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# Welcome



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# Nutrient Management

Competition Q&A & Consortium Building Event

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Knowledge Transfer Managers – AgriFood, Innovate UK Business Connect

5 June 2024

The webinar will start at 14:00 or soon after – we are just waiting for people to join.

# Agenda

## 1 Welcome and housekeeping (14:00 - 14:05)

Joanna Gosling (Innovate UK Business Connect)

## 2 Competition overview (14:05 - 14:20)

Robert Crook (Innovate UK)

## 3 Q&A (14:20 – 14.35)

## 4 Break out room introduction (14:35 - 14:40)

Joanna Gosling (Innovate UK Business Connect)

## 5 Thematic breakout rooms – 1 (14.40 - 15.00)

## 6 Break (15.00 - 15.10)

## 7 Business Connect Support (15.10 - 15.20)



## 8 Thematic breakout rooms – 2 (15.20 - 15.40)

## 9 Random breakout rooms (15:40 – 15.50)





# Housekeeping

- Please stay on mute **throughout the talks.** 
- Please put any **questions in the Q&A box** and use the chat function to network. 
- During the **breakout room session turn your camera and microphone on.**
- **Slides will be shared with all registrants** by email incl. recording of presentations (breakout rooms will NOT be recorded).
- Remember to **share details/copy what you need from the chat.**

# About us

Innovate UK Business Connect exists to link innovators with new partners and new opportunities beyond their existing thinking.

Accelerating ambitious ideas into real-world solutions.





# Innovate UK Business Connect Team





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# The AgriFood Team

at Innovate UK Business Connect



# Deep expertise in AgriFood



**Livestock &  
Aquaculture**



**Crops**



**Food**



# How we can help



**Make powerful connections**



**Secure funding**



**Get expert insight**



**Keep up to date**



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# Nutrient Management – Phase 1

Robert Crook (Innovate UK)  
Innovation Lead





# The Farming Innovation Programme

- Funded by Defra
- Delivered in partnership with UKRI, building upon success of Transforming Food Production Challenge
- **Collaborative projects must benefit farmers and growers in England**





# Farming Innovation Programme

	What you want to do	→	Take a look at
	Explore an idea that could benefit your farm and others		Research Starter
	Check whether an idea works in practice		Feasibility
	Develop a new farming product or service		Small R&D Partnership and Large R&D Partnership
	Work on longer-term or strategic farming innovation projects		Farming Futures R&D Fund

# Farming Futures R&D Fund



## Key Aims

- Stimulate industry focus on **major longer-term challenges** for which solutions are further from the market
- Accelerate development of **novel, disruptive and transformational** solutions
- Facilitate industry and researchers to **work collaboratively** around a common strategic challenge
- Join up early-stage research, applied R&D and translational activities to develop **useful and readily adoptable solutions**

# Farming Innovation Programme

Develop solutions to address major on-farm challenges or opportunities in agricultural and horticultural practices, and improve:

- ✓ productivity
- ✓ sustainability and environmental impact
- ✓ progression towards net zero emissions
- ✓ resilience



# Farming Futures: Nutrient Management – Phase 1

Two Strands:

Feasibility Studies  
Industrial Research

Early-stage projects  
Mid-stage projects

Total budget



**£15**  
Million

Total project costs

**FS:** £200 - £500K

**IR:** £500K-1.0M

Duration

**FS:** 12 - 24 months

**IR:** 24 - 36 months

Have a min of **50%** of the total grant awarded to any farmers or growers involved in project  
**allocated to farmers or growers based in England**



Must be **collaborative** applications



**FS:** can be led by UK Business or RTO

**IR:** must be led by UK Business



**Competition deadline**

**24<sup>th</sup> July 2024**

**11:00**

**Projects to start by**

**1 January 2025**

# What is Nutrient Management ?

Nutrient management involves **using nutrients** (both organic and manufactured) as **efficiently** as possible **to maximise plant uptake, crop growth and yield**. It also includes applying nutrients where and when they can be best utilised by plants, thereby combating run-off and soil erosion. Good nutrient management should **increase productivity** whilst **protecting the environment** by **minimising nutrient loss.**'

The key nutrients are Nitrates and Phosphates

# What are current Risks and Opportunities ?

## Risks

- **Environmental** - Agricultural nutrients contribute to pollution, principally to water, air, soils and climate.
- **Resilience** - Global shocks to fertiliser supply and prices have caused uncertainty and increased the need to use fertiliser efficiently. There is a limited and finite supply of rock phosphate. China and Russia are responsible for a significant proportion of global fertiliser exports.

