



## An analysis of capability and capacity needs of stakeholders in the transition to a net-zero and resilient land and agri-food system in Ireland

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### 1.1 Scope of work

This research aims to map and analyse the capability (skills, knowledge and resources) and capacity needs (in terms of performance) of key stakeholder groups involved in Ireland's transition to a net-zero and sustainable land, agri-food system (with specific focus on <u>EIT Climate-KIC's Deep Demonstration programme</u>), resulting in the identification of barriers and potential opportunities for improved, scaled, or new formal and non-formal learning needs.

The Deep Demonstration partnership between the <u>Irish Department of Agriculture, Food,</u> and the Marine and <u>EIT Climate-KIC</u>, Europe's largest climate innovation initiative, aims to accelerate the agri-food system's pathways to climate neutrality. EIT Climate-KIC is doing so by applying its '<u>Deep Demonstration</u>' model of innovation to the entire agri-food and bio-based value chain, from soil to farm to fork to society. This involves working with stakeholders from both public and private sectors, including finance and education, as well as civil society, to develop and deploy coordinated innovation actions that work – in practice and at scale – and to obtain insights and lessons about this portfolio of solutions.

These interventions are grouped under seven flagship areas of innovation ('flagships'), which include both immediate outcomes in dairy farm emission reduction, sustainable beef production, carbon farming and tillage, as well as long-term objectives such as investing in new value chains and alternative proteins, transforming education, and help entire regions become circular.

The overall aim of this research is to support EIT Climate-KIC to deepen their knowledge and understanding of the overall formal and non-formal education (lifelong learning) landscape in Ireland at the time of writing and to identify potential opportunities for EIT Climate-KIC's Deep Demonstration programme to build off and/or strengthen existing (or new) interventions that are working towards achieving a climate-neutral food system by 2050.

We wish to thank all participants that contributed their time to this study. All responses have been kept anonymous to protect their identities. We have attempted to represent all perspectives accurately and to the best of our ability.

## 1.2 Research objectives

Through this research, FARMEYE aims to answer the following questions:

- 1. What capability and capacity building needs have to be addressed to ensure the success of the Deep Demonstration flagship roll out over the next 3 years?
- 2. Which learning providers or experts are already doing work that aligns with the goals of each of the flagship areas?
- 3. What are the barriers to scale up, or gaps that need to be filled?

In this report, FARMEYE has defined stakeholders from across Ireland that are implicated in EIT Climate-KIC's flagship areas and projects specifically. These include a cohort of various farmer types, of agricultural consultants (sometimes referred to as advisors), and agri-corporate representatives. Food processors, retailers, researchers and policymakers have not been consulted as part of this study due to resource limitations. The FARMEYE team has conducted research around these stakeholder groups, exploring their understanding, their perspectives and their potential capability needs in terms of adopting sustainability practices. Through surveys, focus groups, and one-on-one interviews, the FARMEYE team have identified barriers and potential opportunities that relate to the uptake of relevant learning offerings.

Areas of interest in relation to sustainability include environmental protection, biodiversity growth, carbon sequestration, improved water quality, improved soil health, regenerative/ organic farming and to some extent renewable energy sources. These were identified as critical elements that relate to aims of EIT Climate-KIC's Deep Demonstration flagship areas.

Though not included in this version of the report, EIT Climate-KIC were provided with specific recommendations from this research, on how they can build off and strengthen relevant existing learning offerings in Ireland, as well as suggestions where new learning interventions are needed. All recommendations are in line with the overall goal of accelerating the knowledge, skills, and capabilities needed to deliver on EIT Climate-KIC's Deep Demonstration flagships. These recommendations are targeted at EIT Climate-KIC and the Irish government.

Complementary to this report, a database of learning providers and their respective services has been provided to EIT Climate-KIC. An example extract of this can be seen in the appendix. This data collection includes data on all available learning offerings and services (formal and non-formal education), targeted at both university students and professionals alike, that relate to promoting skills and capabilities needed for the sustainable transition of the Irish land, agri-food system today.

This research report, along with the complimentary database of learning offerings, are mapped to EIT Climate-KIC's Deep Demonstration flagship areas. The research report will place particular focus on the short-term (2030) flagships listed below:

- Flagship 4: Diversify incomes through a carbon farming and nature credit framework
- Flagship 5: Produce and certify climate-neutral beef
- Flagship 6: Accelerate emission reduction and sustainability in dairy farms

Further information on EIT Climate-KIC's Deep Demonstration programme and respective flagships can be found on their website at <u>www.climate-kic.org/SustainableFoodIreland.</u>



# Approaches & Results



## 2.1 Research approaches

A number of approaches were taken in order to gather the necessary information for this research report, with a focus on identified cohort groups, including farmers, agricultural consultants and agri-corporate representatives based in Ireland. These approaches included assessments, quantitative surveys as well as qualitative interviews and discussions. No desk or literature review has been conducted as part of this research, as the focus was on obtaining information directly from primary sources. Details of each are listed below.

#### 2.1.1. Quantitative study

This section includes online surveys carried out with farmers (87) and agricultural consultants (15) representing farming enterprises across all of the Republic of Ireland. These surveys asked all respondents about their willingness to take part in interviews after the initial survey, which then forms the basis of our qualitative study section.

The specific objectives of the farmer survey and interviews was to highlight the following:

- Where do farmers currently go to get information on environmental improvement actions on farms?
- What actions are farmers currently practising?
- What is stopping farmers from implementing these improvements?
- What would farmers like to support them on a sustainable journey?

The specific objectives of the agricultural consultant survey and interviews was to highlight:

- Where can agricultural consultants get access to information to guide their farming clients on their sustainable journey?
- What are the barriers to disseminating this knowledge?
- What gaps need to be filled to enhance the capabilities of agricultural consultants to advise their farmers on meeting climate action targets?

#### 2.1.2. Qualitative study

One-to-one interviews discussions with key agricultural corporate stakeholders, knowledge transfer experts, agricultural consultants and farming communities. After conducting the online survey, the FARMEYE team aimed to delve deeper into the thoughts of some of the survey participants.

As part of this study 6 farmers (representing beef, dairy, tillage and drystock sectors), 6 agricultural consultants, and 4 agri-corporate representatives (including a <u>Teagasc</u> <u>'Signpost Series' podcast</u> representative) were interviewed online. All the interviewees

represented each province across the country adding to the geographical spread of the feedback they reported. Each cohort had both male and female participants.

#### 2.1.3. Populating a learning provider database

The objective of this task was to populate a database of the of both formal and non-formal education and training services accessible to individuals and organisations operating within the agri-food industry. Key areas of focus included critical subjects vital for the industry's sustainable development, such as on-farm sustainability, environmental protection, biodiversity growth, an understanding of carbon emissions, compliance with the Corporate Sustainability Reporting Directive (CSRD), as well as adherence to Environmental, Social, and Governance (ESG) reporting standards. Emphasis was placed on providing a detailed account of the offerings from diverse educational institutions, ranging from institutes and universities to relevant agencies dedicated to advancing the skills and competencies essential to strengthening sustainability practices and understanding within the agricultural sector.

The initial phase of data collection comprised targeted searches for specific keywords and topics, including, but not limited to, "farm sustainability courses," "carbon farming training," "carbon emission training," "ESG training," "environmental sustainability courses," "net-zero agriculture," and "sustainable land, agri-food system development".

