the Spanish Agro-food Cooperatives test the new varieties of plants used for biological control and then they inform farmers about the most appropriate one for the specific land and market.

Initiator: Advisory services of agri-food Cooperatives

Actors involved: • Farmers' or Producer group or association or Cooperative • Agri-food business • Extension / advisory service / business advice.

B. WHY & BENEFICIARIES

Problems/Needs: It is difficulty to resolve the plant health problems with the existing methods; and the lack of phytosanitary solutions due to the European legislation and the intensity of problems related to pests and diseases.

Opportunities: N/A

Beneficiaries: Farmers

Benefits from KT: Innovation efforts made for biological control are not reflected in the market, nor in prices. There is no direct impact in the market.

Roles of existing networks / advisory services or NRN: The advisory services of the cooperatives play a key role in the three stages of the innovation process:

- Identification and study of the new techniques;
- Testing the new techniques;
- Knowledge transfer and dissemination of the innovation processes.

C. CONCLUSIONS

Results: Biological control means no exposure to chemical products. Thus, it has a real and direct benefit to farmers' and to phytosanitary products' applicators health. Furthermore, this innovative practice has benefits for the environment, the consumer and the wider society. In the long term, it is foreseen to have a positive impact in reducing the costs for pest controlling.

What worked (not) well:

- Lack of experience at all levels;
- Lack of protocols before a general implementation of the innovative practices;
- Mistrust from the farmer's side;
- No positive economic impact as there is no increase of the final product price.

Lessons learned / Recommendations:

- Advisory services are essential for knowledge transfer. They play a key role in disseminating new technology in the agro-food sector;

- Agri-food cooperative experts have gained an important credibility and trust among farmers, indispensable factors for knowledge transfer. They know the specifications of the land, they are independent and they are closely linked to the farmers' needs and problems;
- Cooperatives are a single company structure, big enough to offer more ambitious solutions for specific problems; ranging from research projects or testing new technologies.

21. The development of a new program for testing seeds in Spain

Country: Spain

FUNDING

RDP measure / Axis: Measure 114, Measure 115

Other: Own funding from the agri-food cooperatives

Type of innovation: Innovative Product / New Process or Practice

A. WHAT & ACTORS

Description: The innovation consists of a new programme for regular testing new varieties of seeds. The testing of the new varieties will ensure that only the successful ones are transmitted to the farmers. This innovation will bring economic benefits in the long term as the good quality of the selected varieties will improve the production yields. However, the final price doesn't reflect the innovation efforts.

Initiator: Agri-food Cooperatives

Actors involved: • Farmers' or Producer group or association or Cooperative • Agri-food business • Extension / advisory service / business advice

B. WHY & BENEFICIARIES

Problems/Needs: Advisory services disseminate the innovation and inform the farmers about its expected economic output.

Opportunities: It creates value added through:

- Improves yields;
- Better adaptation to the specific ecosystem;
- Better reaction to the pests; and
- Improved quality of the final product.

Beneficiaries: Farmers

Benefits from KT: N/A

Roles of existing networks / advisory services or NRN:

Advisory services of cooperatives play an important role in three stages:

- Identification and analysis of the new processes and products;
- Testing these new processes and products;
- Dissemination of successful cases among farmers.

C. CONCLUSIONS

Results: Farmers are the first beneficiaries as they obtain better yields and the crops are better adapted to the specific climatic conditions. Society (consumers) and environment are indirectly positive affected.

What worked (**not**) well

- The farmer's distrust to new processes and results;
- The lack of research on seeds in Spain;
- The limited use of certified seeds.

Lessons learned / Recommendations:

- Advisory services are essential for knowledge transfer. They play a key role in disseminating new technologies in the agro-food sector;

- Agri-food cooperative experts have gained significant credibility and trust among farmers, and are indispensable factors for knowledge transfer. They know the specifications of the land, they are independent and they are closely linked to the farmers' needs and problems;
- Cooperatives are a single company structure, big enough to offer more ambitious solutions for specific problems; ranging from research projects or testing new technologies.

22. Establishing a Methodology for rural innovation enterprises promotion in Spain

Country: Spain

FUNDING

RDP measure / Axis: N/A

Other: Technical Assistance (National Rural Network)

Type of innovation: Innovative form of organisation (including marketing)

A. WHAT & ACTORS

Description: The innovative element is consisted of giving to entrepreneurs a comprehensive monitoring process. In this sense, the program guides, advises and conducts enterprising people from the business idea to the implementation process. This comprehensive advice, during the entire process, is the innovative and differential factor in comparison to the most entrepreneurship promotion programs. Generally, these programmes provide assistance to enterprises only for the preparation of Business Plans in the advising phase.

The phase "*Turning an idea to an Enterprise Project*" is particularly innovative. It has been developed by two workshops on generation of ideas. During these workshops entrepreneurs have received support to think out, stand out and improve their ideas by teamwork, motivational techniques and learning activities that stimulate creativity and presentation of prototypes. The contents and dynamics of these workshops, together with the facts that the workshops took place in facilities close to nature and the entrepreneurs have shared 4 full days of training; lead to the creation of a network and the emergence of synergies among them.

Initiator: N/A

Actors involved: • Private institution / organisation; LAGs

B. WHY & BENEFICIARIES

Problem: The challenge in this project has been to create, validate and later transfer a methodology to promote innovative rural firms. This has come about considering the recent conceptual turn from rural development focused on agrarian economy to a general economy framework.

Need and/or Opportunity: N/A

Beneficiaries: Entrepreneurs / business in rural areas

Benefits from KT: The knowledge transfer, formally and informally, has contributed clearly to the introduction of a greater innovation in the project. Specifically:

- Collaboration with Research and Innovation Company lead to knowledge transfer on fostering creativity innovation and motivation methodologies which have contributed to the design, planning and performance of phase "*Turning an idea to an Enterprise Project*", adding innovative elements;
- Working with Local Action Groups and their knowledge and expertise transfer on revitalization processes of territories has contributed clearly to a better design of the program and to better results;
- Cooperation between two foundations, contacted during the project's implementation, facilitated the transfer of working methodologies and advising techniques to entrepreneurs, and provided innovation to the project.

Roles of existing networks / advisory services or NRN: Informal networking of Local Action Groups endowed innovation to the project. This networking is mainly based on stakeholders linked with rural economic development in their territories. More specifically, several meetings have been organised with these stakeholders which meetings allowed adaptation of the comprehensive nature and the phase "*Turning an idea to an Enterprise Project*" to the particularities of the territories. In addition, the program

communication strategy has been defined and agreed. The stakeholder's network has also actively collaborated in winning new entrepreneurs.

C. CONCLUSIONS

Results: The project achieved the following results:

- Entrepreneur's network: The characteristics of the project (workshops design, exchange among entrepreneurs, etc.) has led to the creation of a network of entrepreneurs active and true, that facilitates creation of synergies and mutual help among entrepreneurs.
- 19 projects have been created or have added innovative aspects in the Project's framework (8 created in project's framework and 11 were initiated already started but with new innovation applied in them). More specifically: 2 firms on guidance services, 2 firms on forestry planning, 5 firms producing and marketing artisanal and/or organic food, 2 cultural firms, 3 firms on gastronomy-accommodation-leisure, 1 on marketing, 2 firms on design and management and 2 on engineering and technical services.
- Validated Methodology: Applying the same methodology in different territories has provided its own validation. Therefore, transference and replication of it is possible. However, it is always necessary to take under consideration what are the specific characteristics of each territory and give, afterwards, little adaptations in it.

What worked (not) well:

- The contents of the program and its design performed well. The phases of the program have consisted of: 1) "The intrepid workshop" - project's presentation through a stimulating session driven by a professional coacher; 2) a couple of two full day seminars; and 3) a workshop based on prototypes presentation with individual assistance for Action Plan elaboration. All these, has properly worked and allowed to achieve the indicated goals.
- Teamwork done during the two full day seminars has led to synergies among entrepreneurs and created a network, based on cooperation. This incorporated added value in the project and is regarded as highly favourable by entrepreneurs;
- In Ibiza's case few people has completely followed the whole program (many people assisted to the project's presentation session but few of them registered in the workshops). After this verification, an analysis has been made with stakeholders. The main conclusion is that the socioeconomic characteristics of Ibiza-Formentera area demand different approach, especially in regards to timing issues. In this sense, two good practices have been proposed, in order to develop and transfer the project in other territories:
 - Actions should be shorter and finish before summer season, for example from October to March;
 - Two types of advice should be provided: a comprehensive one for people who are in the initial phase of the process; and another, shorter, based on the search for additional funding.
- Changes in project's planning in order to be adjusted to the amount of subsidy approved has determined project's development, since it was necessary to add changes in the timing of actions previously planned.

Lessons learned / Recommendations:

- It is vital for project to be developed together with local economy stakeholders. This common work (from the very beginning of the project until its end) is indispensable for a good implementation: it avoids duplication, establishes synergies, defines the best formulas for capturing new entrepreneurs etc.

- It is also recommended that actions fostering entrepreneurship dispose their own space for network creation. The two workshops done with entrepreneur's group have been crucial to create the network and to establish synergies among them. This represents a value-added in the Project, which is highly appreciated by entrepreneurs.
- It is necessary to have other territories for the contrast and verification of a new methodology. In the case of this project, application in very different territories has led to detect some phases that had to be adapted in each territory for its later transference and replication. A preliminary market study is needed in order to locate the type of client targeted

23. The collaboration between farmers and the supply industry in Finland

Country: Finland / South Ostrobothnia

FUNDING

RDP measure / Axis: Measure 124

Other: N/A

Type of innovation: New Process or Practice

A. WHAT & ACTORS

Description: The project **Agro Living Lab** brings together farmers and companies producing agricultural machinery, equipment and services, as well as development organisations in order to create new products and services better that are better tailored to their needs of the farmers. In overall the project aims to increase the usability of machinery and equipment targeted at end users.

The project has assembled a register of farmers who are willing to participate in Agro Living Lab's operations. Various events are organised for them, including fact-finding trips, testing, discussion events, interviews, assessment of ideas and innovation workshops. Invitations to each event are sent separately, and everyone can register for those events in which they are interested and for which they have the time. Development organisations play the role of facilitators, i.e. they organise all of the events.

The farmers involved in the project form a farmer network, which enables networking and the exchange of information.

Initiator: Development organisations

Actors involved: • Farmers • Farmers organisations • Private organisation • Business advice • Research centre

B. WHY & BENEFICIARIES

Problems/Needs: Competitiveness in agriculture and rural areas is being hampered by the fact that new information, technologies and innovations are not being implemented efficiently enough or transferred into production. The implementation threshold needs to be lowered by focusing at the increased usability and user-centred design.

Opportunities: N/A

Beneficiaries: • Farmers • Foresters

Benefits from KT: Three development organisations were involved in the project. Combining their practices and schedules has sometimes been challenging. When expectations do not correspond to genuine opportunities for action, this can easily lead to frustration within the various organisations.

Roles of existing networks / advisory services or NRN: A preliminary analysis of the subject was conducted before initiating the preparations for the project. During the preliminary analysis, the roles of two development organisations (Agro Living Lab Seinäjoki Technology Centre Ltd. Cooperates with Seinäjoki University of Applied Sciences) in the project were defined: both were interested in the subject and wanted to engage in the related cooperation. Since a research organisation was also needed for the project preparations, negotiations were launched with a third organisation (Ruralia Institute at the University of Helsinki). The project plan was drawn up in accordance with the finance provider's instructions.

C. CONCLUSIONS

Results:

- Farmers gained access to products and services that are more usable and suitable for their needs;

- They are given the opportunity to test and influence new technologies and services solutions;
- The Agro Living Lab website provides information on the progress and measures;
- A channel has been created for the farmers to present their own ideas;
- The projects gives to farmers the the opportunity to network with other farmers and actors in the field, to share best practices, new product and service solutions.

What worked (not) well:

- The required project plans needed to be very detailed;
- Practices seem to vary from one area to another, although instructions are the same everywhere;
- On the other hand, too much bureaucracy in the form of additional instructions and reporting is undesirable from the perspective of those implementing the project.

Lessons learned / Recommendations:

- A set of financial monitoring indicators should be available, in order to help monitoring and reporting on the project's finances;
- Technologies, processes and business operations in the agricultural sector should be developed in closer cooperation with the industries supporting agriculture;
- Development efforts throughout the chain would be a faster and more cost-effective way of achieving results.

24. The creation of a new type of voluntary work for supporting the elderly in Finland

Country: Finland / Päijät-Häme

FUNDING

RDP measure / Axis: Axis 4

Other: N/A

Type of innovation: Innovative product / New process or practice

A. WHAT & ACTORS

Description: The novelty is about organising peer networks among elderly people who are not reached by any other kinds of networks. The activities of the project include peer phone calls made by trained volunteers at times agreed in advance. The frequency of calls depends on the customer's needs. Sometimes a short daily call is required to check on the customer, whereas others may wish to have a longer conversation once a week. In each case, a call plan is drawn up with a project employee, the customer and project partners.

The service is free for customers and also for the volunteers since mobile phone and call costs are paid using the funds allocated for this purpose as part of the project. Such activities also aim to teach the elderly how to use modern communication technology.

Initiator: LAG

Actors involved: • LAGs • Municipality services

B. WHY & BENEFICIARIES

Problems/Needs:

- Faced with the challenge of coping with loneliness, elderly people need outside support particularly in sparsely populated areas, where distances are long and there is no public transport;
- The feeling of being needed and a valuable part of the community is also important to the elderly.

Opportunities: N/A

Beneficiaries: Society (elderly people)

Benefits from KT:

- On the critical points of reliability and confidentiality useful information and advice was received by discussed with the public sector partners;
- Shared rules and training was provided to the volunteers;
- The association familiarised itself with the Friendly Call Service operating in Longford, Ireland;
- The activities were informed by previous projects and regional research work.

Roles of existing networks / advisory services or NRN:

An information point for the elderly that is operated in the region, registered an increase in the need for moral and mental support among its customers. The association that maintains the info point, perceived the need to develop a mode of operation for contacting elderly people who are the most difficult to reach.

In 2011, the association familiarised itself with the Friendly Call Service operating in Longford, Ireland. Based on this model, the project was developed for the Finnish operating environment. The activities were affected by previous projects involving pensioners' organisations and regional research work conducted among the elderly.

The Haloo Päijät-Häme project works in collaboration with other actors in the region: LAGS, cities of Lahti and Heinola, organisations working with the elderly in the region etc.

C. CONCLUSIONS

Results:

- The project activities postpone the use of more-intensive services by the elderly, thereby generating cost-savings for society;
- Through cooperation between the elderly, their relatives, the service system and volunteers, the project can promote older people's ability to function and improve their quality of life;
- The elderly gained an opportunity for chatting and receiving mental and moral support;
- During the project, positive, successful experiences will be collected and turned into a shared story of how phone calls costing a few euros can provide help and support, while generating savings for society worth thousands of Euros;
- Unusual ways of approaching lonely people and telling them about the project had to be found; Based on the gained experience there are now specific methods for accessing these people;
- Recruitment of volunteers has been easy, since no similar activities are on offer elsewhere for older members of the population. It is important that the volunteers are selected after a thorough interview and that their motives are identified;
- The importance of training has been well understood, while the confidential nature of the activities has been self-evident.

Lessons learned / Recommendations:

- Projects such as Haloo Päijät-Häme require good coordination, good background organisation and an extensive cooperation network;
- The systematic and planned nature of the activities is assessed to be beneficial. A phone call agreement is concluded with each customer, and key information is recorded on all phone calls made. In this way, calls are not dependent on one employee or volunteer and the reliability of the service is improved;
- In order for the activities to be useful they must reach people who cannot be reached by other networks of assistance. This requires close cooperation between the region's societies, associations, companies and the public sector, in addition to which individuals are important distributors of information.

25. The transformation of an old school building into an international hub of cultural activities in Finland

Country: Finland, South-western Finland

FUNDING

RDP measure / Axis: Axis 3

Other: N/A

Type of innovation: Other - Cultural and tourism centre

A. WHAT & ACTORS

Description: The non-profit organisation Arteles and its founders Teemu Räsänen and Pekka Ruuska started a project aiming at establishing an international artist residency within the premises of a closed down school building in Haukijärvi village. The old school building was transformed into an international hub of cultural activities, the Arteles Creative Center. At a local level, the project is building a creative, attractive, youthful and international image for the municipality of Hämeenkyrö and its cultural scene. With the project, the Finnish cultural field and its offering becomes more international and versatile.

Initiator: LAG

Actors involved:

B. WHY & BENEFICIARIES

Problems/Needs: The narrowness of the Finnish cultural field and its need for internationalisation.

Opportunities:

- The exploitation of the potentials of remote and rural areas in the creative sector;
- The activation of empty, abandoned spaces, such as the reuse of old village schools;
- The establishment of international cultural networks, especially for artists and creative industry professionals.

Beneficiaries: Local community and artists

Benefits from KT: New creative industry competencies have been sought by visiting other residencies and learning more about the creative industry. The majority of new know-how has been achieved through self-education.

Roles of existing networks / advisory services or NRN: The creative industry contacts and international networks acquired by the founders during their art studies and time spent working abroad were harnessed for marketing use.

C. CONCLUSIONS

Results: At present, Arteles is one of the most international creative residency programmes in Scandinavia. The programme was launched in summer 2010 with the arrival of the first artists taking part in the residency programme. The residency has been fully booked ever since. The studios in Arteles are intended for visual artists, writers, media and performance artists, musicians and photographers. In addition to working at the residence, the guests organise exhibitions, presentations and projects in Hämeenkyrö and Finnish cultural institutes. Each year, some 80 artists arrive in Hämeenkyrö to spend a period of one to three months at the artist residence. There are a lot more applicants than can be accommodated. Most recently, the number of applicants was so high that only 25 per cent of them could be granted admission in the creative residency programme.

What worked (not) well:

- The municipality and village residents have been very open and receptive to the activities;

- As a new actor, obtaining funding from the cultural sector has been and continues to be challenging;
- The emerging challenges, ranging from practical activities to tangles of red tape, have been overcome by obtaining further information and learning more about the subject;
- Continuous product development and a customer-oriented approach play an important part in the growth of activities.

