

Digital Inclusion & Irish Agriculture



IFA



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**Access for every farmer to the
digital skills and technologies
they need to participate in the
digital economy**

In a digitally-driven economy, that means ensuring that everyone has the skills they need to flourish with nobody left behind.

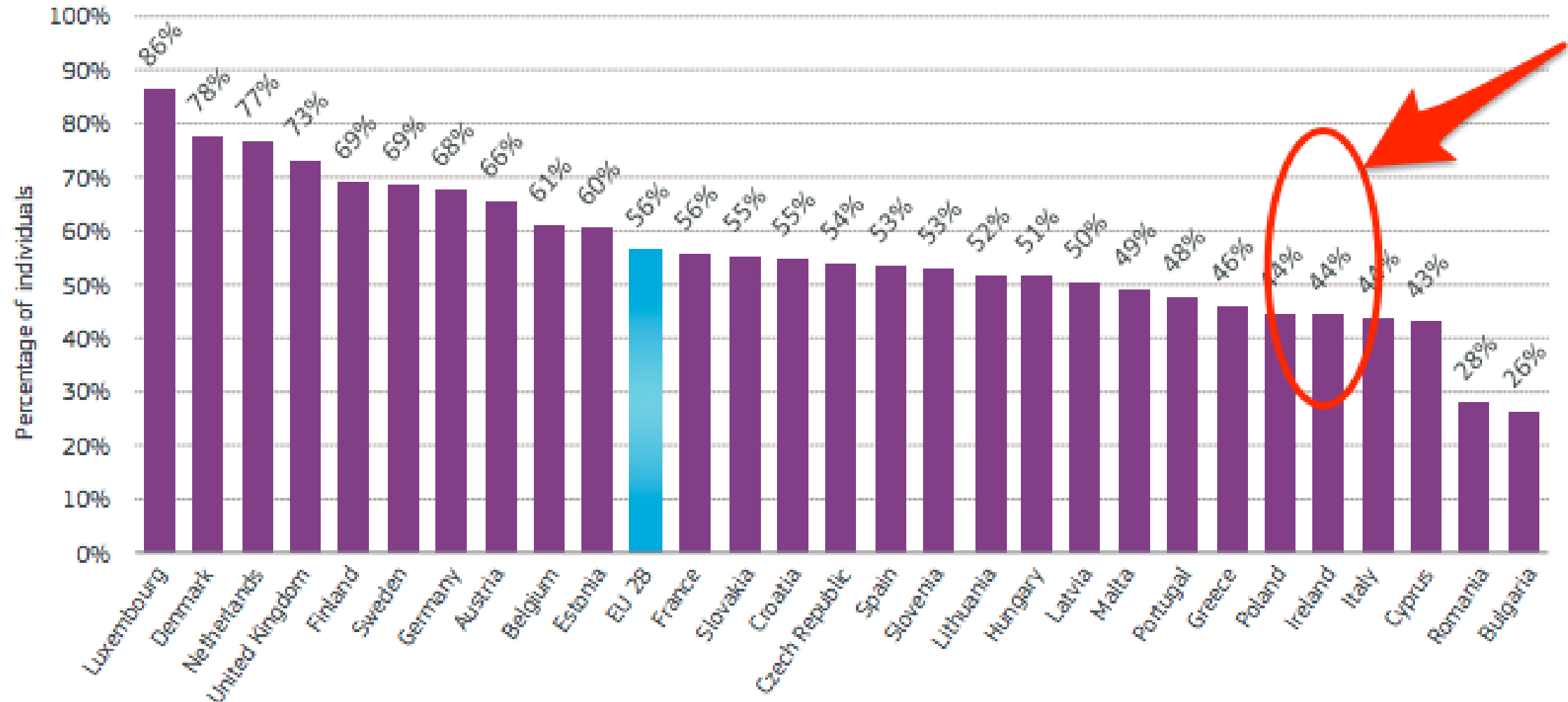
Participation

We need to support farmers to develop the skills they need to participate in the digital economy.