This initial phase identified a broad scope of potential sources, including institutes, universities, and agencies associated with agriculture and sustainability, giving a basis for further research. This was followed by a more focused examination of the offerings, delving into the specifics of the courses offered, their relevance to stakeholders, the delivery methods, target audiences, required qualifications, and accreditation status. This approach ensured an understanding of the educational offerings available and their alignment with the needs of stakeholders in the Irish agri-food industry. An extract of this Learning Provider Database is included in the appendix section below.

### 2.1.4 Strengths and limitations

Understanding the strengths and limitations of the approaches taken is crucial for readers to accurately interpret its findings. By addressing both strengths and limitations, it helps to paint a nuanced picture of the research, empowering readers to make informed judgments about its value and implications.

#### Overall research strengths

• A strong diversity of stakeholders consulted throughout the process, enriching the report with diverse perspectives from across the land, agri-food system is a considerable strength. This also included a strong geographical diversity among the survey respondents, with all Irish counties represented.

- Strong response rate in the quantitative survey among farmers, highlighting to what extent they understand the term "carbon farming", which sustainability practices they are already applying, where they get their information from and further needs for support on their sustainable transition.
- Attention to ensuring that all respondent feedback from farmer, agri-consultant and corporate cohorts is adequately captured and fairly represented, even where the input did not relate to the specific research questions.
- The development of a comprehensive Learning Provider Database, complementary to this report, that highlights all the existing learning offerings targeting the respective target audience groups on relevant topics.

#### **Research limitations**

- The nature of assessing capability within a whole system or value chain provides challenges in terms of getting enough variation both among and within stakeholder groups. This also meant that much of the information included in this report addresses relevant topics at surface levels. It may not be fair to generalise the thoughts of certain cohorts within this research report as participating numbers are low and cohorts were not randomly selected.
- Getting respondents to understand what is meant by "capability", notably the specific skills, knowledge and resources was a challenge and often led to the discussion moving towards more broader elements that would enable or incentive the adoption of sustainability practices. It was therefore challenging to getting enough depth around topics such as identifying specific skills gaps around sustainable practices.
- Almost all respondents in this research were existing contacts on the FARMEYE database prior to the commencement of this work. It is important to note that the respondents were not randomly selected, and therefore the perspectives shared here are likely to have a bias towards a greater interest in sustainability practices and their application.
- Though the sample size for the quantitative part of the farmer survey was strong, the qualitative input through interviews came from much fewer participant numbers (4 agri-corportates, 6 agri-consultants and 7 farmers). While the interviews with farmers and agricultural consultants were informative and did help to complement other findings, it did not provide enough depth to expand and explore on all areas of the research objectives.

#### Learning Provider Database limitations

In creating and populating the database, there were limitations as to the level of information that could be obtained from certain institutes and organisations involved in the agricultural education landscape. Two specific challenges were encountered:

- Absence of information around continuity across years. The variation in course offerings on an annual basis, specifically those aimed at farmers, such as one-time courses, added obstacles to identifying currently available educational resources. Outdated or incomplete information posed a challenge in accurately gauging the availability and relevance of these courses to the current agricultural climate.
- Absence of transparent information regarding the costs associated with courses. The lack of clarity on course fees impaired the understanding of the financial aspects involved with pursuing certain educational opportunities, therefore making it difficult to fully gauge the feasibility of certain stakeholders availing of the opportunities. A list of available learning courses from this desk-based study can be viewed in Appendix 4.1.5 at the bottom of this report.

## 2.2 Results and findings

#### 2.2.1 Farmer cohort surveys and interviews

The following section of this report contains a summary and analysis of farmers who took part in an online survey (n=87), in an interview or both.

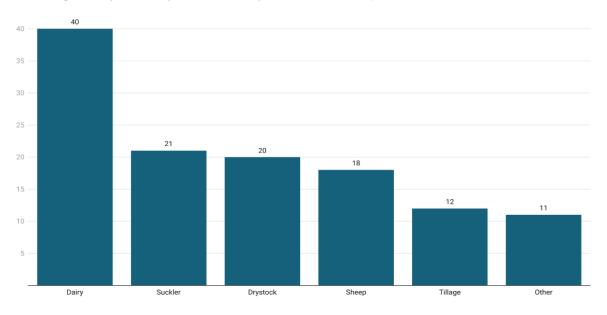
The interviews were carried out online with farmers being asked a series of questions to gain an insight into their understanding of sustainable farming, carbon farming and circular bioeconomy.

The individuals who took part in this report have a large geographical spread and represent a variety of farming enterprises.

The aim of the survey and the interviews was to identify knowledge and skills gaps that need to be addressed and determine the most efficient and effective way to help farmers with their on-farm sustainability.

Spread in age and gender of all farmer survey participants:

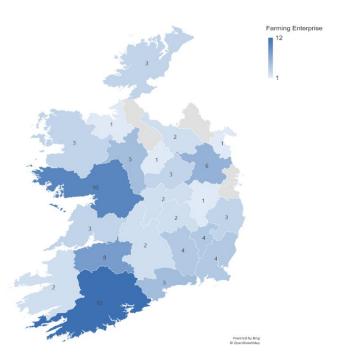




#### Farming enterprises represented as part of this survey:

\* A number of farmers that responded to this survey have multiple enterprise types, therefore the total number in the above graph will not equal the total number of survey respondents.

Geographic representation: county representation as part of this survey is illustrated in the visual below and highlights the large diversity in the surveyed cohort.



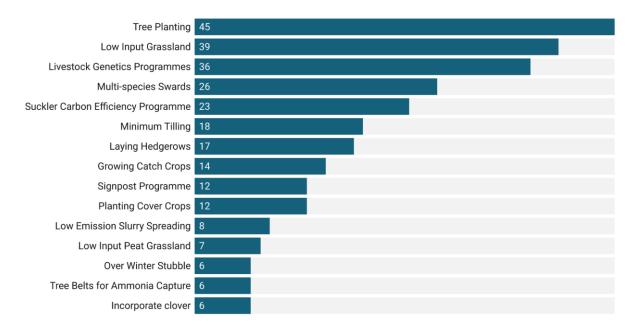
\* The number of respondents per county is highlighted in the map. The darker the shade of colour, the more respondents represented.

Farmers were assessed on their self-reported understanding of terms such as "carbon farming" and "circular bioeconomy" to ascertain their exposure. Respondents rated their own understanding on a 5-point scale in response to statements "would you agree that you have a good understanding of carbon farming/circular bioeconomy". The below graphs portray the spread in understanding of the respective farming cohorts.

Strongly Agree	Agree	Neutral Disagr	ee Strongly Disagree				
Carbon Farming	13%	67%	67%				
Biocircular Economy	9%	30%	32%	22%		7%	

This implies that the term "Carbon farming" is largely understood in its simplest form of direct carbon emission sequestration, but that at least half of the cohort were confused by the term "circular bioeconomy".

## When farmers were asked what sustainability farming measures they had undertaken on farm, here was the distribution of their respective responses:



\* A number of farmers that responded to this question selected multiple sustainability farming measures; therefore, the total number in the above graph will not add up to the total number of survey respondents.

