Dadansoddi ar gyfer Polisi



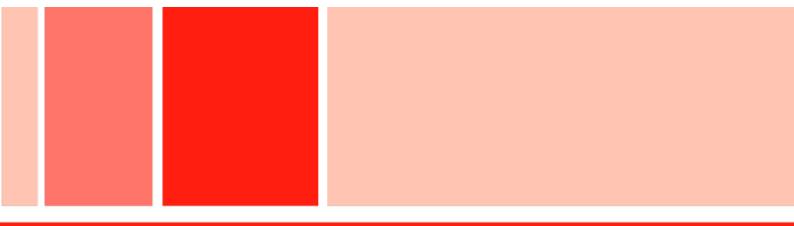




SOCIAL RESEARCH NUMBER: 41/2021 PUBLICATION DATE:

10/06/2021

Evaluation of the Knowledge Transfer, Innovation and Advisory Services Programme



Mae'r ddogfen yma hefyd ar gael yn Gymraeg.

This document is also available in Welsh.

Title: Evaluation of the Knowledge Transfer, Innovation and Advisory Services Programme

Author(s) / Company



Full Research Report: Hindle, R., Pates, R., and Barber, J. (2021). *Evaluation of the Knowledge Transfer, Innovation and Advisory Services Programme*. Cardiff: Welsh Government, GSR report number 41/2021

Available at: https://gov.wales/evaluation-knowledge-transfer-innovation-and-advisory-services-programme-final-report

Views expressed in this report are those of the researcher and not necessarily those of the Welsh Government

For further information please contact:
Research, Monitoring and Evaluation
Welsh Government
Cathays Park
Cardiff
CF10 3NQ

Email: RDPMandE@gov.wales

Table of contents

List o	of tables	2
List o	f figures	3
1.	Introduction	4
2	Implementation: beneficiary characteristics, inputs and outputs	14
3. lm	plementation: Effectiveness of programme delivery, management and govern	nance 27
4	Outcomes and impacts	49
5	Learning from elsewhere	69
6	Conclusions	85
Anne	x A: Consultees across both phases of research	96
Anne	x B: Case study summaries	98
Anne	x C: Case study respondent characteristics	155
Anne	x D: Additional monitoring data analysis for programme refresh period	156
Anne	x E: International Comparator Review – detailed review of programmes	162
Anne	x F: Social media activities	170

List of tables

Table 1.1: Key evaluation questions	4
Table 1.2: Research approach	5
Table 2.1: Overview of programme expenditure compared to forecast August 2015-Augu	ıst
2019 (£m)	21
Table 2.2: Lot 1: Total spend August 2015 to August 2019 on Farming Connect activities	.22
Table 2.3: Lot 3: Total spend August 2015 to August 2019 on Farming Connect activities	.23
Table 2.4: Lot 2: Total spend August 2015 to August 2019 on Farming Connect activities	.23
Table 2.5: Lot 1 programme outputs (August 2015-August 2019)	24
Table 2.6: Lot 2 programme outputs (August 2015-August 2019)	25
Table 2.7: Lot 3 programme outputs (August 2015-August 2019)	
Table 4.1: Business characteristics and extent to which changes have been implemented	d as
a result of Farming Connect in Phase 2 (n=36)	51
Table 4.2: Factors that enabler or hinder implementation and change	52
Table 4.3: Additionality – to what extent benefits would be realised in the absence of	
Farming Connect	66
Table 5.1: Summary of evidence available regarding programme outcomes and impacts	73
Table D-1: Programme spend (August 2019-August 2022)	156
Table D-2: Lot 1 programme spend (August 2019-August 2022)	157
Table D-3: Lot 3 programme spend (August 2019-August 2022)	158
Table D-4: Lot 2 programme spend (August 2019-August 2022)	159
Table D-5: Lot 1 programme outputs (August 2019-August 2022)	160
Table D-6: Lot 2 programme outputs (August 2019-August 2022)	160
Table D-7: Lot 3 programme outputs (August 2019-August 2022)	161
Table F-3: Engagement versus reach (Twitter and Facebook)	172

List of figures

Figure 1.1: Overarching logic chain for Farming Connect	10
Figure 1.2: Theory of Change	11
Figure 2.1: Characteristics of individuals	16
Figure 2.2: Support accessed by individuals registered in August 2020 (and change since	е
December 2018 as presented in Phase 1 report)	18
Figure 4.1: Outcomes evident across each strand of research (drawing on evidence in	
Phases 1 and 2 combined)	55
Figure 4.2: Outcomes observed or expected in future across case study beneficiaries in	
Phase 2	59
Figure 6.1: Theory of Change in practice	91
Figure C-1: Characteristics of beneficiaries from the beneficiary case studies and 2019	
survey	155
Figure F-1: Twitter and Facebook results over time	170
Figure F-2: Channel results by language	171
Figure F-4: Most engaging post/tweet type	172
Figure F-5: Twitter – type of engagement	173
Figure F-6: Topic results over time	174
Figure F-7: Topic results by language	174
Figure F-8: Engagement by gender	175
Figure F-9: Engagement by age	175

1. Introduction

1.1 SQW, with Arad and our agricultural expert Martin Collison, was commissioned to undertake an evaluation of the Knowledge Transfer, Innovation and Advisory Services Programme (2014-2020) known as Farming Connect¹. This report is the second of two phases of research. It draws together findings from both phases.

Evaluation aims and objectives

1.2 The focus of the evaluation was three-fold: first, to assess the effectiveness and efficiency of implementation; second, to gather evidence on the nature and scale of outcomes achieved to date, the extent to which these are additional (and would not have been achieved otherwise) and address the original aims and objectives of the programme; and third, to learn what works (and why) to inform ongoing delivery and the design of future programmes. More detailed evaluation questions are presented in Table 1.1, which draw on our original Specification, SQW's proposal, and discussions with the steering group.

Table 1.1: Key evaluation questions

- What activities have been delivered to date, compared to expectations?
- How intensively do farmers engage with the programme and progress through the offer, and what drives this?
- How effectively and efficiently is the programme being delivered, managed and governed?
- To what extent are changes implemented on farms?
- What outcomes and impacts have been achieved to date?
- To what extent are outcomes additional, and which aspects of the programme make the most important contribution to achieving outcomes/are most effective (alone or in combination)?
- What factors enable or hinder implementation and progress towards intended outcomes?
- What are the key lessons to inform ongoing delivery and design of future interventions?
- How is the programme performing overall?

Source: SQW

Source. SQVV

¹ Note: the European Innovation Partnership, EIP-Agri, was not within scope of this evaluation.

Approach

1.3 In line with the Specification for the study from the Welsh Government, the evaluation has adopted an in-depth, longitudinal and largely qualitative approach to gathering evidence against the research questions. The focus of the evaluation has been on learning about what works well (or not) to effect change within farming businesses in Wales, outcomes and impacts attributable to programme, and how the current delivery and future programme design can be strengthened to maximise outcomes and impacts across the sector. The two phases of the evaluation have involved the following tasks:

Table 1.2: Research approach

Tasks	Phase 1	Phase 2
Initial scoping consultations, document and data review,	✓	
and development of an evaluation scoping paper		
A review of programme documentation, and a headline	✓	✓
review of social media activity by Press Data		
Analysis of monitoring data gathered by Menter a Busnes	✓	✓
(MaB)		
Desk-based review of comparator programmes		✓
In-depth consultations with governance, management and	✓ x18	✓ x10
delivery staff at the Welsh Government, MaB and Lantra		
(see Annex A for full list of consultees)		
Regional focus groups with beneficiaries, to gather	✓ x22	✓ (x9 revisit
qualitative feedback on the support and impact and how	farmers at 4	bilaterally)
the offer could be improved, and to test/refine emerging	focus groups	
findings in Phase 2		
A series of in-depth longitudinal case studies covering 13	✓	✓ (x53 in-
strands of Farming Connect activity (eight focused on Lots		depth
1 and 3, and five on Lot 2), which involved detailed		consultations
consultations with delivery staff and up to five beneficiaries		with
		beneficiaries

involved in each activity ² . These have gathered feedback		in total
on support, outcomes achieved and factors that have		across both
helped or hindered progress. Each case study was		phases ³)
revisited in Phase 2 to understand customer journeys and		
routes to impact in more detail. (See Annex B for summary		
reports for each case study)		
Consultations with wider stakeholders, including	✓ (x10)	✓ (x9)
representatives from the Welsh farming unions, levy body,		
AHDB, Young Farmers Club and Natural Resources Wales		
(see Annex A for full list of consultees)		
Presentation of emerging findings to the Welsh	✓ (Welsh	✓ (SAB)
Government / Farming Connect Strategic Advisory Board	Government)	
(SAB)		

1.4 The second phase of research commenced later than expected in January 2020 due to a period of purdah, but encountered challenges associated with extensive flooding across Wales and then COVID-19. Most face-to-face fieldwork was completed in Spring 2020 before lockdown due to the pandemic, but we were unable to undertake a second round of regional focus groups to test and refine emerging findings face-to-face. As a result, in agreement with the Welsh Government, focus group participants from the first phase of the evaluation were invited to review and respond to emerging findings from Phase 2 bilaterally via email. Nine individuals responded. We also experienced some attrition in beneficiaries who refused to participate in the longitudinal case studies in Phase 2, and the termination of one case study activity. In these cases, relevant replacements were selected in discussion with the Welsh Government and MaB. Where fewer than three beneficiaries per case study had made substantive progress between Phases 1 and 2, at least one "success case" replacement was sought. Although there was selection bias in this approach, it enabled us to

_

² For more information on the case study selection process see the <u>phase 1 report</u>

³ Note, some beneficiaries who were unwilling to participate in the second phase of research, or who had not continued to engage with Farming Connect, were replaced (to ensure a minimum of three beneficiaries in Phase 2 per case study).

- understand the factors that contribute to a successful experience of Farming Connect and business change, as well as the barriers faced.
- 1.5 Quantitative data gathering (for example, via a telephone survey of beneficiaries) and counterfactual impact evaluation techniques were not within the scope of this assignment, as set out in the Welsh Government's Specification. Alongside this evaluation, the Welsh Government had planned to include Farming Connect beneficiaries in the wider sample for the Farm Practices Survey to allow for comparisons to be made between beneficiaries and non-beneficiaries by type of farmer (using Farmer Segmentation). As originally envisaged, this wider survey would have provided a quantitative backdrop, while the qualitative research-based evaluation explored and explained key issues. As the survey has not yet taken place, the evaluation presents a synthesis and systematic assessment of qualitative evidence, which points to a series of sector theme and project-based findings, and their possible implications. We were not asked to quantify net GVA/Return on Investment for the programme as a whole (this would require the quantitative data discussed above), nor has data from beneficiaries consulted in this evaluation been aggregated to the level of the programme population.

Overview of Farming Connect programme

- The Farming Connect framework has been developed under the Welsh Government Rural Communities—Rural Development Programme (RDP) 2014-2020, a seven-year European Agricultural Fund for Rural Development (EAFRD) programme funded by the European Union and Welsh Government. The RDP aims to increase the productivity, diversity and efficiency of Welsh farming and forestry businesses; improve the Welsh environment, encourage sustainable management of natural resources and climate action in Wales; and promote strong, sustainable rural economic growth in Wales.
- 1.7 The design of Farming Connect was informed through consultation and engagement with the industry and internal stakeholders throughout the RDP planning process, and drew heavily on experience with earlier Farming Connect programmes. This identified "a need to provide a coordinated and integrated package of knowledge transfer, innovation and advisory service that targets the farming, forestry and food sectors" to address market and other failures of:

- Information and risk aversion: farmers are typically unable to access the latest
 UK/international sources of innovation in agri-science and translate this into
 practical on-farm solutions. Farmers are also reluctant to invest in new
 technology or processes, because they do not realise the scale of potential
 return, they perceive the risk to be too high, and/or they operate under
 time/financial constraints because many are micro/small businesses.
- Co-ordination: Given the large number of actors involved and a sector which includes a diverse mix of size and type of businesses, farmers can struggle to know where to go for support.
- Wider externalities and spillovers: Farmers are likely to underinvest in innovation because they are unable to capture fully the social and environmental returns on this investment.
- 1.8 The overarching objective of Farming Connect is to increase the emphasis on business-focused behaviour and efficiency improvements, and therefore improve the profitability, competitiveness, resilience and sustainability of farm, forestry and food businesses, and by extension, promote the economic growth and development of rural areas. The 2014-20 programme period was seen as critical in supporting the sector through a period of significant change, as support moves away from direct payments via the Common Agricultural Policy. Within the programme, there were three "Lots" that structured the offer, each with specific aims and suite of activities:
 - The aim of the Knowledge Transfer Programme (Lot 1) was to support the farming and forestry industries in building resilience and enhance sustainability of businesses for the future, with an emphasis on technical and efficiency improvements. This included a range of activities, such as Discussion Groups, Agrisgôp, Study Visits, Demonstration and Focus Sites, Agri Academy, Management Exchange, Mentoring, "Venture", benchmarking activities, events and a Knowledge Exchange Hub to produce technical articles.
 - The aim of the Lifelong Learning and Development Programme (Lot 2) was to deliver a more professional industry through its support for continuous professional development, accredited training, a new e-learning platform and clear focus on personal development.

- The Advisory Service (Lot 3) aimed to provide independent, bespoke, one-toone and group advice to improve the economic and environmental performance
 of farming, forestry and food manufacturing SMEs operating in rural areas.
- 1.9 In terms of governance and management arrangements, Farming Connect is overseen by the Welsh Government, which contracted Menter a Busnes (MaB) to deliver Lots 1 and 3, and Lantra to deliver Lot 2. A team of regionally based Development Officers was, and remains in place to ensure an effective delivery process on the ground, supported by Technical Officers who take responsibility for the coordination of projects and trials within their specific area of work. The Programme is overseen by a Strategic Advisory Board (SAB), with three supporting Sub-Groups. It was anticipated that the programme would also have an Industry Advisory Board comprising industry representatives, designed to identify priorities and ensure the activities meet the evolving needs of the sector⁴.
- 1.10 A summary logic chain and theory of change (ToC) was not produced for the programme at the outset. SQW therefore drew on, and added to, existing documentation in order to develop an overarching logic chain and ToC, in consultation with the Welsh Government and delivery partners. This took place during the initial scoping phase of this evaluation. As depicted in Figure 1.1 overleaf, the logic chain sets out the rationale and strategic context, aims and objectives, inputs and intended outputs, outcomes and impacts for the programme as a whole. In Figure 1.2, we present SQW's interpretation of the ToC, which attempts to show how and why Farming Connect is expected to bring about the anticipated outcomes and impacts, by setting out causal links between activities, outputs, outcomes and impacts, and associated assumptions and risks/reasons why this logic might break down. These have provided a framework for the evaluation, against which performance has been tested and evidenced through the qualitative research.

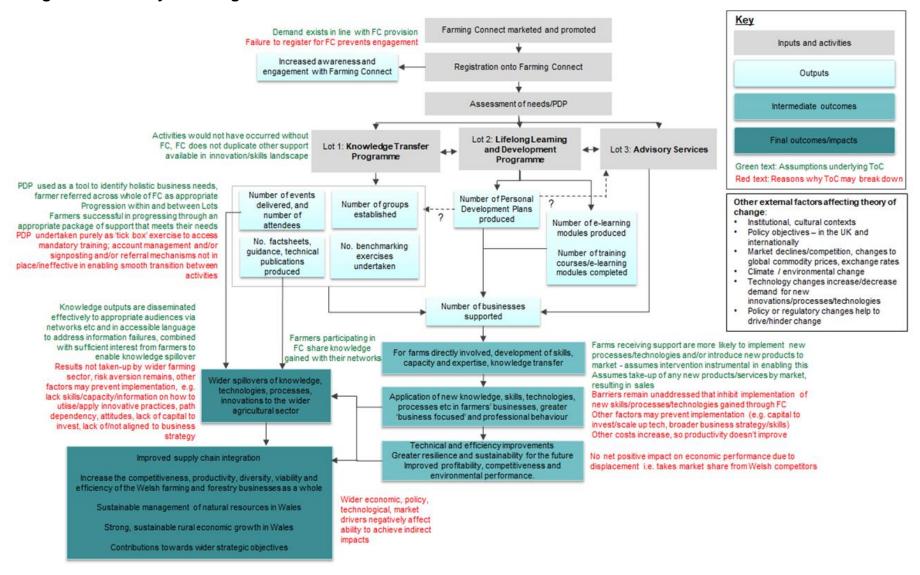
⁴ Note: IAB met on a few occasions, but it was seen as not fulfilling its purpose so was not in operation for most of the 2014-20 programme period

Figure 1.1: Overarching logic chain for Farming Connect

Benefits Strategy and Design Delivery Context and Aims and Inputs Activities Outcomes and Impacts Outputs Rationale Objectives Integrated programme of Intermediate outcomes: Ensuring that farmers and Improve the business A pan Wales programme of Management, support for the farming and Joined up working amongst key knowledge transfer activities, foresters have access to and the performance, productivity, governance and forestry industries. stakeholders, organisations and capacity to utilise knowledge, profitability, diversity, specialist advice and innovation delivery: institutions that currently support the skills and expertise to enable sustainability, Management/ov support. Outputs broadly relate to: them to develop and maintain competitiveness, resource ersight by Increased awareness/ For businesses supported viable, resilient businesses and efficiency and environmental Welsh Lot 1: Knowledge Transfer engagement with Farming Development of skills, capacity and respond to forthcoming performance of Welsh farming Programme targeting the Government Connect challenges (Brexit, ageing of and forestry businesses ... Farming and Forestry Sector: Management Number of businesses Encourage knowledge transfer/ exchange business leaders). leading to economic growth Discussion Groups, and delivery by supported and application of innovation and development of rural benchmarking tool, MaB and Lantra Number of Greater resilience and sustainability for demonstration network, farm and Market and other failures: areas. Strategic established the future Information failures and Advisory Board forestry management exchange, Number of Technical and efficiency improvements risk aversion: farmers Specific aims by Lot: and Lot Sub-1-2-1 farmer/forester mentoring delivered, and number of Greater 'business-focused' and scheme, strategicawareness unable to access latest Groups attendees 'professional' behaviour, greater focus on Lot 1: support farming and events, 1-2-1 clinics, Agri-Lab, science/innovation, and Industry Number of factsheets. personal development translate into practical onforestry industries in building Advisory Board welsh language events, CPD. guidance, technical Improved profitability, competitiveness farm solutions; reluctance to resilience and enhance Agrisgop, agri academy, publications etc produced and environmental performance. sustainability of businesses conference. · Number of benchmarking technology/processes due to for the future, with an Programme lifetime exercises undertaken lack of knowledge of potential emphasis on technical and Lot 2: Lifelong Learning and budget of £26m Number of e-learning Wider spillovers of knowledge. return/perceptions of efficiency improvements. Development Programme Lot 1: £18.5m modules produced technologies, processes, innovations to risk/financial constraints. targeting the Farming and Lot 2: £2.4m Number of Personal the wider agricultural sector Forestry Sector: Development of Co-ordination failures: Lot 2: deliver a more Lot 3: £4.9m Development Improved supply chain integration Given large number of actors professional industry with a CPD accreditation framework; produced Increase the competitiveness. Online Personal development involved and diversity of the a clear focus on personal Number of training productivity, diversity, viability and development. Plans (PDPs); E-learning and sector, farmers can struggle courses and e-learning efficiency of the Welsh farming and to know where to go for network of training providers. modules completed forestry businesses as a whole support in relation to specific Lot 3: improve the Reduced reliance on direct payments sustainable management Lot 3: Advisory Services issues. Improve the Welsh environment, Wider externalities and and the economic and targeting Farming, Forestry and encouraging sustainable management of spillovers: Scope to address environmental Food Manufacturing SMEs: our natural resources and climate action societal challenges, climate performance of farming. Bespoke 1-2-1 and group advice in Wales forestry and food sessions for eligible businesses. change, environmental Promote strong, sustainable rural sustainability, food security manufacturing SMEs economic growth in Wales issues, animal health/welfare operating in rural areas. Beneficiaries should progress Contributions towards wider strategic within and between the Lots issues objectives

Source: SQW. Notes: The content drawn directly from our review of documentation is denoted by red text. SQW has added some information for clarification and/or to ensure a logical flow from rationale to impacts, based on our understanding of the programme and feedback from the Steering Group and scoping consultees: this is shown in blue text.

Figure 1.2: Theory of Change



Source: SQW. Note: in practice, the PDP has sat under Lot 2, not above all three lots. It was originally envisaged that PDPs would signpost to Lot 1 and 3, and be used as a live record of goals and objectives for each individual.

- 1.11 As noted above, the focus of this evaluation is on the 2014-20 programme period, which formally ended (in terms of delivery) on 19 August 2019. The programme was then refreshed and extended from 20 August 2019 to 19 August 2022. The refresh aimed to make the programme more accessible and outcome focused, and to improve the customer journey. It included a number of key changes in relation to implementation, taking on board feedback from Phase 1 of the evaluation, wider feedback and internal discussions between the Welsh Government, MaB and Lantra.
 - New themes (business, land and livestock) used to present and communicate
 the offer to farmers (rather than Lots, which are now only used for internal
 programme management purposes), and associated Farming Connect website
 refresh to improve the customer journey.
 - Introduction, and more consistent use, of baselines for each theme at the start
 of a customer journey (including business plans, benchmarking, animal health
 and nutrient management), with closer alignment to Personal Development
 Plans (PDPs) to evidence need and encourage a greater emphasis on
 outcomes.
 - Stronger links between activities, e.g. Discussion Groups linked to
 Demonstration Farms and all members must undertake benchmarking, and
 priority given to Demonstration Farm participants for the Management
 Exchange Programme.
 - Re-focusing of some activities such as training courses to ensure they are more industry focused, removal of those with little take-up and focus on interactive e-learning courses.
 - Governance arrangements revised to widen industry participation in the Strategic Advisory Board and create one underpinning Delivery Board to replace the three Lot Sub-Groups, better differentiating the roles and responsibilities of each group.
- The fieldwork for Phase 2 took place shortly after the launch of the refresh. Whilst some consultees were able to reflect on the *potential* benefits arising from the revised approach outlined above, it was too early for consultees to comment on or evidence effects in practice. The focus of research was predominantly on the 2014-20 period, i.e. to August 2019.

Report structure

- 1.13 This report is structured as follows:
 - Section 2 provides an overview of beneficiary characteristics, inputs and outputs over the programme period
 - Section 3 assesses the effectiveness of programme delivery, management and governance
 - Section 4 presents evidence on outcomes and impact, and the extent to which these are additional
 - Section 5 summarises key lessons from international experience
 - Section 6 presents the conclusions and recommendations for future.
- 1.14 The report is supported by the following annexes:
 - Annex A: Consultees
 - Annex B: Case study summaries
 - Annex C: Case study respondent characteristics
 - Annex D: Additional monitoring data analysis for programme refresh period
 - Annex E: International Comparator Review detailed review of programmes
 - Annex F: Social media activities.

2 Implementation: beneficiary characteristics, inputs and outputs

2.1 In this section we provide an overview of Farming Connect beneficiary characteristics and engagement and summarise programme performance, in terms of spend and outputs against targets. Spend and output data is presented for the Farming Connect 2014-19 programme, and separately to July/August 2020 for the programme refresh period (2019-22). The period 2014-19 is the primary focus of this evaluation; the post-August 2019 data is included to provide a brief update on progress since the refresh.

Key messages

- By August 2020, over c.23,000 individuals, across c.11,000 businesses/holdings, were registered with Farming Connect. The number of individuals registered has increased by nearly 3,800 since December 2018. Three quarters of registered individuals had engaged with some type of programme activity, typically either Lot 1 only or a combination of Lots 1 and 3.
- Total programme expenditure (2014-19) was £25.72m, very close to budgeted spend of £25.73m. There was a marginal overspend on Lot 3 and a small underspend on Lot 2.
- Overall, the programme performed well against target outputs with the majority of outputs across all Lots achieved, if not exceeded, by the end of the 2014-19 programme period.
- Expenditure on the delivery of the Farming Connect refresh programme
 was just over £5.4m by July 2020, which was in line with forecast
 expenditure by this point. Over the time period, good progress was made
 towards delivering target outputs, particularly given the impact of Covid-19
 on delivery.

Beneficiary profiles and characteristics

2.2 This sub-section presents the key findings from the analysis of the Farming Connect monitoring data (BAS), covering the characteristics of the individuals and businesses that have registered with the programme, and in most cases received support, as well as the types of support delivered through the programme. The monitoring data analysed covers the period up until the end of August 2020.

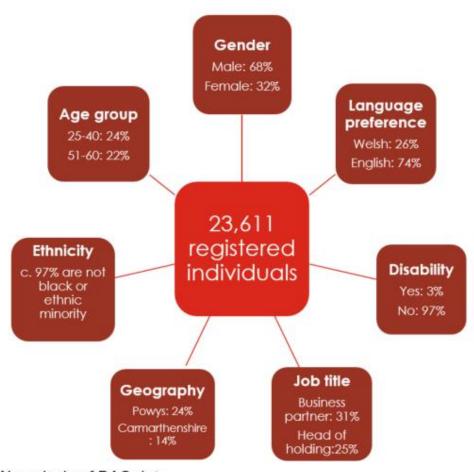
Profile of individuals

- Over 23,000 individuals were registered with the Farming Connect programme by August 2020, an increase of nearly 3,800 since December 2018 (Phase 1 report). Their key characteristics are as follows:
 - Reflecting the nature of the sector, around two-thirds are male, and 32% of registered individuals are female.
 - Just under three quarters identified English as their preferred language for correspondence⁵.
 - The programme has attracted individuals across all age groups from aged 16 to 75 plus. The categories used for recording age are not evenly scaled but the highest represented groups were those aged between 25-40 (24%) and 51-60 (22%).
 - Individuals whose role is a "business partner" or "head of holding" accounted for over half (55%) of registered individuals, but "partners" and "sons" also constitute a substantial proportion of those registered (15% and 12% respectively)⁶.
 - The largest counties by geographic size also have the greatest number of registered individuals. Those from Powys constituted nearly a quarter (24%) of all registrations, those from Carmarthenshire 14%, while Ceredigion and Pembrokeshire each accounted for 10%.
 - An average of two people were registered per business, overall and among those actively engaged. This figure varied substantially, with some businesses having many individuals registered.
- 2.4 The characteristics of the beneficiary base are very similar to the Phase 1 report.

⁵ Note, this does not mean that these individuals cannot speak Welsh

⁶ Note, analysis excludes unknowns (n=31)

Figure 2.1: Characteristics of individuals



Source: SQW analysis of BAS data

Intensity of engagement

- 2.5 To date, according to the Farming Connect database, approximately three-quarters (76%) of *individuals* with Farming Connect registered have actively engaged to date with the programme⁷. This is broadly true across all the categories of individuals, except for "students", "spouses" or "daughters", where engagement is lower, 47%, 69% and 70% respectively. Further data provided by MaB suggests that 82% of *businesses* engaged with the programme have engaged with support, and 12% have not, with the expectation that individuals from those businesses engaging subsequently share key learning/messages with others within the business.
- 2.6 The majority of individuals who have actively engaged (n=17,951) have worked with one Lot only (53%, n=9,537), over a third (37%, n=6,594) have engaged with

⁷ i.e. engaged with one or more of Farming Connect's activities, rather than solely in receipt of Farming Connect materials (all registered farmers receive general information emails etc)

⁸ This finding should be taken with caution because the total number of students is small (n=17)

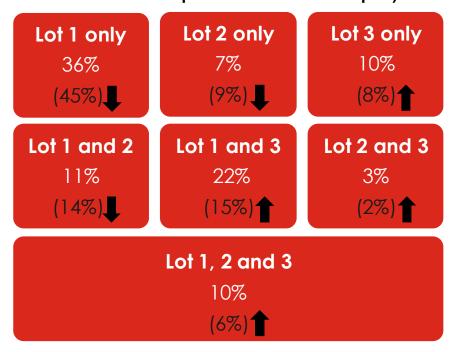
two Lots, and 10% (n=1,820) have engaged with activity under all three Lots. The proportions who have engaged with each Lot are shown in Figure 2. A third of individuals who have engaged with some activity, have engaged with Lot 1 (Knowledge Transfer) only. In comparison, much smaller proportions have engaged with Lot 2 (Lifelong Learning and Development) only or Lot 3 (Advisory Service) only, 7% and 10% respectively. Those engaged with more than one Lot, were more likely to been involved with activities under Lots 1 and 3 than with Lot 1 and 2 activities⁹.

- 2.7 Engagement by Lot varies by role, for example, most "students" have engaged with Lot 2 only (75%), in comparison, most "business partners" or "heads of holding" have engaged with Lot 1 only, or a combination of Lot 1 and Lot 3, (69% and 65% respectively).
- 2.8 There are encouraging signs of progress since Phase 1 of the research in the extent to which farmers registered with the programme are engaging with the support and doing so across the portfolio. For example, the proportion of those registered who have actively engaged in support has increased slightly since Phase 1 (from 69% to 76%), and the proportion who have engaged with more than one Lot has increased (as illustrated below).

⁹ These findings should be taken with caution because only the name of the head of holding is recorded against Lot 3 in BAS, therefore, it will only ever be one individual from a business who can be recorded as

accessing all three lots.

Figure 2.2: Support accessed by individuals registered in August 2020 (and change since December 2018 as presented in Phase 1 report)¹⁰



Source: SQW analysis of BAS data

Profile of businesses

- 2.9 There are 11,311 unique businesses/holdings registered with Farming Connect. According to MaB, this represents approximately 70-75% of all eligible agricultural holdings in Wales. The number of holdings registered for Farming Connect has increased by 18% (or 1,735 businesses) since December 2018 (as presented in the Phase 1 report). By August 2020, most businesses were operating within the Agriculture sector (95%), primarily the Sheep/Goats and Beef sectors (37% and 35% respectively)¹¹. As would be expected, business geography closely reflects where individuals are located, with Powys (23%) and Carmarthenshire (15%) highly represented. Most businesses are eligible for Farming Connect as a "farming business" (91%), with a small proportion of "students" (6%).
- 2.10 At the point of registration, around half (49%) of the businesses had a turnover of between £10K and £100K, and a significant minority (21%) had a turnover of less than £10K. Only 2% of businesses had a turnover exceeding £1m. Just over three-fifths of registered businesses (64%) had no employees. Of the 4,025

¹⁰ Data is based on those that did receive support from at least one Lot – 5,660 received none.

¹¹ These categories are mutually exclusive, farmers must select one main sector only in BAS

businesses with employees, 40% had one full-time worker, and 35% had only one part-time employee¹². The size of businesses involved was very similar to those in Phase 1.

2.11 The typical size of the businesses which engaged in Farming Connect is similar to, but slightly smaller than, the registered population. The majority had a turnover below £500K (95%) and no employees (64%)¹³. Their size characteristics are similar to those for all Welsh agricultural businesses: in 2018/19, the average farm business income (FBI) in Wales was £24,000 and the average holding at June 2019 was 57 hectares^{14,15}.

Engagement with Farming Connect Lot 1 (Knowledge Transfer)

2.12 Under Lot 1, the most commonly attended event is "Strategic Awareness" (including Venture), accounting for 31% (20,121) of total Lot 1 engagements. "Discussion Groups" (19%) and "Demonstration Events" (17%) also accounted for substantial shares of Lot 1 activities, followed by "Clinics" (10%) and "Agrisgôp" (9%) ¹⁶. Activities which constituted only a small proportion of overall beneficiary engagement, included, "one-to-one Mentoring" (n=1,369 engagements by n=399 beneficiaries) and "Agri Academy" (n=577 engagements by n=176 beneficiaries). The average number of events attended was four, with a maximum of 116 events attended by one individual.

Lot 2 (Lifelong Learning and Development)

2.13 Under Lot 2, 8,654 training applications were submitted until the end of August 2020¹⁷. **The average number of training applications per individual was two**,

¹² Note, this data is provided at the point of registration and is therefore subject to change overtime

¹³ Note, that firms with no employees may still have agricultural workers such as sons/daughters/spouses who are not formally paid as an employee but often form part of the partnership.

¹⁴ Note, this was calculated from total land area divided by number of holdings from figures given in the June 2019 Survey of Agriculture and Horticulture: Results for Wales (2019) report

¹⁵ Source: Welsh Government (2020) Farming Facts and Figures, Wales 2020

¹⁶ Note, these figures refer to the total number of engagements with each strand of activity under Lot 1, not the total number of unique beneficiaries who have engaged. Activities such as Discussion Groups and Agrisgôp involve a high intensity of engagement, but support is concentrated amongst a small number of beneficiaries.

¹⁷ Due to COVID-19 this figure should be interpreted with caution. Applicants have nine months to claim for a course, but as some courses are practical, and thus not deliverable online, applications have been cancelled and then resubmitted in BAS. Therefore, application numbers have been continually changing throughout the pandemic. Note, data for Lot 2 was provided to August 2020.

- the highest was 15¹⁸. Nearly 55% of these applications had been approved and delivered by August 2020.
- 2.14 An average of one training course was attended per individual, with a maximum of eight courses completed by one person. Of the c.4,670 training applications which had been fulfilled, "machinery and equipment" was the most common category (42% of completed courses) followed by "technical" support (37%). "Business improvement" accounted for 18% of the courses completed to date. For the subject for the remaining 2% of courses, was not identified in the programme database.
- 2.15 Training was spread across 68 different courses. "Level 2 Award in the Safe Use of Pesticides (PA1) & Safe Application of Pesticides Using Vehicle Mounted Boom Sprayer Equipment (PA2)", and "Level 2 Award in the Safe Use of Pesticides (PA1) & Safe Application of Pesticides Using Hand Held Equipment (PA6)" were the most frequently completed courses, accounting for 14% and 8% respectively.
- 2.16 Course type varied by business sector. "Business improvement" constituted the majority of courses completed by individuals in the pig sector, whilst forestry owners/holders most frequently completed "machinery and equipment" training courses. Agriculture, forestry and horticulture students most frequently completed "machinery and equipment" courses.
- 2.17 In addition, **4,999 e-learning modules were completed** by the end of August 2020. Nearly two-thirds of all modules (n=3,236) completed were "health and safety", which is a compulsory module for "machinery or equipment" courses. Following this, the most frequently completed modules were "farm finance" (n=73), "sheep lameness" (n=72) and "farm liver fluke management" (n=68). Lot 3 (Advisory Services)
- 2.18 To date, over 5,800 advisory applications had been submitted under Lot 3, of which 4,474 (76%) had been fulfilled. Slightly more beneficiaries completed group support (55%) than one-to-one advice (43%)¹⁹. To access support under Lot 3, most individuals first attended a specific Knowledge Transfer event (59%),or developed a business plan through Farming Connect (33%) to show

¹⁸ Figure only includes individuals who have completed one or more applications

¹⁹ Plus 2% group – joint ventures

how the advice received could be taken forward. The remainder had completed a business plan under the previous programme (4%) or drafted one themselves / privately with support from elsewhere (4%). In summary, approximately two-fifths of individuals had completed a business plan.

2.19 Businesses operating in the Beef and Dairy sectors constituted the greatest proportion of businesses receiving support, with each sector accounting for over 30%. "Technical – grassland & crop management" was the most frequently used category, particularly for group advice. For one-to-one advice, "business planning" was most prevalent. The most common cross-cutting theme addressed was 'Sustainable Management of Natural Resources'.

Analysis of spend and output performance

Farming Connect 2014-19 programme: spend and outputs profile 2015-2019

- 2.20 In this sub-section we present data on spend and outputs for the Farming Connect programme over the delivery period August 2015 to August 2019, i.e. the programme period which is the focus of this evaluation.
- 2.21 Table 2.1, below, presents aggregate expenditure by Lot over the programme lifetime. Total programme expenditure was on budget at £25.7m, 99.9% of the forecast for the end of the programme period (August 2019).

Table 2.1: Overview of programme expenditure compared to forecast August 2015-August 2019 (£m)

	A: Total spend	B: Total	C: Difference	D: %
	(Aug 2015-Aug	forecasted spend	(B-A)	difference
	2019)	(Aug 2015-Aug		(A/B)
		2019)		
Lot 1	18,510,117	18,515,372	-5,256	0%
Lot 2	2,362,303	2,397,076	-34,773	-1%
Lot 3	4,851,350	4,817,678	33,672	1%
Total	25,723,770	25,730,126	-6,356	0%

Source: MaB and Lantra. Figures are exclusive of VAT.

- 2.22 Programme spend for the period is disaggregated below across the Farming Connect Lots and activities.
 - Spend on Knowledge Transfer and Advisory Services delivered by MaB
- 2.23 Over the programme lifetime (2015-2019), total expenditure on Lots 1 and 3 was close to budget, at £18.5m and £4.85m respectively. Programme running costs accounted for the majority of spend (58%) under Lot 1. By activity, spend on the

Demonstration Network was the greatest, followed by Discussion Groups and Agrisgôp. Under Lot 3, Group Training and one-to-one advice accounted for the greatest proportion of total expenditure at 51% and 36% respectively (see Table 2.3).