Productivity

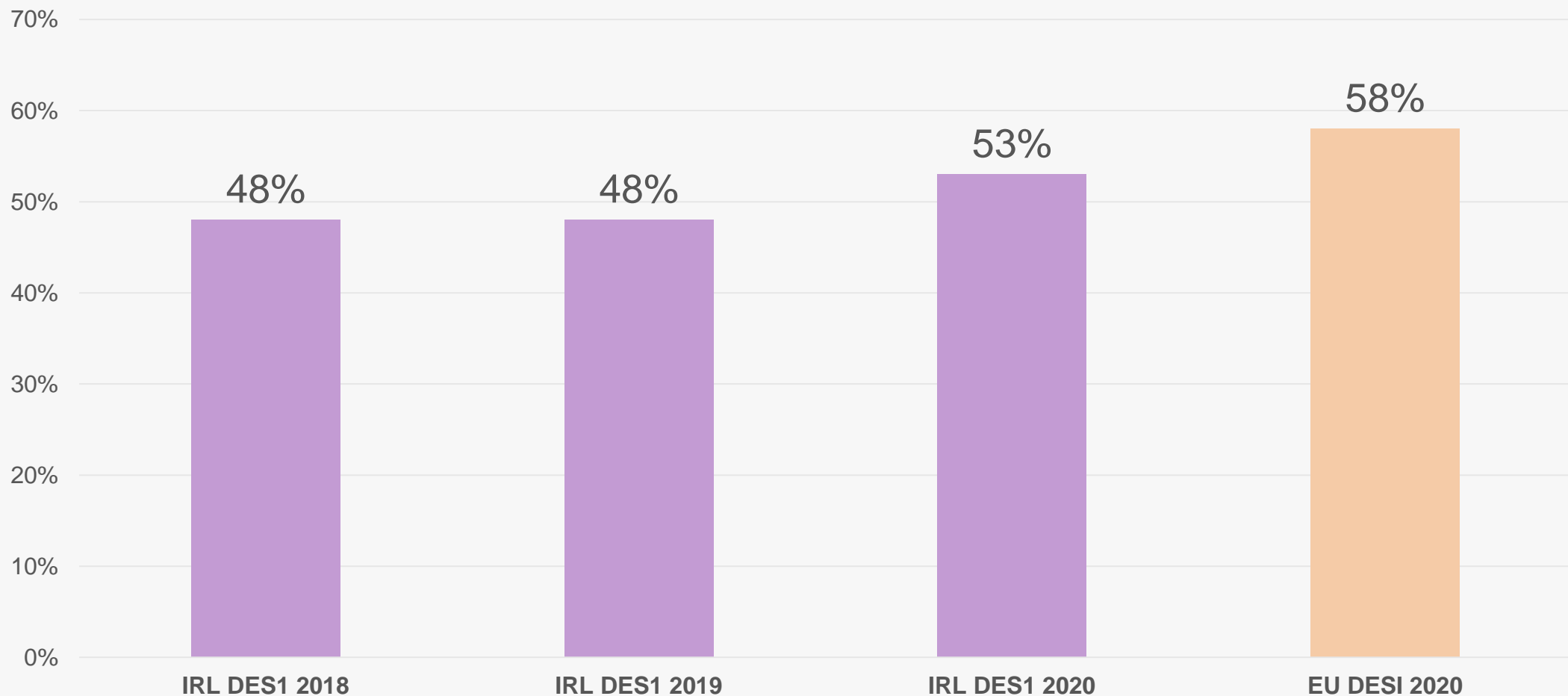
Help farm businesses harness the productivity benefits of Digital Business.

“In 2017, 56% of Irish citizens did not have **basic** digital skills”



Source: The Digital Skills Gap in Europe, October 2017, European Commission

Percentage of Individuals with at least basic digital skills (Ireland)



Source: Digital Economy and Society Index (DESI) Ireland 2020, European Commission

In the near future, 90% of jobs will require digital skills

Source: The Digital Skills Gap in Europe, October 2017, European Commission



9bn world population by 2050 translating
into 70% required growth in global food
production.

Global agriculture is increasingly becoming more technologically advanced.

A core objective of **IFA & Farm Business Skillnet** is to:

- equip farmers with the **skills & knowledge** of how to use this technology
- and in turn **increase technological adoption** on farms in **Ireland**.

What's **stopping** us?

The **general population** suffer from **four** key barriers

Access

The ability to connect to the internet and go online

Confidence

A fear of breaking, fear of crime, lack of trust and not knowing where to begin online

Skills

The ability to use the internet and online services

Motivation

Understanding why using the internet is relevant and helpful

Source: Global Innovation Index, 2017; European Commission STOA Foresight Report

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NESC Dimensions of Digital Exclusion

Access &
Connectivity

Confidence

Skills

What's stopping us?