Lessons learned / Recommendations:

- It has been learned the hard way that the amount and content of work are always greater than what is presumed;
- Despite careful planning, the work (depending on the project) will always include plenty of things that cannot be prepared for in advance or cannot be foreseen;
- For this reason, projects often progress slower than planned.

26. A project introducing mechanical puzzles as a leisure and training activity in Finland

Country: Finland, South-western Finland

FUNDING

RDP measure / Axis: Axis 4

Other: N/A

Type of innovation: New Process or Practice

A. WHAT & ACTORS

Description: The goal of the Puzzle Project was to increase playing with mechanical puzzles as a hobby among people of all ages, and to boost the use of mechanical puzzles by various professionals in their core activities. Other goals included introducing mechanical puzzles into the everyday lives of residents of the municipality of Karstula, and creating a new type of two-day summer event themed around mechanical puzzles called the Puzzle Party ('Pulmapäivät').

Mechanical puzzles help exercise problem-solving and logical reasoning skills, strategic and creative thinking, fine motor skills, memory and self-efficacy.

Consequently, this type of activation of mechanical puzzle use was aimed at increasing human capital and welfare effects in addition to the diversification of rural culture.

Initiator: Municipality of Karstula

Actors involved: • Municipality • LAG

B. WHY & BENEFICIARIES

Problems/Needs:

Opportunities: The LAG's Operations Manager heard a radio interview with Karstula's Secretary of Cultural Affairs in which the Secretary talked about how he noticed the addictive nature of mechanical puzzles in various situations and among a wide range of people. The LAG manager realised the potential of mechanical puzzles for people of all ages, contacted the Secretary, and so the project planning got started. One of the tasks of the LAG is to react to novel and experimental ideas generated in the field – things that have not been attempted elsewhere before.

Beneficiaries: Local community

Benefits from KT: In the early stages of the project, a lot of information was obtained from Finnish mechanical puzzle enthusiasts and activists, which speeded up the gathering of information and entering the mechanical puzzle scene. For example, there is no Finnish-language literature on mechanical puzzles available, and not many websites exist either. Luckily, literature was available in English.

It was crucial to create networks with hobbyists and enthusiasts, take part in the events that they organised, and cooperate with them throughout the project.

Another important task was to survey the existing partners for other possible partners and networks available in the area.

Generally speaking, information is provided if asked! The association did not run into any withholding of information. Instead, people were happy to help whenever asked for assistance or information.

Roles of existing networks / advisory services or NRN: The existing local networks were helpful in the dissemination of information on the project. Because the subject matter is relatively specific, marketing played a key role and the association had to create its own networks. Typically for rural culture, someone always knew/was acquainted with someone else, and took the message forward or told the LAG who to contact. Networking was fast. The support provided by Viisari ry was also significant.

C. CONCLUSIONS

Results:

- The project introduced puzzles into the everyday lives of the municipality's residents. Puzzles could be solved, for example, while waiting for your car service or your appointment at a health care centre;
- The local newspaper published a weekly puzzle column and mechanical puzzles were also introduced to libraries;
- Another important target group are older people. The instructors observed improved skills and increased social interaction, as well as growing competitive spirit in a positive sense. The elderly people's confidence in their own abilities grew with each experience of success, as they realised they can still learn new things;
- The project increased human capital in its target area through activating people of different ages into exercising their problem solving skills. It diversified the cultural offering of a rural area and increased social interaction among people of different ages.

What worked (**not**) well:

- In a few of the municipalities, part of the challenge turned out to be getting the directors of the culture and education sector motivated. It was important to have the key municipal actor support the project within its own region and disseminate information to actors covered by the scope of its administrative sector. The resolution was to contact various actors directly, which increased the workload;
- The most significant challenge was to activate various instructors with respect to the use of mechanical puzzles. It was essential to get the parties involved to act independently because of the limited duration of the project;
- It was important to ensure the continued vitality of mechanical puzzles in the region after the project finishes;
- Motivating and activating people was successful, but it was also challenging;
- The only human resource for the project was the project manager, whose area of responsibility covered all the tasks of the project. The project manager would add at least one other person to work on the project, if possible – perhaps a type of puzzle agent, whose duty would be to travel around arranging small-scale puzzle sessions whilst instructing the relevant actors on how to arrange the sessions themselves in the future.

Lessons learned / Recommendations:

- The most important lesson to be learned here is that no idea, not even slightly eccentric ones, should be underestimated. Instead, they should be actively marketed;
- Contact must be established with various people and groups. One must not be too picky: many target groups and actors were found for the project by offering the puzzles to them regardless of minor doubts. In most cases, the outcome was that the target group took the puzzles into use with great enthusiasm, despite their initial doubts. This was a very important factor for the success of the project.

27. The development of a purchase platform to boost catering services in France

Country: France / Rhone-Alpes Region

FUNDING

RDP measure / Axis: N/A

Other: Regional Council, CasDAR, FEDER Objective 2

Type of innovation: Innovative form or organisation

A. WHAT & ACTORS

Description: The development of this purchase platform will to help build the catering market in this French region through the connecting market offer and demand in a easy to access way. The originality of the approach lies in the dematerialization of the purchasing platform, resting the market organization and logistics on existing actors and structures.

Initiator: Farmers and advisory services

Actors involved: • Farmers • Advisory services • Catering sector

B. WHY & BENEFICIARIES

Problem/Need: Boosting local catering services enables: reclaiming markets and added value; Improving the food supply; and Improving the carbon footprint of the supply logistics.

Opportunity: N/A

Beneficiaries: • Catering actors • Farmers

Benefits from KT:

- Innovation gained benefits from Knowledge Transfer of a R&D program which analyzed the links between consumers and producers in local agro-food supply chain;
- The results helped to identify the bottlenecks in the networking between farmers and the catering actors.

Roles of existing networks / advisory services or NRN:

The advisory services provided:

- Support in connecting departmental chambers, institutions and producers, and;
- Training activities among farmers and catering actors;
- Also an economic study was conducted to compare the theoretical needs of catering offer with the regional production.

C. CONCLUSIONS

Results:

- The platform established offers a double entry for the provider and the buyer;
- The platform includes over 8,000 local authorities, schools and catering companies, and more than 275 producers, enterprises, wholesalers and distributors;
- The project helped to develop the results of a research program "links Producers-Consumers" conducted in partnership between the Chambers of Agriculture, INRA and universities.

What worked (not) well: Lack of knowledge about the catering demand

Lessons learned / Recommendations:

- There is a need not only to support new technologies but also new uses of existing technologies like (e.g. promote use of the internet);
- Support experimentation;
- Support networking and animation of networks.

28. Cluster VALBIOM - a new form of cooperation between farmers and local industries in France

Country: France / Centre Region

FUNDING

RDP measure / Axis: N/A

Other: Regional Council, Regional and cluster policies (DATAR – grappes d'entreprise)

Type of innovation: Innovative product / Innovative form of organisation

A. WHAT & ACTORS

Description: Cluster Valbiom (Valorisation of BIO-Materials) is a new form of cooperation between farmers and local industries about industrial uses of crops and the development of bio-sourced products. The cluster is a service whose mission is to:

- Develop the cooperation between farmers, industries and public research;
- Inform farmers and industries about the opportunities from bio-sourced products;
- Develop new joint projects between farmers and industries.

Initiator: Local chamber of agriculture & Chamber of commerce

Actors involved: • Farmers • Chamber of agriculture & commerce • Advisory service • Research • Industries

B. WHY & BENEFICIARIES

Problems/Needs: N/A

Opportunities:

- Centre Region has the largest arable land superficies among the French regions;
- By valorising the co-products, these bio-sourced products can help agriculture to tackle ecological and productive issues;
- In the context of agricultural price volatility, these markets can generate opportunities for income diversification relevant to local entrepreneurs.

Beneficiaries: Local entrepreneurs

Benefits from KT:

Innovation gained benefits from:

- Knowledge Transfer between public and private research, between farmers industries;
- Knowledge Exchange from other clusters specialized in bio-based products in order to develop new products and new processes of production.

Roles of existing networks / advisory services or NRN:

Networking of actors

- Prospecting in companies achieving pre-diagnosis of potential bio-products;
- Research and Development;
- Funding a thesis on the development of agro-material from cereals.

Business awareness

- Organization of meetings to exchange through a business club or groups (e.g. the association of producers of linseed).

C. CONCLUSIONS

Results: The association was established in 2010. It now includes 50 members, including advisory services, cooperatives, farmers' associations, laboratories, whose objective is to promote the innovative use in non-food industry products from biomass;

- Development of partnerships with professional networks and organization of thematic working groups;
- New partnerships are formulated and expanding.

What worked (not) well:

Bottlenecks:

- Market opportunities: high variation in agricultural prices may lead farmers to reconsider their involvement;
- There are strategic differences between industrial entrepreneurs and farmers.

These were overcome by:

- Creating multi-actors groups of reflexions;
- Stabilizing chains of supply between agriculture and industries.

Lessons learned / Recommendations:

- Innovation in the agricultural policy should not be constrained only to the agricultural sector;
- Innovation should come from farmers and entrepreneurs initiatives;
- The operational groups should include / engage private actors and private governance.

29. The Dairyman Compost project in France

Country: France

FUNDING

RDP measure / Axis: N/A

Other: NTERREG – Dairyman project

Type of innovation: New Process or Practice

A. WHAT & ACTORS

Description: The innovation regards the exchange of straw-compost through the cooperation between breeders (e.g. dairy and poultry farmers), crop farmers and farmers unions of 2 French departments.

Actors involved: • Individual Farmer • Farmers' / Producer group / association / Cooperative • Farmers unions

B. WHY & BENEFICIARIES

Problem/Need: N/A

Opportunity: Breeders need straw and surfaces to spread their manure, while crop farmers can benefit by using natural fertilizer on their fields.

Beneficiaries: Farmers / breeders

Benefits from KT: N/A

Roles of existing networks / advisory services or NRN:

The departmental farmers unions manage the logistics: management of press, storing, transport of the straw and management of the compost delivery. Breeders and crops farmers interested in exchange must contact the farmers unions and indicate their needs. Breeders are in charge of the compost of the manure.

C. CONCLUSIONS

Results:

- The dairy farmers can get straw at a preferential price and sell manure;
- crop farmers can get natural fertilizer at a preferential price, facilitate the sowing and the setting-up of colza by the straw export before sowing; as well as influence the straw market with moderate price in order to protect the breeding.

What worked (not) well: N/A

30. The Dairyman Dehydration project in France

Country: France

FUNDING

RDP measure / Axis: N/A

Other: INTERREG – Dairyman project

Type of innovation: New Process or Practice

A. WHAT & ACTORS

Description: Since 1998, the Cooperative of Dehydration of Mayenne (CODEMA) and its' 550 members - farmers - dry their feeds using a system of recovery of biogas, stemming from the fermentation of household waste. In 1989, the company Séché needed land to widen its space for waste storage. In exchange for some space the local farmers could use and value the biogas which was produced by the treatment plant. After reflections, meetings, and feasibility studies, 173 farmers decided to join by creating in 1997 the Cooperative of Dehydration of the Mayenne (CODEMA). One year later, a unit of dehydration of feeds - especially alfalfa - was settled, in hundred of meters of the Séché company. The CODEMA also explores new opportunities of dehydration of grapes; dried grains of vegetables (beans, carrots) to be used for animal feed.

Initiator: CODEMA

Actors involved: • Individual Farmer • Farmers' or Producer group or association or Cooperative • Private institution / organisation • Extension / advisory service / business advice.

B. WHY & BENEFICIARIES

Problems/Needs: N/A

Opportunities: At farm scale this initiative decreases greenhouse gas emissions, and contributes to insure animal feed autonomy. The use of dehydration products in alfalfa production limits the use of nitrate fertilizers and decreases the imports of soya. Dehydration allows a long very practical storage in the form of granules or of corks while protecting proteins and trace elements. Farmers can also dry maize for cattle feeding.

Beneficiaries: • Farmers • Agro business

Benefits from KT: Innovation has gained benefits from investment.

Roles of existing networks / advisory services or NRN: The Chambers of agriculture facilitated the interactions between stakeholders and farmers which were necessary in order to develop the cooperative.

C. CONCLUSIONS

Results:

- The farmers, benefit by having insured the autonomy in fertilisers, which are of good quality and easy to use;
- The company Séché, profits from the value of the biogas from farms' waste;
- At regional scale, the CODEMA counts 8 employees and helps 550 farmers to reduce feed costs and their environmental impact.

What worked (not) well:

- People are interested in cogeneration as soon as the price of electricity and energy rises;
- A limiting factor is the distance from the farms to CODEMA to get moderate transport cost. The number of farms around such a plant must be enough in order to make the investment profitable.

Lessons learned / Recommendations:

- This cooperation could be applied in other regions, but it needs the creation of a cooperative to build the plant unit, to organise harvest and dry, etc.;
- Projects should facilitate and engage farmers groups.

31. The Dairyman project – Huilerie, in France

Country: France

FUNDING

RDP measure / Axis: N/A

Other: INTERREG – Dairyman project

Type of innovation: Innovative Product

A. WHAT & ACTORS

Description: The oil plant 'HUILERIE DE LOIRE EN LAYON' which produces oil from sunflower and rape seeds was created and is operated by a cooperative of crop farmers and cattle breeders in the area of Ambillou-Chateau (Maine-et-Loire, France). The cooperative manages the storage and processing of sunflower and rape seeds, whereas the commercial activity is done by a society with simplified shares (SAS), where most of the shareholders are also involved in the cooperative.

Coop members bring their seeds to the plant, which are processed into pure vegetal oil and oil cake for cattle. The first one is sold to animal food makers (mainly locals) whereas the second is used by farmers directly. Both of the final products belong to the farmers or can be sold to the SAS, depending of the wish of the farmer.

Actors involved: • Individual Farmer • Farmers' or Producer group or association or Cooperative • Private institution / organisation • Extension / advisory service / business advice

B. WHY & BENEFICIARIES

Problem/Need: N/A

Opportunity: The opportunity to reduce feed cost for farms due to the price fluctuation of raw materials, to increase animal feed autonomy and of good quality led the local farmers to start thinking in 2006 about setting up an oil plant for sunflower and rape seeds. The farmers would find a new market as they could sell oil instead of seeds thus achieving higher revenues.

Beneficiaries: farmers

Benefits from KT: The innovation has gained benefits from investment in an oil press.

Roles of existing networks / advisory services or NRN: The innovation has gained benefits from regional and transnational cooperation among Dairyman project. The regional Chamber of agriculture of Pays de la Loire has supported the networking of the stakeholders.

C. CONCLUSIONS

Results:

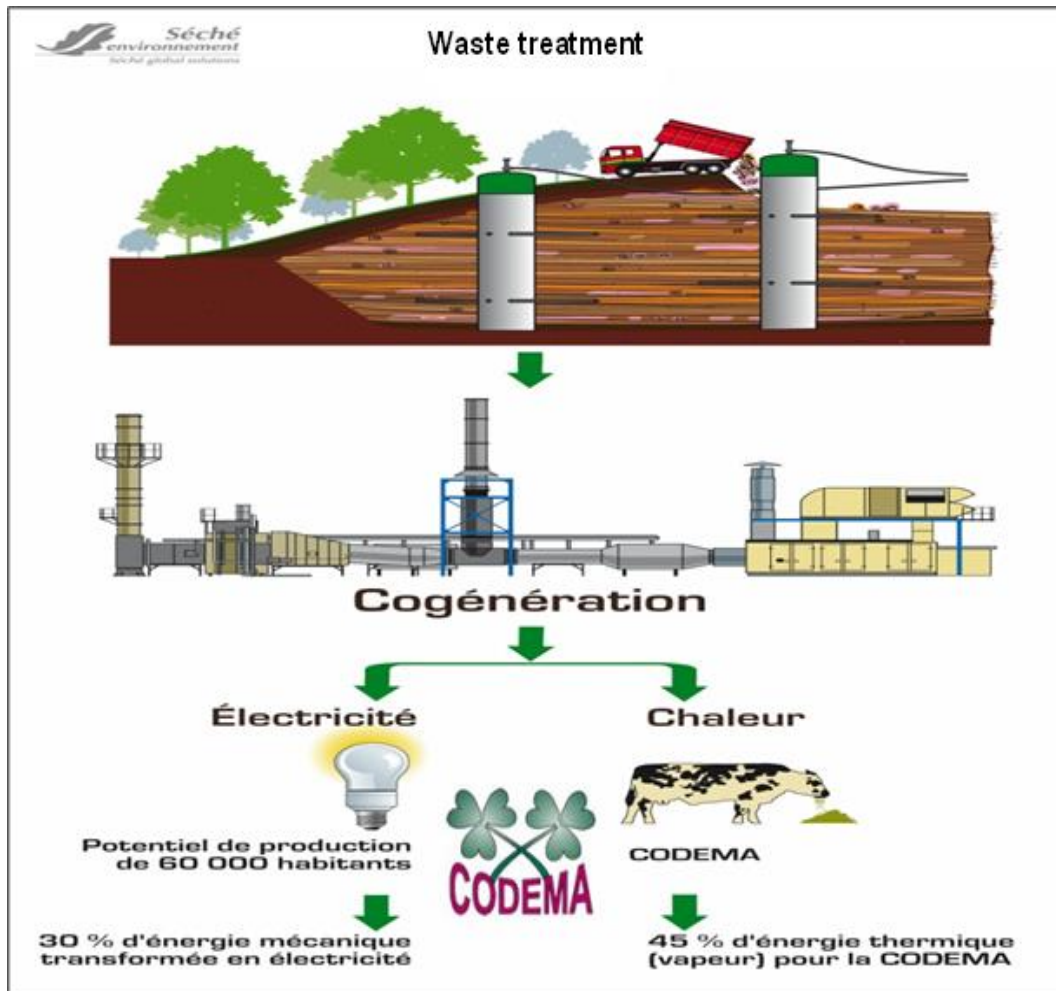
- For breeders and dairy farmers: it ensured feed quality; benefits from the interest of rape cakes on feed cost; the final product is of better quality and cheaper than the industrial; increased world demand for oil;
- For crops farmers: a new market for sunflower; increased world demand for oil;
- Environmental and agronomic results: valuation of manure nitrogen during summer time by rape crop; the sunflower is adapted to the soil of this area and reduced water needs, fewer pests, less fertiliser inputs are needed.