Table 2.2: Lot 1: Total spend August 2015 to August 2019 on Farming Connect activities

activities Catagory		Pudget (C)	Actual (C)	Variance	Variance
Category		Budget (£)	Actual (£)	variance (£)	variance (%)
Programme	These costs include the	10,887,073	10,781,472	-105,602	-1%
Running Costs	provision of delivery staff and service centre staff that promote and administer all Farming Connect	10,001,010	10,101,112	100,002	170
Development and Mentoring	Young leaders and business innovators One-to-one farm/forestry Mentoring Agrisgôp Venture Farm and forestry Management Exchange and short-term visits	1,365,591	1,369,284	3,693	0%
Technical Activities	Demonstration Network Knowledge Exchange Hub Discussion Groups	3,051,280	3,004,737	-46,543	-1.5%
Events and One-to-one support	Diversification awareness events Welsh language events One-to-one Surgeries and Clinics Strategic Awareness	1,750,196	1,901,519	151,322	9%
Communicatio n	This covers communication and marketing for the whole programme (i.e. Lots 1, 2, and 3), and includes translation costs and attending shows and exhibitions.	1,461,232	1,453,105	-8,127	-1%
Lot 1 Total		18,515,372	18,510,117	-5,256	(0)

Source: MaB (received 8th July 2020). Figures are exclusive of VAT.

Table 2.3: Lot 3: Total spend August 2015 to August 2019 on Farming Connect activities

Category	Budget (£)	Actual (£)	Variance	Variance (%)
			(£)	
Programme Running Costs	326,247	322,807	-3,440	-1%
One-to-One Advice	1,658,519	1,733,176	74,657	5%
Group Training	2,536,914	2,476,205	-60,709	-2%
EIP - Operational Groups	263,071	286,103	23,031	9%
Benchmarking	32,928	33,060	132	0%
Lot 3 Total	4,817,678	4,851,350	33,672	1%

Source: MaB (received 8th July 2020). Figures are exclusive of VAT.

Spend on training provision delivered by Lantra

2.24 Over the programme lifetime, total spend under Lot 2 was £2.36m, 99% of the £2.397m budget. Short course accredited training (43%) and programme running costs (42%) accounted for the majority of spend (see Table 2.4).

Table 2.4: Lot 2: Total spend August 2015 to August 2019 on Farming Connect activities

Category	Budget (£)	Actual (£)	Variance	Variance (%)
			(£)	
Programme Running Costs	1,021,913	990,084	-31,829	-3%
Short Course Accredited Training	1,008,182	1,005,487	-2,695	0%
Accredited e-learning	182,016	181,767	-249	0%
Personal Development Plans	184,965	184,965	-	0%
Lot 2 Total	2,397,076	2,362,303	-34,773	-1%

Source: Lantra (received 12th August 2020).

Profile of outputs 2015-2019

- 2.25 Overall, the programme performed well against target outputs, however, there was some variation in performance between the Lots.
- Over the programme period, all Lot 1 target outputs were achieved or exceeded. Several targets were greatly exceeded, including the number of Clinics (785 versus a target of 84) and Farming Connect registrations (10,480 versus a target of 2,000) (see Table 2.5).
- 2.27 Under Lot 2, all target outputs were greatly exceeded. For example, 131% of the target number of one-to-one and online training completions were achieved (see Table 2.6).
- 2.28 **Performance against targets was more variable under Lot 3**. The number of instances of advice claimed (including both Group and One-to-One advice) was

3,216, below the target of 4,000 (80%), see Table 2.5. The under-performance against advice targets is surprising, particularly given qualitative feedback on the growing demand for, and effectiveness of, one-to-one support, but it may reflect a reluctance amongst businesses not to "use up" their allocation of support too quickly (discussed in more detail below).

Description	Programme	Achieved	% achieved
	target (2015-	(2015-2019)	against
	2019)		programme
			targets
Agri Academy	12	12	100%
One-to-one Mentoring	280	408	146%
Demonstration Network Events	480	651	136%
Communication	314	747	N/A
Shows and Exhibitions	64	64	100%
Factsheets and Guidance	24	54	225%
Technical Publications	24	24	100%
Technical Articles and Press Notice	200	607	304%
Conference	2	2	100%
Knowledge Exchange	2*	2*	N/A
Discussion Groups	100	119	119%
Strategic Awareness Events	280	421	150%
Welsh Language events	N/A	5	
Diversification Awareness Seminars	12	13	108%
Agrisgôp groups (Action Learning)	120	136	113%
One-to-one Surgeries	240	721	300%
Clinics	84	785	935%
Mentro / Venture	N/A	N/A	N/A
Management Exchanges	32	34	109%
Study Visits	24	28	117%
Number of Farming Connect	2,000	10,480	524%
registrations			
(Total businesses reg on BAS)			

Source: MaB (received 8th July 2020)

Table 2.6: Lot 2 programme outputs (August 2015-August 2019)

Description	Programme target	Achieved	% achieved
	(2015-2019)	(2015-2019)	against
			programme
			targets
Instances of completed one-to-one	6,000	3,760	131%
accredited training	(Annual target		
Instances of completed on-line e-leaning	1,500)	4,095	
Instances of e-learning excl. H&S		1,250	
Instances of H&S		2,845	
Personal Development Plans	3,200	4,733	4.400/
	(Annual target 800)		148%
New e-learning training modules produced	58 ²⁰	74	128%

Source: Lantra (received 12th August 2020)

Table 2.7: Lot 3 programme outputs (August 2015-August 2019)

Description	Programme	Achieved	% achieved
	target (2015-	(2015-2019)	against
	2019)		programme
			targets
One-to-One Instances of advice claimed	4,000	3,216	80%
Group Instances of advice claimed			
EIP (project approvals)	45 over	23	51%
	lifetime of		
	RDP		

Source: MaB (received 15th July 2020)

Farming Connect Refresh programme: spend and outputs profile 2019-2022

- 2.29 Whilst the primary focus of this evaluation is on the programme period to August 2019, we provide a brief summary below of spend and output progress for the programme refresh (August 2019 to August 2022). The data covers the period from September 2019 up to July 2020 inclusive. Key messages are as follows (see Annex D for more details).
 - By July 2020, just over £5.4m had been spent on the delivery of the Farming
 Connect refresh programme across all three Lots, which represented 26% of
 the lifetime forecast expenditure of £20.7m to August 2022 and was in line
 with forecast expenditure by this point.

...

²⁰ The target was originally 120 but was later revised following discussions between Lantra and Welsh Government which concluded that quality should be prioritised over quantity.

- This expenditure comprised £3.6m on Knowledge Transfer activities under Lot 1 (of which, 75% was spent on programme running costs), £388k on training under Lot 2 (of which half was spent on programme running costs, and most of the remainder on short course accredited training), and £1.4m had been spent on Advisory Services under Lot 3 (of which, half has been on group training, with a third on one-to-one advice).
- Over the period September 2019 to July 2020, good progress was made towards delivering target outputs under Lot 1, particularly given the impact of COVID-19 on delivery. Nearly three-quarters of the annual output targets had already been achieved or exceeded, despite still having one month remaining for delivery. Some activity had been affected by the COVID-19 pandemic, particularly shows and exhibitions, which was reflected in lower than expected outputs to date. However, the programme adapted by delivering some activity via webinars (including Demonstration Events and Strategic Awareness Events), and increasing other activities, such as Surgeries, to compensate. Lot 2 similarly made good progress, with annual targets for face-to-face training and e-learning exceeded by July. Under Lot 3, the annual target for group advice had been greatly exceeded, and 70% of the annual target (August 2019 to July 2020) for one-to-one advice was met.

3. Implementation: Effectiveness of programme delivery, management and governance

In this Section, we provide a synthesis of feedback on the effectiveness of delivery, management and governance based on consultee views in Spring 2020, also reflecting where relevant how the findings of Phase 1 were taken on board in the programme refresh in September 2019. The material presented below draws on consultations with management, delivery and governance staff and external partners, alongside our focus groups and detailed case studies. It is important to re-emphasise that, whilst the refresh had been launched, it was too early to assess (and beyond the remit of this evaluation) whether those changes had a positive impact on implementation. Therefore, comments in relation to the refresh focus on the *potential* benefits going forward.

Key messages

- Farming Connect provides an extensive range of support, reflecting
 the diverse range of farmers' needs and their preferred styles of
 learning and development. However, the offer has lacked strategic
 focus, which is important given the scale and pace of change required
 in the sector.
- There are growing calls to focus efforts on strengthening the engagement of farmers who want to change through facilitated access to develop personalised packages support and provide ongoing support through the customer journey.
- Aspects of Farming Connect that demonstrate good practice include the dual focus on what needs to change and equipping farmers with the skills and knowledge to implement change, and an emphasis on self-help, practical on-farm learning, and a combination of peer-topeer learning and personal advice.
- Challenges have included variability in the quality of facilitators/advisers, insufficient flexibility in the training offer, challenges in managing "time limited" support, and a need for a clearer pathway for farmers who want to push ahead.
- Gaps in the offer included access to finance to enable farmers to implement change, a greater emphasis on precision agriculture and low carbon imperatives, expanding the offer to connect farmers with the wider food chain, and a growing need for mental health support.

• The programme is being managed effectively, with a strong emphasis on continuous improvement and adaptation to changing needs and challenging contexts. Partnership working at an operational level has improved, but there is scope for stronger partnership working and alignment at a strategic level. Between Phases 1 and 2 there were marked improvement in the presentation of the website, the use of baselines and benchmarks, efforts to connect aspects of the customer journey more explicitly for farmers, and governance arrangements to include more industry representation.

The Farming Connect offer

- 3.2 Farming Connect is a large and multi-faceted programme: in both phases of the research, Farming Connect was commended for the breadth of support on offer that reflected the diverse range of farmers' needs, their experience of "trying new things", and their preferred styles of learning and development. It was also perceived to offer a **spectrum of support**, from easy entry events through to more advanced/innovative activities, providing the opportunity for progression as farmers' confidence grows. The activities have been designed to be complementary within the programme to enable this. Throughout the offer the emphasis is on "why, what and how": changing farmers attitudes/mindsets towards and buy-in to changing their business management practices; helping farmers to identify what needs to change; and equipping them with the knowledge and tools to implement change. Consultees appreciated the way in which the programme offers a "one stop shop" and agreed that the farming context was sufficiently distinct to justify a differentiated approach, rather than expecting farmers to use a generic offer, provided to all business sectors.
- 3.3 Farming Connect has evolved over its lifetime, demonstrating the ability to adapt to changing needs and context. Recent experience and that from earlier programmes, has given confidence to designers and managers making these changes, and also to users.
- 3.3 There was some concern amongst external stakeholders in both phases (and this appeared more pronounced in Phase 2) that the broadness of Farming Connect

presented some important challenges. Specifically, there appeared to be a growing view that Farming Connect should not be striving to be "everything to everybody". The portfolio of activities was considered "so vast" it lacked coherence for those who were less close to the programme – for example, external stakeholders argued it is "hard to apprehend how everything works together" and "it is difficult to know where to start". There was also ongoing concern that a "blanket" approach risked spreading resources too thinly and diluting impact. In part, this reflects the very broad objectives of Farming Connect, and the diverse (and often fragmented) nature of the agricultural sector.

3.4 A notably more prominent view in Phase 2 was a call for Farming Connect to have greater strategic focus and prioritisation, with clarity both of message and of offer, and greater visibility of strategic priorities across the sector.

This was not helped by the fact that the Welsh Government's planned Agriculture Strategy for Wales (2015-2020)²¹ – which was expected to drive the strategic direction for Farming Connect – did not come to fruition. There was concern among those consulted for this evaluation that the offer is largely driven bottom-up from the farmer base to ensure the offer directly meets their needs. Whilst this approach is commendable and helps secure farmers' buy-in, external consultees in particular guestioned whether the Farming Connect offer aligned with the most important strategic priorities for the industry. This is not to say that the programme is misaligned with strategic objectives, rather that Farming Connect's overarching approach is unclear, and hence how it is focusing and prioritising support²². As one stakeholder suggested, "it is hard to be strategic with such broad objectives and trying to do good to all". More recent changes to reconfigure governance arrangements (to include more industry representation) and to refocus some of Farming Connect's activities (for example, the training offer has been refreshed to better align with industry needs) are expected to help address this issue, but the feedback from the consultations was that more should be done to clarify the programme's strategic and priorities.

3.5 Farming Connect has been a significant feature in the support landscape for farmers in Wales for the last 20 years. This **stability, longevity and continuity of**

²¹ Annex 3, Specification for the Farming Connect Delivery Framework (2015)

²² Since this research was undertaken, the Strategic Advisory Board has been re-established and is in the process of developing a clear long-term strategy for the programme.

- **support** was greatly appreciated across those consulted, and the programme is a "well known", "trusted" and "well respected" source of support.
- 3.6 However, in Phase 1, external stakeholders expressed concern that, whilst awareness of Farming Connect was generally high across the farming community, some farmers had lost sight of the underpinning aims and rationale for the programme, and that Farming Connect was "taken for granted". There was a sense that some farmers were taking part "because it was available" (and free/heavily subsidised), and that they did so speculatively, without real motivation to change, before or after receiving support. In Phase 1 we noted a subtle difference between perceiving the aim of Farming Connect to "provide support" (i.e. engage in activities) rather than to "improve business performance" (i.e. drive change in outcomes), and the consequences this may have for impact. Evidence from the beneficiaries was mixed: whilst many valued Farming Connect support highly, some appeared to "drift" from one aspect of the programme to another without clear purpose.
- 3.7 Since Phase 1, a notable shift has been observed in the way Farming Connect is delivered in attempt to address this issue. Stakeholders and many of the beneficiaries who were close to the programme noticed a greater emphasis on baselines, benchmarking and overall "business improvement", and a more visible drive towards measuring impact and performance. The importance of this was widely recognised, for example:

"benchmarking represents a culture change for farmers ... they need to become more commercialised" (external stakeholder consultee)

"it's helpful to have these threads running through Farming Connect as it helps bring some proactiveness into the relationship with Farming Connect" (case study beneficiary)

Marketing and reach

3.8 Farming Connect has continued to employ a variety of materials and mechanisms to raise awareness of the offer across the farming community, with a growing emphasis on online communications (as illustrated in Annex F). This was informed by earlier research to segment the programme's target audiences and to differentiate the marketing approach (i.e. materials, messages, mechanisms) accordingly. On the whole, **consultees felt that the promotion of**

Farming Connect remained strong. There are multiple "entry points", but the Development Officers and open events are seen as critical first points of contact with the programme.

3.9 MaB has tried hard to widen the reach of Farming Connect, and their multipronged communications strategy and the presence of Development Officers on the ground have been important in raising awareness of the programme. Widening eligibility criteria (e.g. students, contractors) and making attendance at Farming Connect events a pre-requisite for farm grants, both helped to increase reach. However, the issue of reach remains a challenge. Consultee views differed on whether Farming Connect should continue to invest considerable resources in seeking to widen its reach: some argued this should continue, others argued that efforts should now focus on farmers who want to change. In Phase 2, there was a clear shift towards the latter, both across external stakeholders and beneficiaries consulted. None of the external stakeholders suggested that Farming Connect should continue to try and widen its reach. Consultees typically saw the sector as divided into thirds: a "top" third who are engaged and adapting; a "middle" third open to change but who may not yet be engaged; and a "bottom" third unwilling and unlikely to adapt. Many of these consultees argued there is little value in continuing to pursue those who continue not to engage, as this will absorb a significant amount of resource and is unlikely to yield impact: attention should be focused on the other two-thirds where there is more potential for change. Moreover, there was a sense that Farming Connect was spreading itself too thinly and should focus more resources into (a potentially smaller number of) farmers who really want to improve their business to deliver greater impacts. For example:

Given scarcity of resources, public funds should not be spent 'wasting time chasing those who don't want to be helped' (focus group consultee)

Farming Connect is "trying to be all things to all people" and should be more focused rather than continually trying to engage more farmers (case study beneficiary)

Farming Connect have "done everything they can" to engage with wider group of farmers – the biggest step was compulsory registration to access grant funding. (case study beneficiary)

"there's an element of you can take a horse to water. They can offer all types of support, but if the farmer doesn't want the help then they can't do much more" (case study beneficiary)

"It'd be a waste of resource now to chase after those who don't want to engage. It's those in the middle that you should focus on – connecting them with the progressive farmers" (case study beneficiary)

"some people just don't want to engage, so [Farming Connect] needs to choose where it focuses its resources" (external stakeholder consultee) to deliver "real impact" Farming Connect "needs to be more focused, rather than taking a blanket approach" (external stakeholder consultee).

- 3.10 Consultees also emphasised the need for better data on farmers who do not engage with Farming Connect, to understand why not. Some may be performing well and do not need support: it is important to recognise that the programme is not suitable for all.
- 3.11 This is not to say the programme should no longer be universally available nor that striving to change mindsets is no longer important. However, it may be time to consider some shifts in emphasis, particularly in the use of marketing resources and in utilising alternative delivery mechanisms for some forms of support. We discuss this in more detail below.

Barriers to engagement

- 3.12 There is some evidence of barriers to engaging with Farming Connect. In addition to farmers finding it difficult to know where to start and how to navigate the offer (discussed elsewhere), consultees also flagged time and capacity as a barrier to engagement, particularly in the context of off-farm activities even in the evenings, alongside personal factors (such as childcare responsibilities, health). It would be helpful to have more systematic sector-wide data on the reasons for not engaging with Farming Connect, in order to understand these barriers in more detail.
- 3.13 As we discuss below, COVID-19 has provided the opportunity to test further online delivery, such as online webinars that are recorded and can be watched at the most convenient time. As in other areas, the effect has been to accelerate a change in delivery mechanisms that was already underway, and anecdotal feedback from delivery staff and beneficiaries suggests this has worked well for many. For

- example, one focus group consultee argued "this has made a significant difference" to their ability to engage with Farming Connect.
- 3.14 In Phase 1 we also found that large cohorts of farmers also lacked IT skills and confidence and/or experience poor broadband coverage/speeds, and there was concern that this hindered their engagement with the online marketing materials, registration processes and support. We have tested this further in the second phase of research, specifically asking case study beneficiaries whether their IT skills or experience had influenced their ability to access Farming Connect. On the whole, this was not deemed a major barrier in Phase 2: IT skills were perceived to be improving across the farming community, and it was acknowledged that Farming Connect had recently placed greater emphasis on ICT training/support. However, high speed broadband continues to be a challenge across parts of rural Wales as one case study beneficiary noted, "the internet here is virtually non-existent". This emphasises the importance of maintaining alternative ways to receive information on Farming Connect.

Assessment of need and personalisation of support

- 3.15 A key finding in Phase 1 was the variable and somewhat ad hoc approach to the assessment of farmers' needs at the outset. Some farmers had an "informal" discussion with a Development Officer, who then signposted to relevant support within the programme. Some farmers had come in directly through the website and self-selected the most appropriate support to meet their needs. Some activities within the programme also included an initial assessment of need, although this tended to be more narrowly focused on the specific issue that led to uptake of that support. Whilst it is recognised that not all farmers necessarily need a holistic assessment of need, in Phase 1 we made two key observations on this approach.
 - First, it appeared largely down to the farmer to initiate this exercise and, as
 illustrated in the case studies, an absence of guidance at this stage can lead to
 a mismatch between need/support and limited impact (for example, in
 training).
 - Second, there appeared to be limited read-across between the various points at which delivery staff assess farmers' needs. Whilst signposting takes place, some consultees felt they had to explain their situation multiple times; there may be a missed opportunity to create a more effective package of support.

- 3.16 The introduction of a PDP in the 2014-20 programme period was an attempt to provide this join-up, but it has had mixed success. It was originally anticipated that farmers would complete a PDP when they first registered with Farming Connect, which would encourage farmers to reflect on their needs and identify the most appropriate support. In practice, most consultees in both phases of the evaluation reported that the PDP had proved ineffective, as it did not provide for a holistic assessment of need. Three issues were identified.
 - Many farmers found the online form difficult to complete, even those who are
 IT literate, and it required a substantial amount of "handholding" from
 Development Officers which was a "drain" on their capacity. Delivery
 consultees were also concerned that this deterred engagement farmers
 believed this is the modus operandi for the whole programme.
 - The PDP was predominantly seen as a necessary "hoop" to jump through in order to access training, rather than a valuable tool for baselining or benchmarking, and the support recommended through the PDP is not sufficiently tailored.
 - Consequently, the PDP was rarely revisited by a farmer, because it is difficult
 to access (e.g. forgotten passwords, difficulties in finding their personal
 development page etc.) and because it has not been found useful. There was
 a lack of awareness about the BOSS homepage refresh among those
 consulted.
 - 3.17 The PDP process worked better where the form was completed in conversation with a Development Officer, support was then personalised in response, and the form subsequently revisited with the same facilitator to assess distance travelled.
 - 3.18 There has been a notable recent improvement in the approach to assessing needs, particularly through the refresh, as beneficiaries are now required to complete baselines for each theme (including business plans, benchmarking, animal health and nutrient management). It is too early to assess whether this change has been effective, but consultees agreed it was a move in the right direction. A business plan and benchmarking were considered more effective tools in assessing business challenges and relevant support, particularly where Development Officers were involved and could signpost to relevant packages of support.

Continuity of engagement and navigating the offer

- 3.19 In Phase 1 there were three clear messages on how effectively farmers engaged with the offer once they had registered.
 - First, both farmers and external stakeholders suggested there was scope to provide more "personalised" and "holistic" support through the customer journey, and to better integrate Farming Connect activities.
 Crucially, it was argued that Farming Connect needed to develop a package of support for beneficiaries (combining knowledge, skills and investment) in order to deliver real impact and the "step change" needed in the sector.
 - Second, the majority of beneficiaries (and many external stakeholders) found it difficult to navigate through the offer. The responsibility of having to navigate the complicated "wiring" of Farming Connect was largely with beneficiaries themselves, either by proactively approaching Development Officers/delivery staff or via the website. Farmers also expressed frustration at the lack of a single point of contact within Farming Connect and at having to explain their issue with different contacts (for example, a focus group consultee commented "you have to keep repeating yourself"). Most consultees found the website extremely difficult to navigate and were unclear on the full offer.
 - Third, one-third of farmers who had registered for Farming Connect had not actively engaged with support, while two-thirds of those who had actively engaged with support had been involved in activities under only one of the three Lots. Note, all businesses registered for Farming Connect receive information such as technical publications and e-newsletters, and/or could access the Farming Connect website and YouTube page; however, data is not gathered on the extent to which this is accessed/used.
- 3.20 The refresh sought to address some of these issues by introducing new themes, revising the website to improve accessibility, and placing greater emphasis on baselines/benchmarking to signpost to relevant support. There has also been substantial effort to demonstrate to farmers how activities complement

one another and to set out a clearer route(s) to follow through the offer²³. For example:

- Online learning is now more integrated with other elements of Farming
 Connect to present a more "blended approach"; after attending a
 Demonstration Site, farmers have the opportunity to complete an online course
 to consolidate their learning.
- At Demonstration Site events, attendees receive a booklet on the day setting out other related Farming Connect support available, such as training and upcoming Clinics.
- New initiatives have been introduced that seek to pre-package elements of Farming Connect, such as Prosper from Pasture which includes a series of meetings and farm visits that are followed by a two-hour Clinic and then more in-depth, one-to-one advice.
- 3.21 As noted elsewhere in this Section, these changes have been perceived as helpful, and there is evidence in Section 2 that the number of farmers engaging with more than one Lot has increased.
- 3.22 However, stakeholders and beneficiaries in both phases suggested that more fundamental change is required in order to maintain and maximise farmers' engagement with Farming Connect. As one case study beneficiary argued, there is a difference between farmers having an awareness of and real connection with Farming Connect: "it's not a case of delivering more activity, it's about getting farmers to connect with it". There are still concerns that the offering is difficult to navigate, farmers are unclear on which activities are best suited to their needs and the most appropriate pathway through the different types of support, while followon is still ad hoc/inconsistent across the customer base. For example:

"I felt I was left hanging at the end a bit. That's it, there's no continuation or progression, or maybe there is but it's not as obvious as it could be. It's about linking up, because Farming Connect are already doing much of these things – I think they need to link together far better." (Case study beneficiary)

_

²³ However, it was noted by beneficiaries that making attendance at groups/events a pre-requisite to receiving further support/grants risks excluding those who cannot attend (for example, due to childcare responsibilities) from accessing the latter.

- 3.23 In the longitudinal case studies, we found that for those who continued to engage with Farming Connect across the two phases of research, the depth and frequency of engagement varied hugely, from extensive to minimal. The business challenges facing the 'minimal engagers' largely remained the same, and their lack of engagement was largely attributed to general "drift": they had intended to engage more but "had not got round to it". Only three of the beneficiaries consulted for the case studies had no engagement at all with Farming Connect after Phase 1. Their reasons were as follows: first, the niche nature of their business and a very specific need for support in Phase 1, which was fully resolved and the farm is now performing well; second, the lack of funding available to implement new processes (e.g. "everything we needed to do involves money, and we have none").
- Across those consulted, the weight of the argument was towards the need for 3.24 a more holistic assessment of needs, packaging a support offering that targets individual farmers' needs, and then revisiting and updating this as their needs change. Crucially, this needs to be a facilitated process, with a named/dedicated/single point of contact within the programme. As highlighted by an external stakeholder, the presence of a "broker" who can build an effective partnership with farmers is a key requirement for effective innovation support. Two drivers appear to underpin these views: (i) personalised, tailored and relevant support involving a facilitator is key in ensuring businesses progress, and (ii) continuity and reinforcing support is more likely to lead to change. This type of approach would clearly have substantial resource implications and may be politically contentious if support is focused on a cohort of farmers. Difficult choices would need to be made in the design of future programmes - for example, whether there needs to be differentiation in the extent of facilitated access across subsectors, type of farm or type of farmer, such as new entrants. This should not be perceived as implying intensive support for "high flyers" only.
- 3.25 There was a consensus across consultees in both phases of research that the Development Officers (and also some mentors) have played a key role in navigating the offer and in facilitating farmers' journeys through Farming Connect. As one consultee commented, Development Officers are the "glue" that holds Farming Connect together. Another beneficiary argued that:

"without [the Development Officer's] support I wouldn't have engaged with as many activities - the Development Officer has made navigation easy, it is all done through the Development Officer".

- 3.26 Development Officers are well embedded in communities and, in this context, play an important role by checking in with farmers to "nudge" progress and ongoing engagement with the programme. For example, one consultee argued that "follow-up is key" as "implementation is never straight forward" and has found calls from their mentor a helpful "prompt" in moving forward. A delivery consultee also emphasised how developing a relationship and trust between the farmers and Development Officers is critical –t farmers are more likely to take up a follow-on service if a "trusted" Development Officer suggests it is worthwhile. If that relationship was lost, the consultee described how it was then difficult to maintain their engagement with Farming Connect.
- 3.27 However, there was a concern in Phase 1 that Development Officer capacity is often stretched and therefore the capacity to steer farmers through the offer as their needs change can be variable. Focus group participants noted that they had to be proactive in engaging the "busy" Development Officers, and these discussions were often informal and ad hoc.

Wider features that have worked well and less well in programme delivery

- 3.28 Across both phases of the research, the evidence has identified eleven features of Farming Connect that have worked well across the activities, illustrate good practice, and have led to successful outcomes.
 - Addressing <u>what</u> needs to change and <u>how</u> to change: across the offer, there are complementary activities that seek to (i) change attitudes towards making changes and raise confidence to implement these changes, and (ii) provide the technical/practical skills and knowledge of how to change.
 - **Encouraging self-help and action**: equipping farmers with the capabilities to reflect, challenge themselves, consider options and identify solutions. Action learning and "homework" ensure a focus on action and change.
 - Close alignment with self-defined needs: many of the activities encourage
 participants to define their own goals, individually and/or as part of a group; this
 helps to secure buy-in to the activities and ownership of the results.

- The use of benchmarking, soil sampling and Nutrient Management Plans: these were considered critical by most stakeholders and beneficiaries in helping farmers understand how their practices impacted upon their financial performance, which in turn was a primary driver of changes in behaviour. Benchmarking often worked best where it was undertaken in a group setting, and/or in conjunction with one-to-one advice to identify follow-on actions.
- Practical, farm-based and peer-to-peer support: many of the activities
 provided the opportunity to observe and learn from real world settings where
 advice/support was delivered in a "common language" to which beneficiaries
 could relate. Socialising with peers including in multi-generational groups was also seen as important in encouraging open discussion and the sharing of
 ideas.
- The combination of group support and one-to-one advice: the former is
 particularly helpful in generating ideas and sharing knowledge and experiences,
 the latter provides tailored, farm-specific advice.
- Flexibility: shaping and adapting the focus of an activity in response to changing conditions is helpful (e.g. within a discussion or Agrisgôp group) as is arranging activities to suit the working patterns of the sector (e.g. meetings at certain times of the year/day). Localised or online delivery is also highly valued by beneficiaries with limited time/resource to travel long distances for training or support: as one e-learning beneficiary noted "I can do it when I want rather than having to commit to travelling far".
- **Facilitation**: the facilitator plays a key role in providing structure, momentum, challenge etc., to ensure that beneficiaries progress.
- Personalised and relevant advice: this makes it easier for beneficiaries to apply to their business (compared to generic information).
- High quality and trusted delivery team: the commitment and enthusiasm of facilitators/Development Officers etc. has energised beneficiaries: as one beneficiary noted "it is the individuals that make Farming Connect". The speakers/trainers/facilitators are respected, knowledgeable and credible, and seen as providing "objective" and independent support to the sector.

- **Competitive approach**: where more intensive activities were delivered through competitions, participants were clearly committed to ensuring that the activity led through to positive changes within the business.
- 3.29 Four key issues were also identified, which bring challenges to the successful implementation of, and follow-up from, Farming Connect activities.
 - Variable quality and inconsistency in the approach of facilitators/advisers
 both in terms of delivery and (what is often perceived as "informal")
 signposting/wrap around support. Linked to this, some consultees would like a
 broader offer of mentors, including the need for "inspiring females", to address
 what is seen as "too much reliance on the same people".
 - Training application windows and lack of flexibility: application windows are more efficient from a management point of view, but do not always meet the needs of farmers. The extension from one to two months was helpful, but Development Officers still find a significant amount of their time is absorbed helping applicants as deadlines approach. Consultees also noted the lack of flexibility in the training offer, for example, where courses were missed due to ill health or competing work demands²⁴.
 - Challenges in managing the use of "time limited" support: this relates to activities where the blanket application of a pre-determined "allocation" of support is used quickly and is insufficient for farmers in real need or those who are looking to make transformational changes. One beneficiary also felt it deterred continuous development. Conversely, it is not fully utilised by farmers who are able to address their challenges with minimal support. More broadly, it can be difficult for farmers to plan and pace what they might need in a context of rapid, unexpected and significant change. The issue appears particularly acute for one-to-one Advisory Services. Linking the provision of this type of support to an initial baseline assessment and more frequent / consistent engagement with farmers as needs change may help to inform how the offer can be flexed more effectively.
 - The need for more support and a clearer pathway for farmers who want to progress and "push ahead", with Farming Connect acting as an "inspirational"

40

²⁴ Since the research was undertaken for this evaluation, the programme has since shifted its approach to allow re-applications.

lead. Consultees felt the majority of activities were led/defined "bottom up" by farmers: while it is important to tailor support to their needs and obtain buy-in (and this is an important driver of change), some of the progressive farmers consulted were looking for more inspiration in the form of completely new innovative approaches that could move their business forward. For example:

"I find myself limited by the courses on offer. I have advanced qualifications in accountancy and would've liked a more advanced training course to further use these advanced skills within my farming business." (focus group attendee)²⁵

Linked to this, consultees argued that Farming Connect was geared towards "traditional" farmers (e.g. sheep and cattle) with limited support for "non-traditional" sub-sectors or farming approaches.

Programme management

- 3.30 Farming Connect is a large and multi-faceted programme, which requires significant management resource and co-ordination. Overall, we found the management arrangements had worked well.
- 3.31 The Welsh Government and MaB/Lantra have active working relationships, with regular, open, two-way and generally positive exchange. External stakeholders praised the delivery contractors, highlighting their experience and capability to deliver the programme and their knowledge of the sector.
- 3.32 MaB and Lantra both place a strong emphasis on feedback and continual improvement to maximise the effectiveness of Farming Connect in real time.

 MaB was seen as responsive and proactive in recognising emerging issues and listening to feedback from delivery staff, partners and beneficiaries, adapting the offer quickly in response to changing circumstances, and being open to making changings where necessary. This was commended by external stakeholders, given the difficulties in being "fleet of foot" while adhering to specific contractual

obligations under European funding. Examples included the following.

 $^{^{25}}$ Note: this need has been recognised by programme management team since the research was undertaken.

- MaB gathers feedback from beneficiaries after events and about further help needed which is then followed up by Development Officers.
- Where activities did not work as well as hoped initially (e.g. Venture and Mentoring), research was undertaken to understand why, and the offer was then adapted (e.g. workshops to build confidence in Venture and changing perceptions of Mentoring).
- Clinics are demand led, and Development Officers have the resource to provide
 Clinics on topics in response to local feedback/need.
- Lantra has conducted course reviews to ensure training courses remain relevant, high quality, fit for purpose, and meet farmer needs.
- Innovation Farms were removed from the programme when they were found to
 be less successful than other strands: farmers reportedly found it difficult to relate
 to the more technically innovative processes tested on these College/Universityled sites. In their place, Farming Connect worked closely with Colleges and
 Universities (for example, by holding joint events).
- 3.33 This evidence demonstrates how MaB and Lantra have actively managed the programme in a changing context. Whilst most of the research for this evaluation

Continuous improvement and adaptation – response to COVID-19

As social distancing measures were introduced, and Wales and the rest of the UK went into lockdown in March 2020, the programme had to quickly reflect and adapt its offer, which had relied heavily on face-to-face and on-farm delivery mechanisms. Some aspects of Farming Connect were shifted to online group meetings, such as the Discussion Groups and Agrisgôp (their success was found to depend upon the extent to which members were already known to each other; meetings of new groups hosted digitally were more challenging). Mentoring, Advisory Services and surgery support also switched to digital or phone delivery. The technical team continued to work with Demonstration and Focus Sites, and shared information via webinars, podcasts and blogs. The programme also introduced a digital training offer directly in response to COVID-19. Anecdotal feedback from management staff and beneficiaries suggested that sharing material online was positivity received, allowing farmers more flexibility in engaging with the material as well as being more cost-effective. Some activities reliant on peer-to-peer learning, such as master classes, were initially unable to operate, but were due to re-start in late 2020. Lessons from the COVID-19 experience are likely to inform future delivery, with increased digital context in training materials.

took place before COVID-19, a follow-up consultation with management staff illustrated the team's flexibility in organising a rapid response to changing circumstances. This helped ensure that the offer met the needs of its customer base, adapting most elements so that delivery could continue via socially distanced mechanisms (see box).

Programme governance

- 3.34 There has been a substantial and positively received shift in governance arrangements over the last year. In Phase 1, management consultees felt that the Strategic Advisory Board (SAB) and (the then) three Sub-Groups provided a useful sounding board and feedback, and stakeholders involved in governance groups found their involvement useful both in providing a platform to promote and integrate their own activity, and in learning about the latest developments elsewhere. However, there was a significant concern from internal and external stakeholders that governance arrangements were not sufficiently inclusive of industry interests to provide the industry-led advice, strategic challenge and guidance through which the future offer might evolve. While MaB liaised with industry representative groups bilaterally, this was acknowledged by MaB and stakeholders as not being the most efficient approach.
- 3.35 As explained in Section 1, the membership of the SAB has been revised to widen industry participation and a single underpinning Delivery Board has been created to replace the three Lot Sub-Groups. It is too early to assess the effects of these changes on governance, but there was consensus across stakeholders that they should help involve the sector more fully, with the overview across all three Lots facilitating programme coherence and integration.
- 3.36 There appear to be two ongoing and inter-related frustrations: first, a general perception that the direction of Farming Connect is still driven "top down" by Welsh Government priorities; second, the timing for the reconfigured governance arrangements/membership meant that those newly involved had no opportunity to influence the refresh design. There is concern that this could be the case as/when the programme is changed more radically in the future.

Partnership working and alignment with other support

3.37 External stakeholders thought that partnership working had improved, over the last 12 months, particularly at an operational level. They highlighted how

MaB and Lantra had become "a lot more supportive and understanding" in working with partners, and more willing to fit with the way that partners work. This was perceived as a significant positive, demonstrating that feedback from stakeholders was being listened to. It was particularly noted that there is now stronger partnership working at operational level, on the day-to-day support. Examples included: the delivery of joint events and campaigns (e.g. the Water Quality campaign, delivered with NRW); partner engagement to inform the design of training courses and content of Knowledge Exchange Hub publications; joint working with AHDB (Agriculture and Horticulture Development Board) to avoid overlap between Demonstration Sites and strategic dairy farms (using joint branding and promotion); collaboration on specific programmes (e.g. the Red Meat benchmarking programme with HCC).

