“Agrispin – Space for innovations in Agriculture”

Irish Cross Visit Report

12th-16th September 2016

Version 0.2

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1. Introduction

This document provides an insight into the Irish agricultural innovation support system through the eyes of the AgrisSpin Cross Visit participants.

This report describes the visit schedule, the Irish Agricultural Knowledge Innovation System (AKIS), the Irish case studies, method tools used, and the cross visit participant feedback (Pearls, Puzzles and Proposals) during and post the Irish visit.

AgriSpin is an EU H2020 project focusing on identifying best practices for innovation and support systems in European Agriculture. Agrispin's goal is to contribute to improved methods for innovation support. Another goal of the project is to establish a strong innovation network between the partners of the AgriSpin project innovation networks, innovation projects, and politicians, on a European, regional and national level. The overall budget for AgriSpin is €2 million. The project commenced in March 2015, and will end after 2.5 years. More detail on the project is available via www.agrispin.eu

Participants in the Ireland Cross Visit are outlined below

	Name	Organisation
1	Sonia Ramonteu	ACTA
2	Pauline Bodin	ACTA
3	Cristi Gherghiceanu	Adept
4	Yulia Barabanova	IFOAM
5	Ilse Geyskens	Innovatiesteunpunt
6	Anita Diabele	LLKC
7	Heidi Rasmussen	SEGES
8	Eleni Zarokosta	University of Athens
9	Guy Faure	CIRAD
10	Eelke Wielinga	ZTLO
11	Marietheres Förster	VLK
12	Tom Kelly	Teagasc
13	Mark Gibson	Teagasc
14	Kevin Heanue	Teagasc
15	James Maher	Teagasc

The Ireland cross-visit took place from 12th to the 16th of September 2016. Ireland was the final cross-visit in this AgriSpin project.

2. Irish AgriSpin Cross-Visit Schedule

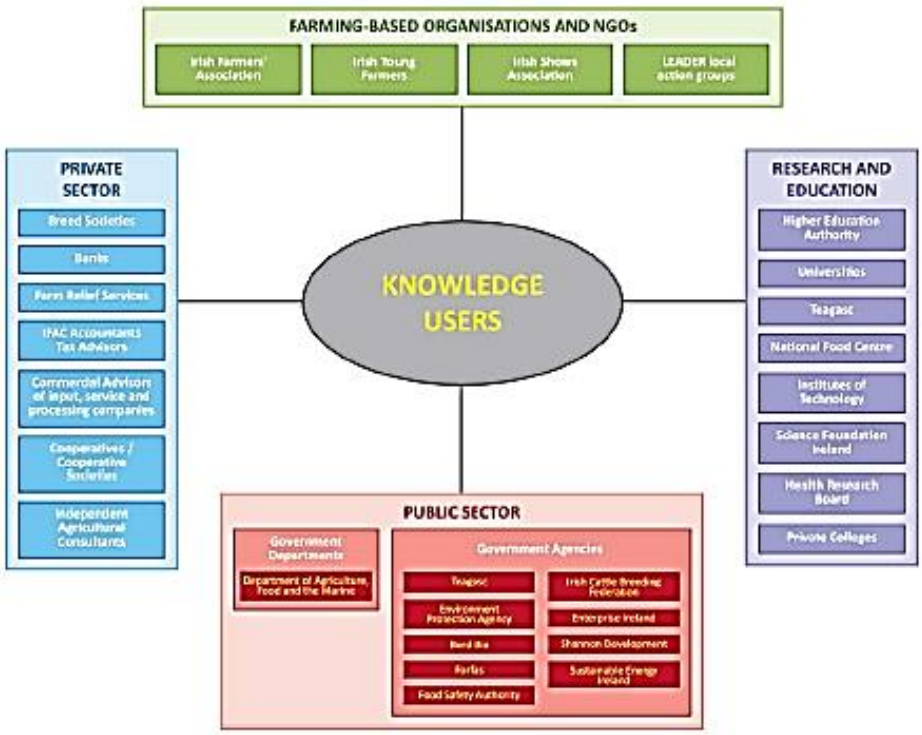
	Monday 12th September	Tuesday 13th September	Wednesday, 14th September	Thursday 15th September	Friday 16th
MORNING		Case Study 1 Use of Economic Breeding Index to improve herd profitability. 09:30 Depart hotel for case study 1 : – Dairy Farmer (Larry Hannon) who has benefited from EBI 10:00 Interview Farmer, 11:00 interview actors: • Advisor (Ned Loughlin) • Dairy Specialist (George Ramsbottom) • Discussion group members 12:45 depart for lunch	Case Study 2 Use of Paddock Systems on a beef farm to improve grassland management and in turn profitability (influenced by Green Acres Programme). 09:00 Leave hotel for John Lawlors farm, Ballyfin Co. Laois 10:00 Interview Farmer (family) and advisor (Paul Gilligan) 12:30 Leave farm for Hertiage Hotel, Portlaoise	9:45 Depart hotel for case study visit 3 Farm Succession case study – O Connor Family Farm Ballitore Co. Kildare 10:30 Interview Farmer and family 11:30 Interview Actors • Christy Watson (Advisor) • Tom Curran • Tomas Russell 12:30 depart for lunch	8.30 Depart hotel for Oak Park Meeting between Agrispin group, TK, and relevant Teagasc staff. Presentation by Agrispin group followed by workshop with Teagasc staff on Pearls, Puzzles and Proposals.
Lunch	13.15 Lunch at Oak Park	13:15 Lunch at Oak Park	13:00 Lunch (Heritage Hotel)	13:15 Lunch in Oak Park	12:30 Lunch followed by departure.