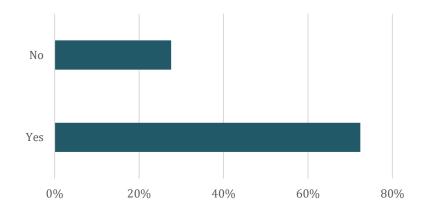
#### Other measures taken included:

- Using protected urea
- Spreading lime
- Soil sampling
- Wildlife habitat mapping

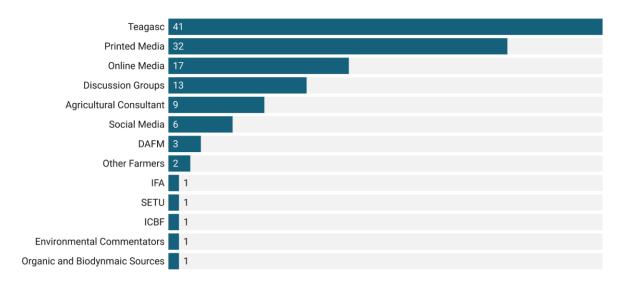
- Use of farmyard manure
- Feed additives to reduce emissions
- Bird cover
- Fencing of ditches and drains
- Introduction of bee hives
- Economic Breeding Index gain

All of the above practices play their role in both carbon farming and circular bioeconomy as both topics require holistic approaches of all practices in order for them to have an overall effect.

When asked whether farmers found information that helps to "improve your farm from a sustainability and environmental impact point of view" was easily accessible, the following binary responses were shared:



When asked "Where do you go for information that helps your farm from a sustainability and environmental impact point of view?", the following information providers arose:



\*numbers in the chart portray the number of times these information sources have been mentioned

Overall 41% of farmers identified Teagasc as one of their primary information sources. At least 6% of respondents explicitly mentioned the Farmers Journal as another source of information (though many reported "farming media", so this statistic is likely to be much higher). Only 9% of farmers identified advisors or independent consultants as a source of information.

#### 2.2.2 Farmer interviews

#### Summary

The survey implied that farmers (n=87) have an understanding of sustainability practices on farm and they have implemented such practices to some extent. There is a base knowledge level there, but there are challenges that need to be addressed from a skills, knowledge and capabilities standpoint. Hence, the FARMEYE team interviewed a smaller cohort of farmers to delve deeper into their perspectives around capacity and capability supports needed to help the farming community make a sustainable transition. The participating farmers wanted to see a broad range of supports introduced, ranging from financial supports, learning supports and tailored incentives and policies, all of which they felt would help encourage and promote the uptake of sustainability. The needs that were highlighted are listed below:

#### Access to knowledge and resources

- Demonstration farms: Establishing more demonstration farms that showcase successful implementations of sustainable practices are effective ways of knowledge transfer. The participants touched on the significance of having local demonstration farms that showcase successful sustainable farming practices available across geographical regions and varied enterprise types available to all farmers. Participants suggested that these farms could serve as examples for others in specific regions, and that making these initiatives accessible to them locally would encourage learning and adoption.
- 2. Access to technology and innovation: Information on the latest agricultural technologies and innovations that promote sustainability would contribute to their potential capacity and uptake. This could include updates on precision farming tools, IoT applications, among other technological solutions.
- 3. Sustainable farming networks as a support: The importance of creating local networks and communities of farmers engaged in sustainable practices was mentioned as an opportunity for capability building. These networks could include knowledge-sharing platforms, on-farm visits, collaborative projects, and the possibility to share resources and experience.
- 4. **Financial and economic sustainability guides:** Any capability building resources or training on sustainable on-farm activities should be designed with a focus on the economic and revenue-generating aspects of sustainable farming, providing

guidance on how to make farms more profitable while adopting environmentally friendly practices. This could include information on diversified income streams.

#### Learning and education

- 1. **User-friendly information:** Farmers perceived there to be a lack of easily understandable and user-friendly information on sustainable practices, making it challenging for farmers to learn how to implement changes. The type of information was not covered in these conversations.
- Consumer education and awareness: Farmers indicated the importance of educating the public and consumers about the efforts and costs associated with sustainable farming. They suggested that efforts should also be made to educate consumers about the benefits of sustainable farming and environmentally friendly products. They noted that consumers should be willing to pay for sustainably produced food.
- 3. Educational workshops, training programs and courses: Participants emphasised the need for hands-on workshops and training programs. Practical, field-based sessions that demonstrate sustainable farming techniques would be valuable for farmers to see and learn in a real-world context. Accessible online courses and webinars covering various aspects of sustainable agriculture, were also mentioned by some participants. It was stated that these resources should be designed to accommodate farmers' schedules, minimising the need to travel long distances to partake and allowing them to learn at their own pace and convenience.
- 4. Online platforms and forums: Farmers use online platforms, forums, and social media to access information. Agricultural websites, discussion groups, and forums offer a virtual space for farmers to share knowledge, ask questions, and keep abreast of industry trends. Information on such a platform outlining how to enhance biodiversity on farms and the ecological benefits associated with it would be valuable.
- 5. **Extension services**: Agricultural extension services provided by government agencies are essential for capability building among farmers. These services offer advice, training, and resources to farmers, serving as a valuable source of information on sustainable farming practices.

#### Incentives and rewards

1. **Financial rewards and incentives:** Farmers emphasised the need for tangible rewards for adopting sustainable practices. They mentioned that the Common Agricultural Policy (CAP) funds, which are currently being used for sustainability initiatives, should be acknowledged and allocated effectively to incentivise individual farmers based on their improvements. This could involve subsidies, grants, or other financial mechanisms that make sustainable farming more economically viable.

- Acknowledgment and recognition: Farmers suggested that there should be acknowledgment of their current practices and improvements. They recommended a system that recognises the existing efforts of farmers in terms of hedgerows, tree planting, and other sustainability measures. This recognition could come in various forms, such as awards, certifications, or acknowledgment of efforts to preserve biodiversity.
- 3. **Incentives for the next generation:** There was a call for making agriculture more attractive to the younger generation. Farmers suggested that future policies should consider the age profile of farmers and make sustainable farming more appealing to the new generation entering the industry.
- 4. Government policies and supports: There was a desire for policies that are flexible, practical, and tailored to specific regions. The participants emphasised the need for policies that consider the unique challenges and opportunities present in different farming communities. An example of a policy that farmers would like to see introduced was a policy supporting direct-to-consumer sales. This could involve facilitating farmers' access to markets and consumers without heavy reliance on traditional processors.
- 5. **Industry partnerships:** Farmers mentioned the importance of collaboration with industry partners, including processors and retailers. Building partnerships with these stakeholders is seen as a way to enhance the sustainability of farming practices.

# 2.2.3 Agricultural consultant and knowledge transfer representatives

#### Survey and interviews

The following section of this report contains a summary and analysis across agricultural consultants<sup>1</sup> who either took part in an online survey (n=15), interviews (n=6) or both. The interviews were carried out through online individual meetings with agricultural consultant representatives who advise farmers and guide them through challenges on farm with regards to policy, regulatory and scheme requirements. The agricultural consultants or knowledge transfer representatives that took part in elements of this section of the report are either members of the Agricultural Consultants Association, Teagasc Signpost programme or are private consultants for farmers all over Ireland. All provinces across Ireland were represented across this cohort of consultants, and included both male and female perspectives.