- 3.38 Alignment with agricultural support provided by other bodies (such as levy bodies) has also improved with many of the relevant partners now included within the Farming Connect delivery consortium. The recent reconfiguration of governance boards to include more external partners is expected to take this further. Farming Connect held regular networking breakfasts pre-COVID-19, engaging with local bank managers, solicitors, accountants etc. to raise awareness of the programme, and has sought to engage intermediaries such as vets in Discussion Groups. There is also cross-referral and collaboration on promotion with other interventions (such as the BVD programme).
- 3.39 However, stakeholders identified three key areas for improvement in partnership working.
 - Partnership working at a more senior, strategic level was considered less effective. This relates to long-term, strategic planning on common agendas and clearly setting out Farming Connect's role, positioning and contribution (alongside other actors and interventions) in the agricultural innovation ecosystem. Specifically, external stakeholders felt there could be greater clarity on how Farming Connect's strategic priorities align with those of partners, and more consistent, collaborative and proactive longer-term planning on common agendas to avoid duplication and to encourage seamless links to other business support programmes. In this context, consultees were concerned there was still a missed opportunity to work more closely with partners to "deliver the same with less" and reinforce messages more effectively.

- More could be done to link Farming Connect with private organisations, particularly large supermarkets, processors and contracting organisations. There are some examples of Farming Connect groups working with supermarkets and processers. Farming Connect has also recently piloted a collaborative project with a major creamery to tackle quality issues in the supply chain which has been positively received. This provided an integrated package of support of group meeting, Clinics, training, and one-to-one advice. A similar project is planned with a large meat processing firm. More activity in this space would be strongly welcomed by the farmers consulted, as it could provide potentially valuable commercial opportunities based on specific and up-to-date market information.
- MaB provided numerous examples of joint working and regular referrals to other RDP programmes (e.g. Cywain, Menter Moch, Tyfu Cymru, Herd Advance, Stoc +, Forestry first, Beef Q), and Development Officers sit on Local Action Groups. However, there is scope to better communicate Farming Connect's distinctive role in delivering support as part of a wider support system: there was limited awareness amongst stakeholders of how Farming Connect aligned with other RDP programmes, Business Wales, and with other relevant support (including private sector provision).

Activity additionality

- 3.40 A key question for the evaluation is whether and to what extent farmers would have engaged with external advice and other assistance in the absence of Farming Connect. In both phases of the research, those **consulted were clear that many farmers would not otherwise have accessed generic business support**, owing to lack of awareness of how to access the support, a reluctance to seek external advice, and the perceived lack of relevance of generic support to the specific needs of the farming sector. Beneficiaries also argued they would have struggled to afford or justify investment in commercially-provided support, such as Advisory Services, particularly until they knew it was "tried and tested" and "could make a big difference to their practices".
- 3.41 Some evidence was found to suggest a small degree of deadweight in the programme that could distort the private sector market. The case studies found a small minority of examples where farmers approached private sector

providers for advice/training and were willing to pay for this, but were re-directed by advisers to Farming Connect in order to receive support for free/at a subsidised rate. Advisory Services do not take into account prior experience of private sector support or financial means into consideration, despite wide variation in the use of private sector consultants across sub-sectors. The dairy sector typically uses consultants, as it operates with higher margins and larger farms make the cost of external input economically viable, while beef and sheep farms work to tighter margins and are typically less able to afford consultant advice. The intervention rate for Advisory Services is restricted by RDP regulations and had not been retested at the start of the current programme; nor was it adjusted to reflect the number of times the beneficiary had received advice in the past (all farmers receive four instances of advice for the duration of the programme at the same intervention rate). Whilst we recognise the potentially significant implementation challenges involved in changing these arrangements, the programme would be more cost-effective if it was not subsiding famers who were able and willing to pay. This appears to apply only in some elements, but a more customised approach in future could provide better value-for-money.

Gaps in provision

- 3.42 The Farming Connect offer was generally recognised as comprehensive, offering different types of support and delivery mechanisms to suit different needs and learning styles. However, as sector conditions and farmers' needs have changed, some gaps have emerged; these were not all included in the original Specification for Farming Connect but are now seen as points where the offer could be strengthened. The point above about Farming Connect trying to be "everything to everyone" is still valid, but these gaps were identified as important priorities.
 - First, the lack of an appropriate capital fund to enable farmers to implement new ideas/processes is an ongoing issue. The "incentive budget" for Discussion Groups, which allows participants to try something different and bring the results to the next discussion group session, is a limited move towards this, and the Welsh Government has also introduced the new Farm Business Grant (FBG -not part of Farming Connect). While FBG was seen as helpful, frustrations were expressed around (i) demand far outweighing the resources available, (ii) the timing of grant windows and perceived slow application process meant farmers could not necessarily access finance when

needed and/or it meant market opportunities were missed, and (iii) a perceived mismatch between the needs of businesses and what was eligible under the grant, which was focused on the provision of "traditional" equipment. Some beneficiaries suggested there would be merit in a flexible and accessible resource to allow farmers to test more innovative processes/equipment, which are often high risk for small-scale farmers but could potentially have substantial impacts on the performance of their business. Few funds are available for this type of investment (beyond farms involved in the demonstration network) through Farming Connect or elsewhere. Although EIP provides finance for this type of activity this is relatively limited and focused on more transformative innovation, and is unlikely to fully meet the need described above.

- Second, promoting and strengthening further the use of data and precision technologies in farming, both in terms of how to employ the technologies, and in analysing and interpreting the data. Some Demonstration Farms, the Prosper from Pasture project and mentoring programme already include a focus on precision technologies. Also, in summer 2019, Farming Connect pioneered the use of LoRaWAN (Long Range Wide Area Network) across its Demonstration Farms, which allowed Internet of Things (IoT) devices to communicate with internet connected applications over long distances with minimal battery usage. Going forward, the programme should seek to build on, expand and prioritise activities relating to precision agriculture.
- Third, a need to provide/prioritise clear support to reduce carbon impacts, given the goal of Net Zero by 2040²⁶. Again, there is scope to build on the work of Demonstration Farms that focus on this area and on research undertaken in 2019 to develop an interactive GHG emissions on-farm tool on the Farming Connect website. Consultee suggestions included coverage of carbon capture/ storage/ sequestration and woodland carbon credits, protecting/restoring biodiversity, as well how to undertake and respond to carbon footprinting.
- Fourth, facilitating access to buyers (i.e. supermarkets, abattoirs, auctioneers, buying groups and procurement officers). For example, one of the focus groups and several case study beneficiaries indicated that more access to buyers would be extremely valuable, helping farmers to understand

-

²⁶ It is noted that the SAB developed and approved a Carbon Delivery Plan after the research for this evaluation was undertaken.

their specifications and how best to meet them, and to identify more local commercial opportunities. Without this knowledge, it can be difficult to meet and anticipate buyers' requirements and optimise selling prices. They also pointed to their need for support in building the skills and confidence to talk to buyers. Some suggested that buyers are often open to being approached, but others felt that having structured opportunities through Farming Connect would be very beneficial.

• Fifth, signposting to support relating to mental health. This issue was much more prominent in the Phase 2consultations with internal and external stakeholders and beneficiaries i, particularly in the context of Brexit and COVID-19 pressures, and the importance of mental health and positive mindsets in terms of business management and individuals' ability to embrace change. All Farming Connect delivery staff receive Mental Health First Aid training, although there may be a need for a more explicit partnership working with services such as the Farm Crisis Network²⁷.

_

²⁷ The delivery of mental health support wasnot within scope of Farming Connect.

4 Outcomes and impacts

4.1 In this Section, we explore the extent to which farmers are implementing change as a result of Farming Connect, and the factors that are helping or hindering this. We present evidence on the outcomes and impacts arising from Farming Connect from the perspectives of engaged individuals and businesses, and reflect on the extent to which these outcomes and impacts are additional (i.e. would not have been achieved without Farming Connect), the contribution of Farming Connect in the context of other influencing factors, and which aspects of support appear to have been most effective in driving change.

Key messages

- The qualitative evidence gathered for this evaluation demonstrates how
 Farming Connect has resulted in widespread small incremental changes to
 farming practices over time. There are also examples of a smaller number of
 farmers making more significant changes. The key factors found to influence
 implementation were mindsets, inspiration and confidence, capacity and
 capability, and access to/prioritisation of finance.
- Farming Connect appears to have made most difference in influencing farmers' personal development, particularly in strengthening confidence and ambition, and creating the "foundations" for change. Alongside improved technical skills, this has influenced business management and decisionmaking processes, which have in turn reduced costs, improved productivity and business resilience, and led to enhanced standards for the environment and animal welfare.
- Evidence that cost reductions and productivity gains resulted in higher profitability and turnover, and in job creation, is limited. Whilst beneficiaries appear to be diversifying and adopting elements of good practice which are new to the firm, there is no evidence of farmers adopting more radical processes/technologies that are new to the sector.
- In terms of routes to impact, the key message across the consultations was the importance of (a) a combination of support and/or engagement in more intensive aspects of Farming Connect, and (b) the Development Officer.
- The added value of Farming Connect, above and beyond what would have been achieved in the absence of this support, was assessed as strong. In most instances, outcomes would not have been achieved or would have taken longer, been smaller in scale and lower quality; few other factors were found to have contributed towards achieving these results (with the exception of those in receipt of grants which allowed for implementation).

• There is little evidence of knowledge spillovers beyond those directly involved suggesting mechanisms currently in place are sub-optimal.

Implementing change

- 4.2 A key question for the evaluation was whether beneficiaries are actually implementing the new skills and knowledge gained through Farming Connect within their businesses, in order to realise the outcomes/impacts that the programme is seeking to deliver.
- 4.3 For many farmers consulted through case studies and focus groups in both phases of the research, Farming Connect resulted in **small incremental changes to farming practices/technologies over a period of time²⁸.** Consultees argued that affordability is key, along with the capacity to manage change within the business. That said, even these small changes taken together can often transform prospects at a farm level. For example:

"It's more a case of small incremental changes making a difference in the end" (focus group consultee)

"We have made changes, but these can be hard to measure. We have made small changes often, after a Farming Connect activity. Some things you can change after getting support with them, but there's some things that cost money and time - and are not able to be changed that easily" (case study consultee).

- 4.4 There is also evidence of a **smaller number of farmers making significant changes** as a result of Farming Connect, particularly those who have engaged with
 more intensive forms of support (discussed further below).
- 4.5 Overall, the balance appears to be weighted more towards lots of small changes rather than major change: this was supported in consultations with delivery staff and external stakeholders.

50

²⁸ Note, this evidence is supported by data from MaB from August 2019 to August 2020 (beyond the evaluation time-period) which showed that 85% of beneficiaries intended to change their farming practices after engaging with one-to-one surgeries and clinics, and that 88% of Advisory Service beneficiaries completing the 12-month evaluation had implemented advice on farm.

We found that across the beneficiaries consulted for the case studies in Phase 2, nearly two-thirds (22 out of 36) reported "reasonable" progress in implementing change (defined qualitatively as many small changes and/or more significant change). Nine (25%) had made a small number of minor changes, and only four (11%) had not made any changes at all. Furthermore, a higher proportion of farmers with a clear ambition, and with a business plan and benchmarking in place, self-reported that they had implemented "reasonable change" which was attributed to Farming Connect (see below). Whilst the sample sizes are too small to assess statistical significance, this indicates a relationship between having a clear direction of travel, with a base for measuring progress, and the implementation of new approaches.

Table 4.1: Business characteristics and extent to which changes have been

implemented as a result of Farming Connect in Phase 2 (n=36)

	% of respondents with that have implemented "reasonable" change as a result of Farming Connect	% of respondents without that have implemented "reasonable change" as a result of Farming Connect
Clear ambition	79%	30%
Business Plan	73%	58%
Benchmarking	86%	20%
Nutrient Management Plan	76%	42%
Animal Health Plan	85%	30%

Source: case studies

Factors that enable or hinder implementation and progress

4.7 The evaluation also explored factors that had helped or hindered farmers' ability to implement new ideas or skills they gained through Farming Connect, both those linked to Farming Connect's design/delivery and wider external factors. The findings, summarised in the table below, point to a combination of i) **individuals**' **mindsets**, (ii) **inspiration and confidence** to plan changes identified through Farming Connect, and iii) the **skills and practical capability** to make these changes (and to do so sooner). Wider factors that made a telling difference include

the availability of investment capital, capacity issues, succession and decision-making within the business; also, external regulatory, political and market conditions. From an extensive longer list of barriers, the (most frequently cited were (i) the availability of **finance** (to buy new equipment etc.), which led to delays in changes being made, or no change at all, (ii) the **mindset** of individuals involved; and (iii) **uncertainty in the political/regulatory context,** leading to hesitancy in decision-making and investment.

Table 4.2: Factors enabling and hindering implementation and change

Enablers

Farming Connect design/delivery:

- The combination of complementary support is key, identifying what needs to be changed and how to do
 this. Also, personal follow-up from Farming Connect (where it occurs) to prompt action
- Practical, hands-on, tailored advice and face-to-face where possible, with growing demand for one-toone advice
- Open forums for discussion, testing and learning, including discussing and refining plans in discussion
 with others (mentors, peers). Establishing trust in these forums is important, to encourage farmers to
 share failures as well as success.
- Engagement with "key influencers" in a business to change mindsets, attitudes and behaviour
- Affordable, practical and easy-to-implement solutions, supported by demonstrating the value and process of adoption on real working farms

Internal business factors:

Farmer motivation, willingness to learn and skills

Wider factors:

- Grant funding to purchase new equipment or ability to rent equipment
- The buoyancy of some sub-sectors, such as forestry, attracting interest in diversification
- Brexit, prompting farmers to think about change and exploring options
- Aligned and reinforcing messages between Farming Connect and other trusted intermediaries, e.g. vets and agronomists

Barriers

Farming Connect design/delivery:

- Some information (e.g. e-learning) "too simple", general and bite-sized to have substantial impact
- The "drip drip" approach to support takes longer to deliver change
- Lack of appreciation of the offer
- A reluctance by some to ask for further help to "make things happen", e.g. mentoring, skills development

Internal business factors:

- Farmers' motivation, willingness to learn and mindsets
- Difficulties accessing finance for new ideas/growth (e.g. via banks), or slow grant application /misaligned timing with application windows (resulting in missed contract opportunities)

- Challenges associated with small businesses, including difficulties in justifying the cost of
 implementation, or changes not cost-effective given small business size, capacity constraints to
 implement and integrate new processes, and diversionary issues, e.g. firefighting within very small
 businesses. Introducing and integrating new practices that could be potentially disruptive in the shortterm is a challenge for small businesses focused on handling day-to-day issues.
- Business structures and succession issues, whereby decision-makers resist or ignore change (either due to differences in opinion within the family, or the lack of a next generation to pass the farm onto)
- Technical challenges associated with implementing new systems

External factors

- Economic uncertainty, e.g. high price volatility within the sector, Brexit holding back investment decisions, COVID-19 and associated recovery
- Regulatory and policy uncertainty, e.g. farmers waiting until new environmental regulations come into
 force or forthcoming environmental grants and therefore do not want to invest their own funds,
 potential changes to inheritance tax
- Poor rural broadband inhibiting abilities to introduce new technologies or undertake e-commerce.
- Timing implementation needing to be aligned with seasons
- More frequent extreme weather events

Source: All strands of evaluation research

Outcomes and impacts

- Across both phases of the research, we have explored the outcomes and impacts arising from farmers receiving Farming Connect support and (where relevant) implementing change on their farms. Figure 4.1, below, summarises in headline terms the types of outcomes evident across the key sources of evidence for this evaluation. Two ticks indicate strong evidence of the outcome, and one tick illustrates some evidence of the outcome and/or the outcome as a secondary effect. It is important to note that the ticks are not indicative of the relative scale of impact from one activity to another. Also, an absence of a tick against an outcome does not mean the activity does not have an impact against this outcome at all rather that this outcome was not identified in the consultations.
- 4.9 In looking across the evidence, we highlight two key observations:
 - Farming Connect appears to have made most difference in influencing farmers'
 personal development, particularly in strengthening confidence and ambition, and
 creating the "foundations" for change. Alongside improved technical skills, this
 has influenced business management and decision-making processes, and
 translated into reduced costs, improved productivity and business resilience, and
 enhanced standards for environmental impact and animal welfare.

- Evidence of financial impacts (beyond cost reduction) on profitability, turnover and job creation is less marked²⁹. There is also limited evidence of innovation outcomes whilst beneficiaries appear to be adopting elements of good practice which are new to the firm and or diversifying into other income streams, the research uncovered no evidence of farmers adopting more radical processes/technologies new to the sector as a result of Farming Connect³⁰. MaB noted, however, that adoption of "new to farm" innovation was occurring as a result of Farming Connect, for example, in the use of precision agriculture, GPS technologies and the introduction of novel grass varieties.
- 4.10 It is important to re-emphasise that given the scope of the evaluation and the qualitative approach adopted, these findings cannot be generalised to the beneficiary population as a whole, nor do they allow quantified overall economic impact to be assessed. Calculation of *net* economic impact attributable to Farming Connect would require a quantitative survey across the population, and comparison with a group of unsupported farming businesses to understand the counterfactual.

²⁹ Data on these metrics was not available.

³⁰ Note, this is more likely to be evident in EIP-AGRI, which was out of scope for this evaluation.

Figure 4.1: Outcomes evident across each strand of research (drawing on evidence in Phases 1 and 2 combined)

Observed outcomes	Case study evidence								Focus group beneficiaries	Management and delivery staff	External stakeholders		
	Advisory services	Agrisgop	Agri Academy	Demonstration site	Discussion groups	Focus sites	Management exchange	Mentoring	Face-to-face skills courses	E-learning	Farming Connect as a whole	Farming Connect as a whole	Farming Connect as a whole
Improved knowledge and skills (business and technical)	✓	✓ ✓	✓✓	✓✓	//	✓✓	✓✓	✓✓	✓✓	✓ ✓	* *	✓✓	✓✓
Changes in mindsets and attitudes towards change		✓✓	✓	✓	✓✓	✓	✓		✓	✓	✓✓	√ ✓	✓
Raising awareness of new ideas	✓	✓	//	//	✓	//	//	✓	✓	✓	✓✓	✓✓	✓
Improved confidence and ambition to change	//	~ ~	//	✓	* *	✓	✓	✓✓			//	√ √	✓
Mental health benefits	✓	✓						✓			✓	✓	✓
Increased trust in external advice	✓												
Changed business management practices	✓	✓	✓	✓	✓			//	//	✓	√ √	✓✓	✓
Networking benefits (during and after support)		✓✓	✓✓		✓	✓		✓			//	√ √	✓
Innovation outcomes (new product or market opportunities)		✓	✓	✓		✓		✓	✓				
Business performance - costs	~ ~	✓	✓✓	✓✓	✓ ✓	✓ ✓	~ ~	✓✓	11		✓	✓ ✓	✓✓
Business performance - productivity, turnover, profitability		~	* *	✓	✓	✓			//		✓	✓	
Resilience/sustainability/ viability of business	✓	✓✓	✓	11	//	✓	✓	//	✓		✓✓	✓	✓
Environmental and animal health improvements	✓✓	✓		✓	✓		✓				*	✓	✓

Source: All strands of evaluation research

4.11 In the paragraphs that follow, we explore and illustrate outcomes in more detail.

Personal outcomes

Improved knowledge and skills

In both phases of the research we found that all aspects of Farming Connect are leading to an **improvement in farmers' knowledge and skills base, and that this know-how is being quickly applied on farms**. There are many examples of how the support achieved this outcome: Agrisgôp helped to improve knowledge and skills through peer-to-peer learning, by bringing in guest speakers with outside perspectives, and through "learning by doing" as a group; training courses (such as sheep shearing, foot trimming and VAT) enabled farmers to carry out tasks in-house rather than paying contractors, which saved immediate costs. External stakeholders agreed: one consultee argued that Farming Connect's chainsaw handling course had "undoubtedly" improved farm and woodland management safety.

Changes to mindsets and attitudes towards change, personal confidence and ambition

- impact that Farming Connect has had in changing mindsets and attitudes, boosting confidence and raising farmers' ambition. Many of the activities play a role in boosting confidence to try something new and in raising ambition notably, Agrisgôp, Agri Academy, Demonstration Sites, Discussion Groups and Mentoring. For example, case study beneficiaries argued that Farming Connect had provided a "psychological boost" when you can see that the changes made are generating improvements in the business. This has "given me hope and changed my mindset and incentivised me to think that it is not hopeless we can go forward there is a light at the end of the tunnel" and it "gave me a huge confidence boost and a goal to work towards". Beneficiaries from two case studies also described how they felt more "in control" of their businesses' future. Focus group consultees agreed one said "Farming Connect helps harness a positive mindset, and therefore embraces positive change".
- 4.14 There was also a small number of examples where confidence had been gained by Farming Connect confirming that beneficiaries' practices were appropriate. Farming Connect "tended to affirm that what we'd been doing intuitively was the right approach" and "a lot of it just gave us confidence that what we're doing is right, with added new elements around managing lameness".
- 4.15 These findings were also supported by delivery staff and external stakeholders. An external stakeholder noted how Farming Connect had given farmers "energy" and enthusiasm to try out new practices. However, whilst these outcomes are important and notwithstanding evidence to segment the sector (recognising that a proportion of the sector are unlikely to adapt), some external stakeholders were concerned that if this was the only impact of Farming Connect for some it was not enough to deliver the degree of change needed in the sector.

Networking benefits

4.16 Farming Connect activities helped **develop and strengthen networks** between farmers, both during and after support. This was achieved though peer-to-peer and group activities, such as Agrisgôp, Agri Academy and Discussion Groups, but was also evident in other activities such as Management Exchange.

4.17 There is evidence of a self-sustaining legacy effect, where networks are maintained after Farming Connect support ends and farmers continue to exchange knowledge and good practice. For example, Agrisgôp group members and Agri Academy cohorts often continued to support each other informally afterwards. This included sharing problems and successes with the rest of the group, asking peers for advice and even setting up joint business ventures together. Many consultees confirmed that these networks would not have existed without Farming Connect. The Management Exchange case study also cited the example of a beneficiary still in touch with their exchange partner to discuss common problems.

Mental health

4.18 Farming Connect has a crucial – and often underappreciated – positive impact on the health and wellbeing of those involved in the sector. This outcome was more prominent in the second phase of research, against the backdrop of COVID-19 and Brexit transition. Consultees described how activities such as the one-to-one Advisory Services provided a clear, practical and affordable way forward for farmers, reducing (often internalised and longstanding) levels of stress and anxiety. This was complemented by group activities that generated social benefits and gave reassurance that other farmers were experiencing similar challenges.

Changed business management practices and raised awareness of new approaches

4.19 In the case studies, beneficiaries also described how taking part in Farming Connect activities had "broadened horizons" and introduced them to new ideas, from experts in the field and/or discussions with peers. Most of these ideas focused on small-scale changes that were new to the farms, such as changes to crop planting density and animal feeding strategies (e.g. Management Exchange case study), metabolic profiling of ewes (e.g. Demonstration Site) and soil management regimes (e.g. Agri Academy). However, there were also examples of more transformational ideas influencing farm practices, including diversification into biomass as a result of attending a Focus Site, and mentors' introducing new ideas, for example on different types of livestock better suited to specific landholdings.

The consultations with beneficiaries and delivery staff provided multiple examples of how Farming Connect had strengthened and professionalised business management practices, particularly through (i) more evidence-based and confident decision-making and (ii) introducing new processes to manage the business such as electronic monitoring and better accounts management. This was delivered through the peer-to-peer group activities, one-to-one advice via the Advisory Service and Mentoring, and business-focused training. Beneficiaries described how they became more aware of the importance of having a fully costed business plan, have instilled more discipline around business and financial planning, and have formed a support network to help them in their decision-making process. This not only accelerated their decision-making process, but also avoided potentially costly mistakes. For example:

"I would say that Farming Connect have helped me a lot, and the Agri Academy has helped me gain more confidence and know who to contact so that I don't feel isolated in my decision making.' (case study consultee)

"Farming Connect has boosted my confidence and given me a boost psychologically. By feeling more confident in what I'm doing, I can make better decisions" (case study consultee)

"Farming Connect have certainly helped extensively with the personal development within our business. A lot of business management skills have been gained, which has resulted in a sustainable beef enterprise" (focus group consultee)

Increased trust in external advice

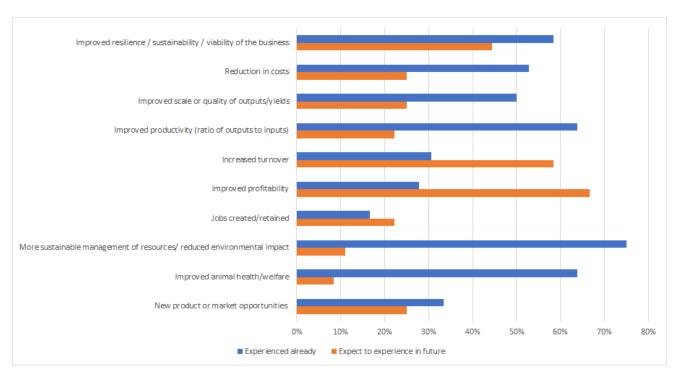
4.21 There is evidence that the Advisory Service is increasing farmers' trust and willingness to engage in external advice, and in some cases their willingness to pay for this. For example, one adviser noted that some farmers subsequently pay privately for design consultancy. Farming Connect helped by demonstrating the benefits associated with external advice (aided by the subsidy) and by introducing farmers to credible advisers (addressing the farmers' lack of awareness of where to go for advice).

Business and wider outcomes

4.22 As part of the Phase 2 case study research, we asked beneficiaries whether they had already observed benefits to their business as a result of Farming Connect or

whether they expected to in future (see Figure 2.1). As trailed above, Farming Connect appears to have had widespread impacts in reducing costs, improving productivity and business resilience, and delivering environmental and animal welfare benefits. While this had not translated into improved turnover, profitability or job creation for these businesses, most expected these effects in the future. We explore this in more detail below.

Figure 4.2: Outcomes observed or expected in future across <u>case study</u> beneficiaries in Phase 2



Source: Phase 2 case study beneficiaries, n=36

Reduction in costs

4.23 Over half of the case study beneficiaries had made cost savings as a result of support they had received through Farming Connect. For the most part, these had been realised quickly, and some were quite substantial. This outcome was corroborated by evidence from focus group consultees, management staff and external stakeholders. Benchmarking played a critical role in highlighting cost issues, but farmers typically required wrap-around support to prompt action, including peer-to-peer groups where issues and possible solutions were discussed, Mentoring, Clinics and one-to-one advice that provided farm-specific recommendations. Focus/Demonstration Sites and Management Exchange case

studies were also helpful in highlighting cost-saving ideas. Examples include the following:

After discussing silage pits at a discussion group meeting, one beneficiary had changed the covering on his silage pit to reduce wastage. This has improved the quality of forage and, by reducing wastage, has also reduced the amount of bought-in silage by £200 per week (case study consultee)

After observing different grassland management practices overseas, a beneficiary had implemented changes on his farm, leading to a reduction of £5,000 per year in expenditure on fertiliser (case study consultee)

Benchmark data on calving interval was discussed at a Discussion Group. The beneficiary's farm performed poorly, and after implementing changes he reduced the calving interval by 40 days across a herd of 150 cows, a saving of c.£18k per year has been generated (case study consultee)

Farming Connect soil sampling led to an immediate halving of fertiliser costs, from £6k to £3k per year, which has made substantial difference to a firm with an average turnover of £15k per annum

Technical clinics on nutrient management have saved farmers "tens of thousands of pounds"; they provided an example of a farmer who was about to dig a slurry storage for £100k, but following technical advice from Farming Connect he implemented changes costing £20k to ensure compliance with environmental regulations (external stakeholder)

A Farming Connect Demonstration Site farmer who introduced a multi-cut silage system benefitted from a financial saving of £109,771 per annum in concentrate feed costs (Farming Connect website).

Improved business performance and resilience

4.24 There is also evidence demonstrating how Farming Connect has led to increased productivity – as cited above, nearly three-quarters of beneficiaries consulted for the case studies had improved their productivity. For example:

Support identified the potential of heat collars to decrease birthing intervals, and as a result a farmer introducing this technology reduced calving intervals to below the Welsh average (case study consultee)

Following support, a farmer reduced their flock of sheep by 50% but decreased the number of finished lambs by only 30%. This was possible through improved grazing management and animal health (case study consultee).

4.25 Farming Connect has also helped to improve business resilience and viability. Consultees argued that, because many of the improvements were relatively quick to implement, they were able to move quickly to create a more sustainable business. These were not necessarily transformational changes in themselves, but as argued in the Agrisgôp case study, they created sustainable businesses that could then be taken forward for the next generation. Retaining young people and viable businesses in rural areas was considered important for sustainable communities. For example:

A learner completed a business plan and a marketing plan for their new venture to develop an existing low-key campsite into a more substantial and sustainable business. The new business is growing steadily. The longer-term hope is that if the business grows their child will be able to take over the camping business which in turn will support the future of the smallholding (case study consultee)

4.26 Evidence of turnover and profitability impacts was less prevalent, and often small scale; where reported, it was usually driven by diversification, more efficient processes and having the skills to bring tasks in-house. In some instances, financial impacts were not evident at the time of consultation but were expected to come through in the longer term. Job creation or retention was not a key aim for most consultees; their focus was on ensuring the business was sustainable to secure their own jobs and those of their children.

A Focus Site farm invested approximately £250k in renewables, including a solar system, wind turbine and a biomass boiler. This has led to a fifty percent reduction in their electricity bills from £14k to £7k and the farm has calculated that renewables will pay for themselves in less than seven years because they have a Feed-In Tariff (FIT) worth 19p/kWh (Farming Connect Dashboard, August 2019 – November 2019).

(ranning connect bachboard, raguet 2010 - Neveriber 2010)

Innovation outcomes

4.27 As part of the Phase 2 case studies, consultees were asked whether Farming Connect had led to new product or market opportunities. As illustrated above, around one-third of beneficiaries had observed this impact already, but this mainly related to new market opportunities such as producing honey, planting new varieties, moving from sheep farming into suckler cows or diversifying business activities to bring resilience to the business (e.g. biomass). There was no evidence of farmers introducing highly innovative new products/processes, such as new food production systems (these may be more likely to arise from EIP support, which is not in scope).

Environmental and animal health benefits

- 4.28 Both phases of the research provided substantial evidence that Farming Connect advice had led to environmental improvement and animal health benefits. This was achieved through reductions in antibiotics and fertiliser use, and more sustainable management of resources and measures to improve biodiversity. For example:
 - As a result of Advisory Service support, one beneficiary had introduced water cannons which reduced water wastage, and many others have improved their slurry management
 - Discussion group beneficiaries had learnt from their peers how to reduce antibiotic usage, better control mastitis, and change foot-bathing policy to reduce dermatitis
 - Demonstration Site beneficiaries had also learned about hygiene practices,
 reduction in the use of antibiotics and improving animal health plans
 - One of the training beneficiaries reported increased efficiency as a result of the safe use of pesticides course, which had a positive impact on the wildlife environment on the farm
 - A beneficiary of an e-learning course on body-scoring the condition of cattle had
 used this as a starting point for discussions with her vet; this led to her further
 exploring and then adopting benchmarking. (As the calving period was still
 underway, she was unable to say whether these changes had achieved a
 positive impact).

Unintended or unexpected impacts

4.29 Few Phase 2 consultees, just four beneficiaries and three delivery staff, had observed unintended or unexpected effects as a result of Farming Connect. In most instances, this related to their ability to progress much further than expected with the support, and/or making unexpected changes that they didn't realise were

required/possible. Two consultees noted that Farming Connect had led to **improvements in quality of life**, in part through social networking and more efficient farming practices that had reduced working hours.

Routes to impact

- 4.30 There was consistent feedback across the delivery staff and beneficiaries regarding the aspects of Farming Connect that made for the most effective route to impact. These were:
 - First, support was most effective "in combination" over a period of time, in recognition that better performance often depends upon adjusting multiple aspects of a business. As one case study beneficiary explained, it "is not one thing" but "the little things that cumulate to help improve business performance".
 Other examples in support of this argument included:

"The most effective support is when Farming Connect considers your whole business, considers how you want it to progress/business aims and provides tailored support." (case study beneficiary)

"The combination of packages that makes the difference for most" (Delivery consultee)

The most commonly cited combination of support in making effective change was: (a) knowledge/best practice from experts and Demonstration Sites to provide inspiration, (b) benchmarking, providing focus and tangible issues/impacts, (c) group/peer-to-peer discussion, providing a combination of "peer pressure" and confidence-building as well as a "shared journey", and (d) one-to-one advice which was farm-specific, practical and tailored. Across this package, consultees saw how theoretical discussions could be tied directly to potential practical benefits. Wider support, such as training, e-learning, Knowledge Exchange Hub articles and other online materials were perceived to be helpful in consolidating learning.

 Second, the more intensive aspects of Farming Connect appear to have been particularly effective in realising change, such as Agri Academy, Management Exchange, a Discussion or Agrisgôp Group or Mentoring. For example, a case study consultee argued that Agri Academy: "was a great opportunity to meet other farmers and gave me confidence in making decisions and bringing in new ideas on the farm. It was great to see others grow and make changes based on your recommendations too."

However, it is important also to recognise that capacity constraints and family commitments limit many farmers' ability to engage with the more intensive aspects of Farming Connect, and the effects of on-going support.

Third, the important facilitation role of the Development Officers, who act as
independent operators whose knowledge of the farms and the farmers' positions
enable them to identify what form of assistance is best suited and when;
consultees were clear that this has generated better results across Farming
Connect.

Additionality and contribution

- 4.31 In the second phase of case study research, beneficiaries were asked whether they would have implemented changes and achieved benefits in the absence of Farming Connect, the results are presented in Table 4.2. Whilst this is based on a small sample and self-reported, the available evidence indicated that:
 - Full additionality is strong, in that many benefits would probably or definitely not have been achieved without Farming Connect, as beneficiaries believed that no other similar support was available, or they would not have sought external advice. For example, as argued by one case study consultee: "We would still be farming in the same way as dad without Farming Connect. We would've made some changes, but there wouldn't be as many, and we wouldn't have improved the business the way that we have without Farming Connect. We would be years behind, through the various aspects of Farming Connect that we've used, we would be so far behind".
 - In many cases, Farming Connect accelerated and increased the scale of change which beneficiaries believed they would have realised later. They described how the support provided focus, impetus (e.g. "because the people are so enthusiastic and motivational"), the confidence and skills to make changes more quickly, and tailored advice that is relevant to each farm (rather than farmers seeking generic advice and having to judge whether it is applicable). Facilitated discussions and action learning approaches were critical in maintaining momentum. Another beneficiary said they could have learned from their own

- mistakes without Farming Connect, but this would have been costly and time consuming.
- The programme has also raised the quality and effectiveness of changes, compared to what might have happened anyway, which is important in terms of creating viable forward-looking businesses. For example, one of the advisers argued that Farming Connect support ensured that farmers adopted the most cost-effective approach to addressing challenges faced within the business.
- There were a small number of examples of deadweight in the case studies, where farmers would have paid privately for advice or training, but were steered back to Farming Connect by the adviser/training provider in order to receive the support for free/at a subsidised rate. This appears most common where regulatory changes would have forced change (e.g. in slurry management and safe use of pesticides). That said, some beneficiaries argued that the funding enabled them to take up training sooner, and as a result they had introduced safer and more efficient practices more quickly.
- 4.32 There is also evidence that additionality varied across the outcomes, and was slightly higher, for this sample, on softer outcomes around confidence, skills, attitudes and mindsets (e.g. the Agrisgôp case study).
- 4.33 Overall, and notwithstanding a small degree of deadweight, Farming Connect led to faster, better quality and more sustainable changes in the sector; many of these changes would not otherwise have happened, or not to the same degree.

Table 4.3: Additionality – to what extent benefits would be realised in the absence of

Farming Connect

Farming Con		Implemented on-farm changes	Personal benefits	Farm performance
Deadweight	Would have fully achieved the outcomes anyway (same speed, scale and quality)	8%	6%	8%
Partial additionality	Would have achieved the same outcomes, but not as quickly	31%	28%	25%
	Would have achieved the same outcomes, but not at the same scale	11%	8%	11%
	Would have achieved the outcomes, but at a lower quality	17%	11%	17%
Fully additional	Probably would not have achieved the same outcomes	22%	31%	25%
	Definitely would not have achieved the same outcomes	14%	14%	14%
Don't know		3%	0%	3%

Source: Phase 2 case studies, n=36

- 4.34 As part of the second phase of the evaluation, we also explored other factors that have influenced business performance (both in terms of other internal changes within the business and external drivers), and the relative contribution and importance of Farming Connect compared with these other factors.
- 4.35 Just over one-fifth (8 out of 36) of beneficiaries consulted for the Phase 2 case studies identified other changes that took place within the business at the same time or after their engagement with Farming Connect. These related to (i) purchase of other equipment, (ii) changes to processes/techniques, e.g. milking routines, and

- (iii) land acquisition. In only one of these cases (land acquisition) did the other change contribute more to improving business performance than Farming Connect. In all other cases, for example where new equipment was purchased to replace outdated kit, only "marginal" or no contribution was identified, and Farming Connect was seen as the key driver of change.
- Only 11 of the 36 beneficiaries consulted for case studies in Phase 2 had received 4.36 support from elsewhere, which included benchmarking and training from customers (e.g. Tesco and Muller), AHDB, Welsh Government's farm diversification grants and Glastir, Coed Cymru consultancy advice, animal health plans via HCC, marketing advice from the Wales Food and Drink Cluster, and events held by the British Grassland Society. This raises questions around the extent to which Farming Connect is connected to – and works in partnership with - the wider support landscape. But for beneficiaries, it re-emphasised the importance of Farming Connect in realising change. The two beneficiaries who received grants from elsewhere both argued that grants were important in enabling them to implement what had been learnt through Farming Connect. For example, one argued the grant "helped to tip productivity in the right direction", and the other stated that the grant helped the business to follow through ideas gained from Farming Connect, and prompted further engagement in the programme because they had funding to invest in the business.
- 4.37 Over one-third (14 out of 36) of beneficiaries consulted for the case studies identified major external factors that had influenced the impact on Farming Connect on business performance, in most cases making it more difficult to achieve intended outcomes. These were predominantly related to market volatility, exchange rate fluctuation, rising costs, and TB issues.