Farming has its own set of unique challenges



Farm Size

Farm Data

Analytics
&
Management
Gaps

Education
&
Research
Gaps

Connectivity
&
Digital Divide

Business
Development
&
Employment

Farm Business Skillnet

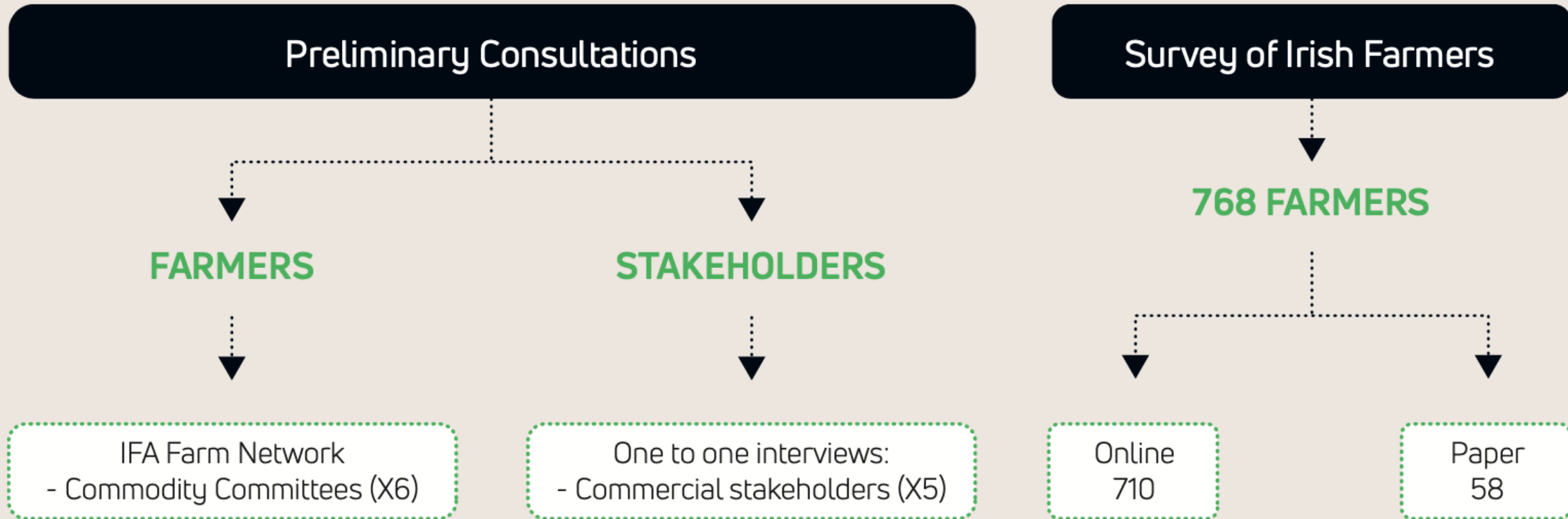
undertook a research project with **Amárach Research** to survey farmers and relevant stakeholders in Ireland.

- **Current awareness** and usage of farm technology.
- **Barriers** and **positives** to using farm technology.
- **Training** and **education**.








“Those working in the industry are of the view that advocacy and communication will be paramount in developing and maintaining technological adoption on farms.”

Research Methodology



NESC Agenda for Action

-  **Develop a national strategy for digital inclusion, with a key focus on co-ordination, and with a strong commitment to fine-grained measurement of progress.**
-  **Create a comprehensive framework for digital skills progression.**
-  **Support digital inclusion at community level.**
-  **Deliver targeted supports for material access to key groups.**
-  **Enhance guidance for digital and assisted-digital public services, and complementary channels.**

Key Takeaways

The background of the slide is a photograph of a green tractor, likely a John Deere, with a dark green overlay. The tractor's hood features a label that reads "ARMSTRONG MACHINERY" above "DEMONSTRATOR". A license plate or identification tag on the side of the tractor displays the number "D-34720". The tractor is positioned in the center-right of the frame, facing towards the left.



Technology Confidence

There is a strong use of **technology** among a widespread group of those surveyed.

The **majority** have a **smartphone (84%)** and a **laptop (69%)**.

70% use farming related apps with **dairy** and **tillage** farmers most likely to use **farming apps**.

Unsurprisingly **younger cohorts** are more **confident** in tech.

Confidence in everyday tech and **likelihood to invest** in tech go hand in hand.


There is a **positive attitude** towards tech:

- **46%** of farmers claim to be **already using** tech on-farm
- **40%** **plan** to embrace in the future

BUT lots of work to do!

Only **two systems** have **over 75%** adoption in a relevant sector:

- **Calf registration system** in **Dairy** with **86%**
- **GPS** machine guidance in **Tillage** with **77%**

A green tractor is shown in a field, with the text "Current Technology Usage" overlaid in white. The tractor has "ARMSTRONG MACHINERY" and "DEMONSTRATOR" written on its side. The license plate is "D-34720".

Current Technology Usage



Barriers to Adoption

“Aside from broadband, increased support on training would have one of the most positive effects.”

55% identify the lack of, or quality of, **broadband** as the **main barrier**.

This is followed by the **cost of the initial investment** and the **support and maintenance costs of technology**.