What worked (not) well:

- The key for success of such project lies in the proximity of the crops zones and breeding as to limit transportation costs and to improve the added value.

Lessons learned / Recommendations:

- The financial engagement of the group of farmers is necessary, but also their investment in time as to set up the plant, however the return of the investment is rewarding.



32. The project Redbio in France

Country: France

FUNDING

RDP measure / Axis: N/A

Other: INTERREG, REDBIO Project

Type of innovation: New Process or Practice / Innovative form of organisation (including marketing)

A. WHAT & ACTORS

Description: The project REDBIO is a cross-border network for experimentation, exchange of experience and transfer of knowledge for developing organic crops in agriculture. The network service is consisted of consultants and organic and conventional farmers.

The networks aims to:

- Acquire or adapt technical references;
- Transfer and disseminate these references to technicians, organic and conventional farmers;
- Establish a network of partner organizations;
- Develop common tools.

Actors involved: Farmers' or Producer group or association or Cooperative; Extension / advisory service / business advice; University or Education Institute or Research centre

B. WHY & BENEFICIARIES

Problems/Needs: N/A

Opportunities:

- There are similarities in terms of agricultural production in both sides of the Pyrenees (the French and Spanish border regions);
- There are complementarities between the structures of research, testing and advisory services;
- There is an increasing demand of society for organic products;
- Market and consumers changing behaviour.

Beneficiaries: Farmers

Benefits from KT: The innovation gained benefits from knowledge exchange between two cross border regions, Catalonia and Languedoc Roussillon, and knowledge transfer between farmers and advisers.

Roles of existing networks / advisory services or NRN: Implication of INTERREG.

C. CONCLUSIONS

Results:

- The elaboration of technical itineraries regarding organic farming;
- The development of techniques for biological control of diseases and parasites;
- The development of conservation techniques for organic fruits;
- The improvements are disseminated by advisers through training, realization of sheets, organization of technical workshops, implementation of development plans etc.

What worked (not) well: The main bottleneck lies in the competition between producers on each side of the border. This could be overcome by identifying common technical problems and pooling experimental tools.

Lessons learned / Recommendations: The project demonstrates that there are significant opportunities for cross-borders cooperation, especially on technical issues and for pooling experimental tools.

33. The Joint Technological Network "Innovative Crop systems" in France

Country: France

FUNDING

RDP measure / Axis: N/A

Other: Agricultural Development National Fund (CasDAR)

Type of innovation: New Process or Practice • Innovative form of organisation (including marketing)

A. WHAT & ACTORS

Description: The Joint Technological Network "Innovative Crop systems" brings together various stakeholders in order to achieve creating crop systems which require minimum use of chemical products. The Network produced a guide called "Stephy" which aims to:

1. Reduce the use of pesticides through the design of farming systems focusing on alternative strategies for protection;
2. Reposition advice to farmers in the fight against pests. The counselor is no longer the expert who is carrying pre-made solutions, but the one who accompanies the operator in a debate on improving the applied system.

This guide proposes solutions based on a new paradigm: the combination of different approaches of pest control across the cropping system. The guide was written as a result of a project funded by the Agency for Agricultural and Rural Development and summarises the first results of the network. It illustrates the results of the culture tests on farms and experiment stations and multi-stakeholder workshops supported by experts.

Actors involved: • Farmers' or Producer group or association or Cooperative • Extension / advisory service / business advice • University or Education Institute or Research centre • Chambers of Agriculture.

B. WHY & BENEFICIARIES

Problems/Needs: Crop protection is based on the use of pesticides. This is questioned as a result of five types of issues:

- Agricultural problems – increasing resistance of pests to pesticides;
- Health concerns - health risks for farmers or consumers;
- Environmental problems - degradation of the quality of the natural environment;
- Economic constraints – expensive crop protection;
- Regulatory constraints - Water Framework Directive, Ecophyto 2018.

Opportunities: N/A

Beneficiaries: Farmers

Benefits from KT: The innovation has gained benefits of knowledge exchanges between farmers, advisers and researchers.

Roles of existing networks / advisory services or NRN: The Chambers of agriculture have helped to build relations between farmers and researchers.

C. CONCLUSIONS

Results:

- Sheets grid supports are practical for implementation of the proposed approach;
- Aid sheets contain information (tables, charts) useful in the design of cropping systems including socio-economic indicators;

- The 'Stephy' calculator allows a rapid assessment of the cropping systems that are more suitable and offers new systems.

What worked (not) well

The combination of different types of knowledge worked well.

Lessons learned / Recommendations:

- Training the advisers is necessary in order to develop new ways of bringing solutions to farmers and it is part of the innovation itself;
- RDP may support advisers training and not only farmers training.

34. The project 'CASDAR Simplified Implantation Techniques' in France

Country: France

FUNDING

RDP measure / Axis: N/A

Other: Agricultural Development National Fund (CasDAR)

Type of innovation: New Process or Practice

A. WHAT & ACTORS

Description: The project questions phytosanitary practices in the context of direct seeding:

- What are the conditions for better control of plant diseases and especially Fusarium and mycotoxins;
- How to reduce the use of pesticides;
- What is the rate of degradation of molecules phytos in no-till systems.

'AOC Soils' is a farmers group focusing at agronomy through simplified cultivation techniques. In parallel the Regional Chamber of Agriculture has been working since the mid-1990s through focus groups and R&D projects on soil conservation. The project 'CASDAR Simplified Implantation Techniques' allowed joining together these two initiatives. Now farmers are provided with accurate scientific data to support their evolving practices; while the Chamber of Agriculture and R&D partners provide feedback on the adoption of these practices on the ground.

Actors involved: • Farmers' or Producer group or association or Cooperative • Extension / advisory service / business advice • University or Education Institute or Research centre.

B. WHY & BENEFICIARIES

Problems/Needs: N/A

Opportunities:

- The direct seeding and abandonment of tilling allow a reduction in working time, reduce the production costs, and preserve the soil potentials;
- These techniques also offer the advantage of reducing i) soil erosion, ii) the energy consumption, and iii) the gas emissions, while iv) enhancing soil organic matter and carbon storage.

Beneficiaries: Farmers

Benefits from KT: The project itself is about knowledge exchange between:

- innovative farmers who are practicing direct seeding since many years;
- advisers and researchers who are questioning themselves about the real benefits that are coming from these new practices.

The main part of the project was about analysing the farmers' experiences and references. Farmers were very interested in having some scientific return about their practices.

Roles of existing networks / advisory services or NRN: Chambers of agriculture have a central role in this innovation. They have networked producers with regional research centres and universities. The farmers group, AOC Soils, was founded during the project.

C. CONCLUSIONS

Results:

- The involvement of producers provides them data and thus allowing them to justify the abandonment of tilling;
- Training of counsellors on new techniques;
- The Chambers of Agriculture contributed to innovation;

- The Chamber of Agriculture provides a privileged relationship with farmers' associations (including AOC Soils), through the involvement of these and their associations in the project TTSI.

What worked (not) well: The main difficulty was to compensate innovative farmers who participated in the project. Advisers and researchers have gained significant knowledge by working with the producers, but **the producers did not receive money or time that could help them to develop new projects.**

Lessons learned / Recommendations: The future RDP should offer the possibility to give access to funds at the same time to farmers, the advisory services and the researchers.

35. The production of organic aromatic and medicinal plants in Greece

Country: Greece

FUNDING

RDP measure / Axis: Measure 123 - **Other:** N/A

Type of innovation: New Process or Practice

A. WHAT & ACTORS

Description: The project refers to the establishment of a modern facility for processing aromatic and medicinal plants which are organically grown by the company "ANTHIR SA". The company works with farmers and producers by signing "agricultural contracts" with them. This means that private contracts are signed between the firm and the farmers and high quality standards are commonly applied. These contracts determine the absorption of production and the production method and requirements (seeds, cultivation, collection and certification). All farmland involved is now certified for implementing organic methods of farming.

Initiator: Agri- food company **Actors involved:** Agri-food business

B. WHY & BENEFICIARIES

Problems/Needs: N/A

Opportunities:

- Aromatic and medicinal plants constitute a very powerful alternative crop for Greek farmers;
- While reducing subsidies a way to keep farmers competitive is to cultivate high quality agricultural products in order to increase the added value and hence their income;
- The cultivation of aromatic and medicinal plants as well as the packaging of these products is simple and it does not require large investment and capital units.

Beneficiaries: • Farmers • Agri-food business

Benefits from KT: The Company cooperated with the Agricultural University of Athens and other foreign companies for acquiring knowledge on the cultivation of aromatic and medicinal plants and the design of the processing plant. For this purpose "ANTHIR SA" proceeded to the research of new technologies and invested in a series of experiments in Greece and abroad.

Roles of existing networks / advisory services or NRN: The communication with the stakeholders and the management of related questions and queries conducted was directly handled by the Department of Planning and Agricultural Structures Department of Public and Private Investment Agency Application (M. 123) without the intervention of a network.

C. CONCLUSIONS

Results:

- Installing a traceability system of high quality and applying quality systems (ISO 14000) in the context of the establishment of high standards for environmental protection helps to optimize the production process and to create a branded product;
- The company benefits by introducing high quality standards on the production and packaging of more competitive products;
- Farmers are benefiting since there is a higher demand for their products; and
- Consumers gain due to the improved quality products.

What worked (not) well: Bureaucracy

Lessons learned / Recommendations: N/A

36. The promotion of renewable energy in rural communities in Hungary

Country: Hungary / North Hungarian Region

FUNDING

RDP measure / Axis: Axis 4

Other: N/A

Type of innovation: New Process or Practice

A. WHAT & ACTORS

Description: This LEADER project provides an example of the complex use of renewable energy by schools and public buildings. Energy yards produce thermal and electrical energy by using the primary energy sources which are available in the area. These energy sources can be biomass, geothermal, solar, wind. The community uses the energy and sells the excess to the National Grid, or produces hydrogen for common use. This project managed to reduce the energy consumption of the public schools and other public building while demonstrating to the community the importance of the renewal energies. The project combines the use of renewable energies and awareness raising at local level.

Initiator: LAG

Actors involved: LAG

B. WHY & BENEFICIARIES

Problems/Needs:

- Very disadvantaged region with high rate of unemployment and low potentials;
- Great need to produce energy;
- Utilise the uncultivated land;
- Need to recycle waste materials;
- Establish workplaces;
- Need to protect the environment; and
- Develop internal tourism.

Opportunities: N/A

Benefits from KT: N/A

Beneficiaries: Schools / society

Roles of existing networks / advisory services or NRN: The idea of energy communities was brought forward by the LEADER Local Action Group which also initiated the whole programme.

C. CONCLUSIONS

Results:

- Successful installation of power units using wind, sun and biomass;
- Indirect results of the project were the usage of local resources, the transfer of know-how, the transfer of best practices, the demonstration of and education about renewable energy sources in rural areas.

What worked (**not**) well:

- The pre-financing of the project (support came after the realization and financial fulfilment of the project);
- Complicated accounting procedures;
- The inflexibility of the authorities;
- The inflexibility of the program regulations.

Lessons learned / Recommendations:

- Schools are demonstrative for all the community which will engage in the renewable energy projects more proactively after this project;
- Only very few climatic features in some territories would prevent this project of being transferred and replicated elsewhere;
- Ensure sustainability of projects over the time.

37. A new form of entrepreneurial education for rural schools in Hungary

Country: Hungary / South Transdanubian Region

FUNDING

RDP measure / Axis: Axis 4

Other: European Social Fund - Programme "TÁMOP 5.1.3."

Type of innovation: New Process or Practice / Other

A. WHAT & ACTORS

Description:

In the last four years of primary school education (10-14 year old pupils) a new form of education is introduced to develop their entrepreneurial skills and to strengthen their local identity. It consists of lessons integrated into the official curricula and practical workshops. The pupils have one or two modules in each semester.

Each module focuses on one local product (fruit jam, sausage, pickles, beeswax candle, herbal soap, dried vegetable and fruit products, cheese, etc). One module consists of a minimum of two preparatory lessons integrated into traditional subjects (local history, biology, chemistry, etc.), where they can learn about the cultural background, technology, processes, materials and other aspects related to the selected local product. It is followed by practice workshops of 4-6 hours, where one class can make a certain quantity of the selected local product. Finally it includes 2-4 "evaluating" lessons, which are integrated into traditional subjects (mathematics, arts, etc.), where they make calculations on the costs, prices, turnover, etc., and prepare designs for the product.

The course is using the facilities of local community workshops financed by LEADER+ (a jam manufacturing workshop owned by the municipality and operated by a local social enterprise) and facilities created by the 2007-2013 LEADER namely, an experimental "dairy school" which includes a stable with two traditional cows and a little milk processing unit.

Initiator: LAG

Actors involved: • LAG • Social workers • Local authorities

B. WHY & BENEFICIARIES

Problems/Needs: Underdeveloped micro region with the following characteristics:

- Agricultural area;
- Small settlements;
- Poverty;
- Rural exodus;
- Very weak SME sector;
- Lack of local products.

Opportunities:

- Very rich folklore;
- Natural (natural habitats, rich fauna and flora) heritage, which is unused;
- Strengthen the market for traditionally grown and processed food and cosmetic products.

Beneficiaries: School leavers

Benefits from KT: The idea was born as a result of practices and experiences discussed with rural development activists at several thematic seminars organized for LEADER LAGs.

Roles of existing networks / advisory services or NRN: The program is assisted by the micro-regional network of social workers - founded and operated by the municipalities of the micro region - and implemented in close cooperation with four primary schools. The social workers are responsible for encouraging pupils of the poorest families to actively participate throughout the modules. They are organizing similar courses for the parents and other family members. The creation of the community-led fruit processing initiative "jam manufacturing workshop" under LEADER+ triggered the idea.

C. CONCLUSIONS

Results:

- School leavers join the production of local products, or start their own businesses, thus remaining or coming back to the area;
- An alternative income source promoted by the local school and the community workshop.

What worked (**not**) well:

- There was no smooth transition between LEADER+ and LEADER 2007-2013;
- Public authorities (public health, taxation, etc.) create difficulties in selling products made by primary school pupils, or to use them in the local catering services;
- It is difficult to plan and implement such programmes and related investments according to the irrational demarcation rules between ESF and EAFRD, as well as between their sub-programmes. The initiative of developing the physical and human infrastructure for local products simultaneously could only be solved by splitting the concept into at least 10 or more, smaller projects.

Lessons learned / Recommendations:

- The ESF programme which finances this innovative education programme is area based and "liberal" enough, in terms of defining the content of the program and to be able to apply a CLLD methodology. When using the ESF, the results can only be expected from projects implemented by local, well integrated organisations, and not by huge, centralised, "professional" organisations hunting EU grants;
- The ESF and EAFRD can be much more effective when used together through multi-funded CLLD.

38. The cooperation of the advisory services with a research institute in Hungary

Country: Hungary / Badacsony region

FUNDING

RDP measure / Axis: Measure 114

Other: N/A

Type of innovation: New Process or Practice

A. WHAT & ACTORS

Description: The Territorial Advisory Centre (TAC) of the Hungarian Farm Advisory System entered into consortium with the Research Institute of Viticulture and Oenology. The Institute provides laboratory services and technological advice to the wine producers in Badacsony region using as intermediates the advisors of TAC. This cooperation was initiated by the TAC and is supported by the National Advisory Centre (National Agricultural Advisory, Educational and Rural Development Institute) and the Ministry of Rural Development. Farmers take part in the cooperation by entering into contract with the TAC, and a two-way communication between them and the Institute takes place via the advisors of the TAC.

Initiator: Territorial Advisory Centre (TAC)

Actors involved: • Farmers • Advisory service • Research institute

B. WHY & BENEFICIARIES

Problems/Needs: TAC identified that their advisors' need of up-dated technical information in viticulture and oenology so that they can provide high level advisory services for the farmers.

Opportunity: N/A

Beneficiaries: • Wine producers • TAC¹

Benefits from KT: The dissemination of innovations is based on the important element of Knowledge Transfer through the Farm Advisory System which provides farmers with professional help and information on innovative technological and marketing issues.

Roles of existing networks / advisory services or NRN: The Hungarian Farm Advisory System played a crucial role.

C. CONCLUSIONS

Results: This cooperation has been working well and all the stakeholders including the farmers using the advisory services, the Institute and the TAC are satisfied with the cooperation.

- Some efforts are made to simplify the administration procedure of the support scheme;
- As a further simplification is planned to introduce a unified electronic application form (application for aid + payment claim).

What worked (**not**) well:

- Some organizational and administrative difficulties existed as the Institute is part of the Agricultural Centre of Pannon University;
- Until 2010 farmers were allowed to use the supported advisory service only 3 times during the period of the RDP (2007-2013);
- Farmers and advisors find the support procedure too difficult and lengthy particularly in comparison with the relatively low amount of support.

Lessons learned / Recommendations: It is recommended that the advisory bodies should have access to sources of innovation either on their own (e.g. the advisory organization itself has research

¹ Due to the fact that the TAC advisors help to transfer their research results to the practice and also to receive feedback from the farmers

activity or cooperation with a research organization) or through government support (research institutes or similar development companies should be attached in some way to the advisory bodies). This could be supported through the European Innovation Partnership.

39. A new form of vocational training in renewable energy and resource management in Hungary

Country: Hungary / South Transdanubian Region

FUNDING

RDP measure / Axis: Axis 4; Technical Assistance – Collection of best practices

Other: LEONARDO knowledge transfer

Type of innovation: New Process or Practice / Other

A. WHAT & ACTORS

Description: An innovative vocational training curriculum for adults will be developed and introduced in Hungary by transferring and amalgamating: training material and methodology about renewable energy from an Austrian training institute (BFI); research results and methodology from a Dutch research institute (ALTIC) on optimising plant nutrition; and other sources on biogas technology and sustainable soil and water management. The new curriculum will train bio-energy technicians who will be able to operate biomass based renewable energy technologies with special emphasis on biogas production. The technicians will also be able to plan and operate precision plant production systems using biomass for energy production based on sustainable natural resource management.