Wider impacts and spillovers

4.38 Part of the original justification for Farming Connect intervention related to information failures across a fragmented and diverse sector, which is dominated by small-scale operations and positioned between large-scale suppliers and buyers, and also characterised by a fragmented knowledge exchange network. In this context, an important question for the evaluation was the extent to which the programme has helped to create/sustain networks and encourage knowledge spillovers beyond those directly involved in the programme. Many of the delivery staff and beneficiaries believed knowledge sharing between beneficiaries and the

wider farming community was taking place, but struggled to provide specific examples. We found a lack of clarity on the intended mechanisms through which knowledge spillovers were expected to happen, and where the responsibility for this lay. Management exchange was the only activity where responsibility for disseminating learning was clearly identified, with knowledge spillovers planned into the support through an obligation placed on the beneficiaries. Whilst dissemination is clearly not appropriate for all activities (such as confidential Advisory Services or Agrisgôp groups focused on sensitive issues), there may have been some missed opportunities to build dissemination into the process where beneficiaries receive intensive support (e.g. encouraging Agri Academy alumni to act as "ambassadors" within their communities) and/or to facilitate more consistent knowledge sharing across delivery staff (feeding back into the groups they support).

5 Learning from elsewhere

This section summaries the key findings from an international comparator review of relevant farming programmes. The aim was to identify transferable lessons and good practice for Wales, following Brexit. Annex E provides an overview of the method and more detail on the programmes reviewed.

Key messages

- The rationales and aims of the comparator programmes closely aligned with those of Farming Connect. Typically, the programmes sought to address more than one of following broad themes: environmental sustainability, social aspects including skills and collaboration, economic improvements, and stimulating research and innovation.
- Specifically, and comparable to Farming Connect, their key aims included to:
 encourage new thinking and new ideas among farmers, thereby supporting
 greater ambitions, and the capability and capacity for growth; enhance farmers
 confidence in adopting new techniques; improve business and technical skills;
 and provide farms with the tools to evaluate their own working. The application
 of precision agriculture was also a key emphasis, and although Farming
 Connect supports the adoption of such approaches, there is scope to further
 increase the programme's focus in this area.
- Across the available evidence, a range of programme outcomes were identified. These included outcomes related to:
 - knowledge exchange such as awareness raising, increased collaboration and cooperation between stakeholders, and improved or developed knowledge transfer mechanisms and products
 - economic improvement such as increased productivity, alongside improved long-term economic stability
 - > technology utilisation and the encouragement of innovation activities.
- Factors that worked well across the programmes are similar to those identified for Farming Connect. Such factors included collaboration and networking activities, adequate funding to implement change (identified as a key gap in the Farming Connect offer), knowledge exchange activities (expert advice and farmer-led), formal plan development, and one-to-one support mechanisms.

Overview of the programmes

5.2 **Twenty-six programmes were reviewed,** including two which operate across the UK, and five others from England, Scotland and Northern Ireland. The ten

programmes from EU countries included five from Ireland, three from the Netherlands and two from Denmark. Also included were three programmes each from Australia and Canada, two from New Zealand and one from USA. They covered different target markets, activities and scale, and were delivered through a wide range of organisations. A brief summary of their key characteristics is provided below, and further details of each, including the lead organisation, the amount and source of funding, the target market and main activities, are included in Annex E.

Delivery organisations

5.3 Of the 26 programmes, 15 were delivered by the public sector, mainly government departments; six were delivered by partnerships, three by private sector organisations, one by a university and one by a charity.

Funding

5.4 The programmes range widely in scale of activity, and in the extent to which they were public funded. One of the Australian programmes had zero public funding, with participants expected to pay the full cost of training (the Behaviour Innovation programme) while the Rural Development Programme for Denmark³¹ utilised €1,200 million from the European Union and national contributions. Private sector investments and donations were important sources of funds for some, alongside income from public funding and service charges.

Target market

The target market for the programmes ranged across the agricultural sector, including dairy, livestock, tillage, crop and aquaculture farmers. Some schemes were also designed to support other farming/rural interests, including agribusinesses, landowners and local communities.

Rationale and aims

- 5.6 The themes addressed, explicit in each programme's rationale and aims, included environmental sustainability, social aspects including skills and collaboration, economic improvements, and stimulating research and innovation. Typically, the programmes sought to address more than one of these broad themes.
- 5.7 The need to work towards environmental regulations and sustainable farming practices was identified in almost half of the programmes reviewed.

³¹ Factsheet on 2014-2020 Rural Development Programme for Denmark

Environmental objectives were addressed through support to help participants meet water and nitrates directives, and by encouraging nutrient management planning. Several programmes also focused on raising awareness of sustainable agricultural practices, for example through improved graze management and soil fertility.

- Over two-thirds of the programmes aimed to encourage knowledge exchange and development, within the agricultural sector and between agriculture and researchers. They sought to promote the sharing of advice and knowledge in order to encourage new thinking and new ideas among farmers, thereby building ambitions, and the capability and capacity for growth. Several programmes included mechanisms for the sharing of knowledge between research experts and agriculture, to inform business planning and, for example, nutrient management plan development.
- 5.9 An important focus was improving information flows through exchange and collaboration between farmers, farmers and businesses, farmers and researchers, and farmers and local communities. Creating a two-way information flow was expected to bring mutual benefits, in terms of improved understanding, and more effective identifying of issues and potential solutions. Awareness of other perspectives and approaches was expected to enhance farmers' confidence in adopting new techniques, while expanding and intensifying their contact networks and improving awareness of other sources of advice. Improving business and technical skills was particularly relevant to initiatives targeting family farms. Such programmes aimed to provide farms with the tools to evaluate their own working, thereby encouraging longer-term sustainability.
- 5.10 Almost one-third of programmes identified economic improvements as the key rationale. This was expressed in terms of increased productivity, increased profits and reduced costs. Economic viability was expected to increase capacity for, and interest in, environmental investment, which would in turn improve long term sustainability.
- Over a third of programmes aimed to promote the utilisation of technology and encourage innovation in the agricultural sector: identifying the scope for, and then applying, 'precision agriculture' to improve production, was a key theme. This involved a range of approaches to raise awareness of its benefits within the agricultural sector.

Programme marketing and promotion

- 5.12 Key features of programme marketing and promotion were as follows.
 - The most commonly used marketing technique was online websites, through
 which programmes provided promotional material and information to encourage
 stakeholders to take part. Websites were also used to provide current or past
 project case studies, latest news, eligibility criteria, and guidance and support
 regarding the application process.
 - Online social media and press releases were also a common marketing technique used to promote programmes and the specific support offered.
 - Other marketing techniques included promoting access through University courses
 (Dairy Campus) and agricultural support networks (Tried and Tested).
 - Several programmes, including Circular Agriculture in the Netherlands and the Agricultural Catchments Programme in Ireland, are promoted through Government legislation and directives which allow them to engage relevant farms and businesses in the defined programme area.

Outcomes

- 5.13 Across the programmes, only limited evidence on performance and outcomes was available, through case studies, evaluations and programme-specific expected outcomes. Some programmes began to operate only recently, and to date there is a lack of evaluation reporting or progress assessment. In this section, we summarise the limited evidence available on performance, key findings, and examples of the main outcomes and impacts of the programmes. This is ordered under the broad themes identified earlier in the rationale and aims section.
- 5.14 Table 5.1 outlines the scope of the outcome evidence available for 19 of the programmes reviewed, including some for which only expected outcomes were available.

Table 5.1: Summary of evidence available regarding programme outcomes and impacts

Programme	Evidence available
Circular Agriculture	Case study
Use of Agritech	Expected outcomes
Precision agriculture	Case studies
Farming Together (Farm Co-operatives and Collaboration Pilot Programme)	Case study
Rural Research and Development for Profit	Evaluation (mid-point)
Monitor Farm Programme	Case studies
Agriculture Clean Technology Programme	Expected outcomes
Agrilnnovate	Expected outcomes
AgriScience Programme	Expected outcomes
Sustainable Farming Fund Projects	Evaluation
Agricultural Sustainability Support and Advisory Programme	Expected outcomes and preliminary findings
BETTER Farm Crops Programme	Evaluation
Multi Actor Farm Health Plans (DISARM)	Expected outcomes
Options for Farm Families Programme	Expected outcomes
Agricultural Catchment Programme	Evaluation
Food Valley	Evaluation
Tried and Tested	Case studies
Water and Integrated Local Delivery (WILD)	Evaluation
Catchment Sensitive Farming Project	Evaluation

Source: SQW

Environmental improvement and sustainability

5.15 Of the 19 programmes where some outcome evidence was available, **just over a third** included outcomes relating to the theme of **environmental improvement and sustainability.**

- 5.16 Reported outcomes for several projects related to improvements in nutrient management and associated environmental benefits such as improved water quality. For example, a Phase 2 report of the Irish Agricultural Catchment Programme (ACP) provided a summary of the phase of the programme that ran between January 2012 and December 2015³². The report outlined key findings and implications resulting from the ACP, including declining phosphorus trends in four of the five catchments studied³³. Similarly, an evaluation of the Catchment Sensitive Farming (CSF) Project stated that water quality improvements were evident in monitoring data, with a 34% reduction in pesticide concentrations exceeding 0.1µg/l across the monitored catchments³⁴. Another project reported to result in positive environmental outcomes was the Circular Agriculture project, with the case study example of the Dutch milk sector³⁵. This found that the programme intervention had resulted in reduced demand for animal feed and fertilisers, which in turn had limited adverse impacts on water and air quality, and allowed soil quality to be maximised³⁶.
- 5.17 A further outcome linked to environmental improvement from the programmes reviewed related to the associated natural capital benefits. The evaluation of the Catchment Sensitive Farming Project highlighted outcomes including natural capital benefits such as improved biodiversity, the provision of animal products and material, enhanced erosion control, reduced flood risk, natural pest control and beneficial insect pollination³⁷.
- 5.18 The expected outcomes from the Canadian Agriculture Clean Technology Programme relate to increased investment in clean agricultural technology, with the anticipated longer term outcome the improved environmental performance of the sector³⁸. Similarly, the Sustainable Farming Project in New Zealand has expected outcomes including behavioural changes amongst participants, expected

³² Agricultural Catchments Programme Phase 2 Report

³³ Agricultural Catchments Programme Phase 2 Report

³⁴ Catchment Sensitive Farming Evaluation Report – Water Quality Phases 1 to 4

³⁵Evaluating system development options in circular economies for the milk sector – development options for production systems in The Netherlands and Hungary

³⁶Evaluating system development options in circular economies for the milk sector – development options for production systems in The Netherlands and Hungary

 ³⁷ Catchment Sensitive Farming Evaluation Report – Water Quality Phases 1 to 4
 38 Agricultural Clean Technology Programme: Applicant Guide

subsequently to lead to positive environmental benefits, such as the incorporation of environmentally sustainable practices³⁹.

Knowledge exchange

- 5.19 Of the 19 programmes where some outcome evidence was available, for 14 this was linked to knowledge exchange and development.
- 5.20 Several projects reported outcomes related to awareness raising amongst participants. This was associated with activities such as community meetings, one-to-one support and the publishing of peer-reviewed papers and other communication outputs. For example, the Phase 1 report for the Water and Integrated Local Delivery (WILD) programme stated that one outcome of the project was increased awareness amongst communities of the roles and responsibilities of riparian owners in working towards the Water Framework Directive⁴⁰. Similarly, a results paper for the BETTER Farm Crops Programme in Ireland, stated that between 2010 and 2013, over 2,000 visitors (farmers, agronomists, students, trade personnel) had either attended events on BETTER farms, or directly received programme information, with the outcome being the dissemination of findings⁴¹.
- 5.21 A further outcome related to knowledge exchange and development was increased collaboration and cooperation between stakeholders. For example, the Sustainable Farming Fund Projects programme evaluation stated that 'enhanced relationships' was an outcome of the programme⁴². Similarly, the Use of Agritech's expected outcomes include an increase in the number of international connections and stakeholder collaborations⁴³.
- 5.22 The final outcome associated with knowledge exchange and development, was improved or developed knowledge transfer mechanisms and products. The Canadian AgriScience programme aims to support targeted applied science, research and/or development activities to promote the development of new products for use in the agricultural sector⁴⁴. Expected outcomes include: the development of new knowledge transfer products; the organisation of training/knowledge transfer

³⁹ Sustainable Farming Fund Projects

⁴⁰ Overview of the Water and Integrated Local Delivery (WILD) project

⁴¹ Better Farm Crops Programme Report 2010-2012/3

⁴² Sustainable Farming Fund Projects

⁴³ Agritech in New Zealand Towards an Industry Transformation Plan

⁴⁴ AgriScience Program – Projects: Applicant Guide

events; an increase in training or knowledge transfer events; and the demonstration of new technologies on-farm or in-plant⁴⁵.

Economic improvement

- 5.23 Of the 19 programmes where outcome evidence was available, nine **included** outcomes which related to the theme of economic improvement.
- 5.24 Examples of these outcomes included the following.
 - The BETTER Farm Crops Programme targeted an increase in profit, with the BETTER farms returning an average profit level 65% higher than equivalent farms⁴⁶. A further economic outcome identified was cost reduction through reduced demand for inputs such as feed and fertilisers.
 - The evaluation of the Circular Agriculture programme, with the specific case study example of the Dutch milk sector⁴⁷, reported reduced demand for animal feed and fertilisers; an outcome which has environmental benefits, and also reduces costs for farmers.
 - A case study from the Tried and Tested programme outlined the benefits of nutrient management planning in Wigmore, Herefordshire⁴⁸. The reported outcomes include cost savings measured over a three-year period⁴⁹.
- 5.25 A further economic outcome was increased productivity linked with greater economic stability over time. For example, the Use of Agritech programme identified expected outcomes such as measurable growth in productivity and jobs, particularly high-value jobs⁵⁰. The programme also identified the outcomes of increased investment into the sector, alongside improved economic stability in the primary agriculture sector through the utilisation of sustainable business models and efficient land use⁵¹.

⁴⁵ AgriScience Program – Projects: Applicant Guide

⁴⁶ Better Farm Crops Programme Report 2010-2012/3

⁴⁷Evaluating system development options in circular economies for the milk sector – development options for production systems in The Netherlands and Hungary

⁴⁸ Nutrient Management Case Studies

⁴⁹ Nutrient Management Case Studies

⁵⁰ Agritech in New Zealand Towards an Industry Transformation Plan

⁵¹ Agritech in New Zealand Towards an Industry Transformation Plan

Technology and innovation

- 5.26 For five of the programmes, evidence was linked to the theme of technology utilisation and the encouragement of innovation activities. For example, the evaluation of the Sustainable Farming Fund (SFF)⁵² found evidence that SFF funded projects had contributed to the development and adoption of new technologies. Successful SFF projects had provided farmers with the opportunity to develop new solutions with scientists and industry, and provided opportunities for technology adoption, alongside the trialling and embedding of improved practice in communities⁵³.
- 5.27 The majority of evidence related to technology utilisation and innovation activities focused on expected outcomes, however, these are often generic, and the evidence can provide some valuable insights. For example, the Canadian Agriculture Clean Technology programme expected outcomes include increased development, demonstration, commercialisation and adoption of clean technologies in agriculture⁵⁴. Similarly, the AgriScience programme expected outcomes such as the utilisation of new technologies including products, practices, processes and systems⁵⁵. The AgriInnovate programme's intended outcomes included an increase in the generation and commercialisation of innovations in the agriculture and agrifood sector⁵⁶.

Key lessons

5.28 Evidence regarding what worked well and what worked less well in delivery was also limited across the reviewed programmes. Again, this can be attributed to the recent implementation of many of the programmes, and the lack to date of published evaluation or progress reports. The information available on key lessons across fourteen programmes is summarised below. The final part of this section lists some wider factors that have enabled or hindered programme progress.

⁵² Sustainable Farming Fund Evaluation

⁵³ Sustainable Farming Fund Evaluation

⁵⁴ Agricultural Clean Technology Program: Applicant Guide

⁵⁵ AgriScience Program – Projects: Applicant Guide

⁵⁶ Agrilnnovate Programme: Applicant Guide

What worked well and why?

- 5.29 Several factors that what worked well were identified, including: collaboration and networking activities, funding, knowledge exchange activities (expert advice and farmer-led), formal plan development, and one-to-one support mechanisms. Each theme is discussed in turn below.
- 5.30 Activities which encouraged and facilitated collaboration and networking were key success factors in several projects. For example, the Farm Co-operatives and Collaboration Pilot Programme, specifically the BraidGarlic co-operative. demonstrated that the encouragement of collaboration between farmers, (in this case within a co-operative), enhanced organisation and progress, enabling the development of a quality framework for garlic farming⁵⁷. Similarly, the evaluation of the Water and Integrated Delivery (WILD) project noted that partners emphasised the importance of the social aspects of the project, such as developing local networks and responsibility and accountability, in improving the coordination of objectives across the project area and sustaining activity over the long term⁵⁸. Specifically, the provision of contact points, such as the Farmer Guardian Network, promoted accountability in the project⁵⁹. Other projects where collaboration and networking activities were cited as important included: i) Food Valley, where the networking formation function provided opportunities for farmers to gain invaluable contacts and develop partnerships⁶⁰; and ii) the Catchment Sensitive Farming Project, where peer group interactions enabled the development of farmers' confidence and skills, and established catchment sensitive farming methods as a farming 'norm' amongst participants⁶¹.
- 5.31 Another key lesson is the **importance of funding mechanisms** (for example, co-investment funding) to encourage involvement in some activities. For example, the Farmer Group Projects component of the Farm Co-operatives and Collaboration Pilot Programme, provides competitive funding to eligible farmer groups to allow them to implement collaborative business arrangements⁶². BraidGarlic co-operative

⁵⁷ Garlic co-op's home-grown QA guide

⁵⁸ Overview of the Water and Integrated Local Delivery (WILD) project

⁵⁹ Water and Integrated Local Delivery

⁶⁰ Member Company Evaluation of the Effectiveness of Food Valley as a Cluster Organization

⁶¹ Catchment Sensitive Farming Evaluation Report - Water Quality Phases 1 to 4

Farm Co-operatives and Collaboration Pilot Program

received \$60,000 of funding for their project⁶³. Similarly, the evaluation of the Catchment Sensitive Farming Project reported that in the absence of the grant funding, most farmers would not have implemented the changes ⁶⁴.

- Knowledge exchange was central to many of the projects reviewed, with several elements identified that worked well. The provision of expert advice was noted by the Sustainable Farming Fund Project as being important in providing the opportunity for individuals to work with experts and gain valuable scientific knowledge⁶⁵. Similarly, in the Tried and Tested Programme, access to expert advice had proved to be valuable in allowing farmers to identify where improvements and cost savings could be made, and then to develop suitable Nutrient Management Plans⁶⁶.
- 5.33 Knowledge exchange through farmer-to-farmer exchange was also identified as a successful element. For example, the New Entry Sustainable Farming Project noted that the most beneficial training formats included those that were farmer-led, involved a farmer presenter or took place on a farm⁶⁷. The BETTER Farm Crops programme indicated that the individuals who attended events on the farm and then took on board the findings included both local and more widely spread farmers⁶⁸. The Monitor Farm meetings inspired the Lochaber Farm case study subject to become a monitor farm⁶⁹. The Monitor Farm Focus on Profit Programme in Ireland also pointed to the importance of knowledge exchange, with activities such as the hosting of events on monitor farms and the sharing of messages in newsletters and publications identified as key to the successful extension of individual monitor farm programmes⁷⁰.
- 5.34 Another factor that worked well was the **development of a plan by individual businesses/farms through the project.** For example, the Monitor Farms Focus on
 Profit programme cited the importance of the development of a well-prepared
 plan⁷¹. Similarly, the Agricultural Catchment Programme found the use of a single

⁶³ Garlic co-op's home-grown QA guide

⁶⁴ Catchment Sensitive Farming Evaluation Report – Water Quality Phases 1 to 4

⁶⁵ Sustainable Farming Fund Evaluation

⁶⁶ Nutrient Management Case Studies

⁶⁷ Program Evaluation

⁶⁸ Better Farm Crops Programme Report 2010-2012/3

⁶⁹ Lochaber Monitor Farm Focuses on Alternative Cattle Wintering Options

⁷⁰ Monitor Farms – Teagasc/Kerry Agribusiness Monitor Farms 2016-2019

⁷¹ Monitor Farms – Teagasc/Kerry Agribusiness Monitor Farms 2016-2019

common experimental design across the project catchments to be effective⁷². Related to this, the evaluation of the Rural Research and Development for Profit Programme identified the importance of **project personnel and research area selection**. Two key enablers of effective collaborations were about selection and design: i) choosing the 'right' research project, where the project research outcomes can benefit all stakeholders⁷³; ii) selecting the 'right' project manager or coordinator, a good communicator and leader/organiser focused on participants' engagement and project development, and thus generating better outcomes⁷⁴.

5.35 Finally, **one-to-one support and Advisory Services** also worked well in many projects. For example, the Catchment Sensitive Farming Project noted that holding specific one-to-one advice is most beneficial in building and developing trust and confidence⁷⁵.

What has worked less well, and why?

- 5.36 Several factors that worked less well could also be identified in the programmes reviewed, including: technology transfer; the need for further support; associated programme costs; and specifics around the application of certain improvements.
- 3.37 The Sustainable Farming Fund (SFF) project noted that **technology transfer to the individual projects had not worked optimally**; expertise had typically remained in
 specific sectors and regions with limited spread of learning. The SFF project
 evaluation also noted an apparent underinvestment in the advisors involved in
 project delivery. Similarly, the Agricultural Catchment Programme noted a need for
 additional advisory support to enable better decisions to be made on the location
 and timing of nutrient applications. The Programme also noted that while the new
 Online Nutrient Management Plan created for the programme was successful, on its
 own this would not meet farmer's needs, and further advisory support would be
 needed.

⁷² Agricultural Catchments Programme Phase 2 Report

⁷³ Evaluation of the Rural Research and Development (R&D) for Profit Program

⁷⁴ Evaluation of the Rural Research and Development (R&D) for Profit Program

⁷⁵ Catchment Sensitive Farming Evaluation Report – Water Quality Phases 1 to 4

⁷⁶Sustainable Farming Fund Evaluation

⁷⁷ Sustainable Farming Fund Evaluation

⁷⁸ Agricultural Catchments Programme Phase 2 Report

⁷⁹ Agricultural Catchments Programme Phase 2 Report

- 3.38 A further factor, relating to the specific types of improvements implemented, was identified from the Catchment Sensitive Farming Project. The evaluation of this project found that measures relating to the timing of fertiliser, manure and pesticide application had a higher take up than measures relating to changes in farm infrastructure and land use⁸⁰. It was concluded that this type of programme requires time to establish farmer engagement and relationships, and thus to achieve significant uptake of pollution mitigation measures on farms⁸¹. An evaluation of the New Entry Sustainable Farming Project noted that challenges to farmers included limited presence of post-harvest skills and entrepreneurial skills⁸².
- 5.39 Finally, the costs associated with improvements were identified as a potential barrier to implementation. For example, the Statistics Denmark report on the Precision Agriculture programme indicated that large farms often see the costs associated with precision technology as a key barrier to take-up⁸³. Similarly, the Rural Research and Development for Profit programme noted the significant costs, both economically and through in-kind contributions such as time and resources, associated with making improvements⁸⁴.

Are there any wider factors that have enabled programme progress?

- 5.40 Several programmes provided insights into the wider factors that have enabled programme progress. This section outlines the key factors identified, drawing on examples for each.
- 5.41 First, expediting implementation through reducing financial and wider business risks was a key enabler. For example, the Precision Agriculture programme noted that the use of contractors in implementing precision technology practices provided a key shortcut for small farms. Further, a report by Statistics Denmark indicated that at over half (53%) of farms using precision technology, agricultural contractors own the equipment. ⁸⁵.
- 5.42 Second, a range of relevant skills are relevant alongside industry-specific expert knowledge in enabling programme success. The Rural Research and

⁸⁰ Catchment Sensitive Farming Evaluation Report - Water Quality Phases 1 to 4

⁸¹ Catchment Sensitive Farming Evaluation Report – Water Quality Phases 1 to 4

⁸² Program Evaluation

⁸³ Advanced technology conquers the Danish fields

⁸⁴ Evaluation of the Rural Research and Development (R&D) for Profit Program

⁸⁵ Advanced technology conquers the Danish fields

Development Programme noted the advantages of partnerships with other organisations that have other skills and perspectives⁸⁶. Factors including the development of strong relationships and building partnerships through collaboration and networking activities dramatically influence programme progress. The Sustainable Farming Fund Programme noted the importance of building and utilising partnerships in both developing trust and understanding industry priorities to inform strategic priorities, enhancing project progress⁸⁷. The Agricultural Catchment Programme also highlighted the importance of successful partnerships to programme progress, recognising that active participation in programme partnerships had ensured the success of the programme⁸⁸.

5.43 Finally, ensuring that a programme or collaborative project is delivered by an effective project manager/coordinator was identified as a key success factor. Indeed, the Rural Research and Development for Profit programme final report highlighted the importance of the 'right' project manager in delivering the success or otherwise of collaborative projects. Key attributes included well organised and fair individuals, with strong communication and leadership skills⁸⁹.

Are there any wider factors that have hindered programme progress?

- 5.44 Insights into the wider factors that have apparently hindered programme progress include the following issues and specific examples.
- 5.45 Competition was identified by the Rural Research and Development for Profit programme as a potentially damaging factor in the wider environment. Some stakeholders suggested to the evaluators that collaboration among farmers was limited by some holding back information to maintain competitive advantage⁹⁰. While this and other interventions seek to encourage open cross-sectoral and/or cross-farm collaboration, tensions may result where individuals are seen to not be forthcoming, and where businesses feel the need to maintain their competitiveness to be successful.
- 5.46 The BETTER Farm Crops Programme also noted several wider constraints which could be seen to hinder progress, including land access, environmental risks

⁸⁶ Evaluation of the Rural Research and Development (R&D) for Profit Program

⁸⁷ Sustainable Farming Fund Evaluation

⁸⁸ Agricultural Catchments Programme Phase 2 Report

⁸⁹ Evaluation of the Rural Research and Development (R&D) for Profit Program

⁹⁰ Evaluation of the Rural Research and Development (R&D) for Profit Program

associated with the introduction of monocultures, and the issue of farm succession issues⁹¹. Each of these could dramatically hinder programme progress and could be applicable or common to other projects.

5.47 Finally, the Water and Integrated Local Delivery (WILD) programme found the initial challenges for programme delivery centred on funding and prioritisation of agrienvironmental works. The issue of prioritisation was largely resolved during later stages of delivery, however, seeking funding for multi-objective projects was noted as a particular challenge.

Reflections

- 5.48 Comparative programmes elsewhere have many similarities with Farming Connect, in terms of both form and effects. Potential learning from them can be categorised under three main themes, discussed in turn below.
- 5.49 First, overall, the rationales and aims of the comparator programmes closely aligned with those of Farming Connect, in that, they covered the broad themes of environmental sustainability, skills and collaboration, economic improvements and research and innovation. The second most commonly identified aim was supporting environmental improvement and sustainability. Whilst improved environmental performance is a key cross-cutting aim for Farming Connect, and one evident in many parts of the programme, there may be scope to reframe the current offer to ensure a more holistic approach to environmental improvements that incorporates a wide range of issues such as biodiversity, erosion control, insect pollination, and flood mitigation. We have noted that there is already some movement towards this: an interactive guide aimed at reducing greenhouse gases from agricultural holdings was recently launched on the Farming Connect website. Also, nearly 3,000 activities that were delivered under the Sustainable Management of Natural Resources Cross-Cutting Theme between October 2015 and August 2019.
- 5.50 Second, the lessons learned on what works well/less well in delivery are very similar to those that identified for Farming Connect. For example, the effectiveness of peer learning and one-to-one advice from experts, and conversely, the costs of implementing changes. The evidence provides some assurance that programmes across the EU and internationally experience similar delivery

⁹¹ Better Farm Crops Programme Report 2010-2012/3

challenges, and these are being addressed in similar ways to Farming Connect. Two key lessons in regard to what works well are: i) adequate funding mechanisms for individual projects/businesses are critical, but finance has been highlighted as a key gap in the current Farming Connect offer and, consistent with the evidence above, a lack of capital has been identified as one of the most important barriers to implementation; ii) individuals/businesses developing a plan prior to the implementation of changes, alongside adequate support / guidance to action the plan, is also a key enabler: while Farming Connect encourages business planning, and related support such as benchmarking, there may be scope to include a more holistic business planning ('whole farm plan approach') process and/or further encourage the uptake of the current business planning process.

5.51 Third, collaboration networks are a critical success factor in the delivery of integrated and successful farming programmes. The evidence points to the key role of intermediaries in acting as 'network facilitators and managers'. In Wales, Farming Connect has largely been responsible for this role, which given the scale of country and importance of the sector has been appropriate, but in other contexts such activities have been undertaken by other parties. The evidence available supports the importance of mechanisms which provide spaces for networking, collaboration and social interaction such as Farming Connect's Demonstration Network and activities such as Discussion Groups. The implication is that any programme post-EAFRD should seek to maintain some scale of innovation/knowledge transfer focused collaboration networking in delivery.

6 Conclusions

In this final Section, we reflect on the key findings and messages against the research questions for the evaluation. We revisit the theory of change for Farming Connect, assessing how the programme has been delivered in practice, and those factors that have contributed to or inhibited success. We also set out lessons to consider in the design of future policy.

Summary of key findings

What activities have been delivered to date, compared to expectations?

- 6.2 Farming Connect was designed to offer a broad range of support, reflecting the differing needs, stages of development and preferred learning styles found across the farming sector. This includes group support and one-to-one advice, and both peer-to-peer knowledge exchange and external expertise from others. Together, the activities are designed to tackle attitude-based barriers to change, build confidence and equip farmers with the know-how and skills needed to implement changes. It also offers the opportunity for progression towards more transformational change as individuals' experience and confidence grow. The programme is "well known" and "trusted" across Wales, and the longevity, stability and continuity of Farming Connect has been important.
- 6.3 Total programme expenditure over the 2014-20 contract period (to August 19) was £25.72m, very close to budgeted spend of £25.73m. The programme performed well against target outputs during that contract, with the majority of outputs across all Lots achieved, if not exceeded, by the end of the programme. The programme has continued to perform well under the refresh, despite COVID-19 creating an extremely challenging context for delivery; the breadth and flexibility of the programme has helped those delivering it to rise to the challenge.
 - How intensively do farmers engage with the programme and progress through the offer, and what drives this?
- 6.4 Within the programme, Farming Connect is seeking the "right" balance across three dimensions: breadth of reach and intensive support; specific technical support through to a holistic "whole farm" approach; and between group/peer-to-peer and one-to-one support.

- 6.5 Latest data suggests that Farming Connect has a wide reach, with over 23,000 individuals registered with the programme by August 2020 across 11,000 businesses. Significant progress has been made to widen the programme's reach, but there is debate around whether the programme should continue to strive for wider reach, or now focus efforts on farmers who want to change. In Phase 2 of this evaluation, the weight of the argument was more strongly towards the latter across both stakeholders and beneficiaries, recognising the significant effort that went into registering new farmers during the 2014-20 programme period.
- There is ongoing concern about the extent to which those registered engage with the programme in practice. One quarter of them have not actively engaged with any Farming Connect support, and around half of those who have engaged have only received support from one Lot. A third of individuals who have engaged with some activity have engaged with Lot 1 (Knowledge Transfer) only. These findings were corroborated by consultees in both phases of the research, with concern that for many, engagement with the offer can be relatively narrow and/or light touch. In part this is due to the time constraints of farmers, but navigating the offer was identified as a key challenge, in Phase 1 in particular.
- 6.7 The Farming Connect refresh introduced measures designed to improve the ability of farmers to select the right support at the right time, setting out clearer route(s) to follow through the offer (e.g. signposting at Demonstration Site events to relevant and complementary e-learning and Clinics) and redesigning the website to focus on three themes (business, land and livestock) rather than lots. Whilst it is too early to assess whether this has been successful, consultees were confident the changes should be beneficial. Development Officers have played (and continue to play) a critical role in encouraging take-up and facilitating some farmers' journeys through Farming Connect, but beneficiaries still expressed frustration with the lack of a single point of contact within the programme.
- While therefore the broadness of Farming Connect is a strength, more could be done to package, integrate and communicate the offer more effectively. Both farmers and external stakeholders suggested there was scope to provide more "personalised" and "holistic" support to better integrate Farming Connect activities, informed by an effective baseline, alongside a more consistent approach to facilitation and "nudging" through the customer journey, in order to deliver real impact and the "step change" needed in the sector. More recent efforts to create

"progressive packages" of Farming Connect support, with campaigns running alongside inter-linked elements of support, are a welcome step in this direction.

How effectively and efficiently is the programme being delivered, managed and governed?

- 6.9 In terms of delivery, several aspects of Farming Connect were highlighted as good practice across both phases of the work. Crucially, the offer has an emphasis on what needs to change, why and how it can be achieved in a practical and costeffective way. Other features that have worked well include self-help and action learning approaches, encouraging beneficiaries to self-define goals "bottom up" to ensure a close fit with their needs and buy-in to the process, practical, farm-based learning and peer-to-peer support, and flexibility to adapt the focus of an activity in response to changing conditions and to suit the working patterns of those involved. The combination of group support and one-to-one bespoke/confidential one-to-one advice has also been important. Facilitators in group activities play a key role in providing structure, momentum and (where necessary) challenge to ensure that beneficiaries move forward, alongside input from high quality and "trusted" advisors/speakers to provide inspiration and expertise. Some of the more intensive activities are delivered through competitions rather than open access and, whilst this approach is not appropriate for all aspects of Farming Connect, it does appear to secure strong commitment to the support, and subsequently to making changes. Benchmarking has been demonstrated as a key driver of change in behaviour, particularly where it is undertaken in discussion with peers or facilitators.
- 6.10 There have been some delivery challenges, including reported variability in the quality and consistency of facilitators/advisers (especially in relation to signposting/wrap around support), the capacity of Development Officers, the use of training application windows, and managing the use of "time limited" support.

 Consultees also suggested there may be missed opportunities for farmers who want to push ahead, with more inspirational and advanced activities and clear pathways for the most progressive farmers.
- 6.11 There is also some concern that Farming Connect has been "taken for granted" by many in the sector, with take-up driven by the presence of free support rather than a real need/motivation to change, and that farmer engagement with Farming Connect has lacked clear focus and purpose. Some argued that this has diminished the programme's potential impact. In Phase 1, we also found that the assessment of

farmer needs at the outset was ad hoc and inconsistent, and that Personal Development Plans had been largely ineffective in this respect. The programme has sought to address these issues in the refresh, by encouraging all beneficiaries to complete baselines (including business plans, benchmarking, animal health and Nutrient Management Plans). This was perceived as a positive step forward by consultees.

- Development finance was highlighted as one of the most important barriers to implementation, and whilst we acknowledge this was not included in the original Specification for Farming Connect, it has hindered the delivery of the programme's goals. Consultees argued that a flexible and accessible fund for farmers to test and implement new/innovative ideas would help to facilitate more substantial change in the sector. Whilst the new Farm Business Grant is helpful, concerns were raised about the scale, timing and focus of the funding available through this mechanism. Other key priorities looking forward included: the role for precision technologies, where and how these were appropriate; support to measure and reduce carbon; facilitating access to buyers, and providing greater support for mental health and wellbeing.
- 6.13 Programme management has worked well throughout the evaluation, with a highly experienced and knowledgeable team in place. A strong emphasis is placed on feedback and continuous improvement to maximise the effectiveness of Farming Connect in real time, and the programme has been actively managed in response to changing needs and conditions (as illustrated in the response to COVID-19).
- 6.14 There has been a substantial and positively received shift in governance arrangements over the last year. In Phase 1, the lack of strategic industry-led challenge and input to the design and delivery of Farming Connect was a concern for many consultees, particularly given the pace at which the sector needs to change. In response, the refresh widened the Strategic Advisory Board membership to include more private sector representation and encourage better integration across the Lots, with the creation of a single underpinning Delivery Board to replace the three Lot Sub-Groups.
- 6.15 Partnership working at an operational level has improved considerably over recent years. However, there is scope to strengthen this further particularly in engagement in strategic, long-term prioritisation and planning at senior level. There is also a need to clearly articulate Farming Connect's role within, and contribution to, Wales'

agricultural innovation ecosystem, and its alignment and integration with other public and private sector actors and interventions.

