Voices from the field:
An Irish perspective on capacities needed to transition to net-zero

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REGISTER
An Analysis of Capability and Capacity Needs of Stakeholders in the Transition to a Net-Zero and Resilient Land, Agri-Food System in Ireland

February 2024
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

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 EIT Climate-KIC’s Deep Demonstration programme), resulting in the identification of barriers and potential opportunities for improved, scaled, or new formal and non-formal learning needs.
EIT-Climate KIC and the Deep Demonstration:

The Deep Demonstration partnership between the Irish Department of Agriculture, Food, and the Marine and EIT Climate-KIC, 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 ‘Deep Demonstration’ 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. FARMYEYE is supporting this work through research support and technical expertise.
Introduction - Project Objectives

Aim:
Support EIT Climate-KIC to deepen their knowledge of the overall capability and capacity building landscape and respective stakeholder needs in Ireland to inform future Deep Demonstration activities.

Objectives:

• What capability and capacity building needs should be addressed to ensure the success of the Deep Demonstration flagship roll out over the next 3 years?

• Which learning providers or experts are already doing work that aligns with the goals of each of the flagship areas?

• What are the barriers to scale up, or gaps that need to be filled?

• What recommendations will be made on the back of this research going forward?
DATA SOURCES AND COLLECTION:

Surveys
- Farmers = 87
- Agricultural Consultants = 15

Focus Groups
- Farmers = 2 (3 farmers per group)
- Agricultural Consultants = 6 Knowledge transfer experts / consultants

Interviews
- Agri Corporate Representatives = 6

Learning Provider Database
- Online desk research

All data was collected in Oct/Nov of 2023
Farming enterprises represented as part of the 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.
Farmer Demographics

- Age Distribution:
  - 18-30: 6%
  - 30-40: 13%
  - 40-60: 59%
  - 60+: 23%

- Gender Distribution:
  - Female: 9%
  - Male: 91%

*Farmers were not randomly selected and were contacted through FARMYE’s network, meaning there is likely a bias among this cohort towards more sustainable practices.*
Self-reported understanding of terms “Carbon Farming” / “Circular Bio-economy”

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Farming</td>
<td>13%</td>
<td>67%</td>
<td>13%</td>
<td>8%</td>
<td></td>
</tr>
<tr>
<td>Circular Bioeconomy</td>
<td>9%</td>
<td>30%</td>
<td>32%</td>
<td>22%</td>
<td>7%</td>
</tr>
</tbody>
</table>
Self-reported carbon farming practices carried out by farmers

- Tree Planting: 45
- Low Input Grassland: 39
- Livestock Genetics Programmes: 36
- Multi-species Swards: 26
- Suckler Carbon Efficiency Programme: 23
- Minimum Tilling: 18
- Laying Hedgerows: 17
- Growing Catch Crops: 14
- Signpost Programme: 12
- Planting Cover Crops: 12
- Low Emission Slurry Spreading: 8
- Low Input Peat Grassland: 7
- Over Winter Stubble: 6
- Tree Belts for Ammonia Capture: 6
- Incorporate clover: 6

*Survey participants were able to select multiple sustainability measures; therefore, the total number in this graph will not equal the number of participants.
Self-reported assessment on whether sustainability and environmental information was easily accessible

- No: 28%
- Yes: 72%
Self-reported sources used by Farmers to find Information on sustainability and environmental impact

- **Teagasc**: 41
- **Printed Media**: 32
- **Online Media**: 17
- **Discussion Groups**: 13
- **Agricultural Consultant**: 9
- **Social Media**: 6
- **DAFM**: 3
- **Other Farmers**: 2
- **IFA**: 1
- **SETU**: 1
- **ICBF**: 1
- **Environmental Commentators**: 1
- **Organic and Biodynamic Sources**: 1

*Numbers in the chart represent how many times these information sources were mentioned in the survey*
Agricultural Consultant Responses (n=15)

Farming enterprises that participating agriculture consultants advise
“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?”

“Do you agree that you have the skills and knowledge to effectively baseline farms on key sustainability elements relevant to carbon farming?”

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."