The project was initiated by a LEADER LAG and involved a regional vocational training centre, a national vocational institute, an Austrian vocational training institute, a private Dutch research and a farm advisory institution.

Initiator: LAG

Actors involved: • Regional vocational training centre • National vocational institute • Austrian vocational training institute • A private Dutch research and farm advisory institution.

B. WHY & BENEFICIARIES

Problems/Needs:

- Ecological problems due to large-scale plant production;
- The vocational school in the area has obsolete facilities and it provided low quality training;
- Small family farmers need to quit producing the usual commodity crops.

Opportunities:

- Many biomass based energy production projects are under preparation in Hungary, but no technicians are available;
- Family farmers could produce perennial crops to be used for biogas production.

Beneficiaries:

Directly: • local primary school leavers • farmers • municipalities • renewable energy production units seeking technicians.

Indirectly: • National context because of the renewable energy production and sustainable natural resource management.

Benefits from KT: The program is directly based on knowledge transfer on renewable energy production and precision plant cultivation technology and related training.

Roles of existing networks / advisory services or NRN: The knowledge transfer was organized through trans-national cooperation with another LEADER LAG. The elaboration of the concept was also assisted with a micro grant by the NRN as a best practice example.

C. CONCLUSIONS

Results:

- The project is expected to result in a new vocational training form offering complex and innovative competencies;
- The participating farms are expected to reach the profitability levels of intensive crop production while fulfilling the requirements of the sustainable natural resource (soil, water, biodiversity) management.

What worked (**not**) well

- The TNC cooperation was hindered by the lack of synchronicity in terms of project cycle, eligible costs and other rules;
- No real decision making power has been delegated to LAGs in Hungary;
- A constraint for expanding renewable energy production and related innovation is the huge differences of the prices paid for the green energy produced in each member states.

Lessons learned / Recommendations:

- Allow planning and financing complex initiatives which consist of separate, but synergic projects including experimental elements;
- Such projects should not to be managed by different MAs;
- The supporting scheme should allow failure;
- The scheme needs to be flexible to follow the unforeseen demands of the innovation processes;
- Innovations for sustainability of natural resources (esp. soil, water, biodiversity) should be supported by ensuring the maximum possible level of subsidiarity;
- The selection of ideas and concepts should be based on evaluating the potential economic, social and environmental impacts together;
- A coherent and comprehensive green energy policy at EU level to help synchronizing national anomalies in green energy prices.

40. The development of a network to improve the tourist services in a sub region of Hungary

Country: Hungary / Sub-region of Makó

FUNDING

RDP measure / Axis: Axis 4

Other: Sub-region of Makó funds

Type of innovation: Innovative form or organisation / Other

A. WHAT & ACTORS

Description: A LEADER project aiming to develop a tourism network in the sub-region by bringing together all local actors including local governments, private individuals, companies and non-profit associations.

Initiator: LAG

Actors involved: • Agrifood business • Private institutions / organisations • LAGs

B. WHY & BENEFICIARIES

Problems/Needs:

- Difficulties in cooperation between the local actors;
- Limited resources and funds.

Opportunity: N/A

Beneficiaries: Local entrepreneurs

Benefits from KT: Yes. Training was provided. Knowledge Transfer is very important however the differences of between regions or countries need to be taken into account.

Roles of existing networks / advisory services or NRN: New frames and methods of cooperation have been put in place in the sub-region. Efforts were made to expand the cooperation among the local actors. The cooperation included the local LAG, contractors who could contribute and advisors on farming, management etc.

C. CONCLUSIONS

Results:

- Local infrastructure created (hotels, shops, holdings);
- Purchased material for local businesses;
- Improving the local heritage (squares, buildings and monuments, lakes etc.).

What worked (not) well:

- Communication between the local actors can be difficult;
- Demanding legislation.

Lessons learned / Recommendations:

- Ensure more communication at local level;
- Awareness / information of the economic environment is required;
- Provide training.

41. The "Dairy Efficiency Programme" in Ireland

Country: Ireland

FUNDING

RDP measure / Axis: N/A

Other: Single Farm Payment

Type of innovation: Innovative Product / New Process or Practice

A. WHAT & ACTORS

Description: The innovation was taking unused Pillar 1 funds (Single Farm Payment) to finance a targeted KT initiative promoting 3 key technologies: i) grassland management, ii) breeding/genetics and iii) the use of financial management tools.

The target group is Irish dairy farmers using peer to peer learning fora (discussion groups). The resulting KT initiative is called the Dairy Efficiency Programme (DEP). The DEP is an innovative new product in terms of KT offerings to dairy farmers. A target outcome of the DEP is the adoption of new processes/practices on dairy farms.

The possibility for this initiative arose following the CAP Health Check agreement in which article 68(1) of Council Regulation (EC) 73/2009 made provision for the use of unspent Single Payment Scheme funds to address specific disadvantages affecting farmers in the dairy sector. However, the actual idea of the DEP arose from discussions within the Dairy Expansion Activation Group, a dairy industry stakeholder group established to provide suggestions for how to reach Food Harvest 2020 goals (gov strategy for the agri-food sector).

A total of €6 million will be made available in each of the years 2010, 2011 and 2012 to support the DEP. Farmers will be paid an incentive of €1,000 per year to participate in discussion groups to help them adopt best practice in relation to grassland management, breeding and financial management. Each participant has to implement a specified programme of activities on their farms and attended specified KT events.

Actors involved: •Farmers' or Producer group or association or Cooperative •Agri-food business •Extension / advisory service / business advice •Formal / informal networks: Dairy Expansion Activation Group • Other actor or other policy: Department of Agriculture, Food and Marine

B. WHY & BENEFICIARIES

Problems/Needs

There were several challenges to be addressed:

- Increasing competitiveness through the use of 3 key technologies/practices: grassland management, breeding/genetics and the use of financial management tools;
- Anticipation of responsiveness to market needs. With the removal of quota restrictions in 2015, targets have been set for dairy output to expand by 50%. Given Ireland's low-input dairy system, optimum use of the 3 key technologies is critical;
- Low use of key practices in 2009 the year before the DEP began, the proportion of Irish dairy farmers using these technologies was low; an non exhaustive list is grass budgets (15%), grass covers (22%), genomic bulls (27%), profit monitor (30%) and cash flow budgets (16%).

Opportunities: N/A

Beneficiaries: • Farmers • Processors • Consumers

Benefits from KT: Discussion groups, which consist of a group of local farmers who meet regularly on each other's farms to see, discuss and learn about technologies and practices that may be applied on their own farms, are a participatory extension activity that facilitates such peer to peer learning.

The activities of each discussion group are managed by an accredited facilitator. The facilitator can be either public or private sector. Discussion groups will normally meet on a monthly basis up to a maximum of twelve times per year. A schedule of topics for each meeting is set out.

In the DEP, participants have to adhere to a programme/set of projects around implementing the 3 key technologies on their own farm and also to produce a Five-Year Physical Plan, which should be updated annually. Farmers also have to attend other specified KT events in order for them to qualify for payment. In addition, each participant in a discussion group is expected to host a meeting on his/her own farm at least once over the 3 years of the programme.

Although not an explicit objective of the DEP, it is likely that the formation of these discussion groups, by bringing farmers together in common purpose, will lay the foundation for KE activities.

Roles of existing networks / advisory services or NRN: The Dairy Expansion Activation Group provided a mechanism for the possibility of a programme such as the DEP to be discussed. For the DEP, Teagasc was tasked with training additional public and private sector consultants, to an agreed standard, who could facilitate the expanded number of discussion groups envisaged under the DEP.

C. CONCLUSIONS

Results: There has been a substantial increase in farmer participation in Discussion Groups. There is clear research evidence on:

- the economic benefits of the 3 key technologies/practices promoted by the DEP;
- the positive relationship between membership of a discussion group and the adoption of efficiency enhancing technology and farm profitability.

What worked (not) well:

- The policy environment was helpful in terms of creating the possibility for using the excess Single Payment Funds for this purpose;
- The existence of an appropriate stakeholder-driven institution, the Dairy Expansion Activation Group, provided a useful mechanism to seize the policy opportunity;
- The provision of financial incentives was important in encouraging farmers to participate in this Programme. Preliminary feedback from participants in the DEP suggests that even at the end of the programme, they intend to remain part of the Discussion Groups, such are the perceived learning benefits;
- The potential bottleneck of a **lack of trained facilitators** was overcome by tasking Teagasc to train both public and private sector facilitators

Lessons learned / Recommendations:

- Significant KT opportunities may arise from the reconfiguration of existing policy measures, even policy measures not explicitly geared towards KT;
- The provision of financial incentives is useful to encourage participation to engage with KT initiatives, even ones able to offer demonstrable returns (in terms of efficiency and profitability gains). However, the emerging experience of the DEP indicates that participants perceive a longer-term gain from remaining engaged with the KT method (discussion groups) being employed by the DEP;

- Under the Co-Operation Measure (Art. 36), clusters are eligible for funding. Discussion groups as used in the DEP, are one type of cluster, and have been shown from international evidence to have demonstrable learning and KT impacts;
- Training of facilitators for such clusters could be possible under the Knowledge Transfer and Information Actions (Art. 15).

42. The production of energy from wood in Ireland

Country: Ireland / County Clare

FUNDING

RDP measure / Axis: Axis 3

Other: Department of Agriculture, Food and the Marine

Type of innovation: • Innovative Product • Innovative form of organisation • Institutional Innovation

A. WHAT & ACTORS

Description: There are three novelties associated with this project: an innovative product (wood chip pellets from thinning); an organizational innovation (clustering the forest producers both for selling purposes but also for infrastructural development); an institutional innovation (market creation – i.e. working with potential buyers of wood chip pellets to create a demand for the newly organized supply).

Actors Involved: • Extension / advisory service / business advice • National or Regional Rural Network or Local Action Group • Other actor was the DAFM

B. WHY & BENEFICIARIES

Problems/Needs:

- Better opportunity through cooperation;
- Spatially grouping or clustering also generates efficiencies;
- Rather than responding to market need, the project in fact created a market.

Opportunity: N/A

Beneficiaries: • Farmers • Society

Benefits from KT:

- Marketing / website creation / Marketing guide;
- Training / Teagasc regularly provides thinning demonstrations for private forest owners.

Roles of existing networks / advisory services or NRN:

- Rural Resource Development Ltd employed two consultants on a part-time basis since 2005 in order to create:
 - i) a demand for wood chip boilers among high heat users in County Clare and;
 - ii) a wood chip supply chain using timber from farm forests in County Clare.
- Teagasc provided training and forest focused advisory support through its existing Forestry activities under its Rural Development KT activities.

C. CONCLUSIONS

Results: Benefits for

- Customers;
- Suppliers/Wood Chip Entrepreneurs;
- The local Economy.

What worked (not) well:

The example of, and lessons from, this project are being viewed as a possible template for other counties in Ireland with significant forest cover to consider replicating. A key challenge is to make the innovations 'self-sustaining'.

Lessons learned / Recommendations:

The project demonstrates the importance of fostering clustering. Clustering in this case means spatially functional actors, that is, the farm forests.

43. The Burren LIFE project in Ireland

Country: Ireland / Burren Region

FUNDING

RDP measure / Axis: Axis 3

Other: EU LIFE Programme / National Parks and Wildlife Service (NPWS) / Teagasc, Burren IFA

Type of innovation: Innovative Product / New Process or Practice / Innovation in spatial targeting and delivery

A. WHAT & ACTORS

Description: This is the first farming conservation project in Ireland. Much of the Burren county has been designated as Special Area of Conservation (SAC's) under the EU Habitats Directive. The primary innovation here was for the Burren LIFE Project to enhance the efficacy of existing agri-environment schemes due to its locally targeted, participatory approach to land management issues.

There were 3 innovations: First, *innovative spatial targeting and delivery*, the BurrenLIFE project set out to address local challenges and thereby deliver environmental public goods that are unique to the landscape of the Burren, in a way that existing agri-environmental schemes (e.g. REPS) couldn't. It did this primarily through the promotion, following on from an intensive applied and participatory research process, of *innovative farming process and practices* that were sympathetic to the environment but react to market and social challenges. In addition, the Burren Beef and Lamb producers group, with the support of the BLP, developed an *innovative product*, 'conservation-grade' meat.

Actors Involved: • Farmers' or Producer group or association or Cooperative • Extension / advisory service / business advice • National or Regional Rural Network or Local Action Group • NPWS

B. WHY & BENEFICIARIES

Problems/Needs:

- Existing market and social trends resulted in socially beneficial traditional (extensive) farming practices in the Burren becoming financially non-viable. The landscape had come under threat;
- Existing agri-environmental schemes are voluntary and therefore may not necessarily 'cluster' recipients in a geographic area in such a way to ensure the delivery of localized public goods/benefits.

Opportunity: N/A

Beneficiaries: • Farming families • Society

Benefits from KT:

Knowledge Transfer was integral to the project. In relation to just one specific outcome to the BLP, the Burren Beef and Lamb Producers Group was established to sell 'conservation grade' meat (derived from animals raised to the highest standards of food safety and animal welfare). The group was set up after an intensive 3 month training course coordinated by the BLP, with financial support from LEADER and technical support from Teagasc.

Knowledge Exchange: The BLP project was strongly predicated on investigating the best ways of farming the Burren through a programme of practical research. The highly applied, participatory research approach taken by the BLP, involved working closely with the farmers and drawing on their traditional knowledge and skills. These findings were used to formulate management schemes by adjusting the traditional farming practices to incorporate sympathetic modern elements.

For the first 5 years of the project, (2005–2010), the BLP experimented on 20 different farms spanning 3,000 hectares in order to identify practical farming methods that would improve the conservation status

of the Burren habitats. Against the background of market and social trends, BLP examined various land use practices to ensure the preservation of the various habitats while securing a future for the farmers.

Roles of existing networks / advisory services or NRN:

The BLP was one of only six EU funded LIFE projects in Ireland and the only such project focused specifically on engaging farmers in actively 'farming for conservation' in priority habitat areas. Therefore, it was novel and needed a new network/partnership.

A strong partnership developed including farmer organizations (Burren IFA), advisory services (Teagasc) and state organizations (National Parks and Wildlife Service from the Department of Environment). Although this particular partnership configuration might have been new, all partners were active in the area already and had collaborated with each other previously to varying extents.

C. CONCLUSIONS

Results:

- Environmental improvements were identified and quantified in terms of biodiversity indicators;
- In 2010, the Irish Minister for Agriculture launched the Burren Farming for Conservation Programme (BFCP), -Phase 2 of the BLP. It supports high environmental value farming. Participating farmers will receive a payment for implementing 3 measures;
- The awareness and dissemination activity included establishing communication with similar EU regions/ projects; website development; media campaign; demonstration farms, etc.

What worked (not) well:

- Adequate policy environment;
- The BLP exhibited a very strong partnership between the various actors, perhaps fostered by a very strong awareness and dissemination campaign.
- Evaluations of existing agri-environmental schemes showed that their voluntary nature meant that sufficient clustered uptake might not occur to effectively deliver the required environmental public goods;
- The spatial focus, together with the participatory approach to Knowledge Exchange was critical to the project's successful outcomes.

Lessons learned / Recommendations:

- Niche spatial targeting: The BLP example highlights how existing Measures under the RDP, in this case Agri-environment measures such as REPS, might be augmented by more spatially targeted initiatives that have greater probability of delivering targeted local environmental public goods. The KT & Innovation Measure (Art. 15) could be used for such niche spatial targeting. The Cluster element of Co-operation Measure (Art. 36) could also be relevant here;
- Need for Participatory Approaches to KT: The BLP project differed from existing agri-environmental measures in that it was based on involving farmers in a participatory way to develop solutions to both environmental challenges and market and social trends which were diminishing the viability of farming in their area. The KT & Innovation Measure (Art. 15) could be used to facilitate demonstrations/exchanges from projects like BLP to other agri-environment challenges;
- Seek to add value: It is important to try to link activities/outcomes in projects. In this case, the original BLP project led to a value-added, market-facing innovation. The Burren Beef and Lamb Producers Group was established to sell 'conservation-grade' meat (derived from animals raised to the highest standards of food safety and animal welfare). The group was set up after an intensive 3 month training course coordinated by the BLP, with financial support from LEADER and technical support from Teagasc.

44. A network disseminating information about the food and agricultural sectors in Italy

Country: Italy / Piedmont

FUNDING

RDP measure / Axis: Measure 111

Other: N/A

Type of innovation: Innovative Product

A. WHAT & ACTORS

Description: The project was developed by the Piedmont region, aiming at the dissemination of information, diffusion of scientific knowledge and innovative practices through a network of information branches located in the Region. This information service is provided by organizations and institutions specialized in the provision of information in the field of agriculture, or in some cases if required by a farmer an information activity is organised at a fixed location, the so-called information units and also direct contacts with farmers are organised at the farms.

Initiator: Extension services

B. WHY & BENEFICIARIES

This network represents a unique way at national and European level that allowed reaching the majority of farms in Piedmont in accordance with their needs. It also covered marginal areas, which could hardly have made any use of other sources of information.

Benefits from KT: These information points was activated by 8 agencies and private organizations that operate in the field of diffusion of scientific knowledge and innovative practices in possession of a structure and an ability to spread appropriate information on all sectors of agricultural production in Piedmont region.