## Opportunities

- **Effective use** – systems for better uptake and management of nutrients could reduce the inputs need by farmers and increase productivity
- **Nutrient recycling & recovery** – slurries and livestock manures and other farm wastes provide valuable sources of organic nutrients. Systems to retrieve nutrients from these sources can reduce the need to import inorganic fertilisers and help net zero.
- **Valorisation** – Potential for farmers to create additional income streams from waste



# Scope

Collaborative research and development projects with ambitious solutions to address the challenges related to nutrient management in soils and water associated with agricultural livestock and crop production that:

- improve management of nitrogen and phosphate nutrients in soil and water
- provide a positive impact on air quality and greenhouse gas emissions
- are applicable to manage nutrients from farm crop waste or from farm animal waste or from chemical and artificial fertilisers
- Can consider industrial and domestic wastes that are already used in agriculture, but the focus is on farm wastes. Utilisation of new waste streams is not included
- lead to improvement of soil, and ground and river water quality
- reduce nitrogen, phosphate and sediment run-off and pollution

# Scope

Projects could develop ambitious solutions that:

- process farm waste to extract or to optimise nutrient levels of nitrogen and phosphate
- enable better targeted application of nutrients and avoid surplus application
- improve handling, treatment and storage of farm wastes
- improve plant nutrient demand and uptake techniques, including bio stimulants
- improve ability and efficiency to transport nutrients from farm waste from areas of surplus to areas of demand
- provide opportunities through livestock feed and diet amendments to reduce nutrients in waste streams
- use breeding techniques for livestock or crops to impact nutrient management
- process farm waste to extract biomaterials or add value **if this reduces the nutrient load to soil and water**
- improve anaerobic digestion processes and improve the processing of digestate to **optimise nutrient quality for accurate and precise distribution**
- provide opportunities through circular economy approaches **to recover nutrients** and other useful products from farm

# Specific Themes

Focus on one or more of the following agricultural and horticultural production sectors:

## Livestock

- Monogastric
- Ruminant

## Plants

- Broadacre: cereals, root crops, grassland
- Horticulture: field based and specialist growers
- Fruit: top fruit, stone fruit and soft fruit
- Vineyard
- Protected cropping: glass and polytunnel systems
- Controlled Environment and Vertical Farming Systems



# Specific Themes

**Your project could focus on technologies including, but not limited to the following:**

- ✓ automation and machines
- ✓ sensing devices and analysis systems connected to manage and control a wider process
- ✓ animal and plant breeding including precision breeding of plants
- ✓ soil, water or air treatments
- ✓ waste treatment processes
- ✓ storage methods or treatment of farm waste to enable efficient transport to other regions
- ✓ development of artificial fertilisers and improve application methods
- ✓ processes to extract specific nutrients
- ✓ processes to turn farm waste into useful materials whilst extracting nutrients
- ✓ processes to turn farm waste to energy whilst optimising nutrient outputs

# Out of Scope

- × equine specific
- × forestry specific
- × specific to non-food or ornamental plants
- × involve wild caught fisheries
- × involve aquaculture for fish production or human consumption
- × involve cellular expression of proteins or cultivated meat
- × involve acellular production systems, fermentation systems for bacteria, yeast or fungi for human consumption
- × for the production of crops or plants for medicinal or pharmaceutical use
- × do not benefit farmers or growers in England
- × involve post gate processing and packaging
- × do not have a positive impact on management of nitrates and phosphates on English farms

# Meeting the brief: What are we looking for ?

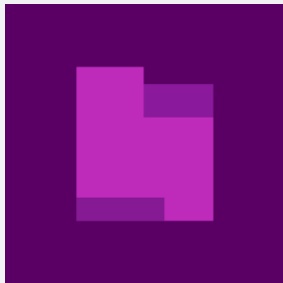
- Must address nutrient management problems affecting the agricultural sector
- Increase sustainability, productivity, and resilience of the agricultural sector
- Reduce environmental impacts and contribute to progression towards net zero emissions
- Multidisciplinary projects with diverse collaborations
- Value for money projects that put end-users at the core
- Focus on innovative solutions that can easily be integrated into the agricultural sector and adopted and used on farms
- Technologies appropriate to the application and to the end user to drive engagement and adoption