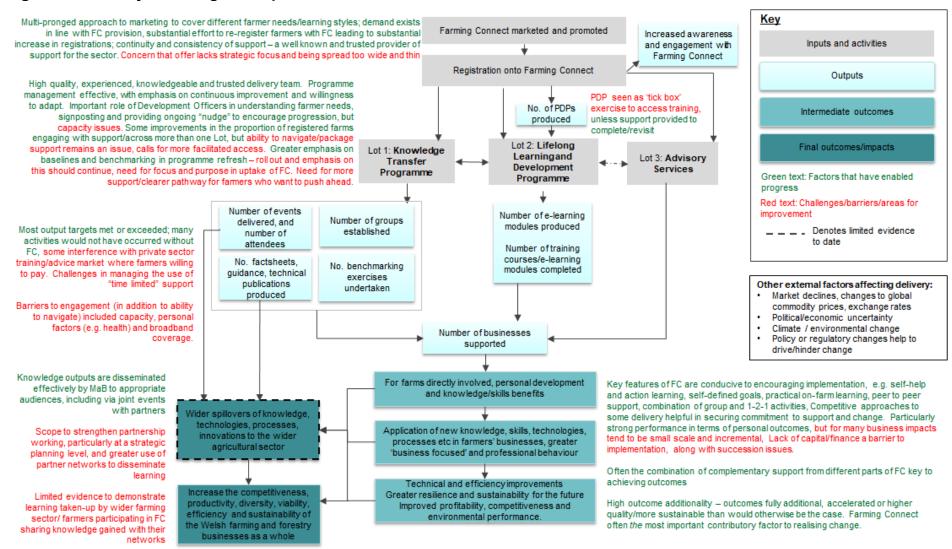
To what extent are changes implemented on farms, leading to intended outcomes and impacts?

- 6.16 In both phases of the evaluation we have observed how Farming Connect plays a crucial role in creating the "foundations for change", with a substantial impact on personal outcomes such as changes in mindsets, attitudes, confidence and ambition, alongside improved skills and knowledge (both in terms of business and technical skills). These benefits have led to changed business management practices, and crucially to better informed and more confident decision-making processes within businesses. Farming Connect also has a (recognised but often under-appreciated) positive impact on the mental health of farmers and in strengthening networks within the farming community.
- In terms of implementation, for many farmers, the support is leading to small scale, incremental changes over a long period of time. This incremental approach reflects the fact that many very small businesses are capacity and resource constrained, so changes need to be affordable and manageable. It may also reflect the way in which engagement with Farming Connect (and navigation of the offer) and the definition of goals within many of the activities are farmer-led. We found that these marginal gains across many aspects of the business are, in aggregate, helping to create more viable and sustainable enterprises in the longer term. There are also widespread benefits in terms of environmental impacts and animal health, notably in terms of reduced antibiotic and fertiliser use, sustainable resource management and biodiversity. In addition, for some of those involved, Farming Connect has had a more transformative impact on the business, for example, through significantly reducing costs, improving productivity/yields or diversification.
- 6.18 The way in which Farming Connect has been designed and delivered has generally been conducive to encouraging change for example providing practical advice, learning from first-hand experiences of peers in line with good practice. The evaluation found different Farming Connect activities have contributed towards the outcomes described above through diverse and often reinforcing mechanisms. There was a consistent message from delivery staff, external stakeholders and beneficiaries that it is the combination of interventions, alongside the support of a Development Officer or mentor that really makes the difference in realising impact.

Beneficiaries appear to take a multitude of routes through the offer, making it difficult to observe patterns or determine which routes are most effective. However, the evidence suggests that a combination of *both* peer-to-peer group and one-to-one support is critical for many, as well as the more intensive aspects of Farming Connect (such as Agrisgôp and Agri Academy) that make a real difference. This reemphasises the importance of having a broad offer, which is comprehensible to users, but can be navigated in different ways.

- There have been a number of barriers to implementation, including time/capacity/firefighting issues within very small businesses, the lack of capital to invest and succession issues, alongside external factors such as markets, broadband provision and weather conditions. Some external stakeholders also argued that, whilst Farming Connect had led to behavioural and attitudinal changes, it was "trying to be all things to all people" and spreading the support too wide and thin –there was a concern that this had diluted the programme's impact.
- Overall, we found that Farming Connect had delivered outcomes that would not have been achieved at all, or would have taken longer, been lower quality or less sustainable, in the absence of the programme. Moreover, the contribution of Farming Connect compared to other internal or external factors is substantial few of those consulted had made other changes in their business alongside Farming Connect support, and where they had, this made marginal or no contribution to the outcomes. The exception was grants, which were important in enabling farmers to implement what they had learned through Farming Connect.
- 6.21 More broadly, limited evidence was found of knowledge spillovers from Farming Connect into the wider farming community. Whilst this may in part reflect the approach taken in this evaluation, there has been some lack of clarity within Farming Connect on how these wider effects were expected to happen, or where the responsibility for this lay.
- 6.22 To summarise the key messages from this evaluation, we revisited the Farming Connect theory of change to illustrate in headline terms how the programme performed against the anticipated outputs, outcomes and impacts, and to highlight the factors that helped or hindered delivery at each stage of the process.

Figure 6.1: Theory of Change ... in practice



What are the key lessons to inform ongoing delivery and design of future interventions?

- There was consensus across the various stakeholders and beneficiaries consulted that support to help the farming sector adapt and remain competitive will become even more critical in the immediate future and beyond, and that the current programme provides a strong, and widely appreciated, platform for this. The findings of this evaluation do, however, raise some questions that we believe the Welsh Government and partners should consider in the design of future programmes.
 - First, it would be helpful to clarify and focus Farming Connect's strategic priorities⁹², particularly in the current context of Brexit and the speed at which the farming sector needs to adapt, and to prioritise/push the uptake of key activities that deliver against this.
 - Linked to this, the evaluation found strong operational partnership working but less evidence of strategic collaboration and longer-term planning. Clarifying Farming Connect's strategic priorities may help to inform a more strategic partnership-based approach with other organisations operating in this space. This should lead to meaningful exchange on long-term plans and priorities, and identifying commonalities and opportunities for more proactive and collaborative partnership working which could deliver "more for less". Formal partnership agreements such as the Dutch model could be considered in this context (see Annex E).
 - Second, the programme should consider more formal and consistent partnership working and networking with private sector intermediaries. This i) could widen the scope of the intervention, providing an effective route to knowledge transfer across the wider farming community, notably those who engage with vets, banks, accountants etc⁹³, but not Farming Connect; ii) enable Farming Connect to use its potentially strong position to facilitate more effective 'supply-side' networking and support a more co-ordinated support landscape; and iii) promote more effective change in farm businesses through consistent and

⁹² To note, since the research was undertaken for this evaluation and the programme refresh, a new SAB and Chairman has been appointed and a long-term strategy for Farming Connect (taking into account Brexit and COVID-19) is under development.

⁹³ Note, this point relates to a more consistent and strategic approach to engaging with intermediaries (compared, for example, to information sharing Breakfast Meetings)

- reinforcing messages from multiple "trusted" sources. Collaborative working with large animal vet practices which deliver Animal Health Clinics for Farming Connect would be one route to using existing engagement as the basis for a more strategic approach and planning.
- Third, assess the feasibility of shifting the Farming Connect model towards a more personalised approach, with some degree of facilitated access to the offer as a whole for farmers who are willing to change (this could be informed by an initial baseline assessment and the segmentation analysis, in recognition of the costs associated with this approach). This should involve a single point of contact with clear responsibility to support/facilitate the customer's journey, including a holistic assessment of needs, creating a relevant package of support (at the outset and as their needs evolve), and ongoing "nudge" to encourage implementation (in recognition that significant change typically requires longer timescales to plan and deliver). Farming Connect might consider adopting a more farmer-centric model, starting with a baseline/business plan for the business as a whole and support from a Development Officer to define a first year plan (possibly with associated KPIs) and longer term goals, and including how engagement might proceed, and agreed points to revisit progress. There is growing evidence to suggest that a more intensive, personalised and integrated offer for those with most potential/in most need/most willing to change may lead to greater impact overall. This is not to say Farming Connect should no longer be universally available or focus only on the more "progressive" farmers, but the practicality of more economical delivery mechanisms should be considered for the "broad and shallow" aspects of support (informed by the apparently positive experience during COVID-19 of online delivery mechanisms).
- Fourth, there is scope and evident demand from some farmers to introduce more inspirational ideas and external challenge into the programme to really drive new thinking. This model may require a shift from fully-funded to subsidised support for the more valuable advice, or a model whereby Farming Connect provides the basic platform and then directs farmers to external specialists who are affiliated to the programme. This also raises a strategic question around the balance between peer-to-peer, beneficiary-led and externally-led knowledge development in the design and delivery of this type of programme. In this context, the programme should consider the balance between supporting the "traditional" farming sector to become more productive/resilient

- and opportunities for new and innovative food production systems. Closer alignment with UK Research and Innovation (UKRI) could help build a stronger innovation-based offer.
- Fifth, as Wales transitions out of the EU, a greater emphasis will be placed on public good outcomes, particularly in relation to the environment. The programme should consider strengthening and promoting its offer in this respect (in conjunction with an industry wide push), including tools/approaches/metrics to enable farmers to assess and quantify their carbon impact, alongside skills and approaches to reducing carbon footprint/sequestration and sustainable land management. The programme may also consider how it better connects farmers with large corporates seeking to offset their carbon footprint⁹⁴.
- Sixth, strengthening the underpinning evidence base for Farming Connect. In light of the key issues raised in this report, we suggest that the evidence base is strengthened in three key ways: first, targeted research to characterise non-participants and understand why they are not engaging with Farming Connect⁹⁵ (to gain a better informed perspective on the extent to which the programme should continue to invest resources to widen its reach); second, strengthened data gathering within programme, particularly in terms of consistent and comprehensive use of baselines and monitoring progress against this; and third, undertaking programme-level quantitative impact analysis, via surveys and/or allowing for data-linking into national datasets and associated econometric analysis to compare the performance of beneficiaries and non-beneficiaries over time. In addition, there is scope for further research into issues raised in this evaluation, such as the extent to which access to finance is a widespread barrier to change across the population and review the fitness-for-purpose of existing funding streams.
- 6.24 Points 1-6 above set a series of parameters to guide future interventions which will help farms operate efficiently and as profitably as possible in changing market conditions. But in a rapidly changing and uncertain world, where conditions are increasingly volatile and do not evidently favour producers, and where change may

⁹⁴ It is noted that the SAB developed and approved a Carbon Delivery Plan after the research for this evaluation was undertaken.

⁹⁵ Based on the Farming Connect BAS database which tracks the extent to which registered farmers engage with the activities on offer.

be particularly difficult to negotiate for small firms, there is an urgent need to help farmers, farm businesses and farm-based communities in Wales to identify different opportunities, and to take other, more radical, action. The future design of Farming Connect should also take into account the need to help farms survive this transition by diversifying into higher margin activities within and outside agriculture.

Annex A: Consultees across both phases of research

Governance, management and delivery staff consultees

- Welsh Government
- Menter a Busnes
- Lantra
- PMR Direct Ltd
- Simply the Best Training Consultancy Ltd
- Sub Group Chairs
- IBERS

Wider stakeholders

- Agricultural Advisory Board
- Agriculture and Horticulture Development Board (AHDB)
- Business Wales
- CLA Wales
- Coed Cymru
- Colegau Cymru
- Farmers' Union of Wales (FUW)
- Hybu Cig Cymru (HCC)
- Innovative Delivery Team, Welsh Government
- National Farmers' Union (NFU)
- Natural Resources Wales (NRW)
- Welsh Federation of Young Farmers Clubs (YFC)

Focus groups

- Phase 1: 22 beneficiaries, anonymous
- Phase 2: 9 beneficiaries, anonymous

Case studies

- Phase 1:
 - > 14 delivery staff, anonymous
 - > 53 beneficiaries, anonymous
- Phase 2:
 - > 14 delivery staff, anonymous
 - > 36 beneficiaries, anonymous

Annex B: Case study summaries

- Advisory Services Case Study
- Agri Academy Case Study
- Agrisgôp Case Study
- Demonstration Sites Case Study
- Discussion Group Case Study
- E-Learning Case Study (covers two modules)
- Focus Site Case Study
- Management Exchange Case Study
- Mentoring Case Study
- Business and Finance Training Case Study (contains two courses)
- Technical and Machinery and Equipment Training Case Study (contains two courses)

Advisory Services Case Study

Introduction

Farming Connect's Advisory Service under Lot 3 offers one-to-one advice (up to 80% funded) and group advice (100% funded); businesses can apply for up to four separate instances of advice through the service. Bespoke advice is available across a range of topics, including business planning, forestry management, new entrants, livestock, woodland management, horticulture and diversification. Typically, each "instance" of advice will comprise a face-to-face, on-farm visit from the adviser followed by a written report containing potential solutions and recommendations. The subsidised Advisory Services have been under the Farming Connect umbrella since 2008. This case study is based on two waves of in-depth consultation with an advisor who focuses on building design, regulatory compliance and pollution, and four dairy farmer beneficiaries in Phase 1, three of whom were willing to participate in a follow-up interview in Phase 2.

Delivery of support

In the context of this case study, the advice provided is often driven by the need to comply with or prepare for forthcoming regulation, where farmers typically feel they have "nowhere to turn to" with problems. In some instances, concerns have been raised by NRW during compliance visits, which prompts the farmer to seek advice. The diagnosis of needs is very focused on the environmental issue in question (rather than a more holistic assessment of the business). Once a farmer has been referred to/approached the adviser, a short telephone conversation is held to outline the issue, followed by a one-to-one farm visit to discuss in more detail. The customer journey of the businesses consulted for this case study are typical of a consistent approach applied across the Advisory Service.

On the whole, the feedback suggests that the delivery of the Advisory Services is effective, high quality and appreciated by the farmers in interviewed. Key strengths of the offer include:

- Personal and tailored advice: all beneficiaries thought having specific, tailored
 and practical advice (along with the rapid response between enquiry-visit-report)
 was critical to the success of the Advisory Service, and enabled them to
 implement change quickly.
- **Confidential**: this is particularly important in the context of compliance and encouraging farmers to open up about the challenges they are facing, which is important if effective changes are to be made.
- Independence and trust alongside expertise and experience of the advisor:
 there was a consensus across the farmers interviewed that the quality of advice
 provided was extremely high and valuable. Advisers are seen as trusted and
 independent individuals, with expertise and experience in their field combined
 with practical understanding of the farming context. Also, consultees reported

how having an external perspective on their challenged helped to introduce new ways of doing things that were appropriate for their business.

- Affordability of support and proposed solutions: The lack of finances to pay
 for private support is a key driver for farmers seeking the Advisory Services in
 most cases. The solutions presented in the advice are tailored to the business,
 clear and cost effective (recognising the resources available to each farm).
- Clinics followed by one-to-one advice: free one-hour Clinics have been recently introduced to provide quick solutions as appropriate, followed by one-toone visits for those who need more intensive support. This is proving a more cost-effective way to operate the service.
- Informal aftercare: the adviser in this case study provides further informal, inkind support to the farmer, including phone calls to discuss the report recommendations and ensure they are fully understood, liaison with NRW on behalf of the farmer and advice on how to implement the recommendations.

However, there are also some issues in implementation. The intervention rate is set in RDP regulations and has not been tested for the current programme to ensure it is delivered at the minimum cost to the public purse; nor is it flexed depending on the number of "instances" of support received. However, there was concern amongst those consulted that a lower rate would result in farmers not seeking advice and compliance worries would be internalised to the extent the farm fails to meet regulation entirely/goes out of business. We also found an example where a farmer had approached an adviser directly to procure advice, but was then steered back to Farming Connect. There are also challenges in managing the flow of demand and advice. Limiting the number of instances of support available per annum (for the business planning categories), leads to some farmers holding back on using their allocation or (probably more frequently) farmers in need of more support can exhaust their allocation before a critical issue comes up. This may hinder farmers' ability to respond to significant forthcoming change in the sector. From an adviser perspective, it can also be challenging to manage peaks in the volume of referrals/requests for support (e.g. following Farm Business Grant events, or prior to new regulations). Finally, there is some concern about access to finance to implement the recommendations made by advisers. For example, it was noted that some businesses applying for the Sustainable Production Grant or bank finance need a business plan, but had exhausted their allocation of Advisory Services to develop one and therefore lacked the capital to implement Advisory Service recommendations.

These Advisory Services were seen as complementary but distinctive to the wider Farming Connect offer. The extent to which the beneficiaries had engaged with the wider support varied considerably, from very little through to extensive involvement. For the latter, the Advisory Service support tackled a specific issue within the business, where as other aspects of support (Discussion Group, benchmarking, soil and fertility testing, Demonstration Sites, a training course, and other advice to develop a business plan) came together to provide a package of support for the business as a whole. The Advisory

Services appear to fit well with the wider landscape, as demonstrated by the adviser consulted for this case study who receives many referrals from NRW, alongside internal referrals from Farming Connect's Development Officers or follow-on requests after the adviser has presented at events/Discussion Groups.

Implementation

The delivery consultee argued that farmers typically implemented changes as a result of the Advisory Service quickly and, whilst most of these changes appeared to be relatively small scale and affordable, they were leading to immediate cost savings. This was illustrated by two of the beneficiaries consulted over both phases of the research, who had diverted rain water flowing into slurry storage as a result of the advice. Two beneficiaries were planning changes in future, but one was awaiting the outcome of a grant application to fund this.

Separately, across all three, soil sampling and Nutrient Management Plans were highlighted as "exceptionally useful" and had led to costs savings (for example, one consultee had halved fertiliser costs in one year, another had reduced costs from £14-12k in the most recent year. One of the farmers argued that the advantage of Farming Connect support is that it provides "structure", providing complementary support that combines knowledge (for example, in terms of nutrient deficiencies) with practical guidance on how to act on that knowledge. Support from Farming Connect staff was deemed important to ensure plans progress, given "lots of other duties" on the farm.

According to those consulted, three main factors hinder change: (i) some farmers hold off investment to implementing changes until new regulatory frameworks come into force, (ii) access to capital, as discussed above, which means smaller changes take place over a longer period of time or not at all, and (iii) the timeliness of grant application windows and decision-making, which can slow implementation.

Outcomes and impacts for beneficiaries

Benefits arising from this aspect of the Advisory Service appear to be focused on cost savings and environmental benefits, alongside confidence and mental health benefits which some beneficiaries consider to be equally important. Specifically, consultees identified the following outcomes:

- More informed investment decisions: two beneficiaries in Phase 2 argued that
 the advice helps farmers to make more informed, evidence-based business
 management and investment decisions, and helping to avoid costly mistakes.
- **Cost savings**: as a result of the advice, farmers are no longer wasting nutrients (previously slurry was being spread because of poor storage facilities, wasting nutrients and incurring additional labour costs).
- Confidence and mental health improvements: Beneficiaries described how
 they had been internalising the stress associated with the compliance issues they
 were facing for long periods of time, in what can be a very isolated occupation.
 Because solutions are often perceived to be very expensive, farmers often

- struggle to see a way out. Beneficiaries described how the advice had given them "reassurance" and "peace of mind".
- Increased trust in external advice: there is some evidence that the Advisory
 Service is increasing farmers' willingness to pay for external advice. For example,
 the adviser has found that some farmers subsequently pay privately for design
 consultancy.
- Environmental benefits: examples included the introduction of water cannons
 as a result of the advice received which has reduced water wastage, the
 reduction in rail water dilution which has reduced the volume of slurry and
 associated removal costs (e.g. contractors, labour, fuel), and reduced pollution
 more generally.

Wider outcomes and impacts

There is limited evidence of wider impacts/spillovers arising from the Advisory Service in this case study, mainly because the advice is very bespoke to each individual farm. That said, the adviser believed there were some indirect impacts arising from the construction of new slurry pits etc (although a large proportion of materials are imported due to lower costs).

Additionality and contribution

Additionality appears to be variable across the beneficiaries consulted for this case study (and according to the adviser, other farmers supported):

- For some, no changes would have been made without the advice. The adviser described how the NRW may advise that a farmer needs to build a new slurry pit, but this is perceived to be too expensive, no action is taken, and the farm goes out of business. One of the beneficiaries corroborated this, arguing that they would not have made any changes: "you just carry on you don't open your eyes, do you?".
- Some beneficiaries would have taken action anyway, forced by regulatory change/compliance. However, in many cases the Advisory Service has accelerated change and ensured farmers adopt the most affordable and effective approach. However, others including one of the consultees for this case study would have paid privately for advice and made changes anyway, suggesting there is a small degree of deadweight in the programme.

Other factors that have influenced the outcomes above have included significant fluctuation in product prices (with implications for finances available to invest in improvements), purchasing replacement equipment, more extreme weather (notably rainfall and drought in this context), forthcoming changes to environmental regulations, and shifts in public awareness of environmental issues over recent years. However, consultees felt that Advisory Services were important – and in some instances "critical" - in prompting and accelerating the outcomes described above, even where other forms of support have been

received in addition to Farming Connect (e.g. grassland groups, AHDB presentations or milk buyer meetings).

Lessons and implications

Overall, the Advisory Service covered by this case study appears to be leading to small and incremental changes, but in some cases changes are implemented quickly and immediately deliver financial benefits to the farms. Key success factors include the tailored/bespoke and confidential nature of advice, the quality of advisers (and their expertise/experience), and the provision of clear, farm-specific and affordable solutions. The Advisory Service offer fits well within the wider Farming Connect landscape, often providing more specific/in-depth follow-on support after group activities.

However, there are questions around the intervention rate and examples of deadweight, alongside challenges in managing the flow of demand and ensuring finance is available/accessible to implement change. There is some evidence that beneficiaries become more aware of the benefits of external advice, although limited evidence this influences their willingness to pay for it in future.

Agri Academy Case Study

Introduction

The Agri Academy programme was established in 2012 to enable development and learning within the Agriculture sector in Wales. The fully subsidised programme provides three residential sessions over a 12-month period providing training, mentoring, support and guidance. The Agri Academy is now in its eighth year with over 200 alumni. There are two distinctive elements, the business and innovation programme, supporting and developing the next generation of farmers and entrepreneurs, and the junior programme aimed at supporting young people aged 16 to 19. Since the Phase 1 research, there have been changes to the programme, with one element, the Rural Leadership Programme, coming to an end. Another change is that the agriculture expert that wrote the academic paper which initiated the programme has stepped down and been replaced.

This case study focuses on the Business and Innovation Programme and is based on interviews conducted in both years of the evaluation. The interviews undertaken as part of these case studies included two leaders, one of whom was also a beneficiary in 2013. The case study also includes five interviews with beneficiaries, one consulted in both phases, and four that were consulted in one phase only.

The leader is a farmer who has led the business and innovation group since April 2019. The other beneficiaries include an individual without a farming background who purchased a farm with their partner. They took part in Agri Academy, various courses and Discussion Groups.

A second beneficiary took part in the activity in 2016 and works full-time as a salesman in the sector. A third beneficiary farms with their sibling; they completed the programme in 2017 and both have attended training courses and seen a consultant through Farming Connect. The other two beneficiaries were consulted last year but could not be re-contacted for the second phase. Their quotes are also included within this case study.

Delivery of support

Since appointing a new leader for the Business and Innovation programme, the programme has continued to run in a similar way, with the same structure and frequency of engagement. This includes five sessions over 12 months:

- Session 1: Introductions,
- Session 2: Understanding my supply chain
- Session 3: Overseas study
- Session 4: Building your business, Ceremony

Session 5: Closing session – 'What's next'?

Participants are typically ambitious individuals, who are interested in diversifying to improve profitability. They are usually hoping to expand, change and challenge their businesses. The academy is also aimed at individuals who want to meet new people and network with likeminded individuals, developing a network of contacts in the sector.

The programme is promoted through social media and their website. With the programme in its eighth year, "it largely promotes itself with alumni sharing the word and explaining the benefits." An online application process must be completed, with interviews completed with short-listed applicants. The leader has made minor tweaks to keep the programme up to date, including the addition of a video element to each farmers' application. This idea came from the leader applying for the Tesco Scholarship, and completing this process themselves.

"An important aspect of the programme is to make friends and to bounce ideas off each other – and this video enables this from the beginning."

Through this video they could explain their 5 and 25-year plan for their businesses. They could also expand on their strengths and weaknesses: applicants speaking aloud about their plans and ambitions "would be more likely to achieve these goals". Another adaptation was introducing an online media support day which entailed mock television interviews. Participants received information about targeting various audiences using social media platforms, and how to utilise these to promote their businesses. The leader mentioned increasing this for the next cohort from a half day to a full day.

The most valuable part of the programme for participants was the opportunity to meet likeminded people and gain confidence and experience in speaking in front of others. They also valued having a network of contacts that they could communicate with if any problems, opportunities or concerns arose.

"It definitely helps farmers to diversify their businesses. If you need advice from anyone, people you know that have taken part in Farming Connect might not know, but they are more than likely to know someone that does – it's having that network of support at your fingertips that you can tap into."

Beneficiaries and leaders mentioned that it is expected of them to be fully committed to the Academy, with some days lasting into the evening. The leader mentioned that "it can be a great way to make sure that everyone is fully concentrating on the programme, and day-to-day running of their businesses doesn't get in the way."

One beneficiary mentioned that they had a smaller business and felt that the programme better suited more established operations, "it didn't necessarily suit me 100% as an individual. Saying that, it was a great way to meet new people."

All beneficiaries taking part in the programme can progress into an Agrisgôp group: they tend to arrange talks with experts and continue sharing information once the programme has finished. The programme also works well with the Farming Connect consultancy strand: beneficiaries are made aware of the diversification options available to them, which, results in them being more likely to identify and access relevant technical data.

Most interviewees stated that Agri Academy is a distinctive programme that is not duplicated within the offer. The new leader identified similarities between the Tesco Future Farmer Foundation and the Nuffield programme, stating that in Wales the programme is highly valued within the sector.

Implementation

Beneficiaries mentioned that they had made positive changes to their business as a result of the programme. The leader mentions that the changes made from this activity don't tend to be instantaneous, it takes time to implement any learning from the programme. This could be due to a variety of reasons including, lack of money and time.

"I finished in 2013, and it took 3 years before I started making big changes to the business."

Beneficiaries mentioned that having gained confidence from the programme was a huge boost in choosing to implement new practices and apply for opportunities. One example was a beneficiary from 2013 had implemented new techno-grazing processes at their farm. Since making these changes their farm profitability has increased 226%. Another beneficiary identified three major changes to their business:

"Tesco Scholarship, links with Tesco's contracts, purchase of holiday let - that's three things that I've benefitted directly from the Agri Academy, but it does take time to make those changes to your business. From 2013 to now, my business has changed so drastically."

One beneficiary had purchased necessary systems to implement new changes, but they haven't had the time to set them up. Another beneficiary mentioned making small changes to their business which "can be hard to measure. Some things cost money and time – and are not able to be changed that easily."

Outcomes and impacts for beneficiaries

Beneficiaries noted that the programme gave them confidence to change methods and practices on their farm, in order to improve profitability and productivity. One participant mentioned that gaining valuable experience in public speaking with peers and other individuals has resulted in them feeling more competent to speak to others, outside of Farming Connect.

"I thought it was good how Farming Connect could bring people together – we wouldn't have been able to arrange that ourselves. I'd like to think that we might now have a bit more influence on the policy makers." Another beneficiary explains that gaining important contacts and networks within the sector has resulted in extensive changes to their business.

"They gave me confidence to buy the house, and I probably wouldn't have, if I hadn't understood the benefits and figures behind it. My turnover is three times larger, and I feel that I'm in a much better position with my business. I can't say that it was all as a result of the programme, but it's definitely given me the confidence to move forward."

Another interviewee mentioned the unity that the programme brought to their group. Being part of a network of farmers that had the same mentality and the same drive to want to improve their business had been "fantastic, and it's opened so many doors for me."

They also felt that the programme opened their eyes to the different funding opportunities. Beneficiaries mentioned that they had been given ideas on how to diversify into poultry rearing and holiday letting. Some beneficiaries felt that although the programme gave them the opportunity to think about other ways of obtaining income, it can be difficult to find the time, money and resources to make these changes. One beneficiary stated that Farming Connect has given them better knowledge of health and safety, and danger on the farm, "even if we don't use the knowledge straight away - all the information helps you strengthen your business in the end."

One beneficiary explained that the programme has resulted in being awarded a scholarship by the Royal Welsh Show, attending an Oxford Farming Conference, and successfully gaining the Tesco Future Farmer Foundation award, "it all stems from Agri Academy in 2017. It gave me the boost to leave the farm and see other systems and techniques at other farms."

One beneficiary stated that they were able to gain valuable insight in improving the quality of their outputs through a Farming Connect lamb finishing trial. They were able to observe and understand first-hand which feeds, systems and methods were most effective. "We would never be able to get to those conclusions and organise those tests ourselves in such

a scientific manner, comparing systems directly with each other – we wouldn't have been able to do this on our farm."

All beneficiaries stated that they have kept in touch with other farmers that also took part. The programme seems to have changed some farmers' behaviour in understanding the power of sharing ideas, leading to them building on this by applying for similar opportunities elsewhere.

"The business wouldn't have diversified at the rate that it has. I felt a real emptiness without the programme and loved sharing ideas; it was nice to meet others that were as driven as me. I now know who to contact so that I don't feel isolated in my decision making. Without taking part, I wouldn't have known to expect that support from my peers. I don't think I would've gone for that scholarship, which has led on to other changes to my business."

The programme helped them think about diversification within their current business, and how to use the land and opportunities that they have on their farm. As a comparison, the same beneficiary explained that before taking part in the programme, they would've tried to "increase herd numbers without having the infrastructure to sustain those numbers."

Wider outcomes and impacts

Beneficiaries felt that information gained through the programme and Farming Connect support has enabled themselves and other workers to learn new practices. These learnings should result in others, not directly involved with Farming Connect, using this knowledge when moving to work within the sector.

The leader of the programme explained that they felt that Farming Connect as a whole has resulted in young people being able to stay in their local areas by gaining employment through Farming Connect.

"It means that young people can still help their families on their farms, whilst still earning a living within the sector. This is important for the future of the sector and the Welsh language."

Additionality and contribution

Many beneficiaries claimed that without Farming Connect, they wouldn't have implemented the same changes to their businesses. They also mentioned that they wouldn't have been able to afford the expert knowledge, or to fund the courses without the support. "We couldn't afford arranging a consultant, unless it was something we knew was tried and tested. With help from Farming Connect, we've been able to get the expertise at a lower cost which has made a big difference to our business."

Other beneficiaries stated that the programme has either enabled them to implement change within their businesses quicker and/or to a higher quality: "the business wouldn't have diversified at the rate that it has, definitely."

Beneficiaries see changes in how grants are administered in the next few years, with political factors causing instability within the sector. They also mentioned more focus on sustainability, with farmers needing to improve efficiency by concentrating on hedge laying and keeping their carbon footprint down. "It's about finding the balance between producing food and how to be the most environmentally friendly we can be." They felt that Farming Connect has a responsibility to help administer support to businesses to become more sustainable and make them aware of the grants available to them.

Lessons and implications

Beneficiaries were eager for Farming Connect to continue funding the Agri Academy, stating that it is an important programme in helping people diversify their businesses and open their minds to the possibilities and contacts that you can create within the sector.

Farming Connect should also continue to support businesses seeking to utilise technological advances in collecting and analysing data to improve their profitability. One beneficiary suggested software training to assist farmers with setting up such systems.

Agrisgôp

Introduction

Agrisgôp is a fully-funded programme that brings together small groups of like-minded people to develop the capabilities of those involved, improve existing businesses and explore new opportunities. It was originally introduced in 2003 and is a key element in the current Farming Connect programme. The aim of Agrisgôp is to change the mindsets, attitudes, confidence and the capability of the individuals who take part, which will help farmers to identify and progress ideas and opportunities in their businesses.

This case study covers two Agrisgôp groups, both led by the same facilitator: the first involves a group of women who have a range of different roles in the agricultural sector; and the second includes very small-scale farmers who have diversified into, or are solely focused on, horticulture. An in-depth face-to-face interview was undertaken with the facilitator in both phases of the evaluation, along with one-to-one interviews with five beneficiaries in Phase 1 and follow-ups with four beneficiaries in Phase 2.

Delivery of support

The support is delivered through an action learning and participatory approach, whereby the group defines their own goals and, with the guidance of a facilitator, develop their own solutions/opportunities. The facilitator is typically assigned by MaB, and is responsible for co-ordinating the group, the budget and reporting back to MaB, and facilitating discussions in each group meeting. Each group is (usually) self-selecting, and has a small budget to cover 10 meetings, venue hire and speakers (if wanted). The topic of each group – and each session – is defined by the participants.

The evidence gathered for this case study suggests that a number of factors are key to the success of Agrisgôp:

- Peer to peer support in a small group setting that confidential: the group sessions were described as a "coaching" environment, where beneficiaries are in a "non-threatening" and "safe place" to discuss issues and explore ideas.
 Confidentiality is key, encouraging participants to open up on challenges facing their business.
- A facilitated and collaborative process of action learning, with a key contact throughout and follow-up: this approach encourages continual action and reflection during the process, and a focus on action/implementation, rather than just discussion. Both the facilitator and peers with the group provide support throughout the process. The facilitator in particular is seen as key to "nudging", guiding and (where necessary) challenging those involved, which is critical to ensuring groups remain focused on their goals and move forward. For the duration of Agrisgôp support, facilitators are effectively the groups' key contact for their business support needs, and provide informal "wrap around" or "aftercare"

- advice (even though the time incurred for this support is often in-kind by the facilitator) and help to navigate the wider Farming Connect offer as necessary.
- Flexibility and adaptability: the focus of Agrisgôp is very much driven "bottom up" by what the challenges/opportunities identified by the farmers involved, and the focus can be adapted farmers' changing needs. Consultees appreciated "not being told what to do" and felt this helped secure buy-in to the process. In addition, the frequency and intensity of meetings is flexible to accommodate seasonal peaks in workload for different parts of the sector.
- **Resource to bring in speakers:** this is particularly useful to introduce specific expertise into the group and provide inspiration for new opportunities (e.g. bee keeping for the horticultural group).

However, there have also been some challenges and some aspects of Agrisgôp work less well: firstly, there appears to be limited awareness across the farmers consulted for this case study (and in other Agrisgôp groups, according to the facilitator) that Agrisgôp support is time limited, and thinking through "what next" is not particularly well integrated into the activity; secondly, there is a question around whether more flexibility is needed to provide further support to groups with (i) greatest potential for impact/spillovers and/or (ii) greater need for intervention; and thirdly, according to the facilitator, Agrisgôp has not worked well where groups have been created/imposed "top down" by external parties, with self-formed groups tending to be more successful.

Agrisgôp is a distinctive offer for the agricultural sector in Wales. The closest alternative is Discussion Groups (delivered through Farming Connect and other bodies), but these do not adopt the action learning approach which is a key factor in the success of Agrisgôp. That said, the Prince's Farm Resilience Programme has some similarities and strengths that the delivery consultee suggested Agrisgôp could learn from (notably, the ability to provide more in-depth one-to-one support from the trusted Agrisgôp facilitator to prompt action).

Implementation

The case study evidence suggests that in most cases, Agrisgôp is leading to small-scale, incremental changes within businesses over a long period of time – for example in terms of changes to the selection of seeds to improve product quality and tools used. It is evident that many of the personal benefits described below have persisted after Agrisgôp support, and that Agrisgôp has given participants confidence to engage with/greater awareness of other aspects of Farming Connect (such as Clinics, Nutrient Management Plans, Demonstration Sites, and Mentoring) which in turn has encouraged change.

In some instances, Agrisgôp provides reassurance that current practices or new plans are appropriate and so does not lead to changes within the business. Key barriers highlighted by consultees that impede their ability to implement new practices and knowledge gained through Agrisgôp include limited access to capital to invest in new equipment or processes, time and capacity, and business structures and succession issues.