Roles of existing networks / advisory services or NRN: N/A

C. CONCLUSIONS

Results: The information provided by the network has a specific character, connected to the information needs expressed by individual companies and not just generic support provided with more general means. This system has been a bridge between the old and new forms of technical assistance provided to support the companies. The main topics treated by the informative points are:

- Implementation aspects of the RDP 2007-2013;
- Technical issues (eco-compatible production, plant protection, animal pathology, production of energy from renewable sources, etc.);
- Environmental issues of farming (conditionality, organic farming, etc.);
- Food safety (traceability, product quality, etc.);
- Safety in the workplace;
- Organizational and economic management of farms, market and supply chains, multi-functionality;
- Transfer of research results;
- ICT issues;
- Legislative issues concerning the agricultural sector;
- Sustainable management of natural resources;
- Management aspects related to cooperation and the agro-food sector.

Lessons learned / Recommendations: N/A

45. The "Catalogo verde" network in the region Emilia Romagna, Italy

Country: Italy / Emilia Romagna

FUNDING

RDP measure/Axis: Measure 111 and Measure 114

Other: Co-financing by private companies

Type of innovation: Innovative form of organisation (including marketing)

A. WHAT & ACTORS

Description: This project concerns the creation of a network called "CATALOGO VERDE" for the dissemination of knowledge that distributes and offering training, information and consulting with a government grant that varies from 60 to 90%.

The Region publishes on the "CATALOGO VERDE" proposals for consultancy courses and other activities which are considered suitable for farmers and deserve support. All proposals are submitted in the form of contracts to be agreed between private parties (farmers and suppliers).

The cost of the contracts is defined a priori and so the reimbursement due to the purchaser of the contract. The suppliers are accredited training and advisory bodies of proven competence. The subjects covered by the network are only those coherent with EU and regional policies.

Actors involved: • Individual Farmer • Farmers' or Producer group or association or Cooperative • Private institution / organisation • Extension / advisory service / business advice

B. WHY & BENEFICIARIES

Problems/Needs: The biggest challenge was to increase the level of effectiveness and impact of the system for dissemination of research results.

This goal was achieved by increasing the level of participation of farmers especially the financial participation and leaving total freedom in choosing topics.

The benefit was greater for companies. They have been able to get a number of offers much higher than in the past, and a much lower cost due to broader competition. Even the Region has achieved an average savings of 40% per trained person, always thanks to broader competition.

Opportunities: N/A

Beneficiaries: Agri-food businesses

Benefits from KT:

- The key advantage to the system is a more effective marketing action put in place by the training institutions and the advisory bodies that have quickly adapted their offerings to the needs of their customers (farmers);
- Building in a few years a net-work (the "Catalogo Verde") highly consistent with the actual demands of the farmers and for this reason less expensive and more competitive.

Roles of existing networks / advisory services or NRN:

- The net-work "CATALOGO VERDE" is powered by more than 300 accredited training institutions and organizations that have access of all the sources available in agriculture including the national rural network and regional level;
- It is important the direct role of existing information networks (including the very important role played by the Italian rural network) to make known the existence and the opportunity to access to the "CATALOGO VERDE".

C. CONCLUSIONS

Results: The training services, information and counselling services are more realistic and more attached to the real needs of the farms. These services have produced direct benefits on business income.

What worked (**not**) well:

- Lack of available funds;
- Initial red tape - it took four successive adjustments, which reduced the bureaucracy cost of almost 80% in order to reach an acceptable level of efficiency;
- Too many constraints imposed by EU regulation including: the constraints are too tight on the issues on which to provide consulting and information, the timing is too tight and the eligible amounts are really too small in the case of consulting (measure 114).

Lessons learned / Recommendations:

- The key lesson learned would be to promote maximum integration of all knowledge tools to increase efficiency and effectiveness of knowledge dissemination;
- Ensure the direct involvement of farmers in all phases of selection of topics;
- "Create" innovation by requiring a direct participation in the innovation costs in return for the availability of competitive results.

46. The project "Alimais" introducing new high quality food products from wheat in Italy

Country: Italy

FUNDING

RDP measure / Axis: Measure 124

Other: N/A

Type of innovation: Innovative Product / Innovative form of organisation (including marketing)

A. WHAT & ACTORS

Description: The project aims to develop the production of corn grain in the field of high technological and nutritional products and its transformation into semi-finished products or innovative products of high added value.

These results will be achieved by enhancing and strengthening the bioactive wheat components which are naturally present in the raw materials for the development of new products for breakfast and alternative flour to the ones from common and durum wheat and characterized by a connotation of "healthy" and "functional" standards.

Actors involved: Grain producers, a mill and two research organizations in the field of cereals.

B. WHY & BENEFICIARIES

Problems/needs: The need to meet sanitary and traceability standards led to a major overhaul of the Maize chain. It accelerated the creation of specialized and dedicated chains in developing specific products for food use.

Opportunities: Maize (*Zea mays* L.) is the first crop of the Piedmont Region. This cereal is widely used for human consumption, although the use in the field of livestock is prevalent. In overall, it has the potential for human consumption for around 16-18% of the production. For example growing uses of derivatives of maize (starch, germ, sweeteners, syrups), cereals for breakfast (flakes, snacks) and substitutes for derivatives such as wheat flour and other gluten-free (gluten-free).

Benefits from KT: The presence of two research organizations and a consortium of agri-food companies within the working group was highly assessed at the admission for financing of the project.

Roles of existing networks / advisory services or NRN: The way the project is structured, innovation does not exploit existing networks. It is rather the working group that was formed to provide the contribution of each of the participants with the necessary skills for the realization of the innovation process.

C. CONCLUSIONS

Results: Given the particular nature of the project it is likely that the ultimate beneficiaries of innovation are directly the maize producers as new market opportunities will open up and they should benefit from greater market segmentation.

The dissemination of results will be realised by the Consortium to its members, in collaboration with the two research organizations.

What worked (not) well: N/A

Lessons learned / Recommendations: N/A

47. The joint development by growers of new potato varieties adapted to the local conditions in Emilia Romagna, Italy

Country: Italy / Emilia Romagna

FUNDING

RDP measure / Axis: Measure 111 and Measure 124

Other: Co-financing by private companies

Type of innovation: New Process or Practice (new plant varieties) / Innovative form of organisation (including marketing)

A. WHAT & ACTORS

Description: Two associations of potato growers in Emilia-Romagna ("APPE" - Association potato producers Emilia-Romagna and "Assopa" - association of potato producers) brought together all potato producers in the Region in order to work together for breeding new high quality varieties of potatoes, appropriate to the conditions of regional cultivation area, with favourable agri-environmental and agronomic specifications.

The varieties were tested by assessing the characteristics of the product subjected to cooking, as a function of the content and stability of natural antioxidants and starch in the potato. Also the characteristics of the product were examined during post-harvest, and tests were conducted to identify genotypes that can be stored at 4-6 °C, and without the use of any "anti budding" product. The project also assessed the aesthetic and commodity characteristics of the varieties, verifying the results in terms of uniformity in shape, size and wash-ability, as well as culinary and organoleptic qualities.

Initiator: Producers' associations

Actors involved: • Individual Farmer • Farmers' or Producer group or association or Cooperative • Extension / advisory service / business advice

B. WHY & BENEFICIARIES

Problems/Needs: The need to satisfy the demands of the market and to have a variety of potatoes suited to the pedoclimatic environment of cultivation, offering benefits to all farmers and even to the processing factories.

Opportunities: N/A

Beneficiaries: Producers

Benefits from KT:

- The project is a good example of synergy between scientific institutions and two farmers associations;
- Through the project 22 farmers purchased a training package called "Training project for the supply chain potato to market" prepared by measure 111 through the "CATALOGO VERDE of Region Emilia-Romagna";
- Farmers were able to immediately capture the results of the project due to the fact that the same teachers of the courses are the engineers who developed the new varieties of potato.

Roles of existing networks / advisory services or NRN:

- For dissemination activities was used the network of training, information and consultancy called "CATALOG GREEN";
- The training course has been designed and made available by a training organization accredited to the "CATALOG GREEN";

- The training institution and its faculty and consultants were involved in the activities since the early stages of research;
- The course, which was purchased by 22 farmers, has been designed specifically to make immediately applicable the innovation on the potato varieties.

C. CONCLUSIONS

Results: The project has allowed the identification of three varieties in the course of registration: Gisèle (suitable for all uses), Ape Rossa "i.e. red bee" (with good quality of dry matter and therefore particularly suitable for frying) and Bianca Idea "i.e. White Idea" that will be used by AssoPa. It is currently during the registration process the variety 1588S11 having yellow skin and suitable for all uses.

What worked (not) well: N/A

Lessons learned / Recommendations:

- It is essential to promote the active role of the greatest possible number of players, especially those who handle the relevant parts of the product production;
- The size and quality of the "team" is the determining factor for the success of the project for the creation of innovation;
- In addition, greater integration with the other instruments of knowledge (training, information and counselling) and other networks greatly improves the quantity and quality of the impacts.

48. The production of native plants certified for ornamental and natural use in Lombardy region, Italy

Country / Region: Italy / Lombardy

FUNDING

RDP measure / Axis: Axis 2

Other: N/A

A. WHAT & ACTORS

Type of innovation: Innovative Product

Description: The project POTPLANT aimed at testing and verifying the possibility of producing certified native plants directly in specific nurseries. The certification of the produced plants was made using the environmental label UNI EN ISO 14020. The project lays the foundations for the creation of a specific supply chain.

Actors: • the centre for Autochthonous Flora (University of Pavia) • the Natural Park of Monte Barro (Lecco) • the Foundation Minoprio (Como) • 10 plant nurseries

B. WHY & BENEFICIARIES

Opportunity: The project aimed to take advantage of the opportunity to create a new range of products for the plant nurseries of the Lombard region in response to the increasing market demand for native plants. Certified native plants can be used for "reconstruction" interventions of the vegetation in protected areas and there is also a specific demand by the market for private gardens. The project envisaged introducing certified products into the market of ornamental classic plants since the characteristics of native plants offer greater efficiency and resistance to diseases being better adapted to the ecological and environmental conditions.

Benefits from KT: Knowledge transfer allowed choosing from a list of native species already "analysed" and allowed passing almost directly from research to production. In addition, during the cultivation tests the farmers were supported by specialists in order to optimise the cultivation protocols. The participation of the three agencies also guaranteed adequate advertising of the new product. Special questionnaires were completed by visitors and thus information was collected related to the attractiveness of these native plants for the market.

Roles of existing networks / advisory services or NRN: During the implementation of the project the District "Florovivaistico Alto Lombardo (DIFLOAL)" was established. The District which has more than 60 members including plant nurseries, consulting services, services for publishing and exhibitions, greenhouses, producers etc., is now the leader of a new project funded under measure 124 and aims at starting an actual full-scale production of the certified plants with particular reference to plant restoration and compensation, as well as large-scale projects in protected areas.

C. CONCLUSIONS

Results: The result of the project is the drafting of 20 protocols optimized for ex-situ cultivation of native species. The staff of the 3 entities engaged in the project is tasked to illustrate the results of the project to the general public and to technical personnel potentially interested to the use of native plants certified on a large scale.

What worked (not) well:

- The collaboration between public administration and plant nurseries has worked well and has been successful;

- The difficulties were related to the type of plant material from which the participants started to grow (phytosanitary and plant health problems) and by the tight time-span dictated by the project timetable that may not have been "ideal" for all the various stages of the cultivation; however this latter problem could be solved by optimizing the seasons of collection / planting / cultivation and control.

Lessons learned / Recommendations:

In the cases where the project is focused on plant material grown in the field as in the case of the Potplant project, the administrative span of the project may not coincide with those of cultivation.

49. The use of biosensors for producing quality wine in Italy

Country / Region: Italy / Emilia-Romagna

FUNDING

RDP measure / Axis: Measure 124

Other: Co-financing by private companies

A. WHAT & ACTORS

Type of innovation: New Process or Practice

Description: The project concerned the development of a prototype system that allows through the use of biosensors and the evaluation of specific analytical parameters to determine the quality of the grapes, their state of ripeness and the presence of rots.

Actors: • Producer group • University • Public administration

B. WHY & BENEFICIARIES

Problems/needs: The analysis carried out in the laboratory to identify the parameters related to the quality and health of harvested grapes does not fit the modern production needs.

Opportunity: The analysis by using biosensors will have a positive impact on the entire production chain. These are the objectivity of the quality parameters of the grapes; paying the producers of the product in an equitable manner; the better rationalization of production; production managers can make specific choices; allows less use of "adjutants" and less exposure to them by workers working in cellars and laboratories.

Benefits from KT: The project is a good synergy example between scientific bodies that have different skills: Astra Innovation and Development, University of Modena - Department of Chemistry, University of Reggio Emilia - Department of Information Engineering, Enea Cr Faenza.

The results of the project will be communicated to the shareholders of the producers' group to inform them about the adoption of the new technology at the time of the arrival of the grapes.

Roles of existing networks / advisory services or NRN: There is no defined role in this project.

C. CONCLUSIONS

Results:

- Compared with the classical methods of analysis, biosensors offer many advantages: they are easy to use; the speed and sensitivity of response as well as they allow to make measurements on the spot;
- In addition, these methods allow the collective to "pay" the grapes delivered in accordance with the parameters obtained from the analysis, through an objective rather than subjective manner. Until the introduction of this new technology, the evaluation work of the grapes was done by an experienced technician who carried out an assessment of the product "on demand" and based on its subjective perception.

Lessons learned / Recommendations: To promote greater integration with other tools of knowledge and networks.

50. The project "Hand in Hand: Enhancing E-inclusion of Farmers at Rural Public Libraries" in Latvia

Country / Region: Latvia

FUNDING

RDP measure / Axis: promotion of RDP measures in general

Other: EIFL PLIP

A. WHAT & ACTORS

Type of innovation: New Process or Practice / Innovative form of organisation

Description: This project is about cost effective alternatives for training of in-service staff. A public library was granted the project "Hand in Hand: Enhancing E-inclusion of Farmers at Rural Public Libraries" for development of a webinar series on topics related to agriculture and rural entrepreneurship.

The project is based on new approach to improve farmers' ICT skills and ability to survive in the challenging, fast changing social and economic environment where use of ICT plays an increasing role. The project awarded public library like many other rural libraries in Latvia, faces a high demand of small and medium farmers seeking assistance concerning access to general and agriculture specific information via Internet, including legislation, regulations, use of government e-services, interaction with authorities, etc.

The project incorporates the rural libraries initiative to provide support for farming and farmers in the form of web based online trainings and seminars – web seminars (webinars) that are available in electronic format on the Internet.

For broadcasting the seminars webinar software is used that allows numerous participants join the online broadcast. Participation is ensured using VOIP (voice-over Internet Protocol). The webinar software allows easy access via any web browser. The webinar software is flexible option providing opportunity for presenting information/seminar materials and interacting between presenters and participants. Files are later available to other users on the Internet or may be distributed in CD/DVD/USB formats.

Initiator: Latvian Rural Advisory and Training Centre (LRATC)

Actors involved: • Individual Farmer; • Extension / advisory service / business advice; • National or Regional Rural Network or Local Action Group; • Formal / informal networks: network of public libraries in rural areas

B. WHY & BENEFICIARIES

Problems/Needs: Small and medium farmers have limited financial opportunities to attend regional seminars organized by state organizations.

Small and medium farmers wish to receive information and expert advice from professionals while saving time from travelling to the seminars in distant areas; they need life-long learning, continuation of knowledge building in agriculture and business, and personal development; and they are affected by the legislative and other changes initiated by the government, the Ministry of Agriculture and other state institutions.

Opportunities: N/A

Beneficiaries: • Farmers • Rural entrepreneurs

Benefits from KT: The innovation itself was based on the previous experience of the EIFL PLIP AgroLib web portal project, implemented by Jagodina Public Library, Serbia. Hand in Hand project replicates

some aspects of the Serbian project because of the innovative way how AgroLib web portal reached the needs of local farmers in Serbia. The web portal is communication link that is created between farmers, associations and scientific organizations. This is the main aspect that Hand in Hand is replicating. Therefore it may be said the main benefit is related mainly towards training, but also to some extent also marketing.

Roles of existing networks / advisory services or NRN: The largest rural advisory organization of Latvia – LRATC is one of the project partners and is responsible for organizing and broadcasting of the webinars. The NRN is one of the channels that is used to promote the webinars to the rural entrepreneurs.

C. CONCLUSIONS

Results:

- 8 online seminars covering agriculture and farming related topics providing knowledge and skills. All seminars will be archived and posted on the Internet;
- By providing small and medium farmers with the demanded resources/ communication channels their access to information will increase. Their knowledge and skills will increase thus improving farm management;
- It will also impact farmers' ICT skills, awareness to use technologies and e-services;
- Libraries demonstrate to decision and policy makers the libraries' role in assuring social and economic development of the community;
- The planned number of participants taking part in the online webinars (via public libraries or directly) has been reached.

What worked (**not**) well:

Low interaction from the participants in discussions and limited questions can be pointed out as one of the weaknesses. To some extent it may be explained by insufficient experience of the participants on using ICT tools, though for the latest webinars an option to ask questions/take part in the discussions via telephone has also been provided.

Lessons learned / Recommendations: Different ways/channels of education and information exchange are very important for sustainable rural development. Using webinars offers access to a wider and broader participation.

51. The project "DEMO FARM" for the development of Latvian-Estonian network demonstrating environmentally friendly farming practices

Country / Region: Latvia and Estonia / Border regions of Latvia and Estonia

FUNDING

RDP measure / Axis: Partly Measure 214 and Measure 224

Other: European Regional Development Fund (ERDF), the Republic of Estonia and the Republic of Latvia

A. WHAT & ACTORS

Type of innovation: New Process or Practice / Innovative form or organisation

Description: The 2 year project established a network of demonstration farms promoting sustainable and environmentally friendly farming in Latvia and Estonia. In each country 10 demonstration farms were selected via open call. Each farm was assessed in detail and integrated farm management plans were prepared by experts, containing farm descriptions of environmental and nature values, economic analysis and farm-specific recommendations for improvement of farming. In order to improve the farmers' skills and raise awareness, trainings were organised on topics of environment, nature protection, economical aspects, demonstration and language lessons. Different demonstration tools – information stands, booklets and educational games have been prepared to strengthen the demonstration capacities of farms.