60% included access to **support and training** in their top **three barriers**.

Confidence in usage is key for many — those who are **not confident** in everyday technology are more likely to **see access to support and training** as a **barrier**.


Agricultural media has a strong influence on farmers' ag tech adoption **(42%)**

- This rose to **52%** for under **35s**

Close collaboration and buy-in from **farm advisors** is important – a key channel to increase adoption.

Social relationships should be leveraged where farmers get the opportunity to see how **peers** are using tech and **learn** from one another.

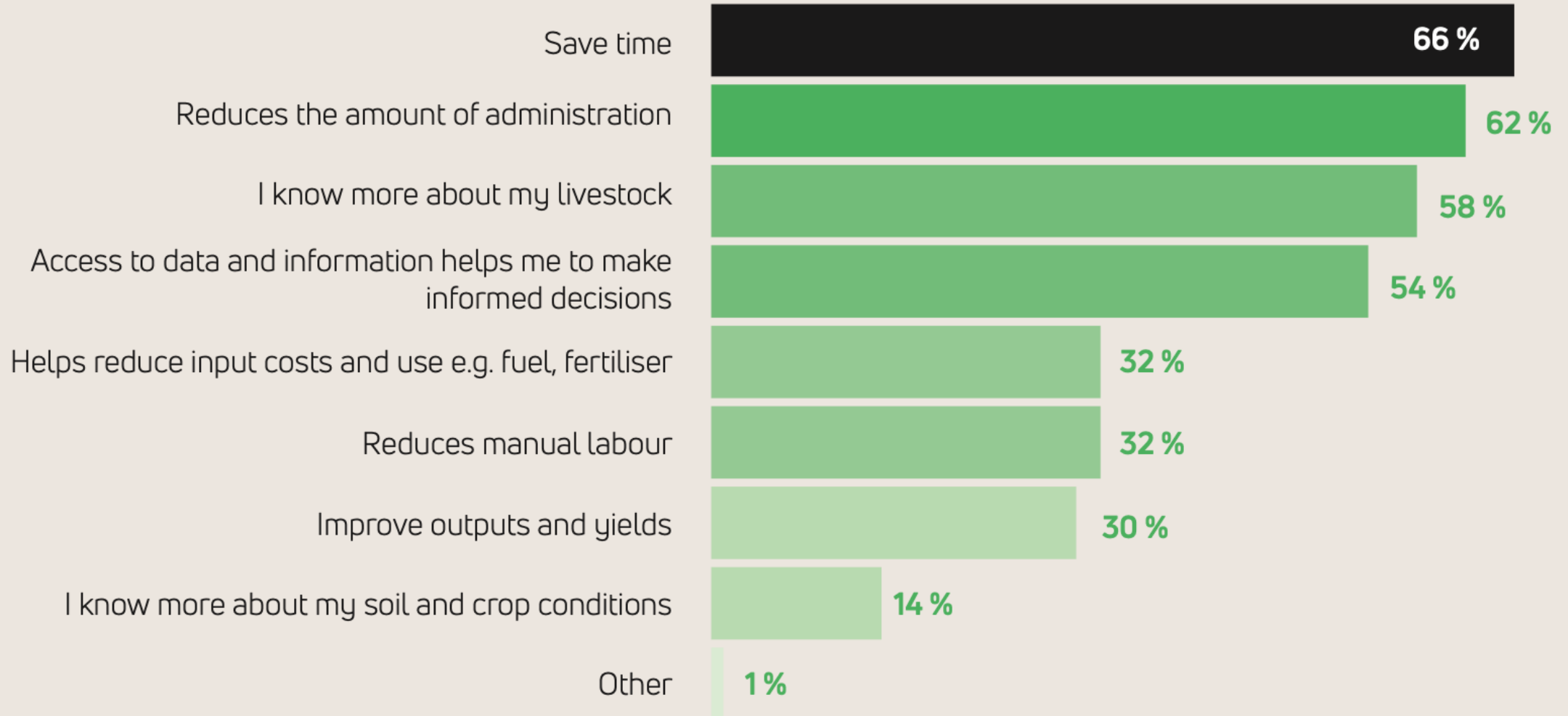
Leveraging Current Farmer Experiences

A photograph of a person sitting on a tractor, herding a flock of sheep on a rolling green hillside. The scene is captured from behind the tractor, showing the sheep moving across the field. The image is overlaid with a semi-transparent green filter.

“There is an acceptance that farmers will need to see first-hand evidence of technology working and of claims made by software providers.”