AFTERNOON	14:00 Internal Meeting • Presentation on Ireland and Irish Agriculture (JM) • Presentation on Teagasc innovation support – programme development, delivery and evaluation. (TK) • Briefing on each case study (KH) • Discussion on methodology (all)	13: 45 Group reflection on EBI Innovation Spiral & Pearls, Puzles and Proposals on innovation support. 15:45 Oak Park Crops Research by Head of Centre. 18.15 Transport back to hotel.	15:15 Arrive at Teagasc Green Acres Beef Farm Open Day, Michael Flynn, Nenagh. Group attends open day and speaks to actors involved in the Teagasc Green Acres Programme 17:30 Depart open day 19:00 Stop off for Dinner in Coolnahowle farm and complete innovation spiral	14:00 pm Innovation Spiral on the above 16:00 pm Pearl, Puzzles, and Proposals 19:00 pm Depart for hotel	
EVENING	19:30 Dinner	19.30 Dinner	22:30 Depart for Hotel	20:30 Dinner and entertainment –Carlow Town	

3. Ireland's Agricultural Knowledge innovation System[1]

The PRO-AKIS project developed the diagram of the Irish AKIS displayed in Figure 1. This is a good general overview of key elements of the Irish AKIS. As depicted by Prager and Thomson (2014), the Irish AKIS embraces both national and international dimensions, and includes private research entities, private agricultural consultants and veterinarians, food processing companies and cooperatives, input supply and service companies (e.g. accounting and software), universities and Institutes of Technology, the Department of Agriculture, Food and the Marine (DAFM) and other government departments, public agencies such as Bord Bia, the Irish Cattle Breeding Federation, Animal Health Ireland, the Environmental Protection Agency and, the agricultural media, which is particularly strong in Ireland.

Figure 1: Overview of key components of the Irish AKIS



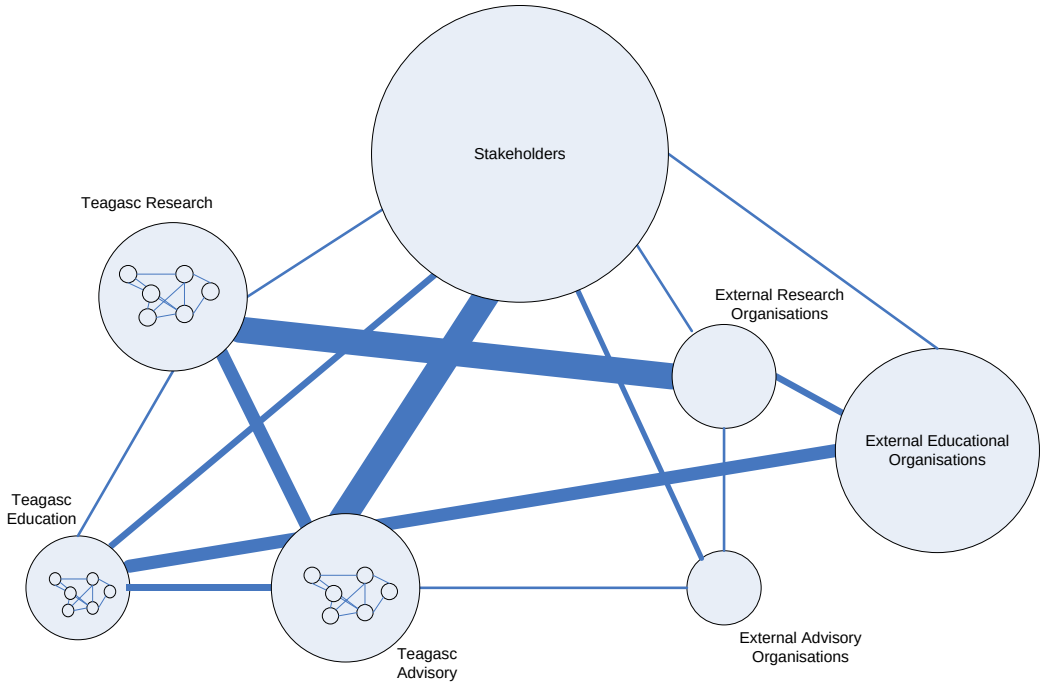
Source: Prager and Thomson, (2014); PROAKIS Project

Both Prager and Thomson (2014) and Boyle (2012) argue that the Irish AKIS is relatively unique internationally in having a substantial component of the AKIS within a single organisation, namely Teagasc. In principle, this should lead to a more effective system. Therefore, Figure 2 below reflects on Teagasc's position within the wider AKIS. Teagasc is the national body providing integrated

[1] This section of the cross visit report draws heavily on Heanue, K., and Shanahan, U. (2015) *Study on Investment in Agricultural Research: Review for Ireland*, IMPRESA country report: Ireland, www.impresa-project.eu

research, advisory and training services to the agriculture and food industry and rural communities. Its activities span various elements of the AKIS. Teagasc's mission is to support science-based innovation in the agri-food sector and the broader bioeconomy so as to underpin profitability, competitiveness and sustainability.