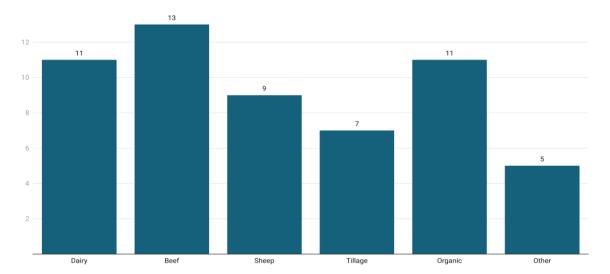
These individuals play a key role in the decision-making of farmers on the ground and need support as to how best to advise the farming community going forward. The aim here was

<sup>&</sup>lt;sup>1</sup> These consultants were existing contacts on the FARMEYE database prior to the commencement of this research. It is important to note that the respondents were not randomly selected, and therefore the perspectives shared here are likely to have a bias towards a greater interest in sustainability practices and their application.

to highlight key skills, knowledge and capabilities needed by these representatives to guide their farmers in a direction that provides certainty for all.

#### **Consultant survey results**

The spread of farming enterprises that the participating agriculture consultants provide advisory services to is outlined in the graphic below. The majority of their farming clients work with livestock (cows, sheep).



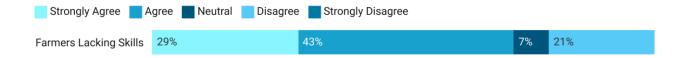
Assessing agricultural consultants' perspectives on whether they felt they had access to adequate resources, skills and knowledge was a focus area of this research. The questions asked are listed below, and responses were captured on a 5 point scale.

The below graphs portray the perception of availability of both resources and skills as being largely inadequate, with only 20% of respondents responding positively for both questions. This implies that there is a significant need and appetite for further support in this area, especially where baselining of carbon emissions is concerned.

- "Do you agree that you have access to adequate resources to teach you more about carbon farming, emissions reductions, and improving on farm sustainability measures?"
- 2. "Do you agree that you have the skills and knowledge to effectively baseline farms on key sustainability elements relevant to carbon farming?"

Strongly Agree Agree Neutral Disagree Strongly Disagree							
Resources	7%	14%	50%		29%		
Skills	7%	15%	21%	36%	21%		

Another question posed to the consultants was: "To what extent do you agree with the following statement? Many farmers lack adequate skills and knowledge to carry out effective sustainability practices on their farms."



The 15 agricultural consultants were then asked a series of long-answer type questions as part of this survey. The questions and their respective answers are outlined and summarised as follows:

Q. When asked what organisations in Ireland are doing good work in helping agricultural consultants understand more about reducing emissions in agriculture, the following themes arose from the answers provided:

- Irish Rural Network (IRN): Engaged with ESB and SEAI to facilitate local energy generation opportunities.
- Agricultural Consultants Association (ACA): No specific details were provided.
- Teagasc: Mentioned Teagasc Connected conducts useful webinars related to agriculture. Department of Agriculture, Food, and the Marine (DAFM).
- Environmental Protection Agency (EPA): Mentioned in conjunction with the Department of Agriculture.
- National Organic Training Skillnet (NOTS): Associated with the organic sector.

Q: When asked what resources agricultural consultants have access to in order to teach them more about carbon farming, emissions reductions, and improving sustainability measures on farms, respondents gave the following answers:

- Own Research
- ACA Network (Agricultural Consultants Association)
- Government and Environmental Agencies
- Online Sources
- Other Sources
- Limited Access

## Q: When asked if there were any topics they would have liked to have learned more about in regard to on-farm sustainability, the following were common themes:

- Carbon Emissions Calculations
- Full Carbon Accounting
- Selling Carbon Credits

- Water Usage and Quality
- Farm Hedgerows Quality
- Soiled Water and Slurry Production
- Forestry
- Nutrient Recycling and Carbon Sequestration
- Multi-Species Sward Inclusion
- Regenerative Farming
- Solar and Dairy Carbon Efficiency

Q: When asked what learning offerings they would like to be made available to agricultural consultants in Ireland in relation to understanding how a carbon farming framework would work for the industry, the respondent gave the following answers:

- Carbon Emissions Calculation
- Technical Support
- Dedicated Centralised Website for Resources
- Training on Carbon Sequestration
- Access to Research and Webinars
- DAFM Involvement and Training
- eLearning Modules

#### **Consultant interviews**

In summary, the participants wanted a comprehensive set of information, ranging from emissions data and environmental practices to training programs and policy updates, to better assist farmers in adopting sustainable and environmentally friendly practices.

#### Access to knowledge and resources

- 1. **Technology and tools:** Consultants highlighted the importance of having online tools and technology, including nutrient management planning systems, to streamline their work and enhance the quality of advice provided to farmers.
- 2. **Data for decision-making:** The consultants highlighted the need for accurate and reliable data to assist farmers in making informed decisions. This included information on greenhouse gas emissions, carbon sequestration, and other environmental factors.

#### Learning and education

1. **Timely and accessible information:** There is a need for up-to-date and readily accessible information for agricultural consultants to provide accurate and timely guidance to farmers. The delay in receiving critical data, such as nutrient

management planning figures, was highlighted as a significant challenge. Consultants expressed frustration with delays in receiving crucial information, such as nutrient management planning figures. This delay hinders their ability to provide timely and accurate advice to farmers. The need for accurate and timely data on emissions and sustainability practices was highlighted. Consultants stressed the importance of having access to emission figures and other relevant data to assist farmers in making informed decisions aligned with climate and environmental goals. Knowledge gaps or scepticism among farmers regarding the impact of their individual efforts on a global scale, can also pose challenges in disseminating sustainability-related knowledge.

- Information on new farming practices: As the newer generation of farmers seeks different approaches, consultants expressed the need for information on innovative and sustainable farming practices. This is crucial to support farmers looking to make changes in their operations.
- 3. **Retailer advice**: The importance of retailer advice tailored to individual farms was highlighted. Consultants suggested that insights from retailers could play a crucial role in advising farmers on the best practices and products for their specific needs.
- 4. Specific climate action open days: Challenges in disseminating knowledge, particularly when it comes to greenhouse gases and ammonia. Unlike certain topics that can be the primary focus of events or discussions, these environmental concerns might not be the main draw for farmers. In many instances, their access to farmers is through working with other colleagues or collaborators who may be organising events or advising on other aspects of farming. There was an emphasis on the importance of engaging with farmers directly, standing and talking to them in fields, and having one-on-one discussions. While digital communications and social media are recognized as effective tools, he still values the traditional, boots-on-the-ground approach for engaging with farmers and driving change at the farm level.
- 5. **Potential future developments:** Future developments in technology, data verification, and the collection of data related to soil health. These areas may require additional attention and collaboration to fill existing knowledge gaps.

#### Support networks and partnerships

1. Centralised digital support hub for all agricultural consultancies: Private agricultural consultants expressed the need for more support, including a centralised office or team to provide assistance. The idea of having specialised teams focusing on different aspects, such as organics, dairy, beef, and carbon farming, was suggested. There is a call for equal access to knowledge and the ability to distribute consistent information to farmers. Consistency is crucial for effective communication and the implementation of policies. Continuous education and training for consultants were mentioned as essential for keeping them informed about the latest developments in agriculture and climate-related practices. The suggestion for a centralised office or team to support private consultancies

indicates a perceived lack of centralised information and support for these consultants.