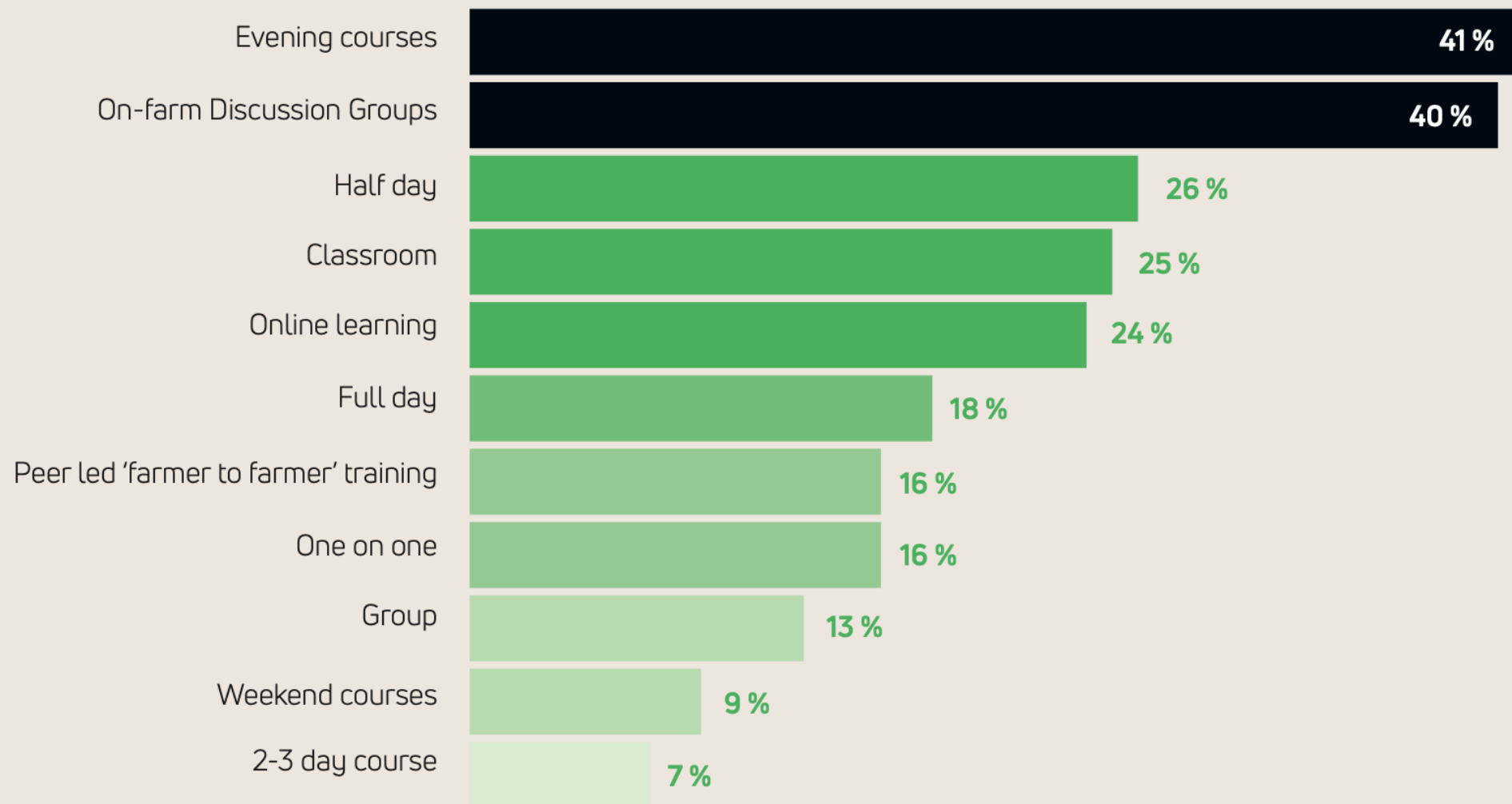
Leveraging Current Farmer Experiences

How does using technology help you in your daily work on the farm?



Education & Training

What type of learning environment would work best for you?



A woman wearing a dark long-sleeved shirt and jeans is kneeling in a field of large-leafed green plants. She is wearing white gloves and holding a tablet computer, looking down at it. The entire image has a green tint.

Education & Training

“One of the core aims of this report is to analyse and define the digital skills gaps and requirements.”

25% of those who have completed training, have **completed courses** in **digital farming technology**.