Figure 2: Impressionistic view of the linkages between the Irish AKIS



Source: Boyle, (2012)

Boyle (2012) outlined that strong linkages exist between Teagasc research and external research organisations and between Teagasc advisory services and stakeholders. There are weaker connections between external research and education organisations and stakeholders and between Teagasc advisory and external advisory organisations. Underpinning some of these linkages are MOU's, joint programmes and formal alliances. A recent initiative involves the development of a Connected programme for rural professionals where Teagasc aims to strengthen its links with other professionals who provide a variety of legal, financial, accounting and production advice to farmers.

In 2012, there were 103,400 people employed in Agriculture, Forestry and Fishing. There are 139,860 farm holdings compared to 141,527 farms in 2000 a decline of 1.2% over the period. The vast majority of Irish farms are family farms. Structurally, the average farm size is 32.7 hectares. Demographically, just over 6% of the farming population are under 35 years of age with 51% of farmers over 55 years. In terms of specialisation, nationally, 55% of farms are specialist beef producers; just over 11% of farms are specialist dairying enterprises; 11% are classified as mixed grazing and livestock; 10% identified as specialist sheep farms and 3% were specialist tillage farms.

The remaining 10% are classified as mixed crops and livestock; mixed field crops and 'other'. Fewer than 74,000 farms (53%) were located in the Border Midland and Western (BMW) region (the most rural of Ireland's two regions) with the remaining almost 66,000 farms (47%) in the Southern and Eastern (SE) region. In 2012, 38% of farms were considered economically viable, 29% sustainable and 33% vulnerable (Hennessy et al., 2012)[2]. In 2013 the proportion of farms where either the holder or spouse had an off-farm job was 51.1%: this was a decline from the peak of 59% in 2006 but an increase from the low of 50% in 2012.

Farmer based organisations

There are several farmer-based organisations. Long-established farmer representative organisations include the Irish Farmers Association (IFA), the Irish Creamery and Milk Suppliers Association (ICMSA), Irish Cattle and Sheep Farmers Association (ICSA) and Macra na Feirme (young farmers organisations). In late 2014, a new farmer-based organisation, the Irish Natura and Hill Farmers Association (INHFA) was formed as a result of the success of the Hill Farmers for Action group to campaign for changes to the GLAS[3] scheme (new agri-environmental scheme, part of the Irish Rural Development Programme 2014-2020). Of course, many of the processing operations particularly in the dairy sector emerged from farmer cooperatives and farmers still have stakeholdings in aspects of these businesses.

Public education and research organisations

There are 7 main universities in Ireland, all of which engage in some level of agrifood sector relevant research; Dublin City University; NUI, Galway; NUI, Maynooth, University College Cork, University College Dublin, University of Limerick and University of Dublin (Trinity College). Some of the universities have recently formed strategic alliances/partnership. To take just two examples, the Trinity College and UCD partnership announced in 2009 seeks to develop a world-class ecosystem for innovation that will drive enterprise development in Ireland. The NUI Galway and University of Limerick alliance announced in 2010 seeks to facilitate collaboration in areas such as the biomedical device industry, software development and green technologies. Two Teagasc related alliances of note are the National Agricultural, Research, Education and Innovation Partnership with University College Dublin and the Strategic Alliance in Food Research with University College Cork.

There are 13 Institutes of Technologies (www.ioti.ie). The Institutes of Technology operate a unique system in that they allow students to progress from two year (associate degree programmes) through primary degree to Masters and PhD. Ten of Ireland's Institutes of Technology have formed alliances and have begun bids to achieve Technological University status.

[2] An economically viable farm is one that has thecapacity to (a) pay family labour at the average agricultural wage, and (b) provide a 5 per cent return on non-land assets. A sustainable farm is not economically viable but it is sustainable due to the presence of off-farm income. A vulnerable farm is one that is not economically viable and does not have income from off-farm employment.

[3] GLAS achieves the objectives of Articles 28 and 30 of the Rural Development Regulation and ties in with the green vision for Irish agriculture as contained in Food Harvest 2020 and as promoted by Bord Bia in the Origin Green campaign.

There are two state agencies in the agrifood sector with a relevant remit for either research or education or both; Teagasc and the Marine Institute. In terms of agricultural education provision, Teagasc has a network of 4 colleges[4], an e college and there are also 3 private colleges[5]. It also has 12 Regional Education and Training Centres, one in each of its Regional Units, where it provides a mixture of higher level, further education and adult and continuing education courses. It also partners with national and international universities to provide PhD and Master's degree opportunities through its own Walsh Fellowship programme.