- 2. **Policy change and financial incentives:** Consultants expressed the need for policy changes that recognise and support the role of private consultants in providing advice to farmers. Financial incentives, such as a payment system for consulting services, were suggested to encourage consultants to provide valuable guidance.
- 3. Involvement in existing national programmes: Private consultants expressed a desire to be involved in government-led programs, such as the Signpost Farms initiative, to ensure that information is delivered consistently and effectively to farmers. Some participants expressed concerns about the exclusion of private consultants from programs like the signpost farms initiative, emphasising the importance of equal access to such initiatives.
- 4. Access to data: Data privacy and data sharing regulations. Farmers may participate in projects or initiatives like the Signpost program, but it doesn't necessarily grant permission for state agencies like Teagasc or private consultants to get access to additional data from other state sources. It was mentioned that this limitation makes the interpretation of results and the provision of advice more challenging. The importance of data sharing, especially from sources like the fertiliser register and data held by trading branches of co-ops and milk processors was also noted. While state agencies such as Teagasc possess a data sharing agreement with ICBF, a need was emphasised for streamlined access to relevant data to enhance the richness of the information available for advising farmers.

#### 2.2.4 Agricultural corporate representative interviews

The following section of this report contains a summary and analysis across agri-corporate representative interviewees. The six interviews were carried out through online individual meetings with agricultural corporate representatives who work in the areas of agribusiness management, sustainability, environmental social governance, and corporate sustainability reporting directive roles.

These individuals play a key role in the decision-making of large agri-corporate processors in the Republic of Ireland with a major emphasis placed on exports of their produce to Europe and further afield. This is extremely important, as their understanding of compliance in regards to sustainability targets influences their individual on-farm suppliers.

These interviewees consisted of both male and female participants representing corporate organisations that work with farmers, customers and consumers across Ireland and internationally. The aim here was to highlight key skills, knowledge and capabilities needed by these representatives to guide their farmers and producers across their respective supply chains on a more sustainable journey.

#### Summary

These corporate representatives are currently faced with a challenge of preparing for a reporting structure across their supply chains with regards to ESG, CSRD and SBTi commitments. They have a requirement to gather and record data that will allow them to meet certain requirements as part of these initiatives. This data needs to come from the entire supply chain which includes their farmer base which is the primary source of the produce these corporations are selling. Farmer engagement is required in order to get access to this farm level data. In order for these corporates to support their farming cohort there needs to be a clear path for these farmers as to why sustainability enhancements will be made on farm, how this can be implemented consistently and in line with the aforementioned initiatives, whilst also ensuring the farmer is sufficiently rewarded for these changes to create active change for climate action targets. After analysing and summarising the interview, common themes for skills, knowledge and capability needs that need to be addressed for these agri-corporate representatives were listed below. These needs are not listed in any particular order of importance but they are all interlinked with one another.

#### Access to knowledge and resources

- Adequate data requirements: Agri-corporates face a challenge and have a need for getting more detailed consistent information with regards to sustainability that meets CSRD and ESG requirements for their company. There is no clear guidance as to what exact consistent information and data is required to meet the needs of these initiatives.
- 2. Understanding what existing datasets are sufficient for reporting: These corporate representatives currently have varied sources of data on their farm suppliers which vary in verifiability and detail. Some of this existing information in their possession could be of use for meeting climate action targets but distilling what current data in their possession is of sufficient accuracy for climate action target progress is a challenge. Some corporate representatives have acknowledged that they have carbon footprint figures for every dairy supplier for example. However, there is still a lack of understanding at farm level, especially regarding the rules and regulations of carbon farming as a whole. One representative stated that there is an absence of a carbon balance sheet for a farm and this representative wondered whether it might be required in the future. There is a lack of clarity and consistency here as to what direction to go in terms of data collection on farm. There is a fear that you could go in one direction with your corporate programmes with your farming base and then in the future it may not be up to standard. " There is a lack of clarity on the implications of any actions our farmers take in 2023 for the years 2026, 2027 and so forth". This ultimately has halted progress for these corporate representatives.
- 3. Farm and supply chain data management: If alignment of specific on farm and across supply chain data was established, another challenge was highlighted in relation to managing and utilising this data and it was noted as an ongoing effort, especially in the context of marketing products based on emissions per unit (e.g.

emissions per kilo of milk, beef or grain). Managing all of this data on one platform was highlighted as a capacity need for these corporate representatives and the need for this was considered urgent as reporting requirements are now on the horizon.

4. **Knowledge dissemination:** It is clear that aligned data and reporting requirement guidance for these corporate representatives is required. However, if this guidance alignment was to be established, the next skill that is required is to adequately disseminate this detailed and consistent information to farmers. This was highlighted as a significant challenge for all corporate representatives. Communicating the details of climate action and emissions reduction strategies to farmers is considered a significant hurdle.

#### Learning, education and implementation supports

- External consultancy: While external consultancy is sought for training and advice for these agri-corporate representatives, the challenge lies in distinguishing between reliable expertise and potentially less credible sources. There is a concern about the influx of offers and solutions and the need to filter out those that may not provide genuine value. A one-stop-shop information resource for all of these corporate representatives is required. This resource hub would be vital in providing clarity on what's required in terms of reporting and measurement and how these corporate representatives can implement the same.
- 2. **Changing landscape:** Some of the representatives acknowledged the dynamic nature of the sustainability sector, with changes and possibilities emerging regularly. Staying on top of these changes and anticipating future trends is identified as a challenge. Having access to a platform that highlights these changes and prompts these representatives for updates on requirements and regulations is required. Given the evolving regulatory landscape, support is needed to stay abreast of policy changes and understand how these changes might impact an organisation's sustainability goals. This could involve engagement with experts in environmental policy and regulation.
- 3. **Carbon farming implementation:** There is a knowledge gap in implementing carbon farming programs. It was mentioned that there is a need for more information on how farmers can maximise sequestration on their farms as an example. This includes developing clear plans and targeted approaches for farmers to implement at farm and field level. Guidance for such programmes is also required in terms of how farmers would be paid for sequestering carbon and what rewards corporations would receive for putting such programmes in place. Alignment at a national level for a carbon farming framework would enhance the mobilisation and uptake of such initiatives. This feedback is consistent with that from both farmer and agricultural consultant interviews which has been highlighted previously in this report.

#### Measurement, reporting and verification supports

- 1. **Sustainability bonus:** These organisations are currently contemplating the introduction of a sustainability bonus for their farm suppliers. However, determining meaningful criteria for the bonus that contribute to real change in emissions reduction and intensity poses a challenge. There is a lack of vision on what financial supports and sources currently exist to support them on this journey.
- 2. Verification of data: To add to this, the reliability of data for verification is also mentioned as a concern. There is a need for a higher level of accuracy in verification processes, which might impact the value of how sustainable practices are measured and monetised. Clarity on rules and regulations specifically associated with a carbon farming framework and how that links with dairy emissions reductions, climate neutral beef and the exact reporting required for the same, how it would be monetised for the farmers' benefit and not "used as a stick to beat them". The most important factor in potential success or otherwise is farmer engagement along with more comprehensive data on farms. This also includes concerns about the potential manipulation of data and the need for more accurate and reliable information.
- 3. **CSRD reporting:** With the introduction of CSRD (Corporate Sustainability Reporting Directive), the organisation faces a learning curve in terms of reporting requirements and ensuring that each component of the business complies with sustainability goals. This includes the need for training and understanding the details of CSRD reporting requirements. CSRD is a complex area and there is a substantial learning curve for the organisation.