Outcomes and impacts for beneficiaries

Drawing on evidence from the facilitator and beneficiaries consulted for both phases of this case study, the key outcomes arising from Agrisgôp are as follows:

- Changing mindsets, attitudes and behaviours: through the action learning approach, farmers learn how to think ahead, reflect, set goals, consider options and define solutions, and by doing so, Agrisgôp is helping to understand how to change their business. Encouraging cultural change especially in terms of farmers' willingness to consider change within their business and be proactive appears to be a key benefit of Agrisgôp.
- More informed decision-making, and a clear plan/vision for business: linked to the point above, for some, Agrisgôp has helped them to realise they have control over their future and an ability to influence this. One consultee described how they now have a more focused plan for the business, another felt that the support network developed through Agrisgôp had helped them to make more informed decisions.
- Confidence and mental health benefits: this outcome was highlighted by all
 beneficiaries consulted for this case study, including confidence to discuss
 succession planning and diversification opportunities at home, confidence to
 pursue diversification opportunities, and confidence to attend an agricultural
 conference in London. One of the beneficiaries described how they were
 previously internalising problems, which was causing a lot of stress, and
 discussing these through Agrisgôp has helped to address concerns.
- Knowledge and skills: Agrisgôp is helping to improve knowledge and skills in through the collective/shared intelligence of the group, by bringing in guest speakers with outside perspectives, and through "learning by doing" as a group. Skills gained are wide ranging, improved communication and negotiating skills in the agricultural policy context, through to pesticide use.
- Sustained networking benefits: both social and business networks have been developed through the groups, which has led to members informally supporting each other outside the group sessions and after Agrisgôp support ended (in both groups).

Whilst the delivery consultee has observed a huge diversity across Agrisgôp groups, personal development benefits are evident across most groups.

There is some evidence to suggest that Agrisgôp has helped to create **more sustainable**, **efficient - and in some cases growing – businesses.** It was often a combination of factors/support that had enabled this change rather than one specific aspect of Farming Connect and none of the beneficiaries consulted were able to quantify the impact on their business. Some of the businesses consulted were very small and did not have plans for large-scale growth, and therefore any changes arising from Farming Connect were small-scale (for example, small-scale revenue generated from broadening product range and new

routes to market for home-grown vegetables). That said, one consultee argued creating a sustainable and viable business plays an important role in retaining younger generations in rural areas and for rural community sustainability more generally.

Wider outcomes and impacts

There is limited evidence on the impact that Agrisgôp groups have on the wider farming/rural community beyond helping to create sustainable businesses for the next generation of farmer and for rural community sustainability more generally. The confidentiality of Agrisgôp groups limits the extent to which learning is shared more widely beyond those involved, and responsibility for sharing learning is not explicitly the responsibly of each group. There also appears to be limited knowledge sharing between Agrisgôp groups or across the wider Farming Connect programme. That said, the facilitator pointed to one example where another Agrisgôp group led to a spin-off EIP research project, which will then be disseminated.

Additionality and contribution

In terms of additionality, the broad consensus was that farmers would not have met/collaborated in this way without Agrisgôp, nor would beneficiaries in the horticultural group taken up wider Farming Connect support. In the main, consultees argued that outcomes would not have been achieved at all, or more slowly, in the absence of Agrisgôp. The action learning approach and presence of a facilitator has been key in accelerating the pace of change across the businesses involved. Additionality appears to be particularly high in relation to softer outcomes around confidence and mindsets.

Two beneficiaries had made more substantial progress since Phase 1, and this was attributed to the combination of Farming Connect support received (e.g. Nutrient Management Plans, Agri Academy, Mentoring, Surgeries and one-to-one advice) alongside agricultural grant funding. Personalised follow-up has been important throughout. Other beneficiaries who had made some (limited) progress since Phase 1 had less extensive engagement with Farming Connect (or wider support) after the Agrisgôp group ended.

Lessons and implications

Overall, Agrisgôp is seen as a very successful aspect of Farming Connect. Key factors that are critical to its success are being farmer-led; being tailored closely to needs; flexibility; peer to peer support delivered through action learning (to ensure implementation); and, most critically, facilitation. During their time in Agrisgôp, the farmers' customer journeys appear to be effectively managed by (good) facilitators. This personal and continuous contact is important in maintaining momentum and action during Agrisgôp, and in ensuring that farmers (especially those less familiar with Farming Connect) make best use of the wider offer to improve their businesses. Agrisgôp plays an important role in creating the conditions and capabilities for change (attitudes, problem solving, confidence) and is

particularly effective in conjunction with other aspects of Farming Connect, such as benchmarking and one-to-one advice.

Demonstration Sites

Introduction

Demonstration Sites are selected to provide examples of best practice, innovative techniques and new technologies. The activity is part of the broader Demonstration Network strand of Farming Connect, which aims to showcase innovative technologies and practices in farming and forestry, and to disseminate learning through planned on-site events and publications.

Sites implement and demonstrate projects that focus on the integration of new technology and/or new approaches to management, improving efficiency and increasing profitability. They hold regular open-days and progression events to share information with the wider industry. The activity is overseen by a Technical Officer and supported by industry specialists who assist with developing sector-specific projects and monitoring progress.

This case study focuses on two Demonstration Sites in North Wales and draws on interviews with a Technical Officer, a Demonstration Site farmer ('Site owner'), and two beneficiaries. Note, the consultations with the Technical Officer and beneficiaries relate to a different Demonstration Site than the Site owner, therefore feedback will be reported separately where appropriate. All except for the Site owner were consulted in both phases of the case study. The main business activities of the beneficiaries included sheep and beef farming and all beneficiaries have accessed other Farming Connect activities including Discussion Groups, the Advisory Service and benchmarking.

Delivery of support

Farming Connect establishes Demonstration Sites, provides financial assistance, and coordinates on-site projects and events. Over four years, each Site is committed to hosting one open event and two progression events per year⁹⁶. Open day events typically involve an opportunity to see at first hand new ways of working, listen to speakers who are relevant sector specialists, and discussion. Events are advertised to farmers in the locality through postal invitations and newspapers adverts, and more broadly across Wales in bi-monthly technical articles. Progression events are arranged by the Delivery Lead for Discussion Groups from other regions of Wales, whose members are interested in the project(s) being implemented at the Demonstration Site.

For the Site owner, becoming a Demonstration Site was considered **a good way of accessing advice and support** at a time when he was considering how to "future proof"
the business. For the beneficiaries, engagement provided a **good opportunity to see first-hand the practical implementation of new practices/technologies**, helping to develop their understanding, and showing the potential benefits of implementing new ways of

_

⁹⁶ This was pre-refresh, under the refreshed programme Demonstration Sites are delivered over three years.

working⁹⁷. The Technical Officer noted that **events often attract more progressive farmers** who are already considering new practices and/or technology, and wish to gain advice and learn from best practice.

As part of the wider dissemination, learning from Demonstration Sites is made available through blogs and technical articles on the Farming Connect website, and in national sector-related publications. For example, the Technical Officer presented findings to the National Sheep Association (NSA) Wales and created a video of the Responsible use of Medicine in Agriculture Alliance (RUMA) conference in London.

There is no 'typical' Demonstration Site because each farm and/or the variety of projects undertaken is unique, but the structure and format, with one open event and two progression events per year has been essentially the same since the start of the current Farming Connect programme. However, under the Farming Connect refresh, each Demonstration Site is to be linked more closely to a Discussion Group. Also, while earlier the Demonstration Network comprised three tiers – Innovation, Demonstrations and Focus Sites – the Innovation tier has now been removed.

What worked well and less well

Beneficiaries valued the opportunity to see the **practical implementation of new practices/technologies which stimulated ideas, and the friendly and welcoming approach** of the host and Technical Officer. They did not identify any areas that have worked less well.

For the Technical Officer, key success factors included: the **mindset of the owner**, in that, they were open to implementing innovative changes; having a **well-respected farm**; and the **absence of family politics** which could have prevented the Site owner implementing changes. However, the Technical Officer would like Demonstration Sites farmers to **more openly discuss their Key Performance Indicators (KPIs)** to enable comparisons with the KPIs of event attendees. Further, it would be beneficial to **widen the Advisory Service offer to improve continuity**; at present not all consultants who speak at Demonstration Site events are part of this. The Technical Officer noted the considerable time required to deliver a Demonstration Site, and the challenges of devising project(s) that can be delivered alongside on-going farm commitments.

The Site owner reported that the variety of projects helped to attract different audiences and maintain good overall attendance at events. Access to experts/consultants, combined with the continuity of support from a Technical Officer who understood the business, were considered to be key success factors. The Demonstration Site farmers met

⁹⁷ According to MaB, Demonstration Sites also support beneficiaries to make strategic decisions about implementing practices/technologies because once they have seen the implementation of new technologies/practices on a Site, they can consider whether it is viable for their businesses, therefore reducing the risk of trial and error.

one another at the start of their involvement, but the Site owner suggested that **additional peer support would have been beneficial**, through meeting up yearly (perhaps geographically) with others, to share feedback and lessons learned in relation to project delivery⁹⁸.

Fit with the wider Farming Connect offer

Consultees identified that this activity aligns particularly well with support from the Advisory Service, e-learning, and Discussion Groups because these mechanisms provide farmers with the necessary in-depth/personalised support to progress an idea that they gained from an event. Discussion Group members may learn of relevant experts through attending Demonstration Sites, and invite them to speak at one of their group meetings.

The Site owner and beneficiaries consulted **had all engaged with other Farming Connect activity**, this included: Discussion Groups, the Advisory Service, Nutrient Management Planning and Farming Connect events/Surgeries. Farming Connect communications (leaflets, texts, emails) and the local Development Officer ("exceptionally good") were key routes to accessing the wider Farming Connect offer.

Demonstration Sites and Focus Sites both involve on site events to share best practice and demonstrate innovation. Their activities are complementary in that Demonstration Sites share different examples of best practice, innovation and new technologies, while Focus Sites concentrate on individual projects and good practice.

Implementation

The Demonstration Site owner's projects included:

- the use of heat collars (using Artificial Intelligence) on suckler cows to reduce the amount of time (days or months) between the birth of a calf and the birth of a subsequent calf
- exploring how to reduce the amount of lost bale silage when feeding sheep
- a grassland event on increasing home-grown forage supplies in response to the 2018 drought.

Both beneficiaries had successful implemented changes after visiting the

Demonstration Site. They become part of a wider group of farmers who reduced the use of antibiotics at lambing through metabolic profiling of ewes, strict hygiene practices and new animal health plans. One of the beneficiaries also identified other changes made as a result of wider Farming Connect support: adjustments to fertiliser/manure usage to ensure the

⁻

⁹⁸ According to MaB additional meetings with Demonstration Site farmers are held, including meeting up annually at the Royal Welsh.

right soil pH following soil sampling, and, as a result of the Discussion Group, he changed the storage of feed/manure.

Key factors in enabling change included farmer motivation to adopt new practices which had been successful on a peer's farm, and the topical nature of the project/event. No major factors were identified as hindering change, but one beneficiary reported that the initial financial outlay was a challenge as several changes had been implemented simultaneously. Feedback from the Technical Officer reiterated that finance can be a barrier as any change "needs to stack up financially", however, time was considered the most significant barrier when implementing change: practices such as cleaning the sheds fortnightly are resource intensive.

Outcomes and impacts for beneficiaries

Consultees (the Site owner and beneficiaries) identified a variety of personal benefits from involvement in Farming Connect, including improved technical and/or business management knowledge gained through the Demonstration Site activity and their wider involvement in Farming Connect. One beneficiary also emphasised the importance of Farming Connect in encouraging engagement and discussions with other farmers – "You learn from each other". The Technical Officer noted that Farming Connect events gave farmers the opportunity for social engagement/varied discussions. Becoming a Demonstration Site provided the Site owner with the motivation needed to implement the changes he was already considering. It then provided an additional "psychological boost" from observing the subsequent improvements to the business.

These accumulated **impacts have improved the resilience of the Site owner's business**. One of the main outcomes has been the **reduction in the calving interval**⁹⁹ due to heat detection – the suckler cow calving interval has decreased from 401 days to 370 days, compared to an optimal calving interval of 365 days – thereby helping improve profitability. The decision to stop sheep farming and concentrate on rearing suckler cows was also considered to have improved business viability over the longer term. While, the hours required to operate the farm have increased, the business has also increased production through the adoption of new technology/practices, and no additional staff have been employed. More sustainable management of resources has been achieved through changing grassland management practices from set stocking to rotational grazing.

For both beneficiaries, the implementation of new lambing practices resulted in **the reduced use of antibiotics** (one beneficiary estimated a 50% reduction in antibiotic usage), **and an improvement in flock health and performance**. In turn this has led to a reduction in costs.¹⁰⁰ Looking forward over the next two years, both consultees expected increased

⁹⁹ The calving interval is the amount of time between the birth of a calf and the birth of a subsequent calf from the same cow. The Welsh national average was 426 days in 2013. It is estimated that the typical UK herd is losing £250 per cow per year through a poor calving interval (for example, see <u>ADHB: dairy</u>).

¹⁰⁰ Cost savings were not quantified by beneficiaries: one noted that costs would be monitored over a three-year period and an average taken.

profitability and an overall improvement in the sustainability of their businesses. Both beneficiaries identified the Demonstration Site as key in improving their business performance, but also identified other aspects of Farming Connect support that were helpful, including soil sampling and attendance at other Farming Connect events.

Wider outcomes and impacts

The conference for the NSA Wales and creation of a video for the RUMA conference in London show that **knowledge and learning from Demonstration Sites have been disseminated across Wales and more widely.** The Technical Officer believed that these examples have encouraged other **Demonstration Sites to disseminate project results more widely** across different communities.

The Site owner for a different Demonstration Site, indicated other wider benefits. The results of the bale project became a topic of discussion at grassland societies, whilst the findings related to use of heat collars to reduce the calving interval also attracted attention, as the collars had not been previously been tested on suckler cows.

Additionality and contribution

Consultees believed that Farming Connect support is additional. One beneficiary stated that they would not have achieved the same outcomes of improved skills and expertise, changed farm practices and better farm performance in the absence of Farming Connect because the level of support/advice needed was unlikely to be obtained elsewhere. The other two consultees stated that the same outcomes would have been achieved, but not as quickly. One explained that whilst he was already keen to make improvements, Farming Connect has focused his efforts on the key areas and provided the impetus for change. The other consultee believed that changes were made more quickly because Farming Connect provided a "spotlight" on the business.

Findings with regard to attribution are mixed. Two consultees identified other changes which took place within their business at the same or after their engagement with Farming Connect, these were: i) increased use of technology to improve the recording of data, and ii) benchmarking. While the first was seen as less significant than Farming Connect in supporting improved business performance, the second was considered a key driver of change alongside Farming Connect. The third beneficiary did not identify any other parallel internal changes with a substantive effect, and the consultees did not identify any major external factors that had influenced the impact of Farming Connect support on business performance.

Lessons and conclusions

The wide array of projects delivered across Demonstration Sites have provided individuals with valuable opportunities to see innovative approaches and technologies being implemented, and to engage in discussions with their peers. The beneficiaries were able to

implement similar approaches in their own businesses (sometimes with additional support from Farming Connect), which has helped to improve animal welfare, reduce costs, and improve the sustainability of their businesses.

Consultees were satisfied with the scope and delivery of Demonstration Sites. The critical success factors identified by consultees included: i) the combination of Demonstration Network and Discussion Groups in facilitating the discussion of new ideas; ii) the social components of the programme; iii) the provision of on-farm specialist advice; iv) ensuring that changes are ultimately driven by businesses rather than an external individual or programme. Possible areas for improvement included more regular meetings between all Demonstration Site farmers and ensuring that Demonstration Site farmers openly discuss KPIs.

Discussion Group Case Study

Introduction

Discussion Groups (DGs) typically have eight-ten members who raise the same breeds/grow the same crops in the same locality and thus face similar challenges and opportunities. Each DG is facilitated by a Farming Connect Development Officer, who arranges the meetings and books speakers.

This case study focuses on a Dairy DG and draws on interviews with the DG facilitator and interviews with three farmers who were part of the DG in Phase 1 and Phase 2. The beneficiaries consulted had all been involved in other elements of Farming Connect such as events, Demonstration Sites and the group Advisory Service.

Delivery of support

Each DG meeting covers one topic and takes around two hours, including a presentation from an expert speaker and a question and answer session. Where possible the presentation uses benchmarking data collected by the participants. The facilitator also provides an update on wider elements of Farming Connect, for example upcoming local events. The more formal DG meeting is followed by a lunch to allow informal discussion to continue. Meetings for the DG covered by this case study usually took place between September and April/May to allow the remaining months to be kept clear for harvesting etc.

There is no typical DG group as, even for DGs covering the same sector, the age of participants, the scale and nature of the issues they face, and personal dynamics at DG meetings, all vary. However, participants engage with DGs for the common reasons of want to learn from expert speakers and their peers. Data benchmarking also helps to highlight areas for improvement.

The format of the DGs has not changed since they were introduced at the start of the current Farming Connect programme, although following the Farming Connect refresh there is a closer link with Demonstration Farms. One of the beneficiaries consulted had already applied to become a Demonstration Farm outside of the DG process, so in that case the Farming Connect refresh did not have a substantial impact on the DG.

It is important to get the membership of a DG right by having a mix of personalities - those who regularly speak up as well as those who are good at listening - and a mix of farm performances to ensure that there are businesses to learn from and those who can improve. Having an informed DG facilitator to ask sensible questions and stimulate group discussion is also a key success factor, whilst scheduling the DG sessions at a convenient time of year/day for participants is crucial to maximising attendance. In relation to the speaker, he/she must be knowledgeable and engaging, able to mix theory with practical discussion (including benchmarking data), be perceived as neutral rather than as 'pushing' a specific

good/service, bring a fresh perspective from outside the local area, and be willing to engage with DG members by phone/email after the meeting.

Poor speakers were not well received, although it is not always easy to assess speaker quality in advance. Challenges also included attendance, as unexpected issues can arise on farms just before a meeting, and prevent the farmer attending. This is sometimes addressed by business owners and/or employees taking part in the meetings in place of the usual attendee.

The DGs have similarities to Agrisgôp groups in terms of peer learning, and Farming Connect events in terms of presentations from experts. However, the DGs are distinct and complementary to other Farming Connect strands as they are small group sessions aimed at knowledge dissemination and discussion within a select group but without Agrisgôp's distinctive action learning approach. Each DG meeting also provides a forum for the facilitator to highlight other elements of Farming Connect that may be useful to beneficiaries, e.g. relevant events, deadlines for grant applications etc.

Implementation

The beneficiaries consulted had implemented new practices as a result of the DG including measures to: improve the calving interval; reduce antibiotic usage; control mastitis; and manage silage pits. Changes unrelated to the DG had been also implemented, mainly because of one-to-one advice, e.g. on fertiliser usage, slurry storage, and a sand based calving system.

Key factors in enabling change included farmer motivation to adopt practices that have been successful on peers' farms (which are generally similar to their own). In addition, the use of benchmarking data indicated the potential scale of benefit from improvements. The relatively small scale of the changes meant that the beneficiaries could implement this alone, or with help from a key partner such as a vet. Finally, learning from the DG also prompted some participants to access one-to-one advice which enabled them to make larger changes. In one case, one-to-one advice avoided a farmer making a significant investment in improving slurry storage as the expert was able to suggest a more cost-effective solution.

Factors inhibiting change included the lack of finance to implement some desired changes, disagreements between the older and younger generations as to which changes should be implemented and when, and the disease status of the herd. For example, the presence of TB can sometimes block the implementation of strategies to improve fertility and/or milk yield.

Outcomes and impacts for beneficiaries

Farmers consulted reported personal benefits including improved technical knowledge, e.g. about limiting the spread of specific diseases, gained from the expert speakers invited to the DG sessions. One beneficiary also valued the DG meetings because they "give the sense that we are on a journey together rather than worrying alone."

The changes implemented as a result of the DG were relatively small-scale and focused on one aspect of the business, but some led to a significant scale of impact. For example, one beneficiary saved around £200/week as a result of improved silage storage. Another changed the timing and frequency of artificial insemination – amongst other measures - and so reduced the calving interval by 40 days across a herd of 150 cows, generating a saving of c.£18k per year. DG members also reported monetary impacts unrelated to the DG, for example one beneficiary saved £5k/year by changing fertiliser after a one-to-one advice session. Changing the type of fertiliser also eliminated a negative environmental impact.

Other business impacts were anticipated through recent changes prompted by the DG which have not yet translated into improved business resilience and sustainability. For example, as a result of a presentation at a DG meeting, one farmer accessed one-to-one advice on how to reduce mastitis transmission and in January 2020 implemented a sand-based calving system which is expected to lead to business benefits through an increased milk yield. This example highlights that involvement in the DGs can in itself be sufficient to generate impacts, but in other cases DGs must be combined with wider elements of Farming Connect support.

Wider outcomes and impacts

Through the presentation and group discussion the DGs are effective in facilitating knowledge exchange from the speaker to the participants, and also between the participants. However, there is no formal mechanism to disseminate this knowledge to third parties. Whilst beneficiaries reported informal conversations with those outside the DG, the subsequent impacts of this were unknown.

Additionality and contribution

Participants reported that the DGs were highly additional. Individual participants lacked the time to organise meetings, the knowledge on which speakers to invite and the finances to pay for them. Whilst farmers may meet at markets or social settings, these conversations are likely to be high level rather than the in-depth discussions that the DG meetings allow.

¹⁰¹ Calving interval is the amount of time between the birth of a calf and the birth of a subsequent calf from the same cow. The notional target interval is generally considered to be 400 days. It is estimated that for every day over this, there is a c.£3 loss to the farm business per cow, mainly from lost milk production. For example see How to achieve less than 400-day calving interval

Without the DG therefore, farmers would have been unlikely to learn about the beneficial changes that they subsequently implemented, especially where informal peer-to-peer discussion led to ideas which were only tangentially relevant to the original topic of the meeting.

Beneficiaries' assessment of contribution is mixed, both within Farming Connect and in relation to external factors. Compared to other aspects of Farming Connect, the DG was the most significant factor in improving business performance for one beneficiary, whilst two others reported that wider Farming Connect support was the more significant contributor and/or would be in the future when the impacts of recently implemented changes pulled through. With regard to external factors, one beneficiary purchased a significant amount of additional arable land and the new income from these crops was reported to be a more significant contributor to business performance than changes implemented through Farming Connect. However, the two other beneficiaries reported that for them, Farming Connect as a whole was more significant than external factors as it helped to highlight issues and suggested responses. These external factors included supermarket contracts (which offer business planning support), advice from third parties such as vets, and changing rules and regulations, e.g. on slurry storage.

Lessons and conclusions

By providing a forum for discussion with experts and peers, DGs have created both business and personal benefits for farmers. DG members have also been able to implement on-farm changes because of the knowledge gained at the DG meetings, sometimes with the support of other elements of Farming Connect. As there is no formal mechanism to encourage knowledge transfer to third parties, known benefits are limited to DG members.

Key success factors for the DGs include the facilitator building trust with participants to help retention at the DG, partly through a non-judgemental use of data, for example presenting opportunities to improve rather than criticising poor performance. DG member input into the topics of meetings has also helped to keep farmers engaged. Having the 'right' speaker is important, together with a mix of participants who are open to sharing their experiences. Limiting the size of DGs also helps to create the atmosphere of a discussion rather than a lecture, with contributions by, and exchange between, farmers.

E-learning Case Study

Introduction

Farming Connect's e-learning offer consists of online bitesize courses taking around 15-30 minutes to complete. It is the most light-touch strand of skills support available from Farming Connect.

To inform this case study we spoke with the e-learning leads at IBERS and Lantra, plus seven farmers consulted as part of the previous case study. The farmers had all completed the 'Grazing Management' or 'Farm Finance' modules, or both. Six of the consultees had continued to engage with Farming Connect support while one had not. The consultees were all from small or moderate sized family farms. The sectors varied, including farmers with dairy, sheep, horses, cereal and some that had diversified or were in the process of diversifying into tourism. The case study also draws on Farming Connect monitoring data in the following section.

Most of the consultees had not continued to use the e-learning, having exhausted the relevant modules on offer prior to the Phase 1 consultations. Of the consultees, just one had continued to meaningfully engage with the e-learning, while another still used the e-learning for upskilling their employee.

The level of engagement with the rest of the Farming Connect support was mixed. Some had stayed with online learning to develop their knowledge and skills. For these consultees, Farming Connect's e-learning and wider online presence (including YouTube videos and technical sheets) was just part of their wider reading on topics of interest. These consultees cited various other sources such as content from other farming organisations/bodies, agriculture magazines and books. These consultees exhibited a preference for learning by reading, but also cited accessibility, cost and a limited return on the costs (reflecting their small scale) as barriers to taking up more intensive support from Farming Connect – such as attending training courses in person.

For other consultees, the e-learning had complemented and instigated engagement with Farming Connect's wider offer. The e-learning offered a bitesize introduction to topics and the good farming practices associated with those. This helped them to understand the knowledge, skills and practices they needed to develop further through more intensive support, leading them to take up training and advisory support. They included two new starters, for whom the e-learning had been invaluable for providing such an introduction and helping them to understand what their priorities should be.

Delivery of support

Farming Connect's e-learning offer was introduced as a new element of the 2014-2020 programme. The e-learning modules have been developed by the Institute of Biology,

Environmental and Rural Sciences (IBERS) at Aberystwyth University with support from Lantra.

The number of courses available peaked at 74 during 2019, but some lower quality courses have since been removed, and an overhaul was pending at time of writing. As of the start of November 2019¹⁰², there were 4,610 completed courses by 3,188 individuals. Of those, 2,783 (87%) completed only the Health and Safety module which is mandatory to access to Level 3 courses through Farming Connect. Just 405 users completed other modules, completing 1,436 courses in total. A key Farming Connect ambition is to increase the completion of additional courses by those completing the Health and Safety module. The most popular courses were Farm Finance (74 completions), Sheep Lameness (69), Grazing Management (66), Farm Liverfluke Management (60), Lambing – The Basics (57) and Business Planning (56). A typical user is aged 25-40 and more likely to be male.

Since the Phase 1 case study, several changes have been made to the e-learning offer.

- A focus on quality over quantity. Courses have been redesigned to be higher quality, more consistent and interactive. Previously many of the lower quality courses were essentially fact sheets. Reflecting this shift in focus, the target for the number of courses by August 2020 has been revised from 120 to 70.
- The Farming Connect website and the BOSS website that hosts the e-learning have been refreshed, while the courses have been re-categorised. This has improved navigation between the two websites. The improved BOSS website was noticed and positively received by all consultees, albeit one was concerned about those with low digital literacy struggling to transition to a new website. The new platform has been important for enabling the improved and consistent design of courses.
- More quality assurance procedures have been embedded, and responsibility for the creation of e-learning modules lies has been taken up by a new staff member at IBERS with the appropriate skills.
- The budget for e-learning content has increased, allowing higher quality content to be sourced. For example, recently designed courses use material from the National Animal Disease Information Service (NADIS).
- There is now a Welsh version of the e-learning to expand its accessibility.
- The language has been revised, to reduce its complexity and ensure its accessibility.
- Roles have become better defined and communication has improved. Menter a Busnes are no longer playing a role in providing content, but inform topics covered.

The new and revised courses had not been launched at the time of the consultations with Lantra in March 2020, as they were awaiting sign-off by Welsh Government. The new elearning will be accompanied by a marketing strategy that will be more targeted and adopt a seasonal and timely approach to the release and promotion of courses. Looking forward, there are also intentions to:

¹⁰² E-learning data was only available up to this date

- Continue working with colleges to increase uptake by students. The revision of the language to reduce complexity was a key request from colleges that were engaged as part of this process
- Improve linkage between the e-learning and the wider Farming Connect offer. For
 example, sending a link to the e-learning to those participating in a relevant training
 course before or after the course. IBERS highlighted that this would require someone
 with a sufficient meta-view of the Farming Connect offer to identify possible linkages.

For those delivering the support an outstanding issue is limited feedback from users, despite the functionality for providing feedback included with the courses.

For the farmers consulted, the appeal of the e-learning was its convenience, accessibility and that it was free to access. The farmers were able to fit it around their schedule and it does not require the same level of time and financial commitment as travelling to an event.

"I find it very useful, because I can do it in the evenings."

"I can do it when I want rather than having to commit to travelling far"

Barriers to uptake of the e-learning offer that were cited by consultees were lack of IT equipment, low digital literacy and poor internet connections for farmers. Reflecting on the implemented and proposed changes from the perspective of the consulted farmers, there are two key observations:

- The website refresh had been well-received and it was felt to be more navigable and less clunky ("It's definitely far more user-friendly than it was before")
- There was clear demand for better link-up between the e-learning and the wider support offer, as well as linking up Farming Connect more broadly. The lack of linkup limited the uptake of additional complementary and relevant support, as the users were often unaware of or unable to find further support on topics they had engaged with.

Consultees were asked about the extent to which the e-learning duplicates or complements support available elsewhere. None of the consultees identified other examples of e-learning courses specific to farming, so the format of the support is distinctive. However, as previously highlighted, accessing the e-learning was just one part of consultee's knowledge and skills development: it was used to complement and lead into more in-depth support from Farming Connect and/or as part of their wider reading on topics of interest. Other sources included pages from other farming organisations (such as ADHB), articles in farming magazines and books. Farming Connect was considered a good and valuable starting point for a topic, as it is an authoritative source amongst the array of information available online. One consultee that was new to farming had found farming groups on Facebook to be useful as a sounding board, in a similar way to Discussion Groups.

Implementation

For the consultees, the introductory and bitesize nature of the content meant that e-learning alone was not a sufficient basis for change. It did, however, play a valuable role in their journeys to implementing new practices. The courses introduced some consultees to new ideas and practices, or helped to affirm existing practices or ambitions. Completing the e-learning was one element of their research into improving their practices, complemented by, or instigating, wider reading. It also led into their engagement with Farming Connect's more intensive support offer, where consultees were sufficiently interested in a particular practice or idea to take up skills or advisory support. For example:

- One consultee introduced rotational grazing as part of their grazing management system. An e-learning module promoted the potential benefits from this approach and did inform his decision, but he undertook much wider reading before implementing the system
- A consultee who was new to farming completed many e-learning courses to develop their understanding of good farming and business practices. The courses around grazing and grass management helped to solidify the importance of achieving improvements in these areas. Subsequently the consultee participated in the intensive Prosper from Pastures course, developed a soil nutrient plan and is looking to benchmark with a Discussion Group. While this was not entirely attributable to the e-learning modules, but they played an important role in this journey.

Outcomes and impacts for beneficiaries

The following are examples of outcomes and impacts experienced by consultees. These were not attributed to e-learning in isolation, but should be considered alongside their wider research and uptake of more intensive support – which e-learning has been found to complement and sometimes instigate.

- Four consultees who had particularly focused on grass management (including two
 who participated in Prosper from Pasture) reported improved grass growth through
 better management and grazing systems, and more intelligent use of fertilisers. This
 resulted in their farms being more self-sustaining, with lower costs and more
 productive animals, increased productivity and financial resilience.
- One consultee was able to reduce their flock of sheep by 50% but only decrease the number of finished lambs by 30%. This was possible through improved grazing management and animal health, the latter partly reflecting the ease of managing health with a smaller flock. The smaller flock size and improved grazing management meant the farm was more self-sustaining, with the flock fed with the farm's grass and haylage, and a reduced amount of supplements required. Overall, this reduced costs, time and effort and resulted in increased productivity, profit and resilience. The reduction in flock size was particularly important for the consultee's legacy planning as his daughter is a lecturer with limited time to dedicate to the farm.

- The 'Farm Finance' e-learning course was cited by two consultees as having helped to instil good financial planning, particularly alongside the support around business planning and related online resources from Farming Connect such as business plan templates. This had benefitted their ability to focus on improving productivity and financial resilience.
- Two new farmers emphasised that without Farming Connect it would have been very
 difficult to get a comprehensive grip on the many facets of farming and what good
 practice looks like. Having Farming Connect support under one banner was
 considered invaluable in speeding up this process. For them, the range and
 introductory nature of the e-learning meant it was a key resource for their induction
 into farming.
- Two consultees emphasised compliance with regulations and safety as priorities.
 Farming Connect training had been important for ensuring they were compliant with their practices in pesticides and pest control.
- One consultee had used the e-learning, and wider Farming Connect offer, to upskill her young employee.

Some consultees reported being unable to access more intensive support, such as training or grants for machinery, because they lacked the scale or money required upfront for certain grants to be worth pursuing – returns were too long-term to warrant such an investment.

Wider outcomes and impacts

Consultees did not identify any wider benefits for those not directly involved. Some of the consultees mentioned the importance of farmers talking with their neighbours, at markets and on social media for spreading best practice, but they could not identify specific examples where this had disseminated knowledge from Farming Connect.

Additionality and contribution

Most consultees expected the improvements they cited would have happened without Farming Connect e-learning, albeit at a slower pace and possibly at a smaller scale. The information from Farming Connect was considered trustworthy and authoritative, so they could be more confident in acting on new information, or when Farming Connect affirmed their current practices were good practice. Those who had received more intensive or extensive support were likely to be more doubtful that they would have obtained the positive impacts without Farming Connect.

Lessons and conclusions

On the basis of the information provided, the revised e-learning (which was yet to be launched at the time of the consultations) and the updated Farming Connect/BOSS websites are expected to address many of the issues highlighted by the e-learning case

study in Phase 1. In particular, the changes in content should address the issue of inconsistency between courses and some courses being of lower quality.

The key issue that is still outstanding is the need for better linking of e-learning with other Farming Connect support¹⁰³, although we are aware that this issue is under consideration and action to address it is also anticipated. The need for this improvement was the most prominent suggestion from consultees, recurring across the two phases of consultations. Better links would amplify effectiveness, as impacts were found to be generated when e-learning users were exposed to new ideas and practices, and they then followed through with wider research and the uptake of more intensive support. Moving forwards, an important ambition for Farming Connect is that users complete multiple e-learning courses. Improved quality, consistency, prominence, accessibility and marketing ought to help realise this.

Finally, those consulted had taken up the e-learning because it was free to access and convenient. The consultees repeatedly identified cost and convenience as barriers to taking up further support from Farming Connect. To some extent, this reflected the small size of the consultees' farms; some found training or Advisory Services prohibitively expensive, as the level of investment required was seen as not practical when they did not expect returns for several years. Regarding convenience, some consultees were upset that the timings or location of the additional support they were interested in meant it was not possible to attend. For example, one consultee was eager to attend a Discussion Group, to gain the benefits from group interaction as well as to access a grant for equipment which required this attendance. However, their childcare responsibilities in the evening and the low prevalence of similar farms nearby meant they were unable to take up this opportunity.

The consultee suggested that some Discussion Groups and training could take place online to reduce barriers to participation. This may be worth considering, particularly in the context of the current requirements for social distancing as a result of COVID-19, and uncertainty about when these will be relaxed.

¹⁰³ Note: since research was undertaken for this evaluation, more co-ordination was put in place between campaigns and e-learning.

Focus Site Case Study

Introduction

Focus Sites deliver 'one off' projects and trials across a wide range of topics, as part of the broader Demonstration Network strand of Farming Connect, which aims to showcase innovative technologies and practices in farming and forestry, and to disseminate learning through planned on-site events and publications. Focus Sites are set up and managed by Farming Connect Technical Officers but heavily involve the Focus 'Site owner' In addition to events, some Site owners, including the subject of this case study, provide more ad hoc advice and opportunities for site visits.

This case study focuses on a Focus Site in North Wales and draws on interviews with the Technical Officer which oversaw the activity, the Site owner, and two beneficiaries. All were consulted in both phases of the case study. The main business activities of the beneficiaries included sheep farming and forestry, and they have accessed other Farming Connect activities including e-learning, the one-to-one Advisory Service and business plans, but engagement with the Focus Site is the focus of this case study.

Delivery of support

Focus Site activity is overseen by a Technical Officer, who is responsible for devising Focus Site projects that are relevant and informative, and arranging open day events, including organising appropriate speakers and advertising events through Farming Connect communication channels. The Site which is the focus of this case study participated in the Farming Connect Focus Farm initiative during 2016-2017 when three main events were held. The Site also held smaller events for organisations/individuals in response to specific requests (for example, from a University group). Beneficiaries attended either one or two events at the Site but also received 'ad hoc' advice from the Technical Officer and/or the Site owner. Most farmers attend events on Focus Sites to gain ideas, inspiration and practical knowledge, which could then be implemented in their business. However, some attend more out of curiosity without the intention of implementing similar practices/technologies.

Knowledge generated from Focus Site activity is primarily disseminated through the open days where beneficiaries are provided with an **opportunity to experience the practical implementation of changes, listen to expert speakers, and liaise with the Technical Officer and Site owner.** In addition, learning is disseminated through the publication of technical articles, blog, and videos on the Farming Connect website (considered a particularly effective method by the Technical Officer), as well as being disseminated more widely, for example in relevant sector focused articles/journals.

There is **no 'typical' Focus Site because each project and farm are different**, and events are designed to suit individual farm contexts/logistics. Nevertheless, the overarching format of each Focus Site event is similar: a presentation (including three to four speakers)

and a tour of the relevant innovative technologies and/or practices, lasting on average four hours.

The delivery format for Focus Sites has remained largely similar since the start of the current Farming Connect programme; however, the Technical Officer has trialled running shorter events in the evening (approximately 2.5 hours) to boost attendance. Furthermore, under the Farming Connect refresh the Demonstration Network has been adapted. Originally the Demonstration Network supported a 3-tier approach comprised of Innovation, Demonstrations and Focus Sites, but since the programme refresh the network has become a 2-tier approach comprised of Demonstration and Focus Sites only.