Apart from the direct work with the selected demonstration farms the best Latvian and Estonian experience in field of nature friendly and economically sustainable farm management was been gathered and published as recommendations for sustainable farming largely based on real farm examples emerging from the "real world" cases of 20 demonstration farms. The publication contains also recommendations for improvement of Rural development policies that are based on the lessons learnt in the project farms.

Initiator: Non government organisation (Latvian Fund for Nature-LFN)

Actors involved: • Farmers • Private institution / organisation • Extension / advisory service

B. WHY & BENEFICIARIES

Problems/Needs:

- Lack of environmental and nature protection in the Latvian and Estonian farming practices;
- Lack of best available experiences and techniques for environmentally friendly farming in cross-border context;
- Urgent need to obtain wider support and understanding among farmers and policy makers on importance of this farming practice on sustainable regional development.

Opportunities: N/A

Beneficiaries: • Farmers • Policy makers • General public • Nature, environmental protection and farmer organizations

Benefits from KT: DEMO FARM project did not have a direct impact on the investments on farm level; That issue was tackled during the development of the integrated management plans for the demonstration farms. The trainings organized for the demonstration farm representatives covered topics on nature, environment, business planning and demonstration aspects.

Roles of existing networks / advisory services or NRN:

- The leading rural development and advisory organization of Latvia (LRATC), was the lead partner;
- LFN has long tradition of cooperation with Estonian Fund for Nature (EFN);

- Close cooperation has also been established with project Baltic Deal implemented by LRATC;
- The Latvian NRN provided informative and promotional support and cooperates with the farms in organization of trainings regarding agri-environment and sustainable farming.

C. CONCLUSIONS

Results:

- 20 farms received detailed / farm based recommendations for improvement of their farming practices and open to share their experience with other farmers and general public;
- Recommendations for nature friendly farming and improvement of rural development policies based on "real farm" data and experience developed and distributed in both countries;
- Dissemination and publication (open days, seminar, recommendations published).

What worked (not) well:

- The demonstration farm network and provision of nature friendly and environmental demonstrations requires public funding. For the first 2 years funding came from the DEMO FARM project and now from other projects and their financing;
- The Estonian – Latvian Programmes do not support investments outside the formal project partnership, so some of the demonstration ideas needing investments on farm level could not be implemented.

Lessons learned / Recommendations:

- The implementation of agri-environmental measures should be more targeted and adjustable/flexible than in the current Latvian RDP;
- Need to ensure promotion of environmentally and nature friendly farming practices among the farmers and educating the general public on provided the public services.

52. The evaluation of Measure 124 in the Netherlands

Country / Region: the Netherlands

FUNDING

RDP measure / Axis: Measure 124

Other: N/A

A. WHAT & ACTORS

Type of innovation: Innovative product / New Process or Practice

Description: The measure 124 in the Dutch Rural Development Programme mainly supports innovation in the following fields (some projects had multiple targets): - Process innovation (77%) - Product innovation (26%) - Innovative form of organisation (6%).

The co-operations in the innovation projects: Farmer with - one other farmer 17% - multiple farmers 46% - one agri business company 31% - multiple agri business companies 17% - other combinations 9%

Initiator: About half of the grant-applications were triggered by an advisor, although 92% of the farmers had already the idea for an innovation.

Actors involved: • Farmers • Extension / advisory service / business advice • University or Education Institute or Research centre • Suppliers

B. WHY & BENEFICIARIES

Problems/Needs:

Improve performance:

- Efficiency improvement 57%;
- Reduce costs 31%;
- Product improvement 29%;
- Improvement of existing cooperation 6%;
- Develop new cooperation 3%.

Sustainable targets:

- Improve labour conditions 11% ;
- Improve environmental conditions 26% ;
- Improve animal welfare 3%.

Opportunity: N/A

Beneficiaries: Farmers

Benefits from KT: 94% of the innovation projects contained KT activities:

- 21% open days;
- 15% excursions;
- 42% media exposure;
- 12% creating a website;
- 70% presentations, movies, etc.

The subsidy scheme stimulates KT about the innovation. This will often omitted by entrepreneurs, who innovate without subsidy.

Roles of existing networks / advisory services or NRN:

- 51% of the projects applied for subsidy, because advisors notified them about this possibility;

- In 50% of the projects a knowledge institution (like a university) participated, mainly research and development of the innovation;
- In 25% of the projects, the advisory service participated (mainly on organizational and financial management).

C. CONCLUSIONS

Results:

- The grant supported the development of new techniques and products, and it accelerated the cooperation with external parties;
- Entrepreneurs indicate that this leads to a better result of the innovation;
- In 60% of entrepreneurs whose grant application is rejected, the innovation has been continued. The lack of financial resources is also the main reason for not continuing the innovation process;
- 2/3 of the participants indicated that without the subsidy the innovation process would have stopped.

What worked (**not**) well:

- In 60% of the participants the innovation efforts passed on after the formal innovation process is terminated. These are in particular the further development and marketing of the innovation;
- The subsidy scheme stimulates knowledge transfer about the innovation. This will often be omitted by entrepreneurs, who innovate without subsidy;
- The emphasis in the innovation projects is still 'technical innovation'. There are hardly market innovations that would meet the criteria of the review committee.

Lessons learned / Recommendations:

- The requirement of co-operation should be kept as it is very important for the dissemination of the results;
- The farmers see the benefit of cooperation, as 60% continue the co-operation after the project;
- Most of the approved innovation projects are about "technical" innovations;
- Most of the projects on market innovations are not considered innovative enough. Here some knowledge transfer might be required.

53. The evaluation of Measure 111 in the Netherlands

Country / Region: The Netherlands

FUNDING

RDP measure / Axis: Measure 111

Other: N/A

A. WHAT & ACTORS

Type of innovation: Innovative Product / Innovative form of organisation / Institutional Innovation

Description: The purpose of the scheme "Practical Networks" under measure 111, is to contribute to the development and dissemination of innovative knowledge (management) techniques and increasing the strategic space (e.g. new ways in business development), from farmers. The principle behind practical networks is that participants learn in a network, but the participants are not only farmers. Others, such as education, research, water boards and municipalities can participate in the networks, in which coalitions and interactions generate new knowledge so that agriculture can innovate and develop. The networks have in general a process facilitator form either the University or an advice company. The duration of a network is 2 to 3 years.

Actors: • Farmers • extension services • universities

B. WHY & BENEFICIARIES

Half of practice networks started from a practical problem which was experienced by the entrepreneur in his daily practice. The entrepreneur experienced this problem, but did nothing at first, so it was not resolved. In the other half of the practice networks another party found that there was a problem that entrepreneurs felt as a problem.

The issues for starting practical networks were:

- Not smooth good running of business and / or chain processes which results that developments got to a stop or revenues fall (35%);
- Poor availability of data, other information and knowledge which result in not efficient operations (30%);
- Health and quality issues (35%).

Benefits from KT: Working together in a network contributes to finding a solution for bottlenecks, according to some it is even indispensable:

- Scientific knowledge, local knowledge and practical knowledge should be brought together showing practical options that can be selected and then be tested and improved;
- The possibility of discussions in a broader context so that the solutions are wider for more than one of business use;
- Learning from each other's experiences and discussions. This stimulates the individual and mutual learning;
- The need to look beyond their own business situation.

Roles of existing networks / advisory services or NRN: Advisory services were process facilitators for the networks. Those facilitators have also networks to learn from each other.

C. CONCLUSIONS

Results: From some networks innovation projects for measure 124 arose. But also practical results were realised like:

- Reducing the use of antibiotics;

- Reducing the percentage of dying piglets;
- Also to get more possibilities to solve farming bottlenecks.

What worked (not) well:

- Linking farmers' and scientific knowledge leads to optimal results;
- Transparency in providing information;
- By training together farmers who have similar problems, the learning process is accelerating;
- Due to the broad scope of the network more clarity about the interaction of variables that affect the problem is needed;
- The time and energy needed for the results of a technical project to turn into concrete legislation, is very long;
- Networks can accelerate processes.

Lessons learned / Recommendations:

- For the function of the network it is important to have good facilitators. Probably wise to invest in the training of the facilitators;
- For farmers it is difficult to determine on forehand the quality of facilitators. In the end evaluation of a network it is also important to evaluate the facilitator and make these results available;
- The more specific the target (result) is, the more likely it is that the result will be reached. Make the expected results as smart as possible;
- With the large networks, it would be more logical that a farmers' association would apply for the subsidy than individual farmers, otherwise the financial risk for the individual farmers is getting too big.

54. The fruit and berry improved production programme in Norway

Country / Region: Norway

FUNDING

RDP measure / Axis: N/A

Other: Norwegian private and public funds

A. WHAT & ACTORS

Type of innovation: Innovative Product / New Practice, Approach, Service or Marketing technique / Innovative Technologies or new/innovative production process

Description: The regional fruit and berry programme was established to improve the quality of the fruit and vegetable produced in the region, thus increasing the farmers' income in the future, in a sustainable way.

The programme is about a new way of working with agriculture: The program management method on county level: http://en.wikipedia.org/wiki/Program_management Partners from the industry and the government established a common programme in 2004, after a pre-project for 4 years. In the steering group the industry has the majority. The goal was to increase the income to the industry involved, in all the main crops, and total.

The tool "RUP Norge" (<http://rup.no/vision/vision1.aspx?type=2&hierarchid=570>) is a tool for Regional Development. The target group is the people involved in public financed Regional Development processes, the politicians and other people or institutions interested in these processes. Responsible for the content is leaders and managers of the processes. A short description can be like this: RUP Norge is a tool for managing single or multiple regional development processes; linking connected processes together in a tree structure, with a mandatory anchoring to the a vision or a main regional plan for a region at the top; linking messages, activities and reports to processes; an archive for regional development processes; a network tool for the people and institutions in the target group; a tool for information, PR and marketing regional development processes; is owned and developed by Sogn og Fjordane County Council.

Initiator: The programme started as a project in 2001 after a initiative from Sogn og Fjordane County Council, the industry, the growers and research organisations

Actors involved: • Farmers' or Producer group or association or Cooperative • Agri-food business • Private institution / organisation • Extension / advisory service / business advice.

B. WHY & BENEFICIARIES

Problem/Need: N/A

Opportunity: N/A

Beneficiaries: Farmers

Benefits from KT: The full potential of the method program management is still not reached. The development of the program management method, or the transfer of this method into a innovation process, for RDP and innovation, and "technology transfer", is only partly tried out (strawberry).

Roles of existing networks / advisory services or NRN: The fruit and berry program in Sogn og Fjordane is a "best practice" in Norway in the innovation field. The management practise makes the steering group discuss real problems based on business needs, for reaching the common program goal.

C. CONCLUSIONS

What worked (**not**) well:

- The method is very intuitive and attractive. There has only been minor problems with the program management practice. The tool RUP Norway should be used more frequently. The tool is simple to use, but has to be more attractive for users;
- Lack of competence in management and in understanding of the power of the methods and the tools, if used 100%

Lessons learned / Recommendations:

- Program management based R&D and innovation is very effective, easy to learn and attractive, with endless power and possibilities;
- There has to be a tool and method development and resource group, to keep it all as good as possible;
- The regional government should base their regional plans at the same methods and tools;
- The mapping of innovations is very important. When looking back 10, 20, 30 years and more, one should be able to tell which measures really qualify to be called an "innovation", and how important it was for the businesses, environment, the citizens, etc.. It is important to include this in the database tool;
- Competent people with the right vision and resources to lead the development and resource group, and competent and interested leaders in private and public sector, to take into use and benefit from the tools and methods developed;
- The more countries, regions, public authorities, organisations, companies and people that are active users – the bigger network, and the better results.

55. The exploitation of solar energy by an agricultural holding in Poland

Country / Region: Poland / Lubraniec

FUNDING

RDP measure / Axis: Measure 121

Other: N/A

A. WHAT & ACTORS

Type of innovation: New Process or Practice

Description: This project concerns the introduction of a new production technology in agricultural holding – installing modern equipment for producing energy from renewable sources (solar).

The beneficiary of the project has a 21-hectare agricultural holding. The farmer cultivates a variety of herbs such as lemon balm, sage, thyme, mint and others. The production volume is on average 350 tons of raw mass (ca 70 tons of dry mass) per year. Drying was carried out on the farm, in the specially adapted room.

Before this project, the drying technology had been highly energy-intensive, using about 100 tons of coal dust per annum (two boilers with the total power of 240 kW) for operating the thermal floor and chamber dryers.

Through the project the beneficiary installed solar collectors as a complementary source of energy for the dryers in the holding. The installation includes:

1. 100 solar collectors made by the WATT company, type 3000S, with the total absorption area of 185,2 m²;
2. Solar station, composed of the GRUNDFOS TP25-90/2 pump system ensuring circulation of the glycol-based solution between the collectors and the heat exchanger;
3. Solar safety group, composed of the safety valve and expansion tank;
4. Energy storage container, with the capacity of 10.000 l;
5. Driver whose software has been developed especially for the dedicated system.

The installation supports the dryer's heating system by connecting the boiler room powered by the water-air heaters to the central heating system. The entire installation is to dry agricultural crops (herbs, fruits, rhizomes) from early June to mid-October.

Initiator: Farmer

Actors involved: • Farmer • NRN

B. WHY & BENEFICIARIES

Problems/Needs: N/A

Opportunities:

- Economic factors – lower production costs & the possibility to reduce investment costs thanks to EU co-financing;
- Environmental factors – positive impact on the environment;
- Social factors – positive impact on the local community, good practice /example.

Beneficiaries: • Farmer • Environment • Local society

Benefits from KT: The idea was born during Pan International Trade Fair of Environmental Protection. The beneficiary got information during the conference on the use of solar energy.

Roles of existing networks / advisory services or NRN:

- The beneficiary assistance by the agricultural advisory centre;
- Agricultural advisors supported the beneficiary in completing the application for financial support from the EU fund;
- The project was introduced into the database of good agricultural practices carried out in the website of the NRN, and is thus disseminated over a network.

C. CONCLUSIONS

Results:

- Reduction of fuel purchase costs by about 40%;
- Reduction of carbon dioxide emissions into the atmosphere;
- Benefits for local society - an example of good practices, to be followed by the local community.
- The system is programmed in a way ensuring that obtained solar energy is passed to the dryer and used there.

What worked (not) well

- Unfortunately, it didn't meet high interest of the local community. Perhaps because of its inadequate dissemination, for example, among agricultural schools, LGDs, stakeholders.

Lessons learned / Recommendations:

- Projects supporting use of renewable energy in agriculture, should be encouraged as they are cost effective and environmentally beneficial;
- Projects carried out by the beneficiaries of EAFRD funds should be disseminated so that to facilitate the transfer of knowledge and innovation in agriculture and rural areas.

56. The establishment of a centre for practical training in small-scale processing in Poland

Country / Region: Poland / Radom

FUNDING

RDP measure / Axis: TA / RDP 2007-2013

Other: Central Secretariat NRDN Action Plan 2012-2013

A. WHAT & ACTORS

Type of innovation: Innovative form or organisation / Other

Description: A Centre for Practical Training in Small-scale Processing was established to answer Polish farmers increased interest and assist them to overcome barriers caused by the lack of knowledge on small scale processing. Small-scale on farm processing is not popular in Poland due to lack of knowledge on the processing process, including the technological and regulatory aspects (sanitary requirements in particular) and difficulties in finding market for the final product.

The project included buying and installing technological lines at the centre to process fruits and vegetables, cereals and meat. The processing lines are operating for demonstration and training purposes. Apart from trainings in processing technologies, the centre provides assistance in preparing technological projects and legal aspects of establishing on farm small-scale processing.

Initiator: Centre for Advisory Service (CDR)

Actors involved: • Centre for Advisory Service in Radom (CDR) • Sanitary and veterinary inspectorates • Agricultural products quality inspection • R&D institutions • Producers of technology lines for small-scale processing

B. WHY & BENEFICIARIES

Problems/Needs:

- Asymmetries in market power of a food chain participants;
- Large number of intermediaries;
- Urgent need to guarantee more equal distribution of added value;
- Small and medium farms interested in diversification of income sources.

Opportunities: N/A

Beneficiaries: small farms, agricultural and rural advisors, teachers, students and pupils of schools specializing in processing, members of LAGs

Benefits from KT:

- Study trips to Germany and Austria where small-scale processing is very popular;
- Solid cooperation with administrative bodies and R&D institutions;
- Good cooperation with producers of technology lines for small-scale processing.

Roles of existing networks / advisory services or NRN:

- CDR provided experienced and well qualified staff, buildings for the demonstration, trainings and workshops;
- Trainings in 2012 are co-financed within the Project "Supporting development of entrepreneurship connected with small-scale on farm processing" (Central Secretariat NRDN Action Plan).

C. CONCLUSIONS

Results:

- Small-scale on farm processing developing in Poland;

- Increasing of small and medium farm incomes;
- Improving the food supply chain performance;
- It is estimated that as a result of the Project a dozen processing lines were opened in farms across Poland;
- Activities of the Center are also a subject of interest of foreign farmers and organizations.

What worked (not) well:

- **Lack of clear and precise national regulations in the field of small-scale processing.** To overcome this good cooperation with administration bodies was necessary, especially to develop good interpretation of the regulations;
- The CDR and its place in the public advisory system (directly subordinated to the Ministry of Agriculture and Rural Development) contributed to the success of the project. This was evident for financing and cooperation with other public administration bodies.

Lessons learned / Recommendations:

- The Project proved how the Knowledge Transfer to agricultural practice and advisory system could be improved to answer farmers' needs;
- The improvements in training and advisory capacities can be determined by necessary investments undertaken by advisory units;
- The following recommendation for the future rural development plan can be drawn up: a special measure or budget position for investments leading to upgrade, modernize, broaden training infrastructure should be implemented;
- It is important to have of a good co-operation with administration bodies (inspections monitoring food production) in implementing law regulations, particularly when the interpretation of law is ambiguous. It is recommended to follow this pattern on every NRDP level.