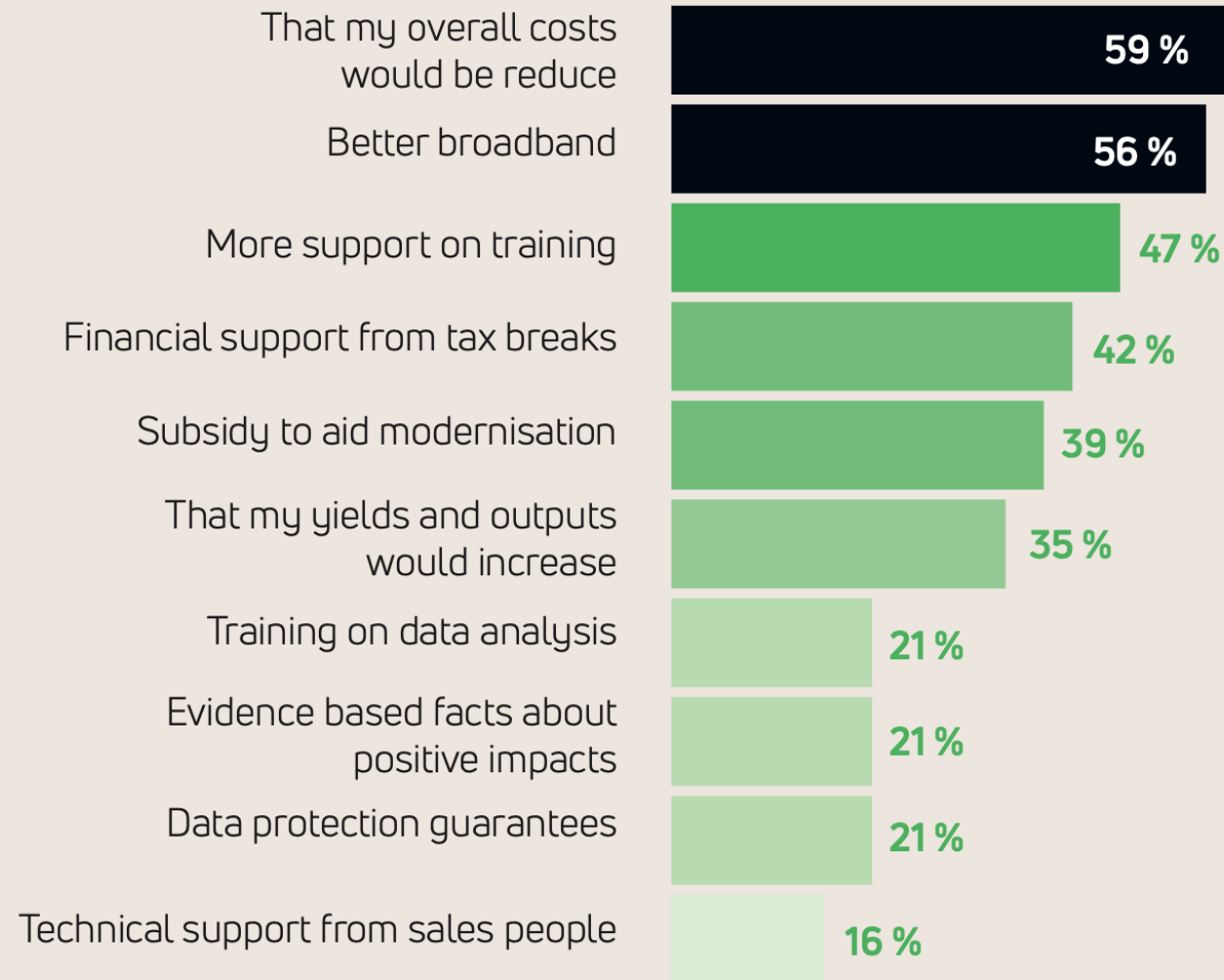
Those who have **completed digital training** courses are more **likely to invest in technology** in the future.

In an ideal situation, farmers feel **on-farm Discussion Groups** are a **better learning environment**, with **evening** the most suitable.

Under 35s feel most **comfortable** with **online learning** but still are just as likely to value DG.

Supports & Incentives

What incentives would encourage you to use/ increase use of digital?



Financial incentives would be the most likely factor to **increase use or adoption.**

Aside from broadband, **increased support on training** would have one of the **most positive effects.**

Supports & Incentives



“ Aside from broadband, increased support on training would have one of the most positive effects. ”

60% of farmers said they are likely to **invest** in **digital technology** in the near future.

The **majority (42%)** are planning to do so within the next **2 years** – **tillage farmers** and **under 35s** the most likely to invest in the next **12 months**.