The Marine Institute is the State agency responsible for marine research, technology development and innovation in Ireland. It focuses on applied or development research. It provides scientific and technical advice to Government to help inform policy and to support the sustainable development of Ireland's marine resource. It has 170 staff and is based in Oranmore, Co. Galway. Bord Iascaigh Mhara (BIM) or The Irish Sea Fisheries Board, is the Irish State agency with responsibility for developing the Irish Sea Fishing and Aquaculture industries. BIM was established under the Sea Fisheries Act 1952. BIM's mission is to promote the sustainable development of the Irish seafood industry at sea and ashore and support its diversification in the coastal regions so as to enhance its contribution to employment, income and welfare both regionally and nationally. The National Maritime College of Ireland[6], located in Cork, was built to serve the training requirements of the School of Nautical Studies, Cork Institute of Technology and the Irish Naval Service. It provides a variety of academic and commercial courses.

Key private sector players

In term of turnover the top 5 agribusiness firms are Glanbia, ABP Food Group, Irish Dairy Board, and Origin Enterprises plc. The top 5 food firms in terms of turnover are Kerry Group, Musgraves (€4.8b), Glanbia plc (€3.5b), Total Produce (€3.2b), and ABP Food Group (€2.3b). The top 5 exporters (in 2009) were Kerry Group (€4.3b), Aryzta (€2.9b), Irish Dairy Board (€1.8b), Glanbia plc (€1.6b) and Kellog European Trading (€1.6b).

Reflecting the profile of Irish industry in general, key private agrifood players can be divided into indigenous Irish-owned companies and foreign-owned companies. Examples of the former include, in the agribusiness and food sector, Glanbia plc[7] an international nutritional solutions and cheese group; ABP Food Group which is one of Europe's leading privately owned food processors; The Irish

[4] Clonakilty Agricultural College; Kildalton Agricultural and Horticultural College; Ballyhaise Agricultural College; College of Amenity Horticulture; Teagasc.

[5] Gurteen Agricultural College; Mountbellew Agricultural College; Pallaskenry Agricultural College.

[6] The NMCI is the first third level college in Ireland to be built under the Government's Public-Private Partnership scheme. The public partners are the Cork Institute of Technology (CIT) and the Irish Naval Service (INS) and the private partner is Focus Education.

[7] In early 2015, Glanbia Ingredients officially opened its new state-of-the-art dairy processing facility at Belview port in Co Kilkenny. It is the largest single infrastructure investment in Ireland by an indigenous company since the construction of Ardnacrusha (Hydro-electric power station) in 1929. The plant has the capacity to produce up to 100,000 tonnes of nutritional dairy powders a year, making it one of the biggest facilities of its kind in Europe and it is expected to contribute an estimated €400m a year to the Irish economy.

Dairy Board (a co-Operative exporting dairy products) and Origin Enterprises plc, an agri-services group with interests in food and marine proteins and oils: Kerry Group, which provides food, food ingredients and flavours; Total Produce which grows, sources, imports, packages, distributes and markets over 200 lines of fresh fruits, vegetables and flowers operating out of 90 facilities across some 19 countries including Ireland; Musgraves is a major Irish food wholesaler, which works in partnership with entrepreneurial retailers in Ireland, the UK and Spain. Although not listed above, there are other key private players, for instance in the agricultural machinery sector, such Dairymaster Ltd, McHales Engineering Ltd and Richard Keenan & Co. Ltd.

Examples of the latter (foreign owned companies) include Abbott Ireland, Danone and Wyeth. These companies have diverse activities but are prominent in the infant milk powder sector.

4. Method

The method for this project requires the cross visit team to carry out an on-site analysis of the host's proposed innovation support case studies and draw conclusions about the support the case study innovator has been receiving. The cross visit team are required to respond to research questions and encouraged to share their experiences through as many channels as possible afterwards.

By the time of the Irish cross visit in September 2016, the methodology was well defined due to incorporating the learning from the experience of previous cross visits. Participants examined each of the Irish case studies using the innovation spiral as a lens. They then presented their observations and opinions on what they had seen in the form of Pearls, Puzzles and Proposals at the end of the visit and submitted their Learning Histories.

http://agrispin.eu/framework/

http://agrispin.eu/cross-visits/

Partners after each case study are required to answer questions such as:

- What innovation support services were observed?
- How did the innovator benefit from the Support Service?
- How did the environment / landscape influence the support service and the innovation process?
- What were critical moments in the innovation process?
- What is striking about this case in terms of pearls and puzzles?
- What suggestions have you for improvement of this support service?

a. Pearls

- *What are for you the most important pearls to take home?*

b. Puzzles

- *What puzzles are remaining for you after this visit?*
- *Why are they important for you?*

c. Your thinking about innovation and innovation support

- *What thoughts about innovation and innovation support have been triggered by this cross visit?*

d. Proposals for host

- *What proposals do you take home for your own organisation?*

f. Progress in AgriSpin

g. Proposals for AgriSpin

Cross visit findings inform additional workshops, seminars and conferences to be carried out as part of the overall Project.