What worked well and less well

A good relationship between the Technical Officer and Site owner was found to be critical for the effective delivery of a Focus Site. The technical knowledge and expertise of the Technical Officer was considered valuable by both the Site owner and beneficiaries, whilst the Technical Officer saw the Site owner's motivation and attitude as critical to the success of the project. Beneficiaries valued the opportunity to see the practical implications of changes, the helpful and enthusiastic mentality of the Technical Officer and Site owner, and linked to this, the opportunity to ask questions of the experts. Finding appropriate, good quality speakers was identified as the most challenging aspect of delivering Focus Site events.

Fit with the wider Farming Connect offer

Consultees identified that the activity aligns particularly well with support from the Advisory Service and Mentoring because this allows farmers to access personalised support on a specific subject, and to explore ideas generated from a Focus Site event. Business planning was also considered a useful follow-on activity so that individuals can investigate and plan the viability of implementing a new project or changing business operations.

The Site owner and the beneficiaries consulted had engaged with the wider Farming Connect activity, including Business Planning, PDPs, training courses and Farming Connect events. Communication with the Technical Officer, the local Development Officer and Farming Connect communications (for example, the website, emails) have been key routes to accessing the wider Farming Connect offer.

Focus Sites have similarities with Demonstration Sites, in that they both involve on-site events to share best practice and demonstrate innovation. The activities are complementary because Focus Sites involve 'one off' projects, whereas Demonstration Sites share different examples of best practice, innovation and new technologies during their involvement in the initiative.

Implementation

One of the two beneficiaries consulted had successfully implemented changes after visiting the biomass demonstration at the Focus Site; the other had tried to implement changes but realised it was not feasible. The first beneficiary implemented a Combined Heat and Power (CHP) System and became accredited for the Renewable Heat Initiative (RHI). The second beneficiary also planned to capitalise on the RHI, but the process was found to be bureaucratic, and with limited local demand, this was not progressed. However, this should not be considered as a negative outcome, as supporting farmers to make informed strategic business decisions is fundamental to the rationale for Focus Sites, and the broader Demonstration Network. Further, the beneficiary made other changes as a result of wider Farming Connect support (mainly following Farming Connect events and discussions with a Technical Officer), such as liming fields and the planting of eucalyptus trees. From the perspective of the Technical Officer, not everyone implements changes following attendance at Focus Site events, rather individuals will often make enquiries and explore possible options. Further, this particular Focus Site project was complex, 'one off', and required large-scale investment, so the adoption and operation of this technology has to date been rare.

Key factors in enabling change included the local supply of raw materials, Government targets to increase the production of renewable energy, and linked to this, the existence of the RHI, and farmer motivations to adopt practices that had proved successful on a peer's farms. Factors that inhibited change included those internal to the business, such as financial constraints, and external factors such as governmental processes (for example, related to the RHI or the process of applying for grants) and local market conditions.

Outcomes and impacts for beneficiaries

The individuals consulted (both the Site owner and beneficiaries) reported personal benefits of their engagement with Farming Connect, in relation to knowledge development, either through the Focus Site activity directly or through involvement in a combination of Farming Connect activities. The Site owner also identified social benefits, in that, the events "brought people together", and provided an opportunity for him to meet and engage with individuals he did not previously know.

For the Site owner, the diversification project (the Focus Site) has led to substantial impacts for the business. Diversification has greatly increased the viability of the business, leading to (approximately) a fourfold increase in turnover, thus former farming activities have been stopped. Key to the diversification venture has been the sustainable management of resources and exploiting opportunities to achieve efficiencies; for example, a new tractor was purchased which increased productivity through reduced operating hours. Looking to the future, there is the potential to scale up operations and further increase turnover, however, that would require extra capacity (staff, space etc.).

The beneficiary who implemented changes as a result of the Focus Site also saw a diversification of the business: this improved resilience as the RHI will provide a sustainable source of income for 20 years¹⁰⁴. As mentioned above, the sustainable management of resources has been key to diversification. Finally, the beneficiary who has implemented other changes as a result of wider Farming Connect support, has not yet realised the expected benefits because these changes take time to process. The effects are expected to include improved sustainability of the business through the introduction of more sustainable methods/diversification, increased turnover, and the more sustainable management of resources/reduced environmental impact (e.g. through improved water management) – but these could not be quantified at this time.

Wider outcomes and impacts

Knowledge from Focus Sites has been disseminated to third parties, for example, in sectorfocused articles/journals, but these subsequent impacts were also unknown. One of the main aims of the Focus Site was to promote the adoption of sustainable approaches/methods, and consultees were hopeful it had been successful in doing so. While it is not possible to determine the impact this project has had on sustainability more widely, we found some evidence that those implementing such changes are taking a sustainable approach that may result on knock-o benefits beyond their locality (for example, implementing rotational coppicing).

Additionality and contribution

Feedback on the additionality of outcomes and impacts varied, but in the main consultees argued that outcomes would have been achieved, but more slowly or a lower quality, in the absence of the Focus Site:

- The Site owner would have implemented the changes and improved business performance regardless of Farming Connect but acknowledged that Farming Connect has helped to make the process easier, for example, through the Technical Officer's advice and the connections/networks gained from being a Focus Site.
- One beneficiary stated that the outcomes would have been achieved anyway (because Farming Connect did not support the fundamental changes implemented), however, outcomes may have been lower quality (partial additionality) because the individual would not have benefited from the often small but significant "add-ons" Farming Connect provides (e.g. networking).
- For the other beneficiary, the outcomes would have been achieved, but not within the same timescales, because it would have taken longer to develop the knowledge gained through Farming Connect, and therefore to implement the changes.

¹⁰⁴ Note, product is not sold to market, rather it is used to supply the farm's own CHP system

Feedback on contribution was also mixed. Regarding the most significant Farming Connect activity in generating outcomes and impacts, the feedback here was that it is "no one thing" which has been most effective in improving business performance and realising wider impacts, but the cumulation of knowledge development and the "add-ons" (for example, new relationships and connections) which Farming Connect has provided. Neither of the consultees identified any other substantive changes within their business which happened at the same time or after their engagement with Farming Connect. The external factors which were considered important were local supply and demand, and political priorities.

Lessons and conclusions

The events held at the Focus Site have provided opportunities for knowledge development as well as social interaction. Further, Focus Site events were often the initial source of developing a business opportunity, which farmers followed up by engaging with other forms of Farming Connect support. The ability of individuals to implement similar practices to the Focus Site has varied depending on factors including the characteristics of local markets and farmers' ability to navigate governmental processes. But knowledge transfer is not limited to individuals who visit the Focus Site, as information is publicised widely through Farming Connect communications as well as wider sector related media. The critical success factors identified by consultees for Focus Site activities were good communications (with a Technical Officer, Development Officer or Farming Connect as a whole) and good quality advisory support. There were no suggestions as to how the Focus Site element could be improved.

Management Exchange Case Study

Introduction

The Management Exchange (ME) element of Farming Connect provides a travel scholarship of £2,500 per person¹⁰⁵ to enable farmers to explore ways to improve their current business or to diversify. ME is open to applicants from all sectors and all farm sizes, however priority is now given to those with Demonstration Farms. ME beneficiaries can travel to other parts of the UK or elsewhere in Europe. At the end of their visit, beneficiaries are expected to disseminate the knowledge they gained through a final report and presentation.

This case study draws on consultations with the Farming Connect ME lead and four ME scholarship beneficiaries; the same individuals were consulted in both Phase 1 and Phase 2. Two of the beneficiaries were relatively new to farming and/or the subjects they chose to explore on their visits, whilst two were from more 'traditional' farming backgrounds and wanted to learn about how to improve their current practices. The beneficiaries explored subjects including grassland management, pig feeding and management, and hedgerow management. The ME beneficiaries had also been members of Agri Academy, Agrisgôp groups and/or Discussion Groups. One consultee had also become an Farming Connect mentor.

Delivery of support

The ME lead assesses the applications and administers around 10-20 travel scholarships each year. The beneficiaries themselves are responsible for arranging their visits. The visits of the beneficiaries consulted lasted for between three-ten days in total; they sometimes involved multiple trips, e.g. to observe practices in different seasons.

Following completion of the ME visit, each beneficiary must write a report to share his/her learning. Along with short videos of ME beneficiaries, this is posted on the Farming Connect website and social media. Farming Connect also organises post-visit knowledge dissemination events, sometimes in conjunction with other aspects of Farming Connect such as the network of focus farms. This integration across Farming Connect was a cited as a key success factor in knowledge dissemination, especially where it led to beneficiaries becoming Farming Connect mentors or hosting Focus Sites.

The delivery approach has been adapted in four ways: changing the timing of the application process from June to October-January which is a less busy time for farmers; adding a presentation at the application stage to assess the applicants' knowledge dissemination ability; reducing the maximum grant value from £4k to £2.5k as few beneficiaries claimed the full £4k; and giving priority to Demonstration Farms over other applicants.

¹⁰⁵ Originally up to £4,000 per person, reduced to £2,500 during the FC refresh

Allowing beneficiaries to organise their own visits is a key success factor as it means each visit is tailored to the specific needs of the individual beneficiary, including niche areas which are not well catered for by the wider Farming Connect support offer, e.g. exploring the viability of snail farming. Key success factors in organising the visits included drawing on personal networks and choosing to visit countries where the beneficiary could speak the language. The latter was helpful in both organising the visit and maximising the learning from the trip as the visit was not complicated or constrained by the need for a translator. The ability to spend part of the grant for replacement staff to cover the period during which the ME beneficiary was away from the business was crucial in allowing the ME visits to go ahead. However, one beneficiary argued that this element was underfunded.

Other success factors were context specific, for example the choice between spending several days on one farm acknowledged to be leading in a particular practice, or spending one day on each of several farms taking slightly different approaches to the same problem. The majority of beneficiaries made one trip, which sometimes included visiting multiple farms, although one beneficiary stated that making multiple visits at different times of the year was a key success factor as it allowed him to observe how management practices changed throughout the year.

Areas which worked less well include the proportion of the grant allocation for replacement staff as discussed above. From a delivery perspective, the first three adaptations cited above were made to address areas which were working less well.¹⁰⁶

ME was considered to align well with Agri Academy because the group visits organised through this build confidence and appetite amongst farmers to go on to apply for an ME scholarship. The knowledge dissemination component of ME aligns well with Demonstration Farms, Discussion Groups and the Farming Connect Mentor programme, as these elements of Farming Connect allow the ME beneficiaries to easily share their knowledge with others. ME was seen as distinctive within Farming Connect and complementary to wider support available such as scholarships from the Young Farmer Club, Hybu Cig Cymru and Nuffield Trust.

Implementation

rota

All four beneficiaries interviewed had implemented changes as a result of the ME scholarship. By seeing different farming practices first hand and through in-depth discussions with other farmers about how and why they use these methods, ME beneficiaries gained confidence that the methods worked and were practical to implement on their own farms. Examples include: livestock feeding strategies; flexible electric fences; rotational grazing; hedgerow management; and crop planting density. A common enabling

¹⁰⁶ The final adaptation – giving priority to Demonstration Farms - was made at the request of the Welsh Government to increase the FC support offered to a smaller number of farms.

factor was that many changes were relatively low cost and easy for the beneficiary to implement alone, or in combination with one other partner such as a vet.

One Farming Connect-related factor was cited as a barrier to adoption: the ME scholarship is only available to one person per farm, but many farms are family businesses. If only one person goes on the ME visit, he/she sometimes finds it difficult to implement changes because the business partner(s) has not seen the changes first hand. Business factors inhibiting adoption included insufficient funds to implement some desired changes; also, even if funds were available, it would not be cost-effective to implement some changes because of the beneficiary's small farm size. External inhibiting factors included regulatory barriers such as rules around on-farm slaughter, the perceived absence of a market in Wales for certain products, e.g. woodchips for biomass energy generation, and difficulties in persuading third parties to change their practices, e.g. to form a co-operative.

Outcomes and impacts for beneficiaries

All four beneficiaries interviewed reported benefitting personally from their ME scholarship. For example, seeing new methods "broadened my horizons". The process of organising and going on visits also built confidence and expanded their personal networks. Indeed, one of the consultees was still in contact with his 'exchange partner' and the pair were able to discuss common problems by email. Beneficiaries also improved their technical knowledge.

However, only one of the beneficiaries interviewed was able to quantify a business benefit to date - a £5,000 per year reduction in expenditure on fertiliser because of improved grassland management. Another beneficiary reported that the business had become more resilient and sustainable because the changes had increased efficiency by reducing the amount of labour required. The two other beneficiaries expected future business benefits including an increased yield of outputs and a higher turnover, but with significant time lags between implementing changes to crop planting/management and realisation of the benefits once the crops are processed and sold.

All ME beneficiaries consulted considered that ME was the most effective part of Farming Connect in bringing about these benefits because the ME visits allowed the farmers to see the new practices working on other farms and talk to farmers about why these practices were successful.

Wider outcomes and impacts

Knowledge dissemination to non-ME beneficiaries is a key part of ME as discussed above. Multiple examples of the potential for spillovers were cited, for example through an ME beneficiary giving presentations and producing reports. Wider outcomes could also follow from receiving support from a Farming Connect mentor/demonstration farmer who was previously a ME beneficiary.

Additionality and contribution

Beneficiaries reported that the ME scholarships were highly additional. Three reported full additionality because they would not have been able to afford go abroad without the grant funding and the provision of an allowance for replacement staff at their farms, and/or because the ME support is a structured programme which ensured co-operation from the 'exchange partner.' The other beneficiary reported timing additionality but could not quantify the extent of this. The ME lead noted that even though some beneficiaries may have undertaken visits without the ME support, there is added value in supporting them through ME because beneficiaries must engage in knowledge dissemination and this benefits the wider sector in Wales.

ME was reported to be more important than other elements of Farming Connect in achieving the business outcomes, in some cases because the ME beneficiaries were engaged with other aspects of Farming Connect as knowledge disseminators rather than direct beneficiaries. Other contributory factors included support from third parties such as vets, agronomists and trade associations. Because of the importance attached to observing different methods of practice first hand, ME (and therefore Farming Connect) was reported to be more important than other contributory factors.

Lessons and implications

Overall, the ME element of Farming Connect has been successful in supporting the transfer of best practice into Wales. Beneficiaries have gained personal benefits and also been able to implement changes which, although relatively small in terms of the monetary and time cost required, were reported to have strengthened business resilience and are expected to lead to further benefits in the future.

There are three key lessons from ME. First, that observing different practices first hand is crucial in giving farmers confidence to implement changes on their own farms. Secondly, that ME is flexible enough to give those in niche elements of the farming community this opportunity. Finally, including formal post-visit knowledge dissemination activity as part of the scholarships – as well as signposting beneficiaries to the mentor and Demonstration Farm elements of Farming Connect - has been key in transferring knowledge to those not directly involved in ME.

Mentoring Scheme Case Study

Introduction

The Mentoring Programme was established in 2016 to enable farmers and foresters to receive guidance and advice from their peers on a wide range of topics. Eligible mentees can access 15 hours of fully funded mentoring with their chosen farming or forestry mentor, over an 18-month period. The scheme is targeted at farmers and foresters of every age and business status including new entrants, businesses considering significant strategic change in direction, individuals looking to exit the industry, and businesses facing difficulties within the sector. Mentoring hours can be used as face-to-face visits or phone conversations. The scheme is flexible in its delivery, with mentors using their hours in half-day or hourly sessions. Time allocations can also be used across more than one mentor.

This case study focuses on two mentees and their mentors based in Carmarthenshire. Both mentees and mentors were also consulted as part of the Phase 1 interviews. One mentor specialises in share farming, whilst the other has over 20 years' experience in organic dairy farming.

The first mentee is a young farmer who took over the family farm. The other mentee is a new entrant who started running their own smallholding. Both mentees had accessed other Farming Connect services prior to engaging with the Mentoring scheme including Farming Connect courses and consultancy support. One mentee required assistance with diversifying the business into an organic dairy farming business. The other mentee received advice on land purchase and improvement.

Delivery of support

During the first phase of interviews, both mentees were supported by the programme and had some of their allocated hours left to use. They have both since utilised these hours, but have continued to keep in touch informally with their mentors, providing updates through phone, text or sometimes face-to-face meetings.

"Once the hours have run out, I make sure that I am there on the other side of the phone if they need help, whether that's two weeks or two years down the line. It's about making connections with other farmers and using our networks to make life easier for each other." (mentor)

Initially, both mentees met their mentors on their farms/prospective land, explaining their current situation and any proposed plans and challenges they faced. Both were then given advice based on their requirements to change/adapt their businesses. One mentee suffered from severe delays due to land purchase falling through, but has since purchased and completed in July 2019. They have been concentrating on improving the land and have received valuable advice from their mentor regarding hedge laying, fencing and dealing with forage. They received additional hours from their mentor after requesting more support to strengthen the business.

The second mentee aimed to move a suckler to an organic dairy herd and gained valuable information from their mentor regarding animal health, ways to improve fertility rates and therefore the productivity and profitability of their business.

The main benefits for mentees include gaining valuable advice and insights that could help them realise their aims and objectives, and acquiring advice and information from another individual that had considerable experience in that field, which meant the mentees trusted and valued the guidance provided to them.

Mentors emphasised the importance of flexibility within the activity, and the ability to listen and understand the needs of mentees to help them realise their aims and objectives. Participants valued the honest communication achieved as part of the activity, with both parties learning new skills and techniques within the sector. Participants were flexible in their communication approach, updating each other by email, phone or text. Mentees and mentors noted that using this service gave them reassurance in their decision making with funding applications, negotiating contracts and brain-storming new ideas. Mentors also commented that each mentee was different and required a different support structure. They also explained that the scheme can be a gateway to other services through Farming Connect.

"All you can do is give them ideas, and they have to take the initiative to make the changes. We only scratch the surface; the other services can help with more specified solutions. You can only advise people of the most likely solutions to make their businesses more profitable."

One mentor passed on new information or legislation to their mentees. They also negotiate various contacts for dairy farmers in the area, so can pass on important information to other farmers / their mentees from their suppliers. Mentors have been sign-posting mentees to other Farming Connect services including short courses and further consultancy assistance when required.

"I want to make sure that they are steered in the right direction and can get the assistance that they need. That could be through help with grants, nutrient plans, help with cash flow. It's my responsibility as a mentor to integrate services and make mentees aware of other help that's out there."

It was mentioned that the scheme aligns well with Succession Planning and Surgeries. A mentor has directed mentees to consultants that assist with succession, with examples of personal relationships within the business improving due to more clarity within the business.

"We've got the same common goals and want to improve efficiency and profitability. Finding someone willing to answer your questions, you can be scared to take up other farmers' time."

A mentor explains that they direct mentees to other programmes, for example AHDB, slurry wizard, NRW, HCC websites that have 'good and useful information.' They state that there are some elements of duplication, e.g. information about water from NRW and other programmes.

"That's where Farming Connect have been spot on with their mentoring. The farmers can get the information that they need in the language that they need to understand it."

Mentees mentioned that information on the website could be clearer. One mentee suggested a main box with deadlines for each funding stream on the home screen. Another mentee encountered some confusion about woodland information, and found some duplication with Coed Cymru, business hub and Farming Connect. "I got really confused who I should be talking to about it."

Implementation

Both mentees explained that they had gained knowledge and insight from the Mentoring programme that they could use to implement changes immediately. Both had used information acquired by their mentors to improve their businesses, through diversifying into organic dairy farming or adapting processes and farm buildings to improve productivity.

One mentor had helped negotiate a milk contract during the previous phase and had since helped negotiate leasing land from neighbours. The mentee was worried "he would step on the farmer's toes," but the mentor gave them the confidence to expand the business. They have also implemented new practices by using garlic licks and EnviroBed livestock bedding to improve productivity.

The other mentee received support when purchasing land during the last phase of interviews. They have since purchased a plot suited to their needs, and the mentor has been advising them on improving the land by giving advice on fencing and hedge laying. They also attended a grassland management course, which was about improving pasture and applying fertilizer.

Outcomes and impacts for beneficiaries

Participants have continued to maintain links with each other after the allocated mentoring hours, informally disseminating and transferring advice and support. One mentor has applied for additional hours, which has resulted in the mentee gaining knowledge on business management and land improvements. Combined with a course on handling and housing livestock through Farming Connect, this has resulted in the mentee changing the design of the shed in order to improve efficiency. "We spoke about ventilation, reduced height, changed layout of the design to incorporate a covered manure stall. The day was very useful."

The business management advice from the mentor has made them think about the profitability of the business, stock size versus yield. Having a better understanding of how to best lay-out the land will improve productivity, and therefore viability of the business.

He was advised to see a Farming Connect consultant who undertook some soil sampling. They were given recommendations on how to improve the land, and the soil report fed into the management of the land, helping the mentee make more informed decisions. They were recommended to apply for the Glasdir scheme through the consultant, and have since been successful.

The other mentee has learnt that monitoring systems can improve productivity and profitability if you're willing to change processes on the farm. By changing systems and processes, mainly adjusting calving patterns in order to meet their desired objective of autumn calving, they have been able to improve fertility rates and therefore profitability of the business. The mentee has now taken their systems further and is recording additional information on the herd which can identify mistakes.

Both mentees have gained confidence in their own skills, abilities and decision making. Knowing that the mentors are there, if needed, has resulted in mentees feeling supported and able to make tough decisions and changes to the business, to improve sustainability, profitability and productivity.

"Farming Connect has boosted my confidence and given me a boost psychologically. By feeling more confident in what I'm doing, I can make better decisions." "Without Farming Connect I wouldn't have looked into the organic milking, but Farming Connect the consultants and mentors gave me the push to do it." (mentee)

Mentors also had other examples of positive impacts on other mentees. These included, assisting with a farm's water management system which is now more efficient and developing a succession plan with a family who had poor communication, which affected the business.

Wider outcomes and impacts

One mentor gave an example of a family where communication had broken down, and members of the family were not speaking to each other. In this circumstance, he acted as a mediator, helping them come to a comprise. This was as a result of not having a fixed succession plan in place. "It might not have ended this way if I wasn't involved, and this made a difference to the whole family. When you have more than one owner of the farm, succession planning is critical."

A mentee mentioned that they had passed advice onto their mentor last year. Participants had been struggling with mastitis in their herds. The mentee started using EnviroBed, and

recommended this method to the mentor, who has since seen a decline in their mastitis cases.

Additionality and contribution

Both mentors and mentees explained that without the Mentoring support, they wouldn't have been able to achieve the same speed, scale and quality of outcomes in their businesses.

"Without the support from Farming Connect, the farmers I've seen wouldn't have got so far, and it would've been a much bigger struggle for them without the funding available. Farmers can move on and gain the confidence to make those changes that make their businesses more sustainable, and **that's such an invaluable service**." (mentor)

"The mentor has had a big impact on me changing my business plan to be focussed on beef instead of lamb. I most probably wouldn't have come to this conclusion without the help from the mentor. I've then been able to incorporate the ideas into my business plan. The Mentoring scheme has been the backbone to my knowledge and skills learning." (mentee)

Participants mentioned that Brexit has affected the sector in the last two years, with prices of feed fluctuating, resulting in less profit for farmers. Economic instability is difficult to plan for, and both mentees and mentors would like to see the Mentoring scheme continuing, making sure that young farmers are supported to move into / stay in the sector. They also stated that subsidies will decrease, therefore it's important for businesses to improve efficiency.

A mentor mentioned that they would like more support in the sector for those with depression and mental health problems. They also mentioned that they don't feel that there is enough support for those with learning difficulties and dyslexia¹⁰⁷.

"This can be a real barrier for farmers as the first thing we do is look over and sign the minutes from that meeting, and some can't do that. Undoubtedly there should be more help there for the farmers that need that support. In the next 4-5 years this could be a real problem."

¹⁰⁷ Note, MaB submitted an unsuccessful proposal to Welsh Government to offer additional support to individuals with learning difficulties and dyslexia.

Those consulted both mentioned that the sector is experiencing bad publicity, in particular some organisations claiming the industry can be cruel to animals and unsustainable.

"There's nothing from the agricultural bodies explaining the benefits of farming. Beef sales have dropped 40,000 this year. The smaller farms will be hit the worst, and we don't have the turnover to withstand the fluctuations and drops in price."

Lessons and implications

Beneficiaries have gained invaluable support and advice from their mentors that have enabled them to move their businesses forward. Mentees have gained confidence, skills and experience in the sector from valued members of the industry. This has resulted in mentees feeling more confident and comfortable in making decisions / changes to their businesses.

Mentors mentioned that in some cases, some mentees required additional support, especially if they were new entrants or diversifying their businesses. Mentors felt that giving them more control on the number of hours given to mentees could mean that those that need additional help could be supported. One mentee also noted that "having access to more courses and mentoring as a new entrant would've been great."

Mentors stated that some Farming Connect beneficiaries aren't aware that they can access more than one Farming Connect service. One mentor estimated that this was the case with 70 percent of beneficiaries.

Mentors also suggested that refreshers would be useful to update mentees on new courses / services available.

Business and Finance Training Case Study

Introduction

Overview of the activity

Training is delivered through a network of approved training providers covering a range of up to 60 different courses. The providers are managed and the courses accredited or quality assured through Lantra. Some courses provide training required by statute (such as health and safety courses including pesticide, machinery and equipment use); others include a range of technical and business improvement courses.

During summer 2019 the courses were revised and refreshed with some additional courses, some new training providers and a different approach to marketing. Courses are categorised as Land, Business and Livestock. The Business category includes 'Business Planning and Development'; 'Financial Recording and VAT' and 'Marketing your Business'.

The focus for this case study is business planning and financial recording. These courses are offered by several different training providers across Wales. We spoke to two; 'Simply the Best' training based in Tonypandy, and Really Pro Ltd (based in Swansea, Carmarthen and Haverfordwest). Both are private training providers that run a range of courses for Lantra under the Farming Connect brand. Really Pro Ltd also runs other business and employability support programmes across different sectors.

Case study participants

Seven learners participated in the case study. Three had attended the financial recording training delivered in Anglesey in 2019, two were based in Pembrokeshire and had received training on marketing and business support as clients of Really Pro (one interviewed in 2020 and 2019 and one in 2019); the other two, interviewed in 2020, had first engaged in Farming Connect through a Making Tax Digital course and then participated in other aspects of the programme. The Anglesey participants were all young, one was attending so that they could help their parents, another combined farming with a full-time job, and the third had married into the farming business. The Pembrokeshire participants were both older, and combined camping and caravanning businesses alongside farming and horticulture respectively. The 2020 participants were both seeking ways of making their farming business sustainable in ways to support themselves and their children.

Delivery of support

The training covers practical aspects of marketing, business development and financial management and reporting. The trainers are either very experienced at working with the farming community or are themselves from farming families with experience of diversification.

The two providers operate different delivery models. One is to run day long courses at sites all over Wales for small groups of learners. Dates and venues are negotiated by the training provider to try to find times that suit learners who have been approved in each application 'Window'. If learners cannot be accommodated by one provider they will be referred to another, or will be invited to a subsequent event. The Anglesey event was held in a training room at a Karting site which was convenient and accessible to the learners.

The other model sees training providers visiting farmers to offer a series of four short learning sessions with self-directed learning in-between. Both learners reported that this made a difference to their participation and that if they had to find time to travel they may not have started the training.

Both training providers use their knowledge and experience of farming and rural businesses to contextualise their training material. Financial recording for farming businesses has specific requirements around VAT that are not accommodated in mainstream accounting software and consequently the trainer has developed their own tools (that they use in their farming business) that are simple and practical. The business planning training introduces key concepts and frameworks but sets 'homework' for learners based on their own farming business issue to ensure that learning is applied to their specific requirements.

The training is not intensive, most is either a single day or spread over a series of interventions. The Farmers engaged for a range of reasons but key among the drivers were their needs to:

- comply with statutory requirements regarding Making Tax Digital
- diversify their farming business or income sources to keep the farm
- ensure their farms could sustain their families now and for their children.

The Anglesey learners were connected to Farming Connect via the Development Officer who played what the provider called "a pivotal role" in the success of its offer with farmers across the community. Others said that they were aware of Farming Connect although could not specify exactly why – just that it had been around for a long time and that it was the first place they would think of going.

Several of the learners had accessed other training, and other elements of Farming Connect support. They appreciated several aspects of the training:

- The support of the Development Officers, trainers and Lantra in tailoring both the
 content and its accessibility. The fact that the trainers use examples that are all
 farming based, that they organise training in locations and at times that
 accommodate learners and that they 'spend time explaining things'
- The ability to network and to connect with other farmers was also valued, to hear from their experience, listen to their questions and realise that they were not alone in finding aspects of financial, business or marketing elements difficult
- That other members of their family, as farmers, could also access the training so that they could help and support each other and learn together

• The modest cost of training and the short time required away from the farm also were valued: the costs of attending were not a deterrent.

Few barriers to accessing training were mentioned: however, the two-stage verification signup process whereby people have to access a verification code from an email account was difficult in places with poor internet and this was perceived to be a barrier.

Two farmers said that their experience of the finance courses meant that they realised how accessible and beneficial the Farming Connect programme was, and they had subsequently accessed other services. Previously they had thought that the programme was for bigger commercial farms and not for small farms like theirs.

One of the farmers had accessed both the Farming Connect and Business Wales business support training. They said that even when the subject area was similar (such as using social media) the content was very different – albeit complementary. One learner had asked for advice from a Tourism officer and another would have used internet searching if they had not already been aware of Farming Connect, or it wasn't available.

Most of the learners had not sought support beyond Farming Connect; they were all aware of Farming Connect and were not in the habit of looking further.

Implementation

Those who attended the business planning and marketing training had implemented their learning. The two learners both wanted to diversify and rely less on their farming and growing businesses. Both were supported by the training provider to do the course which left them with their business plan and marketing plan.

One learner had applied the marketing plan and now was actively marketing their business using social media (Facebook and Instagram) alongside their usual advertising activities. While they were very satisfied with their learning experience, and pleased to have a social media presence, it had not yet translated into additional business. The other Pembrokeshire learner had noticed an impact as outlined in the case study box below.

Business planning and marketing into practice

A learner had completed a business plan and a marketing plan for their new venture which was to develop an existing low-key campsite into something more substantial and sustainable. There were two drivers to this, as they got older they found the physical work more tiring, but also they wanted to build a business for their children to take over. Market research helped them to define their business niche and find new partners. It helped that they did not need to take on any debt for the physical development that was required, and that

they had an existing campsite and business. The learner said that they found their business plan to be a really useful document because "you tend to forget some of your ideas and its helpful if it's down there in black and white". The new business is growing steadily. Longer term the hope is that if the business grows their child will be able to take over the camping business which in turn will "support the future of our home and our smallholding".

Outcomes and impacts for beneficiaries

The most striking effect of participation in the business and marketing training was the effect on personal growth. Every farmer had their own story to tell and for some, the effect on farming practice or diversification was not yet achieved, but the effect on their confidence, optimism and connectivity with the sector was palpable.

Personal benefits included:

- An appetite for learning as attendance at one course led to further learning episodes.
 In one case a farmer had gone on to enrol on a financial course at a local college to take their learning further
- Being able to contribute to the family business and supporting the development of the family enterprise, for example by accessing training that meant that two family members could perform a technical task rather than the burden having to be held by one person
- Participating in networks and meetings others who were facing similar challenges but were tackling them positively and actively. One farmer said that this had given them hope and a sense of optimism about their farm and its future despite very difficult personal circumstances.

Practical business benefits included:

"save having to pay an accountant to do it...I'd be better organised ... I do it but it's all a bit of a mess"

"it's more to improve my knowledge really... so that I don't have to depend on my partner"

"I do my own VAT but in a complicated way... I'm often late so hopefully I'll be paying less fines"

Others said that they wanted to firm up their business plans and put them into action so that their businesses could move to a more sustainable footing and be something for their children to enjoy and possibly to continue.

Both trainers and trainees thought that the work of the Development Officers was pivotal in helping them to learn about the support available, navigate the enrolment systems and connect them with other support and their peer group.

Wider outcomes and impacts

The business skills, and other training courses were seen as entry routes to the support offered by Farming Connect. The practical innovation and business development and diversification advice was valued but so too was the ability to connect with experts, other farmers and with a wider network in the agricultural sector. One farmer said that Farming Connect made them feel valued and that their government recognised the important work that they do.

Lessons and conclusions

Learners were all aware of Farming Connect and saw this as their first and main source of business skills and training support beyond paid-for services from their accountant or possibly their Union. They trusted the Farming Connect services and considered the training providers to be high quality, credible and useful. Learners who might otherwise not consider training to be relevant for them relied on their personal relationships with the providers themselves alongside the Farming Connect development officers. The joined-up approach by both was vital to generating interest and promoting uptake of training opportunities. Three important issues were raised where there was scope for improvement.

- The Skills Store was mentioned by strategic stakeholders but not by trainees. The benefits of this for assurance schemes should be built into training programmes with appropriate communication and marketing
- The training offer should continue to promote health and safety aspects across all training programme but mental health benefits of learning, connecting with their community and accessing help, were mentioned by some farmers and these could be foregrounded in the programme
- Encouragement and support of family learning so that more than one member of a family is encouraged to attend training sessions should be promoted to enhance the sustainability and resilience of farming businesses.

Technical and Machinery and Equipment Training Case Study

Introduction

Farming Connect offers individuals registered with the Programme, the opportunity to access funding for short accredited training courses. Over 30 training courses are supported within the Lifelong Learning and Development Programme, which is delivered by 23 training organisations across Wales.

Coverage of case study

This case study focuses on two training providers that deliver the **Safe Use of Pesticide courses** and a training provider that coordinates and delivers the **Machine Sheep Shearing courses (Categories 2 and 3 respectively)**. Two of the three were interviewed during Phase 1 and Phase 2 of the evaluation, however one training provider was only available for interview during the Phase 1 fieldwork.

The case study also includes the views and experiences gathered from interviews undertaken with training participants, three of whom had participated in the Machine sheep shearing course and two in the Safe use of pesticide courses. Two of the sheep shearing participants were only available for interview during the Phase 1 interviews; one sheep shearing participant was only available for interview during Phase 2; one of the safe use of pesticides course participants was interviewed during both phases and the other safe use of pesticides training was interviewed in Phase 2 only.

Delivery of support

The Safe use of pesticides course is delivered over three days usually within the training provider's centre. The first day is a group, classroom-based training session focussing on safe use of pesticides theory. This is then assessed through an online test which farmers must complete. The second day is the practical session. There is some variation in how this is delivered depending on the type of equipment individuals want to focus on e.g. boom sprayer, knapsack sprayer. The third day includes a $2\frac{1}{2}$ hour one-to-one assessment accredited by City and Guilds.

The Machine sheep shearing courses are delivered over two days, focussing on different shearing techniques each day. The training usually takes place on a farm rather than in a training centre. These courses are only delivered during June and July, the main sheep shearing season in Wales, limiting opportunities for take up compared to other, all year round, training programmes.

Farmers who engaged with the Safe use of pesticides course did so in response to legislation requiring all users of professional plant protection products (PPP) including pesticides, to be certified. Farmers who engaged with the Machine sheep shearing courses did so for reasons, including: the opportunity to develop or improve skills in shearing their

own sheep and reduce the cost of hiring contractors; the opportunity to improve skills and shear sheep for other farms, thereby generating additional income – in one case, with the aim of developing skills that would enable them to contract shear all season.

Effectiveness of delivery

Training participants included in this case study either gained information and applied for training course directly through the Farming Connect website, or as a result of information provided by their local Farming Connect development officer. Participants were of the view that these processes worked well. Training providers were also satisfied with the application process although the Safe use of pesticides training providers noted that farmers were not always aware from the information they gained from the website that they were required to apply for two parts of the course (practical and theory) in order to gain the required certification. These providers therefore had to contact farmers who applied via the Farming Connect website to make sure they had applied for both parts.

The two training providers that deliver Safe use of pesticides noted that the completion of the PDP was an important part of ensuring that the farmers accessed the training that best suited their needs. These two training providers also provide PDP completion sessions for farmers and these sessions also helped farmers to carefully consider what training they could realistically commit to within the nine-month funding period.

The provider who coordinated and delivered the sheep shearing training also agreed that the Farming Connect application process worked well, but placed less emphasis on the importance of completing the PDP. All three providers noted that farmers sometimes contact them directly in order to apply for the courses. When this happened, the providers redirected the farmer back to Farming Connect and suggested they apply drawing on the funding available through the programme. Providers did not consider this initial approach as an issue, on the contrary, it provided an opportunity to inform farmers about the training available and the time commitment required from them.

Barriers to delivery

No significant barriers to delivering these training courses became evident. However, all three providers noted that they found the administration processes involved in confirming receipt of payment slightly laborious. The relative narrow window of time (two months) within which the sheep shearing training limits the availability of training opportunities. The provider noted that farmers are not always aware that they need to apply for funding and register for the course during the autumn / winter in order to ensure funding for a place the following summer. Some farmers apply in May, when it's too late to get a place on a course the following month and funding applied for then will have expired by the following year. Therefore, timing of application is very important.