Future Investments

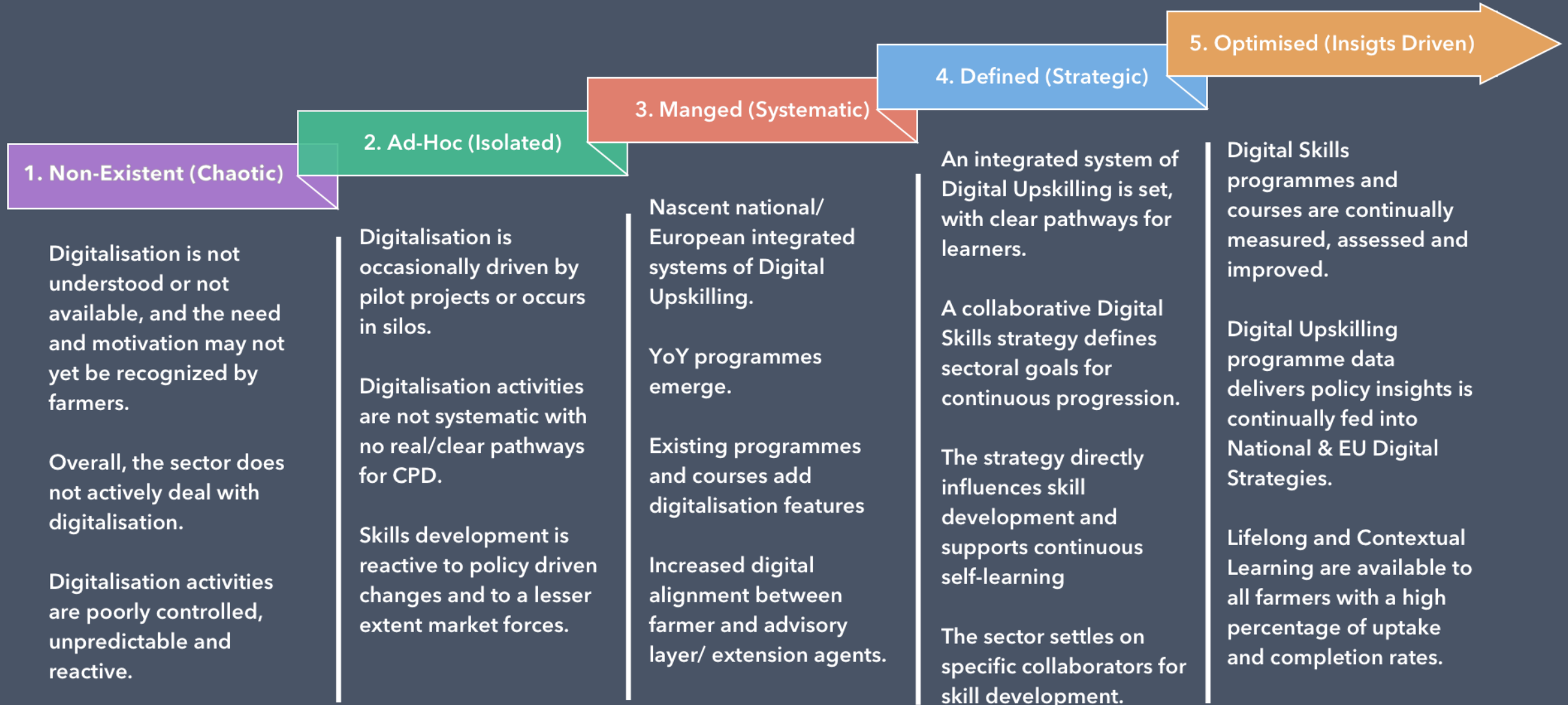
“Dairy farmers are most likely to invest. Those who have completed digital training are more likely to consider investing than those who have not.”