5. Irish Cross Visit

The Irish cross visit took place from the 12th to 16th of September 2016. The visit focused on three cases. Case 1, the *Economic Breeding Index* was a technical innovation at the embedded stage. Case 2, *Supporting Grassland Management through the Greenacres Joint Programme* was a technical innovation at the dissemination phase. Case 3, *Registered Farm Partnerships*, was a social innovation. The cases are outlined in more detail appendix 1. The cases were chosen because they are examples of multi-actor approaches to innovation support in Ireland.

6. Symposium Discussion and Take-Home Messages

The cross visit symposium formed part of a Teagasc National Advisory Programme Management Team Meeting (HODKT + others) on Friday September 16th. In addition to the AgriSpin cross visit team, there were 16 other participants.

This section contains the pearls, puzzles and proposal from each of the case studies as presented at the symposium and then the results of the symposium discussion. The symposium began with an overview of the AgriSpin project followed by a presentation of the pearls, puzzles and proposals. Then the attendees divided into 4 groups and reflected on the pearls, puzzles and proposals to produce some 'Take Home Messages'.

Case study Pearls, Puzzles and Proposal

Case Study 1: Economic Breeding Index

Pearls

- Discussion group with high level of trust
- Lots of information about each animal – coming from the database.
- Teagasc + partners ability to create and implement new system
- Teagasc working on all levels from research to implementation.
- Teagasc ability to include a broad range of actors in the innovation
- Teagasc position in the AKIS as a government agency
- Team approach to make the innovation work and implemented.
- "I don't want to be a nurse – I want to be a farmer"
- "Before my cows wanted to lie down and die – now they want to live"
- Capacity to coordinate research and extension.

Puzzles

- How to get consensus about the economic value of each parameter in the index.
- Farmers will not change by nature – what does Teagasc do to improve advisors soft skills?
- Research driven innovation – "We know what is best for farmers"
- Too many services may limit the space for the farmers to be innovative?
- Too little diversity of options for the farmer to get advice and support?

Proposals

- Actively search for entrepreneurs with new initiatives
- Create more space for innovation by supporting new associations, NGOs or farmers organisations to try "out of the box" ideas.

<u>Case Study 2: Supporting Grassland Management through the Greenacres Joint Programme</u>

Pearls

- Fast reaction to the external challenge (increased number of calves)
- Well-designed farming system based on grass production and low input costs.
- Complete package of advice for the farmer
- Use of discussions groups as a vehicle for the process
- Possibility for benchmarking in the discussion groups – comparing data.
- Teagasc well positioned in the network and in the process
- Farm walk as a dissemination tool is impressive – also a networking event.
- Good media coverage.
- Industry involved as partners in the programme.
- Farmers used as advocates towards other farmers

Puzzlings

- Can the farmers trust that the advice is neutral when private companies are involved?
- The solutions are for full time farmers - what about the part time farmers?
- How much work is done to investigate the resistance against the new way of grass managing?
- Why does the farmer put up with the fixed value chain?
- And why doesn't Teagasc (or others) address the problem of the monopolised market?
- Why is the paddock system not more common?

Proposals

- Put more effort in the marketing aspect?
- Put effort in finding out why people resist
- Find solutions for part time farmers.

Case Study 3: Registered Farm Partnerships

Pearls

- Teagasc able to act in all stages of the innovation process.
- Easy access to major players in the process (including the government)
- Teagasc ability to provide fine-tuned advice on complicated issues.
- Tom Curran's role as an intermediate between the actors and providing solutions to the ministry (planning ahead)
- High skilled advisors
- Better risk management for both generations of farmers.
- Training courses for the involved actors (advisors, solicitors etc.)
- Advising system with one responsible advisor for the farm
- High level of trust and long-term, good relationships between farmer and advisor.
- Involvement of the young farmers' organisation.
- Wide range of methods applied to get the messages through