# Conclusion & Recommendations





## 3.1 Conclusion and recommendations

#### 3.1.1 Discussion: skills, capability and knowledge

#### Insights from surveys and interviews

The overall aim of this report is to highlight the capability and capacity building needs and potential opportunities raised by relevant Irish stakeholders to ensure the success of EIT Climate-KIC's Deep Demonstration flagship rollout over the next 3 years. As part of this work there were some challenges in getting detailed information on skills needs specifically as participants often veered out of scope of the topics asked. As some areas/questions were quite broad it meant the specifics with regards to needs were sometimes hard to define. As a result of this the report had to broaden the scope to capacity, knowledge and even incentives in order to take in the opinions and ideas of all participants involved.

After analysing and assessing the needs of farmers, consultants and corporate representatives (cohort groups) there are a few themes that have arisen. In some cases the themes are specific to a certain cohort and occasionally there is overlap between two or more cohorts. There are also current providers who are doing good work to help address these needs, or have the capability of scaling to meet these needs, which are highlighted in the appendix as well as in the Learning Provider Database.

A notable takeaway from this research was the reported need and appetite for further capacity building support and alignment, referred to mostly in the form of information and knowledge transfer around on farm sustainability. This need was consistent across all 3 cohorts. This reflects the rate of change in the industry, with both social, economic and regulatory changes affecting stakeholders.

Demonstration farms were identified as one solution as the participants expressed that the most effective way of learning is by seeing real life examples on replica farms that are easy to access for all and relevant to the average farm within each farming enterprise type. It was highlighted that Teagasc Signpost farms were already playing a key role. However, in order to improve this, these demonstration farms need to be available to all, not just Teagasc and their respective farmers. Ideally, more of these farms would be made available so that farmers in any region of the country can access a demonstration farm easily.

On the back of these new farms being introduced there is then potential to create sustainable farming networks across many farming groups throughout the country. The farming cohort participating in this report displayed a real appetite for these demonstration farms and networks to be introduced. These proposed farms and networks could be used as a facility for all agricultural consultants and agri-corporations to enhance their knowledge dissemination skills for all their respective farmers. The networks would be a specific platform for farmers to discuss specific sustainability measures and practices that are practical and are making an impact on farms in order to meet objectives for farmers and their overall industry. This could be done on these farms through educational

workshops, training programs and courses. As well as this, specific climate action days at a regional level can be introduced at a regional level where farmers meet to specifically discuss climate action practices and learning initiatives. This was welcomed by both Teagasc and private consultants as part of this research piece. Farmers and agri consultants highlighted sustainability topics that could be discussed as part of these farm open days and network events, as can be seen in Textbox 1.

Both consultants and agri-corporate representatives acknowledged that consistent knowledge dissemination to their farm suppliers was currently a big challenge they all faced. In order to ensure alignment across the entire agri-food industry a digital support hub for all agricultural consultancies could be put in place. This support hub could provide a help desk and access to up-to-date information and research that can be accessed by all consultants ensuring that all farmers receive aligned and clear advice. This hub would eradicate mixed messaging, second hand information and drive more effective change for the farming community in Ireland as a whole.

As part of this research, farmers, agri-consultants and agri-corporate representatives all highlighted the need to have access to online platforms, tools, new technology and innovation. This would allow them to have access to the most up to date data to aid key decision making on farm. Providing them with an open platform that they could see all their sustainability metrics on a regional map would allow for alignment across stakeholder groups. Having farm by farm specific data can allow all stakeholders to design and implement a plan towards a more sustainable production system for both the farmer and the corporate supplier base.

There is an opportunity to create such an online tool through a proposed Live Atlas where live, up-to-date datasets are openly available by region. Having a one-stop-shop Live Atlas would allow for transparency and alignment across all of the industry. It would ensure verification of data as a requirement, and would be geo tagged and geo referenced. A consistent methodology would ensure that the approach is "painting every farmer or organisation with the same brush", a concern that was highlighted as an issue for all cohorts in this study. Such an online tool would also allow for the implementation of carbon farming frameworks, corporate level reporting, sustainability bonus schemes among other benefits. Given that sustainability reporting has already begun for some corporate bodies and both corporate and national reduction targets need to be reached by 2030, the need for this is ever more urgent.

Consumer education and awareness was identified as another need. There was a concern raised across all cohorts with regards to the lack of clarity and transparency currently provided to retail consumers at present. A Live Atlas would allow consumers to see the live impact the agri-food industry in Ireland is having on improving areas of natural capital and livestock systems throughout the country such as, carbon sequestration, water quality, soil health, animal emissions, habitat and biodiversity potential to name just a few. This can educate both retailers and consumers and help provide adequate information that verifies a true narrative for the industry. The ability to provide alignment of advice for farmers through a centralised hub will allow for alignment of adequate farm management practices that will drive consistent sustainable improvements on farm. From there, consistency of key on farm metrics can be quickly established and there are existing providers who can measure, monitor and verify these metrics on farm. As a result this can provide the Department of Agriculture, Food and the Marine (DAFM) and agri-corporates the foundation needed to reward farmers based on their on farm practices once verified. If the farming cohort can see they will receive for the practices they implement, from the advice they are given then you will see effective sustainable transition change. All of the needs highlighted so far have an impact on all 3 cohorts in this research report and impact all flagships (4, 5, 6 and 7).

The final need that was highlighted specifically by the agri-corporate representative cohort included CSRD and ESG Reporting requirements and advice. A lack of understanding on what existing datasets are sufficient for reporting was reported. There was also a lack of clarity on who is best able to provide external consultancy advice to these corporations with regards to adequate reporting. Although these needs were specifically highlighted by the corporate cohort, it has an impact on all 3 cohorts as the decisions made at corporate level as to what needs to be reported plays a key role on how a farmer operates within their supply chain and what financial incentives will be put in place for them to achieve both and environmental and economically sustainable future for their business.

#### Textbox 1: Topics of interest for further learning shared by agri-consultants

- Carbon Emissions Calculations, full Carbon Accounting and/or training on Carbon Sequestration
- Selling Carbon Credits
- Water Usage and Quality
- Farm Hedgerows Quality
- Soiled Water and Slurry Production
- Forestry
- Nutrient Recycling and Carbon Sequestration
- Multi-Species Sward Inclusion
- Regenerative Farming

#### **Insights from Learning Provider Database**

The research into the current learning landscape in the Irish agricultural landscape, as detailed in this report, underscores a gap in the accessibility to courses and information for farmers, agricultural consultants and agricultural corporate representatives. In order to address this issue, identifying specific barriers that impede the ability of stakeholders to upskill is a vital step towards creating potential solutions based on that information.

A noticeable trend emerged, revealing that the majority of available courses around onfarm sustainability are degree or master level courses. While beneficial in some instances, these types of courses are not always accessible to people in full time employment or those with limited educational experiences. While the growth in availability and diversity of choices of agricultural college courses in Ireland is positive for those at the beginning of their career in the agri-food industry, they are not conducive to helping established farmers, agri-corporates or agricultural consultants looking to upskill and improve in the area of carbon farming, sustainability, emission reductions.