Key Drivers

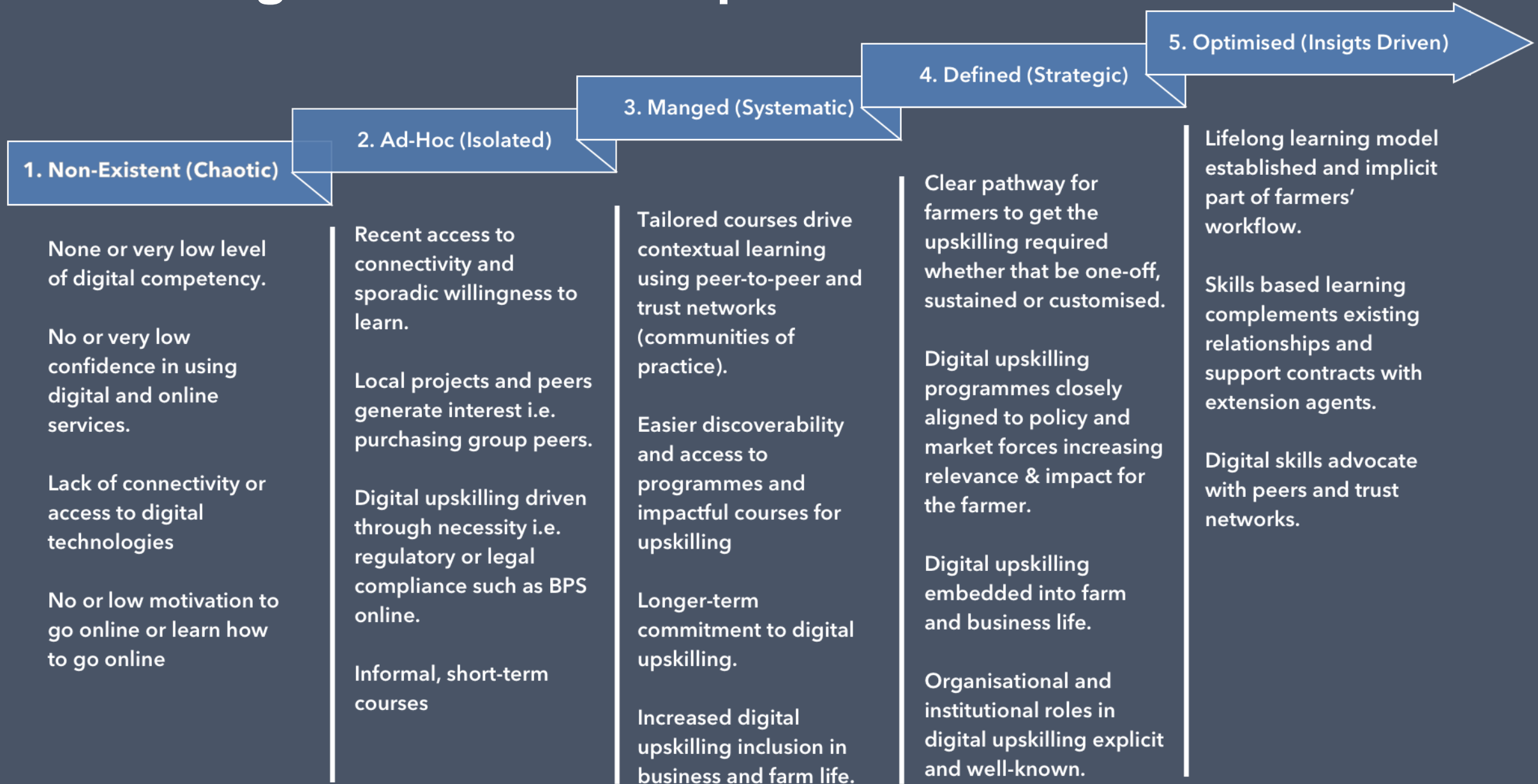
“A smartphone is a farmer's office computer - software/apps and other technologies should be designed and managed through the smartphone.”

- 1 Increase confidence
- 2 Build appreciation of cost vs benefits
- 3 Provide **hands-on practical** and **peer-led** approach to **learning** and **support**
- 4 **Support** through **financial incentives** are **valued**
- 5 **Support** for **training & development**
- 6 **Rural broadband** accessibility is **key**

Agri Ecosystem Digital Skills Development Model



Farmer Digital Skills Development Model



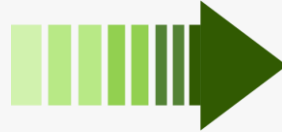
Mapping NESC 'Agenda for Action' to Agri

1. Develop a national strategy for digital inclusion, with a key focus on co-ordination, and with a strong commitment to fine-grained measurement of progress.



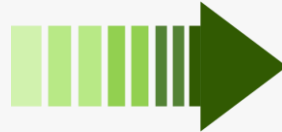
1. Agri Ecosystem Digital Skills Development Model, Modernisation Schemes & Subsidies.

2. Create a comprehensive framework for digital skills progression.



2. Farmer Digital Skills Development Model, Agri Ecosystem Digital Skills Development.

3. Support digital inclusion at community level.



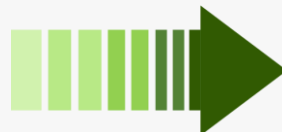
3. Hands-on, social and peer led approach for learning and support.

4. Deliver targeted supports for material access to key groups.



4. ROI from investments, subsidisation, schemes, advisory and knowledge exchange mechanisms.

5. Enhance guidance for digital and assisted-digital public services, and complementary channels.



5. Training and support for AgFood.ie and other regulatory systems. Better UX for services i.e. mobile ready.

**Access for every farmer to the
digital skills and technologies
they need to participate in the
digital economy**

The COVID Effect

Virtualise the entire organisation in days.

All our County Executives occurring online.

Greater attendance and participation.

First Digital AGM and continuing to lobby for farmers.



Thank You

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