Puzzles

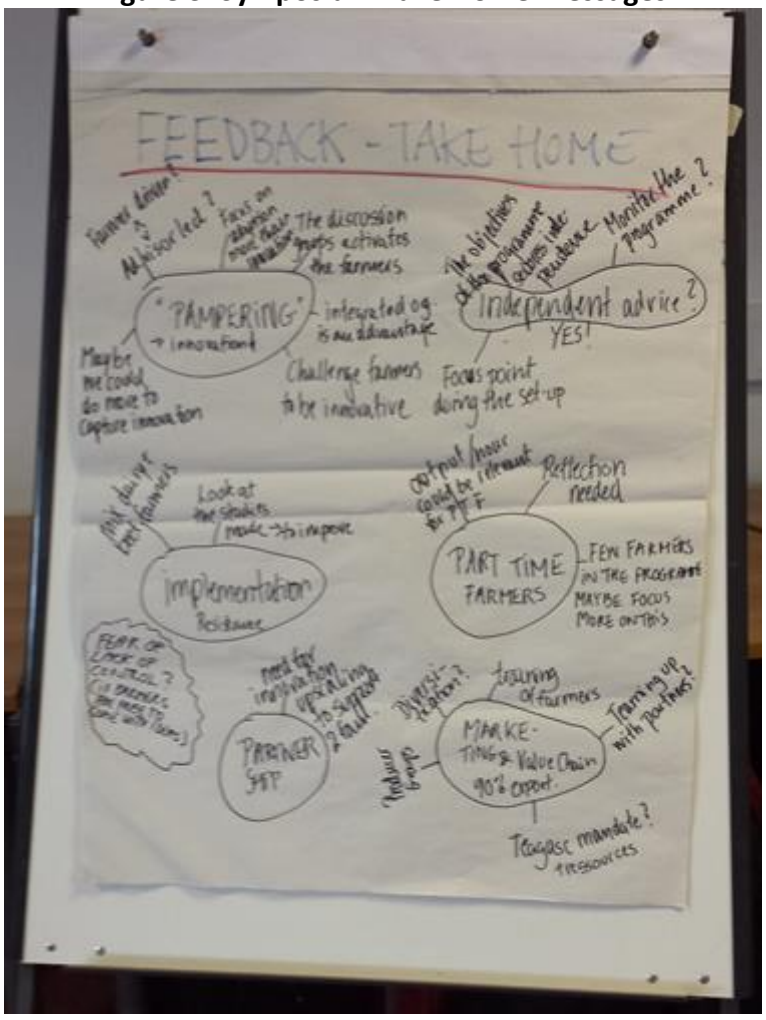
- Aging population of farmers – is this programme enough to cover the needs and the challenges?
- Dependence of one individual as the central actor?
- Is the long term strategy of the farm taken care of?
- Is the information targeted to specific groups?

Proposals

- A colleague for Tom Curran.
- Take actions to embed the service in Teagasc
- Reflect with stakeholders about the future of the service.
- Discussion group for young farmers.

The take home messages from the symposium discussion are displayed in Figure 3 and were grouped under 7 headings

Figure 3: Symposium Take Home Messages



1) **Independent Advice**

This was recognised as a critical feature of, and strength of, Teagasc programmes and activities. The statement of clear objectives for programmes helps secure independence. The importance of monitoring and evaluating programmes was raised by getting regular feedback from farmers. The provision of independent advice should be a clear focus/objective during the establishment of any new programme.

2) **'Pampering' of farmers**

The extent of farmer-driven as opposed to advisor-led activity was raised. There appears to be a greater focus on adoption as opposed to innovation; discussion groups activate farmers and an integrated organisation is an advantage. There is a need to challenge farmers to be innovative. Perhaps Teagasc could do more to capture farmer innovation. Another point here was that, given all the advisory programmes and support, perhaps there wasn't sufficient 'space' for farmers to be innovative.

3) **Implementation**

How can resistance to best practice be overcome? Is there sufficient effort put into researching, understanding and developing solutions for resistance to best practice? Are there advantages to mixing dairy and beef farmers to encourage practice implementation? Is enough use being made of studies and success stories in trying to encourage practice change?

4) **Focus on Part-time farmers**

There appeared to be few part-time farmers in the programmes and maybe there should be more focus on these farmers. The metrics for part-timer farmers might be different, e.g. output per hour of labour. Should part-time farmers and their needs be focused on more? Should there be a part-time farmer 'proofing' of support programmes? There was some discussion that although the constituent bits of programmes are appropriate maybe the overall systems solution being proposed to part-time farmers might need to be re-thought.

5) **Partnerships**

In the context of registered farm partnerships, there is a need for innovation up-scaling to support 2 farms. If the farm cannot economically support 2 farmers/farm families then the social innovation of farm partnership is unlikely to be considered.

6) **Marketing and Value Chain**

What is Teagasc's role along the value chain, particularly in terms of marketing? What does its mandate and resources allow it to do? In fact, is a role possible given 90% of output exported and there are marketing roles for other agencies (Bord Bia etc). What partnerships are possible? What are the possibilities with producer groups and other forms of diversification which shorten supply chains? What type, and how could appropriate training/up-skilling be provided to farmers?

7) **Top down v bottom up**

Is there a fear of lack of control if farmers are free to come with their own ideas? This was in the context of more programme-led rather than farmer-led activity being identified and more of a focus on adoption as opposed to innovation. It is more difficult (different capabilities needed) to support the evolving needs of innovating farmers than to support adoption of technologies and best practice.

7. Conclusions

Across the case studies it is clear that Teagasc plays a central role in supporting on-farm technical and social innovation through the provision of independent advice, use of a suite of extension methods and tools and its active role in the innovation support system, in collaboration with a range of stakeholders in a variety of partnership and joint programmes.