The database highlights a concern regarding the accessibility to courses. Due to limited course dates/venues, these courses are often missed by stakeholders or are too far away for people to attend. For example, a "Master Class in Soil Health & Quality" course run by Teagasc in Johnstown Castle, Wexford (see appendix 4.1.5) for agricultural consultants, is two and a half hours long. If an agricultural consultant was to travel from the West of Ireland, their trip would take them nearly three times the duration of the course. The impracticality of travelling long distances for short-duration courses poses a significant barrier to participation. Similar issues were raised by farmers who participated in other areas of research for this report.

Furthermore, the database sheds light on the lack of effective advertisement and visibility of existing courses. Certain courses or learning opportunities may not be available to or are difficult to find for stakeholders who are not affiliated with or members of certain agricultural groups or organisations. It suggests that stakeholders may need to be members of specific groups in order to receive information directly. This dependency on specific affiliations underscores the importance of a well-organised and inclusive data sharing which is available to all stakeholders in the agri-food sector.

A potential remedy lies in the creation of a universal platform containing a comprehensive database that categorises courses based on their intended audience. By structuring the database in such a way that agri-corporate representatives, agricultural consultants and farmers can readily identify and access courses directly aligned with their needs and daily operations. Such a system ensures fair dissemination of information, empowering all stakeholders with the knowledge needed to engage in carbon farming and emissions reduction practices.

The database indicates a deficiency in agri-corporate-specific training concerning ESG (Environmental, Social, and Governance) and CSRD (Corporate Social Responsibility Directive) reporting frameworks. As identified by the agri-corporate representative who took part in this research, there is a gap in understanding scope three data collection and reporting, as well as familiarity with carbon footprinting and the associated rules and regulations governing data collection and verification. The Irish companies identified in the database, offering online training, provide only a generalised overview of key topics highlighted by agri-corporate representatives in this report as crucial areas lacking sufficient knowledge.

The database shows that companies outside of Ireland, who offer similar only courses, providing more in-depth knowledge on the specified topics, follow a "self-paced" learning model, allowing participants access to training videos for an extended period, typically six to twelve months, and concluding with the issuance of a digital badge or certificate of completion. This format begs a question regarding the efficacy of these courses in equipping Irish agri-corporate representatives with the skills and knowledge necessary to confidently assess, prioritise, and implement meaningful and effective emission and sustainability strategies within their companies.

As the regulatory landscape evolves, with impending changes for companies in ESG and CSRD reporting, the need for tailored training courses specific to the agri-food industry grows. The current offerings, often generalised and delivered remotely, may fall short in addressing the challenges faced by agri-food processors in Ireland. Developing targeted training initiatives could play a vital role in supporting agri-corporate representatives as they navigate the evolving regulatory frameworks, enabling them to not only meet compliance requirements but also drive tangible sustainability improvements within the Irish agri-food industry. The focus should be on creating educational programs that empower professionals to actively contribute to emissions reduction and the overall sustainability of the sector.

In conclusion, the findings in this analysis underscores the importance of the further development of tailored offerings as well as their improved promotion as a solution to certain challenges in the Irish agricultural learning landscape. Promotion, for example through a public database, could serve as a starting point for empowering stakeholders with the knowledge and resources necessary for effective participation in sustainable practices. A collaborative effort is needed to create an inclusive and accessible educational landscape that propels the sector toward a more sustainable future.

#### 3.1.2 Conclusion and key takeaways

#### Summary of key takeaways

Overall this research shows that the majority of farmers surveyed are already undertaking sustainable practices on farm and to some degree there is knowledge already available. Demonstration farms (e.g. SignPost Farms) and Teagasc's services (e.g. webinars) were referenced throughout the research as valuable sources of information. Further demand for capability building relates to scaling these initiatives, and ensuring improved dissemination of learning, knowledge and resources across agri-consultant groups (e.g. ACA and Teagasc). One idea worth investigating further was the establishment of local networks or open days that could accelerate knowledge exchange. In addition, consumers and retailers were also highlighted as a key stakeholder group to target in terms of awareness raising and knowledge, especially in relation to understanding the real cost associated with sustainable food production.

Interviews with agri-corporates highlighted that the timing of EIT Climate-KIC's flagship implementation coincides with new CSDR regulations and increased pressure on agricorporates to report on their sustainability targets. Capability building opportunities for this group related largely to empowering employees to assess the validity of verification processes around on-farm sustainability practices and performance (also to be able to identify reliable expertise). Furthermore capability building supports that align with ensuring companies are compliant in meeting their sustainability goals were highlighted, including access to regular updates around an ever-changing policy and regulatory landscape.

Of the 15 agri-consultants surveyed, there was a recognised need for further capability and capacity building support (specifically skills and resources) around on-farm sustainability measures, including around carbon sequestration and measurement. A number of suggestions were provided where there was interest to develop further skills and knowledge (see textbox 1) but further investigation is needed to break this down and understand needs by specific target audiences and geographical location. At the time of research, many of these requested thematics are not currently on offer as part of Teagasc's "adult and continuing education" course offerings, despite there being many relevant resources available on their website, which may be an opportunity to consider going forward.

The analysis of the learning provider database highlighted barriers around accessibility (distance and travel, awareness) and affordability (paywalls, costs) of many accredited courses and trainings for professionals working in either farming, agri-consulancy or for agri-corporates. Further investigation is needed to explore both the promotion and scaling of non-formal or continued professional development around sustainable agriculture targeting these specific groups.

#### Conclusion

In terms of carbon farming and reducing emissions on-farm (flagships 3 and 4), specific needs have emerged from farmers, agri-consulting and agri-corporates. Though most needs identified relate to the pre-requisites to delivering an effective carbon farming system (e.g. policies, incentives, information, standards), there were capability building needs that were also identified. This included requests to support understanding of carbon accounting, carbon sequestration measures and how to effectively baseline farms. Furthermore, transparency and equal access to relevant resources and knowledge on carbon sequestration and measurement has been flagged as a knowledge gap, across both Teagasc and ACA agri-consultants.

In terms of implementing circular bioeconomy models at regional levels (flagship 3), it was found that there was a general lack of awareness around the term "circular bio-economy" among farmers, with over half of the 87 surveyed farmers not familiar with this term. It is therefore promising to see this gap addressed Ireland's recently published Bioeconomy Action Plan 2023-2025. Furthermore, knowledge or skills related to biodiversity or waste management were not highlighted by respondents as a capability need, but farmers did mention the value of further incentivising and rewarding efforts to preserve biodiversity on-farms. Non-formal (or continued professional development) offerings targeting farmers and agri-consultants likely address elements of the bioeconomy, though they may be under a broader sustainability umbrella term. Further research is needed to understand how to best address the capability building needs for the various stakeholder groups under this specific topic.

Overall, a common theme emerged around transparency of verified information and data needed empower stakeholders all across the value chain to work towards improved on-farm sustainability (flagships 3,4 and 6). Many of the respondents throughout the research mentioned the need for "platforms" of "hubs" where consistent and clear information could be found (either educational or data for referencing and reporting). A recommendation from FARMEYE included the establishment of a "Live Atlas" digital hub that would empower farmers, advisors as well as agri-corporates to access live sustainability data, that could be broken down by location. This would provide transparency and alignment across the land, agri-food system, and could empower farmers, agri-consultants, business and consumers alike. This would support the roll out of carbon farming-related policies as well as support industry in meeting their CSRD requirements, therefore providing more clarity to farmers.