- **Resources**: 7% Strongly Agree, 14% Agree, 50% Neutral, 29% Disagree, 29% Strongly Disagree
- **Skills**: 7% Strongly Agree, 15% Agree, 21% Neutral, 36% Disagree, 21% Strongly Disagree

- **Farmers Lacking Skills**: 29% Strongly Agree, 43% Agree, 7% Neutral, 21% Disagree, 21% Strongly Disagree
Topics That Consultants Identified as Valuable for Further Learning

- Carbon Emissions Calculations
- Full Carbon Accounting
- Water Usage and Quality
- Farm Hedgerows Quality
- Selling Carbon Credits
- Soiled Water and Slurry Production
- Forestry
- Solar and Dairy Efficiency
- Multi-Species Sward Inclusion
- Regenerative Farming
- Nutrient Recycling and Carbon Sequestration
Common Themes

- Access to Technology and Tools
- Data - Security, Management, Access & Verification
- Incentives / Sustainability Bonuses
- Knowledge Transfer - Demo Farms / National Hub / Access for all
- Policy Change - Clarity & Consistency
- Consumer /Retailer Engagement
Cohort Specific Needs

- External Consultancy
- Carbon Farming Implementation
- Information on New Farming Practices
- User-Friendly Information
- Acknowledgment and Recognition
<table>
<thead>
<tr>
<th>Provider Type</th>
<th>Name of Provider</th>
<th>Description</th>
<th>Website</th>
<th>Contact Email</th>
<th>Contact</th>
<th>Target Audience (Age)</th>
<th>Duration</th>
<th>Mode</th>
<th>Prerequisites</th>
<th>Exam</th>
<th>Certification</th>
<th>Learning outcomes or objectives</th>
<th>Description of Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>University</td>
<td>Agricultural Consultants Association (ACA)</td>
<td>Agricultural consultants provide expert advice and training in various agricultural sectors.</td>
<td><a href="#">Website</a></td>
<td><a href="#">Contact</a></td>
<td><a href="#">Email</a></td>
<td>18-65</td>
<td>4 years</td>
<td>Bachelor’s degree</td>
<td>NA</td>
<td>NA</td>
<td>Graduate Certificate in Agricultural Business Management</td>
<td>FARM EYE</td>
<td>2.5.4.5.6.7</td>
</tr>
<tr>
<td>University</td>
<td>BASE Ireland</td>
<td>Focuses on providing agricultural and environmental sustainability practices.</td>
<td><a href="#">Website</a></td>
<td><a href="#">Contact</a></td>
<td><a href="#">Email</a></td>
<td>18-65</td>
<td>4 years</td>
<td>Bachelor’s degree</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>FARM EYE</td>
<td>2.5.4.5.6.7</td>
</tr>
<tr>
<td>University</td>
<td>Climate Ready Academy: Skillnet</td>
<td>Specializes in training for climate change adaptation and mitigation.</td>
<td><a href="#">Website</a></td>
<td><a href="#">Contact</a></td>
<td><a href="#">Email</a></td>
<td>18-65</td>
<td>4 years</td>
<td>Bachelor’s degree</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>FARM EYE</td>
<td>2.5.4.5.6.7</td>
</tr>
<tr>
<td>University</td>
<td>Department of Agriculture, Food, and the Marine (DAFM)</td>
<td>Responsible for the management of Ireland’s agricultural, environmental, and fisheries sectors.</td>
<td><a href="#">Website</a></td>
<td><a href="#">Contact</a></td>
<td><a href="#">Email</a></td>
<td>18-65</td>
<td>4 years</td>
<td>Bachelor’s degree</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>FARM EYE</td>
<td>2.5.4.5.6.7</td>
</tr>
<tr>
<td>University</td>
<td>Environmental Protection Agency (EPA)</td>
<td>Monitors and protects the environment to ensure it remains healthy and sustainable.</td>
<td><a href="#">Website</a></td>
<td><a href="#">Contact</a></td>
<td><a href="#">Email</a></td>
<td>18-65</td>
<td>4 years</td>
<td>Bachelor’s degree</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>FARM EYE</td>
<td>2.5.4.5.6.7</td>
</tr>
<tr>
<td>University</td>
<td>Irish Cattle Breeding Federation (ICBF)</td>
<td>Promotes the improvement of Irish cattle breeds.</td>
<td><a href="#">Website</a></td>
<td><a href="#">Contact</a></td>
<td><a href="#">Email</a></td>
<td>18-65</td>
<td>4 years</td>
<td>Bachelor’s degree</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>FARM EYE</td>
<td>2.5.4.5.6.7</td>
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<tr>
<td>University</td>
<td>Irish Creamery Milk Suppliers Association (ICMSA)</td>
<td>Represents the Irish creamery milk suppliers.</td>
<td><a href="#">Website</a></td>
<td><a href="#">Contact</a></td>
<td><a href="#">Email</a></td>
<td>18-65</td>
<td>4 years</td>
<td>Bachelor’s degree</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>FARM EYE</td>
<td>2.5.4.5.6.7</td>
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<tr>
<td>University</td>
<td>National Rural Network (IRN)</td>
<td>Supports rural communities and agriculture.</td>
<td><a href="#">Website</a></td>
<td><a href="#">Contact</a></td>
<td><a href="#">Email</a></td>
<td>18-65</td>
<td>4 years</td>
<td>Bachelor’s degree</td>
<td>NA</td>
<td>NA</td>
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<td>2.5.4.5.6.7</td>
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<tr>
<td>University</td>
<td>Skillnet Ireland</td>
<td>Provides skills training for the Irish agricultural sector.</td>
<td><a href="#">Website</a></td>
<td><a href="#">Contact</a></td>
<td><a href="#">Email</a></td>
<td>18-65</td>
<td>4 years</td>
<td>Bachelor’s degree</td>
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<td>NA</td>
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<td>2.5.4.5.6.7</td>
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<tr>
<td>University</td>
<td>National Organic Training Skillnet (NOTS)</td>
<td>Specializes in organic farming training.</td>
<td><a href="#">Website</a></td>
<td><a href="#">Contact</a></td>
<td><a href="#">Email</a></td>
<td>18-65</td>
<td>4 years</td>
<td>Bachelor’s degree</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>FARM EYE</td>
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</tr>
<tr>
<td>University</td>
<td>Sustainable Energy Authority of Ireland (SEAI)</td>
<td>Promotes renewable energy and sustainable technologies.</td>
<td><a href="#">Website</a></td>
<td><a href="#">Contact</a></td>
<td><a href="#">Email</a></td>
<td>18-65</td>
<td>4 years</td>
<td>Bachelor’s degree</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>FARM EYE</td>
<td>2.5.4.5.6.7</td>
</tr>
<tr>
<td>University</td>
<td>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)</td>
<td>Offers a range of courses across multiple universities.</td>
<td><a href="#">Website</a></td>
<td><a href="#">Contact</a></td>
<td><a href="#">Email</a></td>
<td>18-65</td>
<td>4 years</td>
<td>Bachelor’s degree</td>
<td>NA</td>
<td>NA</td>
<td>NA</td>
<td>FARM EYE</td>
<td>2.5.4.5.6.7</td>
</tr>
<tr>
<td>University</td>
<td>Teagasc</td>
<td>Provides training in agricultural science and technology.</td>
<td><a href="#">Website</a></td>
<td><a href="#">Contact</a></td>
<td><a href="#">Email</a></td>
<td>18-65</td>
<td>4 years</td>
<td>Bachelor’s degree</td>
<td>NA</td>
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<td>NA</td>
<td>FARM EYE</td>
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</tr>
</tbody>
</table>
Participants Recommendations