# Contact

## Customer Support Services

0300 321 4357 (Monday - Friday 9am-12pm and 2pm-5pm)

[support@iuk.ukri.org](mailto:support@iuk.ukri.org)



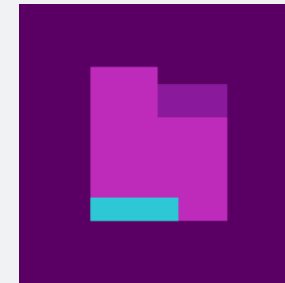
**Innovate UK**

[ukri.org/councils/innovate-uk](https://ukri.org/councils/innovate-uk)



**Innovate UK  
Business  
Connect**

[iuk.ktn-uk.org](https://iuk.ktn-uk.org)



**Innovate UK Business  
Growth**

[innovateukedge.ukri.org](https://innovateukedge.ukri.org)





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# Support: What makes a good application & consortium?

Pedro Carvalho  
Innovate UK Business Connect

# What makes a strong consortium?

- **Read the competition brief, collaboration is required**
  - 30 May 2024 Online briefing event: [watch the recording](#)
- **To lead a project**
  - Feasibility
    - Business of any size, Academic\*, RTO\*
  - Industrial Research
    - Business of any size
- **Projects with partners that cover a supply chain are generally stronger**

*\*must collaborate with at least one eligible grant claiming business of any size.*

# You have a great consortium – what could go wrong?

- **Who owns what?**

You will need a consortium agreement, so start early

<https://www.gov.uk/guidance/university-and-business-collaboration-agreements-lambert-toolkit>

- **Collaborate in all aspects of the bid**

No passengers – check everyone knows what they get and how much they have to contribute

- **Check the number of bids you can be part of**
- **Too many or too few partners**
- **Subcontracts**

# From start to finish be prepared

## Key Dates:

- Competition opens: 29 May 2024
- Competition closes: 24 July 2024 - 11:00am
- Applicants notified: 29 August 2024
  - Projects to start by: 1 January 2025
  - Projects to end by: 31 December...
    - 2025 (if Feasibility 12 months)
    - 2026 (if Feasibility/Industrial 24 months)
    - 2027 (if Industrial 36 months)

**Start preparing now**

**Your written application needs all  
the usual hallmarks of great bid**

<https://iuk.ktn-uk.org/investment/good-application-guide/>





# Eight Hallmarks of a Good Application

1. Alignment to the competition scope
2. Innovation
3. Strong business case
4. Convincing value proposition
5. Credible R&D plan
6. Right consortium
7. Clear need for support
8. The right kind of risk

# Tops tips – part one



**Agree key points of  
the collaboration  
EARLY**



**Explicitly answer  
all sub-questions**



**Use appendices  
where available**



**Don't assume  
assessors are experts  
in your area**

# Top tips – part two



**Quantify and  
justify  
assertions**



**Check all  
deadlines and  
event dates**



**Start discussing,  
planning and writing  
ASAP**



**Remember risk  
and innovation –  
you need both**



# Write an exciting and compelling bid

Get in touch if you want our help

**Joanna Gosling**

[joanna.gosling@iuk.ktn-uk.org](mailto:joanna.gosling@iuk.ktn-uk.org)

**Cathryn Lambourne**

[cathryn.lambourne@iuk.ktn-uk.org](mailto:cathryn.lambourne@iuk.ktn-uk.org)

# Available support

- **JOIN OUR LinkedIn Group**
  - Farming Innovation Programme: Finding Information and Partners
- **1-2-1 MEETING BOOKING LINK**
  - 15 min 1:1s with IUK Business Connect on 6, 7, 13 and 17 June
- Additional questions regarding scope should be sent to [support@iuk.ukri.org](mailto:support@iuk.ukri.org).

## Find out more:

<https://iuk.ktn-uk.org>

<https://iuk.ktn-uk.org/agrifood/>

Why not get the Business Connect [AgriFood Newsletter](#) each month?



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