This research has been a valuable first step in proving EIT Climate-KIC with an initial summary of the learning landscape, the barriers and opportunities presented, as well as a mapping of existing learning offerings available to three stakeholder groups within the broader Irish land, agri-food system.

## Appendix 1: Experts and Learning Provider Database

#### **Current learning providers and experts**

In this section we have a brief overview of the main sustainability knowledge providers highlighted by the active participants. These providers along with an extract from the desk based learning provider database are listed below. The entire Learning provider database is available in full as part of the overall outputs of this report.

- Agricultural Consultants Association (ACA) the sole representative body for private agricultural consultants and advisors in Ireland
- **BASE Ireland** part of an International community of farmers, agronomists and agriculture professionals who are committed to advancing the knowledge and practice of Conservation Agriculture
- **Climate Ready Academy: Skillnet** aims to support Irish businesses in developing the skills and talent required to mitigate the effects of our changing climate and environment
- **Department of Agriculture, Food, and the Marine (DAFM)** Provides data related to agriculture and farming practices
- Environmental Protection Agency (EPA) Independent public body responsible for protecting and improving the environment as a valuable asset for the people of Ireland
- **FARMEYE** MRV platform for Natural Capital on farms and in nature. Digital platform that provides farmers with real time geo tagged and geo referenced sustainability data on farm on a per field basis.
- Irish Cattle Breeding Federation (ICBF) non-profit organisation charged with providing cattle breeding information services to the Irish dairy and beef industries
- Irish Creamery Milk Suppliers Association (ICMSA) represents all farmers by lobbying at local, national and EU levels. It places special emphasis on preserving the family farm structure and defending the rights and incomes of farm families
- **National Rural Network (IRN)** build and sustain a membership-based network that maximises the beneficial outcomes of the rural development programme
- **Skillnet Ireland** Business Support agency of the government of Ireland responsible for advancing the competitiveness, productivity and innovation of Irish businesses
- National Organic Training Skillnet (NOTS) a not-for-profit network that offer highquality, low-cost training for the expanding organic sector throughout the Republic of Ireland

- **Sustainable Energy Authority of Ireland (SEAI)** governmental body established to promote and aid in the development of sustainable energy in Ireland
- University networks include: Atlantic Technological University (ATU), Munster Technological University (MTU), South East Technological University (SETU), Technological University Dublin (TUD), Technological University Shannon (TUS), University College Cork (UCC), University College Dublin (UCD), University of Galway (UoG)
- **Teagasc** the national body providing research, advisory and training services to the agriculture and food industry and rural communities

#### Extract from the learning provider database created for EIT Climate-KIC

Provider t 💌					Learning programme/course(s) nar 💌				rmat (i 💌 🕻	Cours   Accredited/ Certifie	<ul> <li>Price/ affordabilit</li> </ul>	Relevance to Deep < F
University	Private	Technological University	c https://www.ibecacademy	Dublin	CPD Certificate in Corporate Sustaina	https://www.ibecacademy.ie/ci	Corporate Stakeho	olders On	line 4	sessio CPD Level 6 NFQ a	cribec member - 20	90 non-member -2300
Agency		Lean & Green Skillnet, O	r https://leangreenskillnet.o	Limerick	Pathways to Net Zero	https://leangreenskillnet.com/	Corporate Staket N	VA Ble	nded 1	4 weeks	Not specified on w	e Flagship 1 and 2
University	Public	South East Technologica	I https://www.setu.ie/	Cork Campus	Land Management in Agriculture (add	https://www.wit.ie/courses/bsc	* Graduates E	BSc (Leviln p	person 1	Year BSc(Hons)(NFQ Lev	el 3,000/year	Flagship 2, 3, 4, 5, 6 ar
University	Public	University College Cork	https://www.ucc.ie/en/	Cork City	Diploma in Environment, Sustainability	https://www.ucc.ie/en/ace-dev	All Stakeholders	On	line 2	Years National Framework	fc 1500 / year	Flagship 2 and 3
Agency		Climate Ready Academy	v https://www.climatereadya	Ireland, Nationwide	Corporate Sustainability Pass	https://www.climatereadyacad	Corporate Stakel N	V/A On	line 6	0-90 m Digital Certifdicate o	f (50% funding avail	able
Agricultural	Consultants	Agricultural Consultants		Nationwide	Acres Training Courses		Farmers participal	VA In F	Person 1	day (6 hours)	Farmers get paid	to Flagship 5, 6 and 5
Farmer Grou	up	Base Ireland	https://www.baseireland.id	Nationwide			Farmers N	v/A ln p	person wo	kshops, farm walks, discuss	ion groups	Flagship 5, 6 and 6
State		Department of Agriculture	e https://www.gov.ie/en/	Nationwide	KT Programme	https://www.gov.ie/en/service/	Farmers N	VA Ing	person 3	year programme	Participants get in	ei Flagship 5, 6 and 7
		National Organic Training	https://nots.ie/	Leitrim	Numerous courses provided througho	https://nots.ie/courses/	Farmers N	V/A Ble	nded - de	pending on particular course	s	
Research, A	Semi-State	Teagasc	https://www.teagasc.ie/	Nation wide	Signpost Advisory Programme	https://www.teagasc.ie/enviror	Farmers N	V/A In p	person m 3	years	No Cost	
Research, A	Semi-State	Teagasc	https://www.teagasc.ie/	Wexford	Master Class in Soil Health & Quality	https://www.teagasc.ie/about/	Agricultural Consu	itant in p	person 1	day 20 CPE(Continuing	Professional Educati	on) Irish Agricultural Su
Agency		CILT Mobility & Supply Ch	h https://ciltskillnet.ie/trainir	Ireland, Nationwide	Sustainable Supply Chains: Carbon R	https://ciltskillnet.ie/training/su	Corporate Staket	VA On	line H	alf a da Digital Badge Certifi	cate	Flagship 1, 2, 3, 4
Training Inst			https://www.thecorporate		Diploma in Environmnetal, Social and				line 6	months - self paced	4.495	
		Learning Cloud		Kildare		https://learningcloud.ie/course				00 hou Statement of Attainn	No price spsecifie	d on website
		Learning Cloud	https://learningcloud.ie/	Kildare	Conservation and Environmental Man				line 1	00 hou Statement of Attainn	ne No price spsecifie	d on website
		Sustainability Academy	https://sustainability-acad	Chicago	Carbon Reduction and Net Zero Strate					elf pace* Certification by CS		ESG/SBTi/Carbon/Sust
	Private	Sustainability Academy	https://sustainability_acar		Comorate Sustainability: Foundation				line (	elf naci* Certification by CS	F 580	ESG/SRTI/Carbon/Sust

## Appendix 2: About FARMEYE

FARMEYE is an award-winning AgTech company specialising in Measurement, Reporting, and Verification (MRV) for Natural Capital (NC) on farms and in nature. Operating with a global reach, we manage one of the world's most comprehensive soil health databases, comprising 1.3 million hectares and over 14,000 farm accounts.

We are trusted partners for farmers, agricultural consultants, and agri-corporations alike, providing unparalleled scope 3 data verification at scale for those who want to create, regulate and achieve their sustainability goals. FARMEYE is equipped with a team of experienced academic researchers, software engineers, agronomists, and agricultural environmental graduates. The research team assigned to this particular project is as follows:



**The Project Team** 



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