Reflecting, with stakeholders, on the future of its service; its interaction with young farmers; creating space for farmer innovation and feedback; devoting attention to understanding farmer lack of best practice uptake; solutions for part time farmers; actively searching for farmer entrepreneurs with new initiatives and looking at the marketing/consumer end of the value chain were some key proposals for the organisation to consider

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www.proakis.eu/publicationsandevents/pubs

8. Appendix 1 Irish Cases

Case Study No. 1 | Tuesday 13th September |Larry Hannon, Co. Kildare

Title: Economic Breeding Index (EBI)

Summary

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

The Case

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

Drivers

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

Activities and Results

- For all Irish herds, EBI was €62 per heifer born in 2000 and increased to €160 in 2016. In 2016, Larry has a herd EBI of €159 and the 2016-born heifers average €221.
- Larry became involved in EBI because while his cows were producing good milk yields, he had great difficulty in maintaining herd fertility. As a result, his cows had a long calving interval with many calving in April-May period and he had to commence calving his autumn calvers in August. For a farmer wishing to optimise the role of grazed grass in the diet, this was not ideal.
- Using EBI has allowed Larry to breed a more fertile dairy herd resulting in his current 8 and 11 week calving periods in autumn and spring respectively. Earlier concentrated spring calving and later autumn calving has helped him to use a greater proportion of grazed grass in the diet of his dairy herd and reduce his cost base as a result. An additional benefit of higher EBI and fertility has been the opportunity to more rapidly increase the size of his dairy herd from 100 cows in 2010 to 160 cows in 2016.
- Larry is very financially aware and interested in increasing the profitability of his dairy farm. He accepts that increasing the EBI of his herd will help to increase profitability.
- In this case, Larry's farmer discussion group of 15 like-minded farmers provided a space for Larry to regularly discuss and share his experiences of using EBI to make breeding decisions. Implementation was further supported by working with his Teagasc adviser to select suitable AI sires for his herd.
- Promoting the adoption of a successful technology increases the reputation of the adviser within the farming community. Successful promotion also raises the adviser's self-confidence. Having EBI included as part of the Teagasc dairy development programme allows the adviser to be part of a national campaign. The other actors in EBI promotion e.g. breeding companies and ICBF support the work of the adviser.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 652642

Case Study No. 2 | Wednesday 14th September | John Lalor Ballyfin, Co. Laois

Supporting Grassland Management through the Greenacres Joint Programme

Summary

The Greenacres Joint Programme takes a holistic approach to building the farmers technical and financial capacity with particular emphasis on grassland management, performance per livestock unit and herd health. Greenacres is a joint initiative between Teagasc, a number of industry stakeholders and ten demonstration farms located in the south midlands of Ireland. Project partners have co-designed a programme that leverages the knowledge and experience of all stakeholders. The programme provides a vehicle for extension at farm level while building capacity amongst all partners involved. John Lalor is a demonstration farmer who is benefiting first hand from the programme whilst at the same time assisting other farmers in their development journey.

The Case

John and his wife Catherine along with sons Matthew, John Clyde and daughter Mary farm 41ha of grass and 48ha of tillage. This family farm is situated in Ballyfin in Co. Laois. This is a very dry farm of land farming heifers only and finishing out of the shed at 22 months of age. They slaughter 100 Angus or Hereford heifers each year. John has become very professional at rearing calves as he bought 130 calves last spring and has 120 yearlings at grass.

Drivers

Grass is the cheapest and most sustainable form of feed in Ireland when properly managed. The challenge is to be able to manage grass and keep quality grass in front of grazing livestock at all times, which in turn helps reduce production costs. Improvements in the quality and efficiency of this feed source result in lower costs and reduced environmental impact. A well-managed paddock grazing system means that the nutritional and forage needs of animals is evaluated, forage quality and quantity assessed, the area of the field that the animals have access to is regulated. Against that background, the objectives of the Green Acres Programme are to:

- Demonstrate that, where a high level of technical efficiency is achieved on beef farms, it is possible to attain a net margin per hectare (excluding premia) in excess of €500 per hectare.

- Advise and demonstrate on 10 demonstration farms, best practice at farm level on the rearing, growing and finishing of purchased dairy bred calves through to beef (steers/heifers/bulls) on a whole farm basis and to demonstrate the associated economic benefits.
- Provide technical support and targeted training to the technical staff of the stakeholders contributing to the programme.
- Disseminate physical and financial progress / results from the programme using a range of communication strategies including monthly coverage in the Farming Independent, farm walks and other channels of communication.