Farmer Recommendations

- Sustainable Farming Networks
- Educational Workshops, Training Programs and Courses

Agri Consultant Recommendations

- Involvement in Existing National Programs
- Centralise Digital Support Hub

Agri Corporate Recommendations

- Knowledge Dissemination
- Guidance on data requirements
FARMEYE Recommendations

- Provide an Interactive Natural Capital Atlas of Irish Agriculture in 2024
- Empower Farmers With the Tools and Standards to Assess Their 2024 Soil Carbon Baseline
- Implement a 2024 Above-Ground Carbon Baseline
- Fair and Accessible Capability Building Activities for All
- CSRĐ Reporting Support for Scope 1, 2 and 3 for Agri Corporates within the Irish Agri Food Sector
Implications for the Deep Demonstration

What capability and capacity building needs should be addressed to ensure the success of the Deep Demonstration flagship roll out over the next 3 years?

- More awareness-raising around the term “circular bio-economy” among farmer and agri-consultant groups through targeted campaigns;
- Support to agri-consultants to develop their skills and resources around carbon sequestration, carbon baselining, and carbon credit markets;
- Promote further events, open-days or local networks that support knowledge transfer on carbon farming or circular bio-economy at the local level;
- Ensure equal involvement of various agri-consultant groups in any activities or services provided (eg. between Teagasc and ACA);
- Dairy flagship should consider aligning its data collection with current corporate CSR/D needs;
- Continued research around learning needs for specific target groups
Questions?