Farming Innovation Programme

Feasibility Studies – September 2023

Alex Howell
Agri-Innovation Team - Defra

Why are we supporting innovation?

Productivity: The UK has seen lower productivity growth than our neighbours over the last 30 years

Environment: Agriculture accounted for 10% of UK greenhouse gas emissions in 2018

Fragmentation: many fantastic researchers, innovative businesses and promising ideas, but players don't necessarily collaborate effectively

Coordination: failures in the current innovation system result in poor translation of public spending into real life impacts on productivity/sustainability

Adoption: Low levels of uptake of innovation by farmers, growers, businesses in large part due to capital risk & ineffective knowledge sharing

Previous Programmes

2013 - Agri-Tech Strategy
£70m Agri-tech Catalyst
£90m for 4 Agri-tech Centres

2018 - Industrial Strategy Challenge Fund (ISCF) £90m Transforming Food Production Challenge

2021 - £14.5m **Farming Innovation Pathways** fund

Department for Environment Food & Rural Affairs

UKRI Innovate UK

The Farming Innovation Programme

- Part of Defra's Agricultural Transition Plan

- £270M of grant funding for R&D through to 2028/29

- To enhance productivity, environmental sustainability and resilience in England's farming sectors

- Funding is awarded on a competitive basis to high quality, innovative projects

- Collaborative projects must benefit farmers and growers in England

Department for Environment Food & Rural Affairs

UKRI Innovate UK

The **Farming Innovation Programme** offers a range of opportunities for farmers, growers, businesses and researchers to collaborate on industry-led research and development:

Small **Research Starter Projects** where farmers, growers & foresters can explore a new idea, or **Projects to Accelerate Adoption** (coming soon) where farmers and growers can trial new innovation on their farms.

Feasibility projects where businesses can check if a research idea works in practice.

Small/Large Partnership Projects, where businesses can further develop a new farming product or service towards commercialisation.

Themed competitions (Farming Futures R&D Fund), where businesses and researchers can work on longer-term innovation focussing on issues like **Climate-Smart Farming**, or **Sustainable farm-based Proteins**.

Farming Innovation Programme Timeline

October 2021
- £1M - Research Starter Projects (round 1)
- £8M - Feasibility Projects (round 1)
- £11M - Small Partnership Projects (round 1)

March 2022
- £8M - Large Partnership Projects (round 1)
- £12.5M - Climate-smart farming

May 2022
- £1M - Research Starter Projects (round 2)

July 2022
- £12.5M - Sustainable farm-based Proteins

Autumn 2022
- Feasibility Projects (round 2)
- Small Partnership Projects (round 2)

January 2022
- £12.5M - Automation and Robotics
- £1M Research Starter Projects (round 3)

February 2023
- £8M – Large Partnerships Projects (round 2)

May 2023
- £12.5M On Farm Environmental Resilience

August 2023
- £9.8M - Small R&D Partnership Projects (round 3)

September 2023
- £4.5M - Feasibility Studies (round 3)

Department for Environment Food & Rural Affairs

UKRI Innovate UK

Feasibility Studies

- Early stage of the R&D journey
- Support through the testing phase to see if worth investing in further

Aims

- Drive innovation for responsive, commercially-relevant solutions to address immediate practical industry challenges affecting farmers, growers and the sector

- Accelerate the impact of new solutions to deliver positive outputs for farmers, growers and the sector

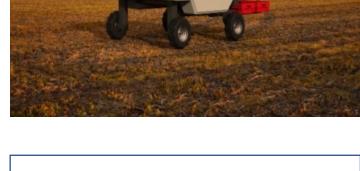- Drive collaboration between the agri-food sector and wider UK research and innovation expertise

Department for Environment Food & Rural Affairs

UKRI Innovate UK

Farming Innovation Programme Projects

ARWAC

This project lays the foundation for next-generation robotic vehicles powered by renewable energy and tooled to control blackgrass. It drives productivity by increasing yield through weed eradication.
This project will push the technology from laboratory stage to full testing in multiple farm environments.

Hoofcount Vision Detection for Early signs of DD Lesions and Lameness Within Dairy Cattle

Dairy cows are susceptible to a range of hoof issues such as sole ulcers, white line disease and overgrown hooves. This project is focussed on the development of an early detection lameness monitoring system for dairy cows. Detecting and treating these issues at an early stage is beneficial to the animal in keeping the hooves healthy and preventing severe lameness which leads to a lower production and increased veterinary / treatment costs.

Muddy Machines - Robotic Courgette Harvester

Developing a novel class of agricultural machine that can reliably replace manual labour. Building from their autonomous asparagus harvester, Muddy Machines are focussing on Courgettes, which present more complex challenges for imaging, software, and gripping.