Activities and Results

- Better growth rates in his animals due to more gain from grazed grass. John has reduced the cost of producing beef on the farm. John joined the programme in 2015 and has set targets to benchmark himself against that will bring his margin over direct cost from €717 per ha to €1000 / hectare by 2018.
- John has reseeded the farm over the last few years as a result of rotating tillage ground. The farm is highly stocked and with a good grassland management system in place, this could be increased further.
- Paddocks were firstly established on the farm in 2014 (paddock grazing is the practice of moving grazing livestock between sub divided fields on a regular basis). Cattle are moved every three days to a new paddock on the farm.
- John is a member of The Laois Discussion Group, The Greenacres Programme. He is also a Teagasc Client and for this receives individual advice from a Teagasc Adviser. There are 18 farmers in the Laois Discussion Group. Twelve farmers participate in the Green Acres Programme and there are 1000 Teagasc farmer clients in County Laois.
- John is a leader who communicates the messages from the Greenacres programme to help other farmers sustainably improve profitability. He receives close support from Teagasc and the other Greenacres partners in return for his time and effort in communicating to other farmers through media contributions and hosting of visiting groups.
- The Advisor learns from their involvement in this multi-actor approach to improving farm efficiency sustainably. The farm is also a demonstration farm for other farmers in the county.
- A range of organisations including Teagasc, Grasstec, Liffey Mills, Volac, MSD and Grassland Agro were important in helping the farmer.

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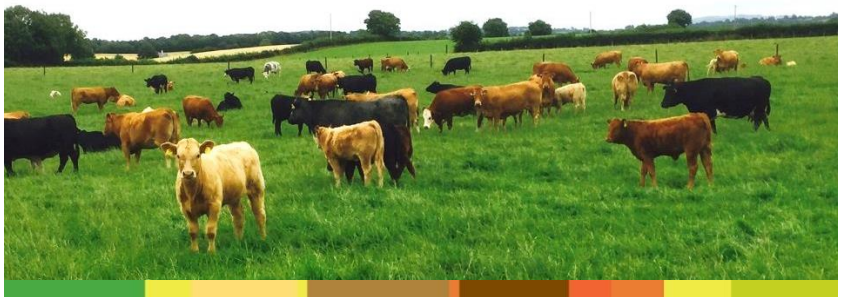

Case Study No. 3 | Thursday 15th September |O' Connor Farm, Co. Kildare

Registered Farm Partnership (RFP) agreements

Summary

Registered Farm Partnership (RFP) agreements in the dry stock sector are a new approach to farm business management in Ireland although they are more common in the dairy sector. The first official non-dairy farm partnership agreements were drawn up in 2015. The RFP allows new novel farming arrangements to be undertaken within the farm family and also between farm families. The RFP can be an initial step towards, but also an integral part of, a Farm Succession Plan. They act as a transition structure before the final transfer of the family farm. Farm families who combine their farms into one partnership structure can benefit from economies of scale, improved lifestyle and a greater ability to balance off-farm work with on-farm work.

The Case

Monica, Tom and son Thomas O'Connor farm 97ha of good fertile land 75kms south of Dublin in County Kildare. They farm Suckler Beef, Sheep, Tillage Crops and Pigs to a very high standard. In 2015, Thomas was selected as Young Beef Farmer of the year in recognition of the excellent standard of farming. The family initiated a RFP. This innovation allowed the family to implement a succession plan which met the various needs and concerns of the family. It allowed for some immediate land transfer, and also to bring their son into the farm business while still at a young age.

In 2015 Thomas was selected as young Beef Farmer of the year in recognition of the excellent standard of farming carried out. In 2015 the succession process began with the transfer of lands to another son who was farming on rented lands, the decision was made to put some lands into joint ownership of Tom and Thomas and also to bring Thomas officially into the farm business through a Farm Partnership, which includes both parents and Thomas.

Drivers

- In Ireland the next generation of farmers often do not have any official role in the management of the farm until total land transfer occurs. The RFP documentation outlines the roles and responsibilities of each member of the farm partnership, something that was not possible in the past. The RFP also allows a young person to be taken into the business at a young age without the need for a full land transfer. It gives the young person a formal role in decision making on the farm.

- In 2015 the succession process in this case began with the transfer of lands to another son who was farming on rented lands. The decision was made to put some lands into joint ownership of Tom and Thomas and also to bring Thomas officially into the farm business through an RFP, which includes both parents and Thomas. The main actors involved in setting up the RFP were: Christy Watson (local Teagasc Advisor), Thomas Curran (Teagasc Farm Structures Specialist), farm solicitor, accountant, tax specialist, and the farmer's bank.

Activities and Results

- The family decided to enter into a partnership so as to bring their son into daily farm management and give him a recognised role in farm management. Their son can now conduct financial transactions on behalf of the farm without having to wait for his parents' approval.
- Their son is now an integral and recognised business partner without the need to immediately transfer ownership of all the land. The parents can also retain an active part in the running of the farm.
- The main benefits are that all parties (both parents and son) are actively involved in farm management; the Basic Payment Scheme payment into the farm has increased; the Tax relief incentives of RFP are beneficial.
- The partnership works because there is a very good working relationship between all parties; all parties are very realistic about what can be delivered by the partnership and the financial benefits are understood fully by the partners.
- The Teagasc advisor has benefited in that this specific experience has shown the advisor the potential of partnerships which can now be promoted to other clients; it also offers a solution where other clients wish to bring a family member on board but are not prepared to transfer the whole farm in the short term.
- Other important actors in supporting this innovation were the family's accountant, solicitor (legal advisor), bank and the Department of Agriculture Food and the Marine.

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