GROW

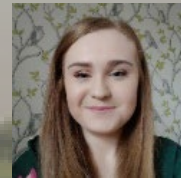# Barriers to the adoption of technology amongst European farmers

McLaughlin, S. [1], Fox, M. [1], Gabriel, A. [2], Jeliński, T [3]., Czech, L. [3], Durand, S [1].

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Introduction

- There is an urgent need to design targeted approaches to drive technology adoption in agriculture
- Knowledge about farmers' attitudes and experiences with the use of digital technologies crucial for developing these targeted approaches

Methods

- Study aim: Identify barriers and opportunities to facilitate technology adoption amongst farmers in **Germany** (GER), **Poland** (POL), **and Northern Ireland** (NI)
- Method: Online survey February-October 2022 NI (n=132), POL (n=101), GER (n=805)

Results & Discussion

Farm structures

Production type:
- Conventional (NI – 92%, POL – 98%, GER 83%)
- Organic (NI – 1.5%, POL, GER – 15%)

Production sectors
- NI – 92% livestock farming
  POL – 83% arable, 53% livestock
  GER – 62% arable, 44% livestock

Use of digital farming technologies (DFT)

- Communication, trading platforms and forecast models most used DFTs
- Most adopted arable DFTs Section control (NI- 26%, POL - 40%) and automatic steering systems (GER - 30%)
- Most adopted livestock DFTs   Barn camera (NI- 60%, POL - 48%) and transponder feeding systems (GER - 30%)

Information and support

- Farmer and experience exchange groups most trusted source of information
- Information services most used regarding DFT:
  Webinars (NI)
  YouTube videos (POL)
- Specific support needed
  - Arable (Investment, individual farm level advice)
  - Grassland/pasture (Training, education, demonstration)
  - Animal monitoring (Investment funding)

Barriers to adoption

NI — Initial investment, broadband networks, government support

POL — Initial investment, running costs, IT knowhow

GER — Initial investment, running costs, compatibility of systems