57. The instalment of anti-hail equipment in a blueberry orchard in Poland

Country / Region: Poland / Podlaskie voivodeship

FUNDING

RDP measure / Axis: Measure 121

Other: N/A

A. WHAT & ACTORS

Type of innovation: New Process or Practice

Description: The idea of installing anti-hail equipment in the blueberry orchard came from its owner. The beneficiary runs an agricultural holding with an area of ca. 323 ha. The main production profile includes the cultivation of blueberry on the area of ca. 134 ha and grain mix on the area of ca. 49 ha. The owner of the orchard consulted potential technologies and equipment with regional extension service employees and also with experts from the Institute of Pomology and Floriculture Skierniewice, Poland. The anti-hail equipment was used for the first time in the farm (one of the first in Poland) to tackle the risk of the production being damaged by weather conditions. The anti-hail installations operate by sending high-energy shock waves towards the upper atmosphere. The waves reach the height of ca. 15 km, i.e. the level of clouds where hail is formed. As a result of the ionization process, hail comes down in the form of rain or wet snow. One gun protects the area of ca. 80 ha against hail.

Actors involved: • Individual Farmer • Extension / advisory service / business advice

B. WHY & BENEFICIARIES

Problem/Need: • seasonal hails

Opportunity: N/A

Beneficiaries: Business

Benefits from KT: The grower was inspired by a study trip abroad, where he could observe functioning of similar instalment. The regional extension service enabled contacts with potential suppliers of the equipment and advised on sources of investment financing.

Roles of existing networks / advisory services or NRN:

Advisory services helped in organizing study trips for farmers to see best production technologies; in supporting on finding financial sources needed for the investment; and on enabling contacts with business partners. Since it's one of the first anti-hail instalments in Poland, information about the investment was widely disseminated. It is presented as a good practice financed in frame of RDP 2007-2013, also a lot of articles were published in specialized press and on websites of the Ministry of Agriculture and Rural development and also on the website of NRDN. Also study trips to the farm are organized by the extension service.

C. CONCLUSIONS

Results: Due to this investment, the holding has become more competitive in comparison to the other national and international businesses with a similar profile. The production risk was significantly reduced.

What worked (not) well: N/A

Lessons learned / Recommendations:

- In case of on farm investments, the skills of advisory system employees should be improved in business related issues like investment planning and investment project assessment. Advisors very often possess expertise on agricultural technology issues but they lack business skills;
- Also trainings addressed directly for farmers should be more focused on increasing their market orientation and business skills.

58. The production of bean-based chips from locally grown beans in Sweden

Country / Region: Sweden / Öland

FUNDING

RDP measure / Axis: N/A **Other:** Own savings and private investments

A. WHAT & ACTORS

Type of innovation: Innovative product

Description: The innovation is a new product namely bean based chips. It is based on local raw material and produced four different varieties. The product competes on an already established market for chips products, being a speciality product: bean-based and from locally produced input. The innovation emerged by chance from a failure in production of another product and an attempt to reuse the failed product for something else.

Initiator: Food business

Actors involved: • Food business • Regional high school (Kalmar) • Institute for Food Technology

B. WHY & BENEFICIARIES

Problems/Needs: N/A

Opportunities: The innovation idea originated by chance but it has been triggered by an ambition to turn a failure to something productive. The major beneficiaries are the innovators who managed to establish themselves on a highly competitive market. Consumers gained an access to a new product.

Beneficiaries: • the innovators • consumers

Benefits from KT: The technical support for the development of production technology was provided by a high school (Kalmar) and a research institute (Institute for Food Technology).

Roles of existing networks / advisory services or NRN: The innovation was nominated for the competition: "Rural Innovation of the Year 2011" organised by NRN.

C. CONCLUSIONS

Results:

- The innovators managed to establish themselves on a highly competitive market;
- It generated increased income and employment;
- A new, high quality product on the market.

What worked (not) well:

- Lack of funds before any revenues from selling the product could be generated;
- Lack of support to an uncertain idea;
- Friends of the innovators joined as co-owners of the project;
- Mistrust from regional agency supporting innovations/ small businesses hampered development;
- Complicated food-safety regulations;
- Social network, local input, entrepreneurial spirit and past experience were key resources and decisive for success.

Lessons learned / Recommendations:

- Linking small firms with innovative ideas with collaboration partners who can provide technical expertise is necessary for the development of new products;
- A more open-minded attitude to new ideas and un-proven products in the policy environment;
- Food safety regulations need to be adjusted to accommodate needs and constraints of small food producers.

59. The establishment of a "Hotel" for heifers as a new service for farmers in Sweden

Country / Region: Sweden

FUNDING

RDP measure / Axis: Measure 121 and **Other:** Own capital & bank loan

A. WHAT & ACTORS

Type of innovation: New Process or Practice

Description: The innovation ("hotel" for heifers) constitutes a new service for farmers (milk producers) on the local market. The novelty is that the farmer does not own the heifers and he only hosts them for insemination. The farmer switched from raising heifers for sale to hosting heifers belonging to other farmers for insemination and to being paid per animal and number of days of stay. The innovative idea was growing over a long period of time based on personal knowledge and experience of the farmer and also due to the market opportunities spotted. The direct inspiration came from a professional magazine.

Initiator: Farmer

Actors involved: • Farmer • Peer to peer informal network

B. WHY & BENEFICIARIES

Problems/Needs:

- Reduce amount of operating capital;
- Eliminate the need to looking for buyers for previously owned heifers.

Opportunities A market opportunity spotted by the innovator created by:

- Structural changes in agriculture with increasing specialisation among milk producers;
- Short of time and stable capacity.

Beneficiaries: Farmer

Benefits from KT: This innovation is a low-tech type. It does not require high competence but high competence and skills in the production of the new services the innovator is offering. His key resources have been social and professional networks, good knowledge in production technology, good knowledge of the market situation and entrepreneurial spirit.

Roles of existing networks / advisory services or NRN: This innovation did not involve organized or formalized co-operation. Interactions through social and professional networks were very important. When deciding on which price to charge for his services, the innovator used a template from a professional magazine and calculated his costs accordingly.

C. CONCLUSIONS

Results: Enhanced efficiency and competitiveness in milk production by increased specialisation and division of labour.

What worked (not) well:

- Investment support for expansion of stable capacity was helpful but probably not decisive;
- No bottlenecks have been identified.

Lessons learned / Recommendations:

- Personal energy and entrepreneurial spirit, good professional skills and good market knowledge were preconditions for this innovation;
- Enhancing skills by knowledge transfer seems important for stimulating innovative activity.

60. The joint company of grain farmers improving their position in the market in Sweden

Country / Region: Sweden

FUNDING

RDP measure / Axis: Measure 121 **Other:** Own capital & bank loan

A. WHAT & ACTORS

Type of innovation: Innovative form or organisation

Description: This innovation is a change compared with the traditional supply chain where the buyer and/or the grain trader, and not the farmer are usually involved in drying and storage. Two grain farmers formed a joint company for cultivation of grains and constructed a large silo and a drying facility for improving their bargaining position. As a result of the large scale of production and storage capacity, the bargaining position of the two farmers improved and the farmers are now achieving better prices for their products.

Initiator: Farmers

Actors involved: • Farmers • Farmers association • Business advice • Farm advisory service

B. WHY & BENEFICIARIES

Problems/Needs: N/A

Opportunities: Cooperation and joint activity, would lead to economies of scale in production and in storage capacity (building of the silo would not have been profitable for only one of the farmers).

Beneficiaries: Farmers

Benefits from KT: A consulting company owned by the Association of Swedish Farmers provided legal advice. Farm advisory service provided advice about grain production technology and for the application for investment support.

Professional magazines, study visits/trips, fairs for farm equipment etc. contributed to the project.

Knowledge about the large silo has spread quickly through word of mouth. As large volumes of grains are very attractive for traders, the firm had so far no need for marketing.

Roles of existing networks / advisory services or NRN: Existing advisory service is regularly consulted on production of grain matters and was important for the legal advice at the inception.

C. CONCLUSIONS

Results:

- Increased of competitiveness;
- Improvement of bargaining position of the two farmers;
- Knowledge about the large silo spread through word of mouth.

What worked (not) well

- Investment support was received but the total investment has mainly financed by own savings and a bank loan;
- Both farmers were benefitting from Agricultural Innovation System (AIS).

Lessons learned / Recommendations:

- Unconventional solutions, such as forming a joint company between two neighbours, may sometimes constitute a solution that enables farmers to survive and grow;
- The RD regulation needs to be flexible enough to accommodate unconventional and/or unusual solutions.

61. The new form of cooperation between farmers and a commercial firm specialising in biogas technology in Sweden

Country / Region: Sweden

FUNDING: RDP measure / Axis: Axis 2, Axis 4 and **Other:** N/A

A. WHAT & ACTORS

Type of innovation: Innovative form of organization

Description: The novelty is a new form of cooperation between several individual farmers and a commercial firm specialising in biogas technology. Instead of producing biogas at each of the individual farms and then subsequently upgrading the gas at an external production facility, the farmers opted for joint production of upgraded gas from the start. Moreover, by being co-owners of the company, farmers will not only be suppliers of input but they will also have the possibility to receive income from the whole value chain.

Actors involved: • Individual Farmer • Farmers' or Producer group or association or Cooperative

B. WHY & BENEFICIARIES

Problems/Needs: There was a need to reduce consumption of fossil fuels creates a market for renewable energy, especially fuels; and the environmental support under Pillar 2 was a precondition for the interest from farmers.

Opportunity: The existence of the considerable economies of scale in production of biogas was a direct trigger of the co-operation and the joint rather than individual production.

Beneficiaries: Farmers

Benefits from KT: The commercial company involved in the cooperation had acquired technological know-how.

Roles of existing networks / advisory services or NRN: The decision to create a company was a result of careful planning and detailed preparation process - including the preparation of a business plan which included all relevant stakeholders. A LAG played a decisive role.

C. CONCLUSIONS

Results: The result of the innovation so far is the fact that the company, which has good prospect of being profitable, has been formed. In the long run, the innovation will produce several benefits for the society (especially positive impact on GHG) and for the participating farmers (additional income).

What worked (not) well:

- The challenge was to find a solution that would fit the needs and interests of the farmers in very different circumstances. The joint production options was preferred by farmers, who were not interested in having yet another production activity at the farm, and were instead interested in a joint production under a professional supervision;
- No direct obstacles could be identified with co-operation between stakeholders, LAG and local public authorities proceeding smoothly;
- The fact that the commercial firm which decided to form a new company jointly with farmers has local roots and an ambition to contribute to the local economy had probably contributed to the success.

Lessons learned / Recommendations:

- The LAG had an important role for fostering cooperation between stakeholders and preparing a business plan which otherwise would have involved too high transaction costs for the stakeholders;
- Innovation brokering activities of this type will be increasingly important in the future and should be supported.

62. The creation of a system for travel arrangements between car drivers and potential passengers in Sweden

Country / Region: Sweden

FUNDING

RDP measure / Axis: Axis 3

Other: Own savings and bank loan

A. WHAT & ACTORS

Type of innovation: Innovative Product

Description: The innovation is a system for co-ordinating travel arrangements between car drivers and potential passengers. The system is based on an application for a mobile phone, SMS support and webpage adjusted for mobile phones. It was initiated by a private citizen, living in a small community, who was annoyed by an inadequate access to public transport (infrequent, unsuitable time schedules) and by inefficient private transport involving many empty cars on the roads.

The innovator developed the system together with her brother, an owner of a small IT company, a local NGO and LEADER.

The system operates as follows: Drivers register the time and destination for the trip they intend to take as well as how many seats in the car are available. Potential passengers sign in if they are interested. Passengers can also indicate an interest for a particular trip (time, destination) in the future. Drivers are being paid and the passengers pay a fee.

The system is operational in the community of Tolg and is administered by the local NGO. The innovator and her brother have formed a new company for providing the product to other small local communities facing similar challenges.

Initiator: Private citizen

Actors involved: • Farmers • IT company • Local NGO • LEADER LAG

B. WHY & BENEFICIARIES

Problem/Need: Rural areas are sparsely populated and this creates difficulties in providing adequate services, in particular to arrange sufficient transportation.

Opportunity: N/A

Beneficiaries: Local community

Benefits from KT: The innovation has relied on a local IT company.

Roles of existing networks / advisory services or NRN: A local NGO and a LEADER LAG were involved in the development of the system. The local NGO is now in charge of running the practical operation.

The project was publicized by being nominated to the competition, Innovation of the year by Swedish National Rural Network. Local citizens benefitted due to improved communications. Eventually, if the newly created company manages to "sell" the co-ordination system to other small communities other rural areas may benefit.

C. CONCLUSIONS

Results:

- Access to transport services for the local citizens has improved considerably in the community where the system operates (Tolg);
- It takes also less time to travel;

- More efficient transportation implies less GHG emissions as well as economic benefits;
- In addition, social interactions between inhabitants have intensified;
- A company for selling the system to other small communities has been created, thus these benefits may, in time, be extended to other rural areas.

What worked (not) well: The work was supported and by project support in the Axis 3 and by LEADER. Cooperation with the local NGO worked well.

Lessons learned / Recommendations:

People must be willing and able to live, work and make business in rural areas, which is difficult without an adequate service supply. Providing adequate services, of all kinds, to rural population is, hence, vital but challenging in sparsely populated areas. Finding innovative solutions, like this co-ordination of private travel, is important and role of LEADER in this context needs to be emphasised.

63. Baltic Deal - vocational training for agri-environmental practices and measures

Country / Region: SE as leading party and DK, EE, FI, LV, LT, PL

FUNDING

RDP measure / Axis: N/A

Other: Baltic Sea Regional Programme 2007-2013 / NEFCO/NIB Baltic Sea Action Plan Trust Fund

A. WHAT & ACTORS

Type of innovation: Other

Description: The Baltic Deal is a joint effort to improve the Baltic Sea environmental status by using cost efficient and competitive measures to reduce the nutrient losses from agriculture. Farmers and farmers' advisory organisations join efforts in a "bottom-up" project to raise the competence concerning agri-environmental practices and measures. The aim is to support farmers to reduce nutrient losses from farms, with maintained production and competitiveness.

Initiator: Farmers' organisations

Actors involved: • Farmers' associations • Advisory services • Ministries • Agricultural institutes and organisations.

B. WHY & BENEFICIARIES

Problem/Need:

- The eutrophication status of the Baltic Sea is still unsatisfactory, despite decreased nutrient loads in recent decades;
- A joint effort is needed to improve the Baltic Sea environmental status by using cost efficient and competitive measures to reduce the nutrient losses from agriculture;
- The project aims to demonstrate farmers' willingness to contribute to a healthier Baltic Sea, thus hopefully avoiding more legislation and possibly reduced competitiveness between countries.

Opportunity: N/A

Beneficiaries: • Farmers • Region (improvement of the environment)

Benefits from KT:

- A network of 118 demonstration farms has been established in the region and facilitates the creation of plans for possible investments on farms;
- In PL, the network of demo farms organises workshops for farmers and advisors to enhance and share knowledge about AE measures.

Roles of existing networks / advisory services or NRN:

- Networks of farmers' organisations were important for the initiative of the project;
- Networks created in earlier projects were also of importance;
- The national advisory services play an important role in the project;
- Existing networks of demo farms were also used;
- Farmers' organisations and advisory services are crucial to reach the individual farmers in the whole region.

C. CONCLUSIONS

Results:

- Individual farmer benefit from more efficient and cost efficient use of nutrients;
- The region and the Baltic Sea benefits when reduced farm nutrient losses;
- The project's results and benefits are shared between the participating organisations;

- Information and results are disseminated through the project website, national and international newsletters etc.

What worked (not) well

- It is complicated for farmers' organisations and advisory services (some private, some public) to jointly apply for funds;
- The bureaucracy isn't customized for this kind of co-operation;
- It proved complicated arranging farmers study tours. The costs weren't seen eligible, although crucial for knowledge exchange;
- The project and cooperation proved to be quite successful;
- As project funded initiative is time limited, and to continue the work started, a follow-up is needed.

Lessons learned / Recommendations:

- Applying for funds is too complicated and bureaucratic. It should be made easier;
- The system is not adapted for participation of the private sector. However this kind of cooperation is crucial to be really successful and competitive in today's society.

64. The new approach to getting young people into employment in Scotland

Country / Region: United Kingdom / Scotland

FUNDING

RDP measure / Axis: Axis 4

Other: Scottish Government – Future Jobs Fund and Barnardo's (Charity) Own resources

A. WHAT & ACTORS

Type of innovation: Other

Description: A new approach to getting young people from disadvantaged backgrounds into employment by providing personalised/tailored support - nearly one to one. This is a completely new approach to getting young people into employment, hence the approach to LEADER for funding and support in project development.

The project provides sufficient support for both sides namely young people and local businesses to enable the work placement to succeed, addressing difficulties before they became a problem and hopefully at the end of the project to create a permanent positions for the young persons with the businesses.

Initiator: Scottish Charity "Barnardo's"

Actors involved: • Non government organisation (charity) • Government agencies • LEADER

B. WHY & BENEFICIARIES

Problems/Needs:

- In rural areas the local businesses, farms, large land owners, tenant farmers all have difficulties in recruiting young people to work with them;
- Young people have a poor image generally as not being equipped to work, not turning up and not having the skills when they do arrive.

Therefore they are not keen to even try to employ local young people.

Opportunity: N/A

Beneficiaries:

- Young people;
- Local businesses.

Benefits from KT:

Barnardo's had carried out a similar project in the south of Scotland and this project learnt from experience elsewhere.

- This enabled approaches to potential employers on a sound planned basis, working to find suitable placements for the young people;
- It also supported the type of training and development required preparatory work with the young people that had to take place and in depth knowledge of the type of problems likely to arise;
- Approaches were made to young people already on the unemployment register to select those interested in participating.

Roles of existing networks / advisory services or NRN: The existing networks used were in general, Government agencies as funders or unemployment networks either for funding support or finding the young people to participate.

C. CONCLUSIONS

Results:

- The in depth support ensured that the young people and the employers were managed effectively and that both parties benefitted from the experience;
- Out of the 20 young people involved 15 gained employment and 5 were signposted elsewhere having decided this type of employment was not for them;
- The young people benefitted, as did the local businesses;
- The information is on the LEADER website and was disseminated through local media and the various LEADER publications, seminars etc.