Fit with the wider Farming Connect offer and other programmes

One provider saw this training as a gateway to other Farming Connect support. Another was of the view that causation worked primarily in the other direction: activities such as Discussion Groups provided the opportunity to raise awareness of training opportunities.

The extent to which training participants had engaged with other Farming Connect programmes as well as the training under review varied: some had engaged with other Farming Connect services, others had not. There were no specific linkages between these training courses and other strands in the wider Farming Connect offer, and most participants included in this case study identified and undertook the training to meet immediate needs, rather than as a progression from or to other areas of support. Similarly, those who had accessed other Farming Connect services had done so as a result of other information, or identifying their need for guidance or support in that area.

Implementation

The practical on-farm focus of the training courses meant that participating farmers could apply the skills and knowledge they gained to day-to-day practice with immediate effect. Although many of those attending Safe use of pesticides did so because of new legislation requirements, all reported that they had learnt new skills that enabled to implemented safer practices as well as processes that improved efficiency in relation to pesticide application rates.

Those attending the Machine sheep shearing course also noted that they could shear their own sheep as soon as they completed the course. Also, they had developed improved sheep handling techniques which improved the welfare of their animals.

Outcomes and impacts for beneficiaries

The outcomes and impacts of the training experienced by those who participated in the courses varied. Most agreed that they had gained some positive benefits as a result of the training. However, some felt that some elements of the training were not relevant to them.

The ability to introduce new or different practices with immediate effect enabled participants to reduce costs. This was particularly apparent for those who attended the sheep shearing course who, after the training, could shear their own sheep instead of paying contractors to come on to the farm to do the job for them. Examples were also given of some training participants who had used the skills they had learnt to shear the sheep of neighbouring farms and generating some additional income in the process.

Those attending the Safe use of pesticides also reported benefits in relation to adopting safer practices as well as cost savings resulting from more efficient use of pesticides. Overall the outcomes and benefits gained by those attending the training were modest, but they were attributed directly to the training and gained with almost immediate effect.

Some of the training participants included in this case study had also undertaken other training courses including foot trimming and online VAT submission courses. These resulted in similar benefits, with costs reduced through less reliance on the need for external support services to undertake specific tasks.

Those who had also accessed other areas of support delivered by Farming Connect, such as Nutrient Management Plans, farm visits and Discussion Groups, noted that they had introduced some new practices which they expected to impact positively on the performance of their business but may not have done so yet. As such it was difficult to assess which type of support was likely to be most effective in bringing about longer term benefits.

Additionality and contribution

Almost all participants agreed that the additional skills and changes in practices they have introduced as a result of the training, would not have taken place, or at least would have taken longer to develop without the training. Most had experienced reduced costs already as a result of the training and expected this to contribute to improved profitability of their business in the future.

Those who had accessed other areas of Farming Connect support also expected the skills and knowledge they had gained through those to have a positive effect on their future productivity, turnover and profitability.

Lessons and implications

The training courses included here have generated positive impacts for most participants reducing their costs, and enhancing safe practices and animal welfare. The process of accessing the training was usually straight forward although some found navigating around the website to be challenging at times.

The case study findings indicated that links between Farming Connect-funded training and certification in specific areas and other support offered by the programme were less than obvious: this is an area that could be strengthened.

Annex C: Case study respondent characteristics

C.1 In the table below, we characterise the beneficiaries consulted in the Phase 2 case studies, and compare this (where questions are the same) to Menter a Busnes' 2019 "baseline survey" results.

Figure C-1: Characteristics of beneficiaries from the beneficiary case studies and

2019 survey

Characteristics	Case study beneficiary feedback*			2019 survey**				
	Yes	o Z	A/A	Total	Yes	o Z	N/A	Total
Clear ambition	58%	36%	6%	36	72%	27%	0%	705
Benchmarking undertaken	58%	28%	14%	36	50%	0%	67%	706
Succession plan in place	33%	42%	25%	36	44%	49%	8%	705
Nutrient management plan	58%	33%	8.3%	36	75%	25%	0%	592
Animal health monitoring	56%	25%	19%	36	69%	31%	0%	592
Business plan	42%	50%	8%	36	19%	79%	1%	705
Electronic software used	28%	50%	22%	36	29%	70%	1%	704
Assurance or accreditation scheme(s) member	50%	31%	19%	36	71%	29%	0%	280

Source: SQW (n=36)*

Source: Farming Connect 2019 (n=706)**

Annex D: Additional monitoring data analysis for programme refresh period Farming Connect Refresh programme: spend and outputs profile 2019-2022

- D.1 In this section we present data on spend and outputs for the programme refresh (August 2019 to August 2022) in order to provide a brief overview of progress to date. The data covers the period from 20 August 2019 up to July 2020.
 - Spend on Knowledge Transfer and Advisory Services delivered by MaB (2019-2022)
- D.2 By July 2020, just over £5.4m had been spent on the delivery of the Farming Connect refresh programme, compared to a lifetime forecast expenditure of £20.7m. Table D-1 below shows that spend up to July 2020 was on track, at 99% of forecast.¹⁰⁸ Below, we disaggregate spend to date across the Farming Connect Lots and activities.

Table D-1: Programme spend (August 2019-August 2022)

2010	1,400,002	3070	2,021,404	4,200,047
Lot 3	1,438,582	98%	2,821,464	4,260,047
Lot 2	388,129	97%	1,408,178	1,796,307
Lot 1	3,634,991	99%	11,020,818	14,655,810
			2019)	
			from pre Aug	
			under/overspend	
		2020)	(includes	
	2020)	2019 – July	period (Aug 2022)	period (A+C)
	2019 - July	date (Aug	programme	programme
	date (Aug	spend to	end of	end of
	Spend to	forecast	forecast spend to	expenditure by
Category	A: Total	B: % of	C: Remaining	Total expected

Source: MaB and Lantra (received 10th September 2020)

D.3 To date, expenditure under Lot 1 has totalled £3.6m accounting for 99% of forecast spend over the period. Programme running costs accounted for the majority of spend to July 2020 (75%). Spend on Discussion Groups and one-to-one Surgeries and Clinics have been the highest spend activities to date. Over the remaining delivery period, an additional spend of £11m is forecast (see Table D-2).

¹⁰⁸ The forecast spend figures are as per July's (2020) reprofile.

D.4 Under Lot 3, total spend to July 2020 was £1.4m, equivalent to 98% of forecast spend over the period. Half the spend to date has been on group training, with a third on one-to-one advice (38%). A further £2.8m is forecast to be spent on Lot 3 activities by the end of the programme (see Table D-3).

Table D-2: Lot 1 programme spend (August 2019-August 2022)

Category		A: Total	B: % of	C:	Total
		Spend to	forecast	Remaining	expected
		date (Aug	spend to	forecast	expenditure
		2019 –	date (Aug	spend to	by end of
		July 2020)	2019 - July	end of	programme
			2020)	programme	period
				period	(A+C)
				(Aug 2022)	
Programme Running Costs	These costs include the provision of delivery staff and service centre staff that promote and administer all of Farming Connect (across all three lots)	2,714,838	100%	7,592,799	10,307,637
Development and Mentoring	Young leaders and business innovators One-to-one farm/forestry Mentoring Action Learning Venture Farm and forestry Management Exchange and short term visits	241,719	99%	515,926	757,645
Technical Activities	Demonstration Network Information Hub	369,384	94%	1,631,958	2,001,342
Events and One- to-one support	Discussion Groups Diversification awareness events Welsh language events One-to-one Surgeries and Clinics Strategic Awareness	198,199	103%	782,268	980,467
Communication	This covers communication and marketing for the whole	110,851	100%	492,019	602,870

programme (i.e. Lots 1, 2, and 3), and includes translation costs and attending shows and exhibitions.

Adjustment for - - - 5,848 under/overspend pre August 2019

Lot 1 Total 3,634,991 99% 11,014,970 14,655,810

Source: MaB (received 16th December 2020)

Table D-3: Lot 3 programme spend (August 2019-August 2022)

2019 Lot 3 total	1,438,582	98%	2,758,477	25,902	4,260,047
overspend pre August					
Adjustment for under/					37,085
Benchmarking	983	100%	2,885	-	3,868
Groups	2,222		, -		, , , , , ,
EIP - Operational	146,508	100%	466,046	44	612,998
Group Training	718,661	99%	1,383,148	9,196	2,111,005
One-to-One Advice	554,310	97%	901,541	15,872	1,471,723
Programme Running Costs	18,121	98%	4,857	390	23,368
Dragona a Dunaia a	10.404	2020)	4.057	200	22.200
		July		ends	(A+C+D)
		2019 –	2022)	programme	period
		(Aug	period (Aug	before	programme
	2020)	date	of programme	utilised	by end of
	2019 - July	spend to	spend to end	to be	expenditure
	to date (Aug	forecast	forecast	underspend	expected
Category	A: Total Spend	B: % of	C: Remaining	D: Current	Total

Source: MaB (received 16th December 2020)

Spend on training provision delivered by Lantra (2019-2022)

D.5 Total spend under Lot 2 totalled £388K between August 2019 and July 2020, compared to a programme period target of £441K (88% of forecast). The majority of spend to date has been on programme running costs (50%) and short course

accredited training (41%). An additional spend of £1.4m is forecast over the remaining delivery period, equating to a total lifetime spend of £1.79m.

Table D-4: Lot 2 programme spend (August 2019-August 2022)

Category	A: Total	B: % of	C: Remaining	Total expected
	Spend to	forecast	forecast spend	expenditure by
	date (Aug	spend to date	to end of	end of
	2019 - July	(Aug 2019 –	programme	programme
	2020)	July 2020)	period (Aug	period (A+C)
			2022)	
Programme Running Costs	194,415	91%	655,848	850,263
Short Course Accredited	159,177	90%	591,867	751,044
Training				
Accredited e-learning	34,537	68%	160,463	195,000
Personal Development Plans	n/a	n/a	n/a	n/a
Lot 2 total	388,129	88%	1,408,178	1,796,307

Source: Lantra (received 10th September 2020)

Profile of outputs – programme refresh

- D.6 Over the period August 2019 to July 2020, good progress was made towards delivering target outputs under Lot 1; nearly three quarters of the annual target outputs (thirteen out of eighteen) were achieved or exceeded with one month remaining of the delivery period. The programme target for factsheets and guidance has already been exceeded, with two years of the delivery period remaining. Some activity has been affected by the COVID-19 pandemic, particularly shows and exhibitions, which is reflected in lower than expected outputs to date (see Table D-5). However, the programme has adapted by delivering some activity via webinars (including Demonstration Events and Strategic Awareness Events), and increasing other activities, such as Surgeries, to compensate.
- D.7 Lot 2 similarly made good progress against all annual output targets with the aggregated target for face to face training and e-learning, and the target for Personal Development Plans, exceeded by July. Twenty-three new e-learning training modules have been delivered to date against a programme target of 88 (see Table D-6).
- D.8 Table D-7 shows outputs under Lot 3. By July 2020, the annual target for group instances of advice claimed had been greatly exceeded (302%). In addition, sixteen

joint ventures were achieved. However, to date there has been slower progress towards the annual target of 800 one-to-one advice sessions.

Table D-5: Lot 1 programme outputs (August 2019-August 2022)

Description	Programme	Annual	Achieved	% achieved
	target	target	(20 th Aug	against
	(2019-		2019 –	annual
	2022)		end July	target
			2020)	
Agri Academy	4	2	2	100%
Mentoring Programme	210	70	104	149%
Demonstration Network	240	80	85	106%
Shows and Exhibitions	48	16	4	25%
Factsheets and Guidance	18	6	40	667%
Technical Publications	16	6	5	83%
Technical Articles and Press Released	280	100	105	105%
E-Bulletin	33	11	11	100%
Case studies	23	8	10	125%
Videos	81	27	35	130%
Discussion Groups Established	30 groups	10 groups	24	240%
Strategic Awareness Events	262	90	83	92%
Diversification Seminar	9	3	4	133%
Agrisgôp	65 groups	30 groups	20	67%
One-to-one Surgeries	180	60	119	198%
Clinic	420	144	154	107%
Management Exchange	16	8	6	75%
Farm and Forest visits	18	6	6	100%

Source: MaB (received 10th September 2020)

Table D-6: Lot 2 programme outputs (August 2019-August 2022)

Description	Programme	Annual	Achieved	% achieved
	target	target	(Aug 2019-	against
	(2019-		July 2020)	annual
	2022)			target
Instances of completed one-to-one	4,500	1,500	879	118%
accredited training				
Instances of completed on-line e-			893	
leaning				
Instances of e-learning excl. H&S			499	
Instances of H&S			394	
Personal Development Plans	2,400	800	888	111%
New e-learning training modules	88	n/a	23	26%*
produced				

Source: Lantra (received 12th August 2020) *% of programme target

Table D-7: Lot 3 programme outputs (August 2019-August 2022)

Description	Programme	Annual	Achieved	% achieved
	target (2019-	target	(20th Aug 2019 -	against
	2022)		end July 2020)	annual
				target
One-to-One instances of	Year 5 – 1,000	1,000	1,167	117%
advice claimed	Year 6 – 1,000			
Group Instances of advice	Year 7 – TBA			
claimed	subject to			
	budget			
EIP projects	45 projects over	n/a	12	n/a
	duration of			
	programme			

Source: MaB (received 10th September 2020)

Annex E: International Comparator Review – detailed review of programmes

E.1 Table E-1 summaries the 26 programmes reviewed for the international comparator review. The Table provides details of the programmes reviewed, including the lead organisation, the amount and source of funding, the target audience and the key activities as part of the project.

Method

E.2 The method involved a web-based search and a review of relevant documentation. A longlist of 55 programmes was drawn up, from which a shortlist was chosen based on programmes which were most relevant to the aims and delivery mechanisms of Farming Connect. The 26 shortlisted programmes were reviewed in full against 18 questions focusing on the characteristics of the programme and any evaluation evidence, including outcomes and impacts, what works well or less well, factors that have influenced progress and lessons learnt.

Table E-1: Summary of programmes reviewed

Programme	Delivery organisation type	Delivery Period	Amount and source of funding	Target audience	Activities
United Kingdom					
The Prince's Farm Resilience Programme ¹⁰⁹	Charity	Ongoing (started 2016)	Prince's Countryside Fund: amount unknown	Agriculture industry	 15 groups of 20 farm businesses annually: Seven workshops on business skills, including business planning, accounts, budgets and environmental planning Business Health Check Tool (one-to-one)
The Farmer Network ¹¹⁰	Private sector	Ongoing (started 2001)	No information	Agriculture	 Provide farmers with help and support by through various activities: Providing connections to farming communities Support available through the network include soil sampling service, training vouchers, farming ambition programme
England					
Tried and Tested ¹¹¹	Partnership ¹¹²	Ongoing (started 2013)	-	Agriculture (famers)	 The programme delivers a range of materials to farmers: Basic best practice guidance on nutrient management on farms Tried & Tested Nutrient Management Plan Soil Nutrient Supply (SNS) calculator
Catchment Sensitive Farming Project ¹¹³	Partnership	Ongoing (started 2005)	No information	Agriculture (farmers)	Practical and targeted support for farmers and land managers provided by Catchment Sensitive Farming Officers: Workshops and demonstrations Farm walks and events Individual farm appraisals, with one-to-one advice

¹⁰⁹ The Prince's Farm Resilience Programme
110 The Farmer Network
111 Tried and Tested
112 Tried and Tested - Our supporters
113 Catchment Sensitive Farming – Reduce water and air pollution

Programme	Delivery organisation type	Delivery Period	Amount and source of funding	Target audience	Activities
					 Capital grants, at up to 60% of the total funding, to deliver improvements in farm infrastructure
Water and Integrated Local Delivery (WILD)	Partnership ¹¹⁴	2012 to 2016	Grant funding secured from other partners/funding bodies: £242,000	Agriculture industry (farmers and landowners) and local communities	 Project Officers visit all farms, small holdings and relevant landowners in the catchment Project Manager will provide advice to farmers and landowners
Scotland					
Monitor Farm Programme	Partnership	2016 to 2019	Scottish Government and European Union's Knowledge Transfer and Innovation Fund: £1.25 million ¹¹⁵	Agriculture (farmers)	 Nine farms will be monitored across Scotland: A dedicated Management Team and associated Business Group for each farm to evaluate solutions and best practice Farms will share their findings with wider Community Groups and through various media channels including a dedicated website
Northern Ireland					<u> </u>
Higher level education for farm heads	Public sector	? to 2025	No information	Agriculture industry	Increased in and promotion of University courses
Ireland					
Agricultural Sustainability Support and Advisory Programme ¹¹⁶	Public sector	2018 to 2021	Departments of Agriculture, Food and the Marine and of Housing, Planning and Local Government, and Dairy Sustainability Ireland: amount not found	Agriculture industry (crop and dairy farmers)	 The programme provides one-to-one, free and personalised support through various activities, including: Advisors assess the farmyard, nutrient management practices and general farm land management practices The advisor and farmer agree on improvements and actions, creating a written summary and timeframe for completion

Overview of the Water and Integrated Local Delivery (WILD) project
 Monitor Farm Scotland
 Agricultural Sustainability Support and Advisory Programme (ASSAP)

Programme	Delivery organisation type	Delivery Period	Amount and source of funding	Target audience	Activities
Monitor Farms Programme - Focus on Profit programme ¹¹⁷	Partnership	2018 to 2020	No information	Agriculture industry (livestock and dairy farmers)	 Ten Monitor farms and five heavy soil farms established Discussion group programme between farms Targeted campaigns on grazing management, soil fertility, milk quality and farm systems Farm Info-Zone initiative to enhance programme participation among all suppliers
BETTER Farm Crops Programme ¹¹⁸	Public sector	2010 to 2013 and 2014 to 2017/18	No information	Agriculture (tillage farmers)	 Tillage farms are selected based on the resources available: Initial interviews to identify concern areas and aims Financial analysis of the farm Action plan developed Knowledge transfer facilitated between Teagasc advisors, specialists and researchers and the farms
Options for Farm Families Programme ¹¹⁹	Public sector	Ongoing (started 2019)	No information	Agriculture industry	The programme is delivered through workshops, with farms invited to attend option courses in their local area
Agricultural Catchment Programme	Public sector	2008 to 2023 (now in Phase 4 started 2019)	The Department of Agriculture, Good and the Marine: Phase 3 funding €1.56 million per annum ¹²⁰	Agriculture (livestock and crop farmers)	 6 catchments (300 farmers) identified by the programme: Agricultural adviser and a technician provide technical and advisory support Farm management data is collected and analysed by a soil scientist, hydro-geochemist and environmental hydrologist Socio-economist reflects on awareness and attitudes toward water quality, measures in place and their economic impact

¹¹⁷ Monitor Farms – Teagasc/Kerry Agribusiness Monitor Farms 2016-2019
118 Better Farm Crops Programme – Programme Report 2010-2012/3
119 Teasgasc Options Programme
120 Agricultural Catchments Programme gets green light to 2023

Programme	Delivery organisation type	Delivery Period	Amount and source of funding	Target audience	Activities
Australia					
Behavioural training in agriculture ¹²¹	Private sector	Ongoing	N/A farmers pay for service	Agriculture industry (farmers)	 Training focused on improving psychological understanding Practical toolkit regarding social and behavioural skills and improving work and everyday outcomes Behavioural science training including programme design and implementation
Farming Together (Farm Co-operatives and Collaboration Pilot Programme)	Public sector	January 2017 to June 2018	Federal Government: \$14,934,000 ¹²²	Agriculture industry (farmers, fishers and foresters)	 Farmers submit a project idea and receive consultancy support in developing and refining a formal project plan. Service consultations are provided by experts, with expertise in legal, strategic planning, marketing, group facilitation and other professional services Farmers then submit a business proposal and apply for up to \$175,000 grant Further support can then also be assigned where required, for example with supply chain integration, marketing, web development, networking and membership drives, workshop facilitation, risk analysis or on-farm processing
Rural Research and Development for Profit	Public sector	2015 to 2022	Department of Agriculture and Water Resources: \$180.5 million ¹²³	Agriculture industry	Funded activities include: the creation of regional networks, assisting farmers to overcome barriers to make changes, facilitating knowledge sharing, create transferable outputs to address the identified needs of farmers and boost farmer confidence to allow collaboration with others
Canada					

Behavioural training in Agriculture
 Growing your future through collaboration
 Evaluation of the Rural Research and Development (R&D) For Profit Programme

Programme	Delivery organisation type	Delivery Period	Amount and source of funding	Target audience	Activities
Agriculture Clean Technology Programme	Public sector	2018 to 2021	Agriculture and Agri-Food Canada: \$25 million ¹²⁴	Agriculture industry	Provision of non-repayable, federal contributions to enable the implementation and delivery of clean technology projects.
AgriInnovate ¹²⁵	Public sector	2018 to 2023	Government funded: amount unknown	Agriculture industry - for-profit organisations	Activities to encourage the commercialization, adoption and demonstration of innovative agricultural, agri-food or agri-based products, technologies, processes or services.
AgriScience Programme ¹²⁶	Public sector	2018 to 2023	Government funded: amount unknown	Agriculture - for- profit and not- for-profit organisations	Activities ranging from applied research and development to technology and knowledge transfer.
Denmark					
Precision agriculture ¹²⁷	Public Sector	Ongoing initiative rather than programme	N/A	Agriculture industry (farmers)	-
Rural Development Programme for Denmark	Public Sector	2014 to 2020	EU Budget: €919 million and national contribution: €277 million ¹²⁸	Agriculture industry (farmers)	 Investment in environmentally friendly farm practices, for example: Support for new farm machinery and equipment Establishment of wetlands for extracting nitrogen and phosphorous from drain water Afforestation to enhance the environment and promote the attractiveness of the landscape
New Zealand					· ·

Agricultural Clean Technology Program: Research and innovation Stream
 Agrilnnovate Program: Applicant guide
 AgriScience Program – Projects: Applicant guide
 Danish Farmers earn €18/ha with precision agriculture
 Factsheet on 2014-2020 Rural Development Programme for Denmark

Programme	Delivery organisation type	Delivery Period	Amount and source of funding	Target audience	Activities
Use of Agritech	ech Public sector Ongoing Publicly funded: Agriculture amount unknown ¹²⁹ industry		0	 This programme includes various projects and activities in parallel with the sector focused on responding to challenges and activities. R&D programmes and innovation Opening up of the market and creation of links between farmers 	
Sustainable Farming Fund Projects	Public sector	Ongoing (started 2000)	Ministry of Primary Industries: \$135 million ¹³⁰	Agriculture industry (farmers, foresters and aquaculture)	Funding provided for farmer-led projects, with up to \$200,000 invested in each project per annum
The Netherlands					
Circular agriculture ¹³¹	Public sector	Ongoing (started 2018)	No information	Agriculture (crop and livestock farmers and aquaculture)	 Build on existing initiatives, improve legislations, regulations, knowledge, innovation and financial improvements Link farmers, stakeholders and companies to facilitate this process, whilst standing by farmers to support them Funds, subsidies, credit and deductions could also be offered to farmers, stakeholders and companies moving towards circular supply chains
Multi Actor Farm Health Plans (DISARM) ¹³²	Partnership	Ongoing (started 2019)	No information	Agriculture (livestock farmers)	 The programme will be modelled on 40 farms: Baseline farm assessment and development of a farm health plan, which is implemented by the farm Interim and end review of plan implementation Each farm will host a one-day farm visit for the other farm teams in their country

¹²⁹ Agritech in New Zealand: Towards an Industry Transformation plan
130 New Sustainable Farming Fund projects announced
131 Agrilculture, nature and food: Valuable and connected – The Netherlands as a leader in circular agriculture
132 Multi-Actor Farm Health Plans

Programme	Delivery organisation type	Delivery Period	Amount and source of funding	Target audience	Activities			
Food Valley ¹³³	Private sector	Ongoing (started 2004)	No information	Agriculture industry (agri-food businesses)	 Activities (conferences and meetings focused of sharing information and networking) Services (one on one services to members like helping findings innovation partners or with applying for subsidies) Information sources (e.g. websites and newsletters and other publications) 			
USA								
New Entry Sustainable Farming Project ¹³⁴	University	Ongoing (started 2011)	No information	Agriculture industry (immigrant and refugee farmers in Massachusetts)	 New Entry activities include: Workshops on various topics Business Planning Course Incubator Farm provides farmers with a small plo after they have completed a business plan, tools, infrastructure and technical assistance 			

Source: SQW

¹³³ Food Valley
134 New Entry Sustainable Farming Project

Annex F: Social media activities

F.1 Social media monitoring was undertaken as part of the evaluation, to provide supplementary data on overall and changing interest in the programme, and where there was high engagement. This was 'snapshot' based rather than full coverage of social media activity relating to Farming Connect. Press Data has undertaken a second review of social media activities comparing data covering Q4 2018/Q1 2019 (presented in the Phase 1 report) with Q4 2019/Q1 2020. The detailed results are presented below.

Channel monitoring

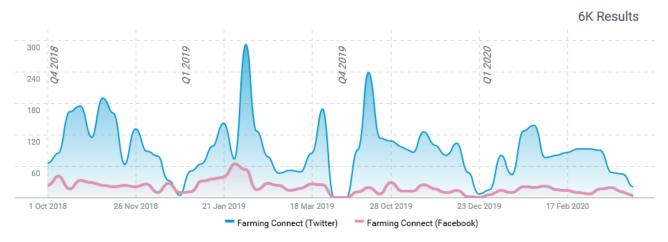
F.2 The data presented in this section cover activity on Farming Connect's Twitter and Facebook accounts¹³⁵.

Channel results over time

F.3 During the reporting period, there were approximately 6,000 Twitter and Facebook results¹³⁶. Twitter has dominated social media activity accounting for 83% of results, with the remaining 17% on Facebook.
Within the periods analysed, Twitter results fluctuated over time with a low of 215 results in December 2018 and a peak of 643 in October 2019. The seasonal pattern in both periods shows peaks in activity on Twitter during October and November, and lower levels over the winter months. In comparison, activity on Facebook remained

fairly constant throughout the reporting periods (see Figure F-1).

Figure F-1: Twitter and Facebook results over time



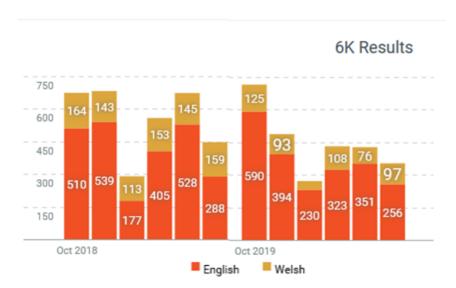
Source: Press Data

¹³⁵ Facebook: <u>Farming Connect</u>. Twitter: <u>@FarmingConnect</u> and <u>@cyswlltffermio</u>

¹³⁶ Results refers to the volume of content published

F.4 Figure F-2 shows that over the reporting period the majority of activity on Farming Connect's Facebook and Twitter channels has been in English, but Welsh has consistently accounted for about a quarter of all results.

Figure F-2: Channel results by language



Source: Press Data. Note, figures include both Twitter and Facebook.

Reach and engagement

- F.5 Reach is the number of people who see the published content, whilst, engagement is the number of user interactions with the content (for example, likes, comments, shares, retweets etc.). Over the reporting period, the reach of Farming Connect's Twitter profile peaked in October 2018 and then again in October 2019 at 1.8m, whilst Facebook's reach peaked in January 2019 (472.2k).
- F.6 Engagement totalled 15,776 over the quarters monitored. Engagement has followed a similar trend to the volume of posts (see the section above), with Twitter engagement highest in October/November in both 2018 and 2019. There was also a peak in February 2019 (1.1k), but this was not repeated the following year. Facebook engagement was lower over October 2019-March 2020, compared to October 2018-March 2019 (see Table F-3).

Table F-3: Engagement versus reach (Twitter and Facebook)

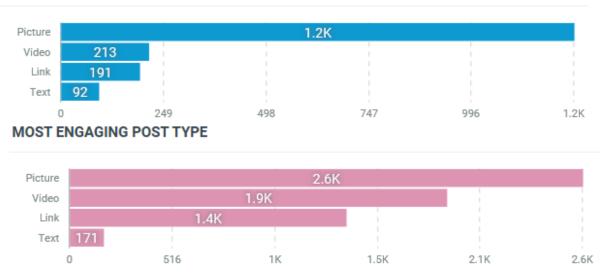
	2018			2019				2020				
	Oct	Nov	Dec	Jan	Feb	March	Oct	Nov	Dec	Jan	Feb	March
Twitter												
Engagement	1014	1137	284	629	1093	553	1316	642	400	501	422	472
Reach	1.8M	1.7M	568k	1.3M	1.7M	1.1M	1.8M	1.4M	738k	1.4M	1.4M	1.4M
Facebook												
Engagement	746	509	320	943	748	667	380	331	136	531	247	472
Reach	492k	466k	370k	472k	440k	273k	358k	485k	201k	370k	329.8k	374k

Source: Press Data

F.7 Pictures have been the most engaging type of post or tweet across both Farming Connect Twitter and Facebook channels (see Figure F-4).

Figure F-4: Most engaging post/tweet type

MOST ENGAGING TWEET TYPE



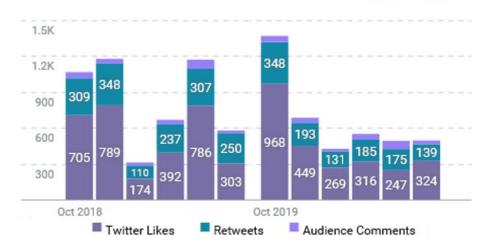
Source: Press Data

F.8 Figure F-5 shows how individuals have engaged with Farming Connect's Tweets.

Likes were consistently the most common form of engagement through the reporting periods, followed by retweets. In comparison, audience comments accounted for a small proportion of engagement.

Figure F-5: Twitter - type of engagement





Leading channel posts

F.9 Data on the top 25 channel posts over the reporting period (i.e. the posts with highest engagement), show that a high proportion focused on the Agri Academy, including information about the application process and Agri Academy alumni sharing their experiences. Seventeen of the top 25 were from Facebook, with the remaining eight Tweets.

Topic monitoring

F.10 The data presented in this section relates to a wider search of social media activity covering the topics 'Farming Connect' and 'Cyswllt Ffermio'.

Topic results over time

F.11 During the reporting periods, there were approximately 5,500 social media results including the topics 'Farming Connect' and 'Cyswllt Ffermio'. October 2019 saw the greater number of results by month at 690, with the lowest number of results in December 2018. Comparing Q4 2018/Q1 2019 with Q4 2019/Q1 2020, activity has followed a similar trend with peaks in activity during October and November and comparatively less activity over the winter months (particularly December) (see Figure F-6).

Figure F-6: Topic results over time



F.12 Figure D6 below shows that over the reporting period the majority of content has been in English rather than Welsh; the proportions similar to those found for overall activity (above).

Figure F-7: Topic results by language



Source: Press Data

F.13 Figures F-8 and F-9 provide a breakdown of individuals engaging with posts related to the topic of Farming Connect. Note, this data is incomplete, with information on gender and age not available for all individuals and information on gender more frequently available than age. Across all quarters, there was higher engagement by males than females, and by younger age cohorts. Engagement has been particularly strong among individuals aged 25-34, but those in the 18-24 and 35-44 age groups also accounted for a substantial proportion of the total. Those aged over 45 accounted for only c.7% of all engagements, and the data available here do not show any evidence of growth over time.

Figure F-8: Engagement by gender



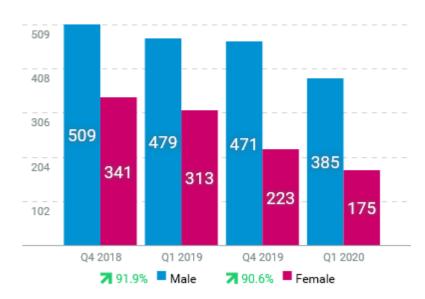
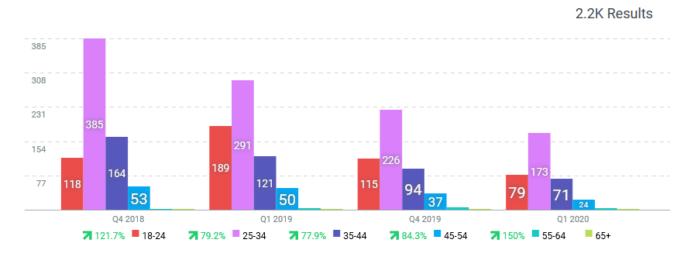


Figure F-9: Engagement by age



Source: Press Data

F.14 The top twenty-five influencers are shown in the figure below. Comparison of the top influencers with the Phase 1 report shows that twenty of the top twenty-five influencers have remained the same. In general, it is common for the top influencers across all industries (including agriculture) to remain similar, because the standard approach is to rank according to reach (i.e. the number of individuals who see their content), rather than other factors such as engagement or number of posts.

Therefore, an individual with a wide reach/following will rank higher than an individual with a lower reach but a higher number of posts/higher engagement.

Figure F-10: Top 25 influencers

Influencer 🔼	Network	Posts ↓	Sentiment	Reach	Reach per mention	Engagement	Engagement per menti
Farming Conne @FarmingConnect	y	962 718.3%		4.7M	4.9K	1.7K	1.8 ¥-3.2%
Farming Conne	•	584		4.6M	7.9K	6K	10.3
facebook.com	O	728.6%		7 28.7%	7.510	738.6%	77.8%
Geraint Hughes @MadrynFoods	y	106 ∠ -3,6%		487.6K	4.6K	320	3 73.8%
Llŷr Derwydd 446 @LlyrDerwydd	y	61	_	114.3K	1.9K	251	4.1
		7 32.6% 49		731.7% 456.8K	¥-0.7% 9.3K	∠ -8.7%	¥-31.2% 1.8
Welsh Govern @WGEnviroAgri	y	49 7 16.7%		430.0K	¥-1.3%	∠ -24.6%	I.O ⊯-35.4%
Wales Rural Ne		48		73.5K	1.5K	8	0.2
@WalesRuralNet	y	Ľ -22.6%		Ľ -22.6%	11010	Ľ -63.6%	∠ -53%
Grŵp NPTC Gr	y	45 79.8%		205.6K	4.6K	0	0
Dr Edward Tho		44		37.5K	851.6	110	2.5
@EThomasJones	y	7 157.1%		761.6%	72.8%	7 26.4%	Ľ -19.5%
Aled Rhys Jones	y	43		102K	2.4K	247	5.7
@AledTyllwyd	•	Ľ -17.3%		Ľ -17.6%		∠ -37.5%	Ľ -24.4%
AHDB Dairy	₩	37		451.3K	12.2K	148	4
@AHDB_Dairy	_	7 5.7%		78.2%	712.3%	∠ -8.6%	Ľ -13.6%
Food & Farmin @FarmingFutures	y	35 7 6.1%		815.5K	23.3K	36 ⊭ -5.3%	1 ⊯-10.7%
hcc	₩	35		137.6K	3.9K	41	1.2
@HybuCigCymru	•	7 6.1%		716%		7 32.3%	7 24.7%
Horticulture W @HortWales	y	35	_	82.1K	2.3K	25	0.7 756.3%
nigel pugh 😚	w	29	_	138.3K	4.8K	47	1.6
@nspugh	•	7866.7%		7824%	Ľ -4.4%	7 12.3K%	7143.1%
Elizabeth West		29		177.4K	6.1K	9	0.3
@EWestaway		7 93.3%		786.4%	Ľ -3.6%	7125%	716.4%
WG Farming &	y	27		44.6K	1.7K	16	0.6
@WG_FarmingFood		7 50%		748.5%	Ľ -1%		
Jessica Willia @WelshBlackGB	y	27 742.1%		16.6K	613.4 71.7%	157 7 26.6%	5.8 ∠ -10.9%
M JIM	Sale Control	26		18.8K	722	46	1.8
@Jim_Elllis	y			71.6%	71.6%	Ľ -41%	Ľ -41%
NFU Cymru 🚜	y	26	_	165.8K	6.4K	51	2
		713%		714.1%	70.9%	796.2%	773.5%
Huw Llandre @Uandre	y	25 <u>⊀</u> -13.8%		46.9K ∠ -15.3%	1.9K Ľ -1.7%	42 75%	1.7 ≯ 21.8%
Gareth Wyn		24		532.1K	22.2K	2	0.1
@1GarethWynJon	y	Z4 741.2%		743,4%	ZZ.∠K ₹1.6%	2	U. I ⊯-29.2%
		23				22	
Woodland Trus @CoedCadw	y	Z3 735,3%		77.2K	3.4K ∠ -7.3%	33 737.5%	1.4 71.6%
Rosy-Lane Hol		23		40.6K	1.8K	7	0.3
@Rosy_Lane	y	∠3 ⊅ 2.2K%		40.0K 7 2.3K%	72.4%	,	0.3
Royal Wels		22		409.1K	18.6K	45	2
@royalwelshshow	y	ZZ 7120%		409.1K	18.6K ⊻ -0.8%	45 7650%	∠ 7 240.9%
Sara Pedersen @SaraPedersen3	y	21 775%		53.6K ₹78.1%	2.6K 71.8%	67 776.3%	3.2 70.8%