What worked (**not**) well:

- The project worked well and now the charity is working closely with the Government to try to have this taken on as a mainstream approach for young people to get them into work;
- **The search by projects take up a disproportionate amount of time** and match funding with Government centrally would be so much more effective for all concerned;
- **A significant loss for all projects is that they are not stocked by the local or national Governments. They are just a one off for a few years and the information and experience is largely lost and the project cannot continue.**

Lessons learned / Recommendations:

- Clarity of purpose in all areas;
- Government to support Local Development Plan workshops and to provide initial templates for development by each area into a local plan for the new Programme;
- Government to give a clear plan as to the sectors that they wish to see developed overall that LAGs can then consider and incorporate into their own local planning and work with communities;
- Government/EU to provide plain guidance taking the needs of the EU Regulations into account - this would prevent local interpretation and misunderstanding of the meaning of regulations and to employ a local linguist to ensure clarity of purpose in the translations;
- Government to provide match funding centrally and supply with the EU allocation thus allowing also greater use of private funds;
- Government to undertake evaluations centrally and make use of the information in their future planning;
- Government to develop a central ELECTRONIC reporting system to avoid, duplication, re-invention of forms and make best use of limited staff time;
- Project application process to be simplified, clarity of EU/Government needs, evaluation needs incorporated at the start in the ELECTRONIC management system;
- Projects of less than £5k in total (say 45% EU) to have a simpler application and management process accepted by all countries and auditors;
- National or Transnational Projects to have a development fund held with central Government in order to manage claims centrally.

(The current system in which the applicant has to apply upwards for 5 LAGs is unfriendly and increases too much the amount of work for those involved. In the area there will be not engagement in joint projects with other areas in future as the capacity to be involved does not exist. Each area would need to have one staff member dedicated to this and to transnational cooperation in order to succeed. Again the administration of such projects far outweighs the time spent on the activity.)

65. The creation of Carbon Smart Organisations in Scotland

Country / Region: United Kingdom / Scotland

FUNDING

RDP measure / Axis: Axis 4

Other: Addressing the issues of Climate change in small businesses

A. WHAT & ACTORS

Type of innovation: New Process or Practice

Description: The Creating CSmart Organisations project aims to ensure real carbon reductions are achieved in 24 rural organisations by understanding the barriers to the implementation of energy efficiency/low carbon technology within each organisation and helping the management to work through the barriers to realise (and measure) positive change.

The aims is to develop experience in, and a method for, achieving an embedded 'Carbon Culture' in small to medium sized organisations; to disseminate carbon management information in the form of briefing notes and seminars to organisational decision-makers throughout Dumfries & Galloway and to further develop the Crichton Carbon Centre as a centre of excellence in working with SMEs through a complete process to guarantee effective carbon management and genuine carbon savings.

The 2 year project allowed CCC to work with the 24 local rural organisations, providing guidance and assistance over a period of 4-6 months as they embarked on their carbon journey.

Initiator: Research Centre Crichton Carbon Centre (CCC)

Actors involved: • Private institution / organisation • Private funder • Extension / advisory service / business advice • University or Education Institute or Research centre • Crichton Carbon Centre

B. WHY & BENEFICIARIES

Problems/Needs: Scotland will not achieve its' GHG reduction targets unless small organisations join in the struggle. The challenges faced by each organisation included lack of knowledge, time and finance and sometimes staff resistance.

Opportunities: N/A

Beneficiaries: Participant organizations

Benefits from KT: The project focused on the transfer of knowledge as a tool to increase awareness within the organisation. This process was driven from the realization that without adequate awareness, the allocated climate champion within each business would be less able to implement emission reduction strategies. Conversely CCC set out through the project to learn about the difficulties faced by small organizations in reducing their carbon footprint – in tough times, and to work towards a methodology which could be used efficiently and effectively in all small organizations.

Roles of existing networks / advisory services or NRN: South of Scotland European Partnership had co-funded the pilot programme, Carbon Opportunities in 2008. This had identified barriers that businesses felt impeded their move towards incorporating a carbon reduction strategy. Dumfries & Galloway LEADER LAG funded the CSmart project because it specifically addressed the issues surrounding the removal of barriers to carbon emission reduction.

C. CONCLUSIONS

Results: CCC developed a detailed understanding of the challenges faced by those organisations in making reductions in carbon emissions. CCC has received funding from ERDF to continue working with SMEs by building on the engagement methodology used for CSmart. This is a three year programme,

which will allow CCC to work with up to 275 SMEs in the Lowlands & Uplands regions of Scotland, and will create 8 new full - time positions at CCC.

There were other benefits such as cost savings, staff morale improvements and marketing advantage. Organisational resilience was also raised by learning and system improvements.

What worked (not) well: The project has been hugely successful in allowing CCC to understand the mechanics of how small to medium size of organisations operate, but working with 24 organisations over a 2 year period (or an average of 1 per month) is not sustainable long term (the length of engagement time with organisations under the project must be shorter).

Lessons learned / Recommendations:

- LEADER support, both financial and in terms of 'credibility' when CCC was seeking entry, allowed the funded organisation to develop its own knowledge, build its staff 's experience, and establish itself as having commitment and expertise in this vital area. It needed to move beyond its academic roots and engage with the tough problems faced by real organisations;
- One clear recommendation would be to look positively at proposals from project driving organisations, which may not themselves be rural or community based.

66. The Queensbury Initiative for improving the employability and entrepreneurial skills of young people in Scotland

Country / Region: United Kingdom / Scotland

FUNDING

RDP measure / Axis: Measure 111, Measure 323 and Measure 421

Other: N/A

A. WHAT & ACTORS

Type of innovation: New Process or Practice / Other: Outdoor skills training and education

Description: The alliance of the private sector, the Regional Education Department, the volunteer business and mentors in a project with the specific objectives of building an outdoor skill based education to a section of rural young people. The objective is to build an Initiative which focuses with expertise and experience on the key aspects of improving the employability and entrepreneurial skills of children and young people. The initiative wants to work with targeted groups of children and young people from the schools of Mid-Nithsdale who may need the chance to build their self-esteem and confidence as these are key employability skills. Such groups from P7 right through to Secondary 4 will be trained by using community volunteers as business mentors to focus these young people on the benefits of improving their skills to achieve personal, social, academic and career goals. These groups will focus on employability skills and on the valuing and certifying of these skills for employers and further/higher education providers. Thus the initiative will provide these volunteers with training, supervision and support.

Actors involved: • Private institution / organisation; Queensbury Estate • Other actor or other policy: Dumfries & Galloway Education Department / Schools, Local Businesses, Rotary Club

B. WHY & BENEFICIARIES

Problems/Needs: Young people in rural areas leave the region/locale to find employment; and the training needs of young people not appropriate for the local employment market

Opportunities: N/A

Beneficiaries: Society

Benefits from KT: The project could not have proceeded without a high level of local, multifaceted engagement. From the Queensbury Estate, school staff, School PTA and local businesses, everyone had to commit to the progress of the project for it to succeed.

Roles of existing networks / advisory services or NRN: Dumfries and Galloway LEADER LAG would not have funded the project if it did not push the boundaries of existing rural education practice. The extent of the supportive network required for the project was a crucial aspect.

C. CONCLUSIONS

Results: The project has gone from strength to strength.

What worked (not) well: The work was planned and directed by the LAG and it was easier to manage than if expected that others to seek the LAG's support for their own plans. The role was clearly more strategic than anticipated. In the end this was productive for the LAG staff who has gained much expertise in planning activities and matching them to educational outcomes. Throughout the project the LAG focused on integrating the learning experiences of the children and young people with their communities. This was chiefly moved forward by involving members of the community working with these children and young people on a voluntary basis either as mentors or work access to their farms, other work places and businesses. As a result the project became a true community

partnership with now over 80 local businesses and training organizations working with these children and young people in a variety of ways.

Lessons learned /Recommendations: The project showed that strict time management is crucial as the demands on the engaged staff's time increased exponentially.

67. The initiative "Savour the Flavour" to promote the local food in Scotland

Country / Region: United Kingdom / Scotland

FUNDING

RDP measure / Axis: Axis 4

Other: Private and public capital

A. WHAT & ACTORS

Type of innovation: Innovative Product / New Process or Practice / Innovative form of organisation (including marketing)

Description: The project aims to support and encourage food events and markets aimed at consumers and to provide opportunities to highlight green issues and the economic and environmental benefits of reducing food miles and supporting local producers.

The project sought to raise the 'Savour the Flavour' Brand across the whole spectrum of the food /product life cycle, from grower/producer to end user/consumer. All stakeholders will have an equal voice in how the project develops and evolves, to ensure that we have a recognised quality brand identity that projects a cohesive message of quality to the Food and Drink businesses and Markets both within Dumfries and Galloway and beyond, as well as being a locally recognised mark of quality for consumers and end users. The new approach is unusual compared to other food initiatives in that it is now 100% industry driven.

The Initiative submitted a highly original and ambitious application for funding to manage 5 distinct sub projects. 2 separate bids were made to develop Flavour Fortnight and the Farmers Market Network. The 5 sub projects were:

- Producers, End Users & Members
 - To continue strong industry engagement and to facilitate collaborative working within industry groups;
 - To raise the profile of locally produced food and drink at regional and national level and to assist in encouraging end users to use products from local suppliers;
 - To position Dumfries and Galloway as a region with an exceptional artisan food & drink product and to raise the profile and promote the area as a food tourism destination.
- Consumers
 - To make "Savour the Flavours" a recognisable consumer brand, symbolising quality and excellence in Scottish food and drink;
 - To position D&G as an area with exceptional food and drink, working towards its establishment as one of the UK's top food and drink destinations;
 - To deliver a strong local food message across the region to local people and visitors.
- Children / Schools
 - To work with schools throughout the region to enhance the delivery of a better understanding of local food and drink available in the region.

Initiator: • Agri-food business

Actors involved: • Individual Farmer • Farmers' or Producer group or association or Cooperative;

• Agri-food business • Private institution / organisation • Dumfries & Galloway Council

B. WHY & BENEFICIARIES

Problems/Needs: The necessity was identified for an organisation in Dumfries & Galloway that can meet the needs and information expectations of the consumer and visitor, as well as supporting the food and drink sector.

Subsequent information gathering exercises confirmed the desire for an organisation undertaking the activities that the new "Savour the Flavour" project plans. For example, the annual visitor survey at the Feast of Galloway event show a strong demand for quality food events, as well as for better information about local food.

Opportunities: N/A

Beneficiaries: Farmers / Consumer / Environment

Benefits from KT: The fact that the network focused upon "the whole spectrum of the food / product life cycle" has meant that every level of stakeholder has been able to access appropriate input to develop and grow their business. The range of training and information providers includes the Regional Council, SAC (SRUC), Scottish Enterprise and SAOS among others.

Expertise accessed by stakeholders include internet marketing, basic and advanced business solutions, IT solutions, food hygiene, adding value to primary product, food compliance, marketing, learning journeys and social media training.

Roles of existing networks / advisory services or NRN: Energising the local food and drink sector within the region was acknowledged to be a key strategic objective for the region. Consequently a unique and dynamic partnership arose that included the LEADER team and LAG, the D&G Council's Economic Regeneration Department and the region's wide range of stakeholders in the food and drink sector. Good relationships formed with the SAC (SRUC) Food and Drink Consultancy Team.

The project was funded to employ a project officer and a separate communications manager. Backed by a focused chair and committee these two staff brought and impressive dynamism to the project. The project officer took every opportunity to publically promote and raise the profile of the network. The communications manager kept the network members up to speed with professional developments and training opportunities.

C. CONCLUSIONS

Results: In the three years since Savour the Flavours has been funded, the project has been acknowledged leader in its field. The network encompasses and supports the full spectrum of food related businesses in this very rural region. This is all the more creditable since the majority of these are micro scale businesses.

The varied professional and advisory services that the network members have adopted has led to many of these businesses becoming sufficiently confident to stabilise and grow.

What worked (not) well:

- The demand from D&G LEADER for truly innovative applications has meant that this food network has developed from being a predominantly supportive body to becoming the lead agent within the region for all groups of stakeholders;
- The LEADER LAG were sufficiently confident to offer substantive constructive comments as feedback at the first stage of the application, ensuring that Savour the Flavours II was a genuine paradigm change from Savour the Flavours I;
- The employed staff was sufficiently committed to the project to remain to the end of the first period and up until Savour the Flavours II had been approved. This is a key point. **The employment pressure is becoming an issue towards the end of projects with staff leaving to take up other posts**

instead of remaining to the end of projects. The resulting loss of capacity has a marked draining effect upon the each of the projects involved.

- There is also an issue with core staff costs in rural entrepreneurial projects. There is simply not a sufficient number of enterprises of financial scale to afford the staff costs involved with driving projects like this. LEADER cannot support core costs and yet the effect upon the grassroots rural economy can be positively measured;
- It should be emphasised that this project would not have had the success it has had without the practical and financial support of the Regional Authority.

Lessons learned / Recommendations:

- Genuine rural economic development can occur at grassroots level if all the actors are supportive of the projects' broad based objective of greater rural economic activity for all;
- LEADER can support rural economic development as long as it is rooted in an innovative application;
- If staffing costs are included in an application to LEADER, it is imperative that the staff employed is fully aware of the grass roots model of economic development. There is a danger that the LEADER programme could be seen to be simply a 'pot of money' for groups to apply for with little obligation to the wider economic wellbeing of the rural region. This can occur, however strategically important the applicant's cluster or network might be to the region.
- This could well apply to the future RDP programme as well.

68. The establishment of network of Scottish growers for improving their position in the market in Scotland

Country / Region: United Kingdom / Scotland

FUNDING

RDP measure / Axis: N/A

Other: RDP 2000 -2006

A. WHAT & ACTORS

Type of innovation: Innovative product / New process or practice / Innovative form of organisation.

Description: A network of Scottish growers, called Angus Growers have appointed Angus Soft Fruit Ltd (ASF) as their marketing company. This supply chain is characterised by considerable collaboration between the marketing company and the dedicated network of Scottish growers and also farmers from exporting countries. This guarantees the marketing company to be supplied all year round by like-minded growers in Holland, Spain, Morocco, the Middle East and South America, In addition, the chain has strong orientation towards quality and sustainability-enhancing innovation as a means of gaining competitive advantage.

Innovative Products

This orientation of ASF and Angus Growers is strongly communicated to customers (e.g., multiple retailers) through the development of:

- An exclusive premium soft fruit variety (called AVA);
- A patented environment-friendly production system (called SEATON System); and
- Their own pesticide residue-free, premium brand (called the Good Nature Fruit - GNF), which uses a compostable packaging, and is differentiated from the retailers' own label products.

The novelty of this structure is that it internalises the management of innovation process, and all innovation-related costs (and risks) that otherwise are not affordable for most individual producers. This business model not only enable and facilitate higher focus on sustainability-orientation of innovation, but also secure scale and scope economies of this innovation, in both the domestic and imports' input markets. Furthermore, the structure allows that those economies together with the value created are not unfairly distributed along the chain.

Initiator: The marketing company Angus Soft Fruit Ltd (ASF) and two growers

Actors involved: • Producers' group • Agri-food business • Research centre

B. WHY & BENEFICIARIES

Problems/Needs:

- Balancing the product price with the significantly increasing costs;
- Deal with the legal requirements about the health and safety issues;
- Increase of minimum wages;
- Environmental requirements;
- Completion on efficiency.

Opportunities: N/A

Beneficiaries: Producers

Benefits from KT: Angus Growers consider themselves as a part of a highly collaborative supply chain, with ASF covering a great deal of support that growers need. It is a highly communicative group, with

their decisions relying on constant feedback from supermarkets or within the group e.g. benchmarking; advice from the ASF's agronomist / technical and marketing teams.

Roles of existing networks / advisory services or NRN: There was no decisive or specific role of the National or Regional Rural Network or of a LAG, or of Trans-National cooperation played in the development of this particular innovative initiative. FAST Ltd, in England has provided some professional advice and technical support for soft fruit production, which was not related to innovation and knowledge transfer processes.

C. CONCLUSIONS

Results:

- Suppliers leading in sustainability-oriented innovation are advantaged when bargaining with multiple retailers;
- Angus Growers and ASF cover the whole chain and provide an end-product to retailers and they are offered a decent return for the whole 'package' of services they are offering;
- Confidence from the growers to the structure not only due to decent returns but also due to the ability to plan ahead in a sustainable way.

What worked (not) well:

- Responding to the legal requirement of ensuring that minimum fair wages on a daily basis are paid to pickers, Angus Growers developed a software program that adequately monitors the pickers' daily performance which returned additional benefits such as increased motivation, better M&E;
- **Stricter restrictions in pesticides that are allowed for use make soft fruit production more difficult and costly.** However, Angus Growers and ASF viewed this as a push factor towards the positive direction in long term.

Lessons learned / Recommendations:

The case study indicates that for a group of agri-food firms to transform sustainability-oriented innovation into a long-term competitive advantage is necessary that it goes accompanied with a supportive organisation of the supply chain. The characteristics of the organisation need to be:

- A participatory business model, where suppliers (i.e., producers) are included in the tasks and they feel that those are worthwhile the effort (i.e., they perceive that the return for the effort is fair). Examples of these are inclusion of farmers in the experimentation and monitoring of effectiveness of the new practices; increased information/knowledge flow);
- A close relationship with the customers, where it is clear for them the benefits that they perceive from the relationship. Examples of this are the management and guarantee of the supply for the retailers, the introduction of innovative products and practices.

Notably, the evidence generated suggests that a purely technological understanding of innovation may preclude all sustainability potentials of innovations. Rather, a broader understanding of innovation, including a novel business model targeting challenges in the innovation process, is needed to fully exploit these potentials. Therefore, whilst putting emphasis on the introduction of innovations as a necessary and sufficient condition for the attaining long term economic sustainability, disregarding the importance of the business environment (i.e., the market structure) where the innovation takes place, may be successful in the short term but it is not a resilient strategy for the continuity of the producer firms.