



UK Research  
and Innovation



Department  
for Environment  
Food & Rural Affairs



Department for  
Energy Security  
& Net Zero

Building A Green Future – Targeting national priorities

# Transforming Land Use for Net Zero, Nature and People (LUNZ)

Collaborative Research Programme Between UKRI,  
Defra and DESNZ, DAERA, Scot Gov. Welsh Gov.

Research Projects Community Workshop  
Manchester, 12 June 2023



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# Background

- This programme is the outcome of discussions started by Defra and UKRI immediately after COP26
- To develop the programme scope, a workshop of officials including BBSRC, NERC, Defra, ESRC and DAERA was held in 2022.
- Through the partnership 3 priority areas have been identified:
  - Soil health and soil carbon dynamics
  - Land use and land use change
  - Reducing farming emissions



# Strategic Drivers

## Environmental

- Agriculture and land use are big drivers of land degradation and biodiversity loss
- Agriculture (70% of UK's land) contributes to 10% of emission
- Multi-functional potential of a healthy soil system – carbon sequestration and biodiversity

## Policy

- Emerging policy commitments (Several strategies and Plans - Net Zero Strategy; National Food Strategy; Environment improvement plan, ...)
- UK commitment to global treaties e.g. Paris Agreement, CoP26 commitments, etc.

## Socio-Economic

- Productivity of land - based systems
- Profitability of investments – alternative livelihood options
- Sustainability of production approaches
- Industry leadership e.g. NFU's 2040 net zero target

## Urgency

- Need to meet the 2050 net zero target
- The scale of needed transformation is huge and complex
- Progress is slow and we have only 2½ decades to go.
- Need to move from Business as Usual to **Business Unusual**

## Response: UKRI Five-Year Research Strategy - Five Themes



- Building a green future
- Building a secure and resilient world
- Creating opportunities, improving outcomes
- Securing better health, ageing and wellbeing
- Tackling infections

# Our Vision

*Mobilise and support research to work in partnership with government and industry to tackle net zero through action in the UK land sectors*

Support Government & industry in the **delivery of UK legal commitments on net zero** and the environment, increasing food security and economic growth

**Transform the way UKRI and Government work** together to tackle our most pressing land-based environmental and societal challenges

Deliver strategic, **high-impact transdisciplinary research**; expert knowledge; and community practice; **co-designed** and co-led with policy-makers

**Build on past and other current investments** and deliver impact (e.g. Farming Innovations; Soils programmes; AFN Network+; AgZero+; SPFs – TUKFS, Land use decisions, GGR, ...)

**Stronger UK transdisciplinary capability & capacity** with advanced knowledge & skills for land use practitioners and policy makers, alongside enhanced community mobilisation and partnerships to achieve net zero

**Embedding research into policy** through integration of new and existing evidence on land use for climate mitigation, biodiversity and agriculture, to enable designing climate-resilient land-policy for 2030 and beyond

Development of clean growth opportunities (practices and technologies) that have **real-world transformational impact**

# Programme Scope

*Integrated, systems approach to soils, land-use and farming, targeting policy questions through cutting edge research, co-designed among researchers, policymakers and other stakeholders*



## Land use change

- **Drivers** of land use change
- **Social, environmental, and economic outcomes** from land use change
- **Scenarios** for future UK land use
- **Policy interventions:** to drive the right change in the right places
- **Decision support:** improving capability and boosting adoption



## Agricultural Emissions

- **Solutions:** new production technologies and management strategies and their adoption
- **Transformation** of the agri-food system - new business models and social innovations across scales
- **Monitoring & Scaling:** demonstration, metrics and monitoring at farm, regional and national levels



## Soil system health and carbon dynamics

- **Rethinking soil health:** new indicators
- **Soil monitoring:** tools and technologies
- **Rethinking soil management:** new approaches



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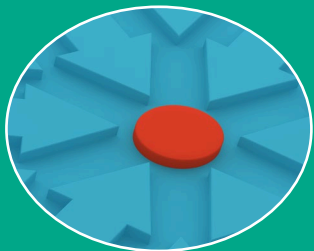


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# Programme Delivery



## Coordination & Translation Hub (£6.25M)

- *Convene a transdisciplinary, cross-sectoral community to support the UK in achieving net zero, while meeting other environmental and societal goals.*
- *The hub will advance research, integrate knowledge, identify routes to impact and fast-track evidence into policy*



## Strategic Research Projects (£14M)

- *Deliver cutting edge transdisciplinary research that feeds directly into policy.*
- *Embed co-designed systems research, and **fast-track solutions for practitioners**, building on past investments to **accelerate impact.***



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# Strategic Research Projects: What we are looking for

*High-impact research and innovation to put the UK at the cutting edge of finding solutions and provide evidence to inform policy options for driving system transformation towards net zero, and to build a community of practice.*

Transdisciplinary cutting-edge research integrating all relevant disciplines in a systems approach

Co-design and co-delivery involving all relevant stakeholders (academics, policy makers, farmers industry, etc.)

Link with the Hub and other projects to provide the evidence base for addressing key policy questions

Build on, and add value to, past and other current investments in these areas

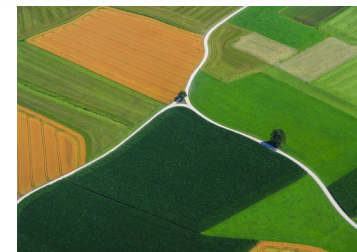
Produce new knowledge and technical solutions to drive environmental, social and economic change

Integrated approach exploring the linkages among the three themes - synergies, complementarities, and trade-offs

Support system transformation and develop pathways to net zero targets and other societal benefits

Build a community of practice and strengthen research capacity in the three themes

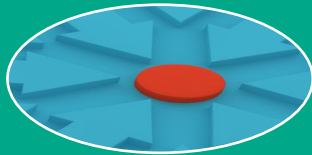
Develop tools and strategies to address policy and practice challenges in the three areas



# Linking Research Projects to the Hub

## Programme Aims

- *Build relationships among research, Government, industry and other stakeholders*
- *Deliver research that feeds directly into policy and decision-making*
- *Develop and explore plausible pathways to net zero*



## Coordination & Translation Hub

- *Co-develop pathways, advance research, **integrate knowledge, identify routes to impact and fast-track evidence into policy** to support the UK in the transformation towards net zero.*



## Strategic Research Projects

**Provide evidence to inform policy options** for driving the desired systems transformation.



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Thank you

Questions?

# Strategic Research Projects: Process and Timelines

## Process:

- Apply through **The Funding Service** (UKRI's new system) not Je-S
- Expression of Interest open to all potential applicants
- Full proposals by invitation from eligible Eols
- Assessment by a panel of experts, no pre-panel peer review

**Call Announcement:** <https://www.ukri.org/opportunity/land-use-for-net-zero-research-lunz-research/>

## Timelines:

- Community Workshop: 12 June 2023 – registration deadline extended till 05 June.
- Expression of Interest deadline: **11 July 2023** (it was live since 19 April)
- Invitation for full proposals: Mid July 2023
- Deadline for submission of full proposals: **18 October 2023**
- Assessment panel meeting: Jan 2024
- Expected project start date: 01 March 2024

**For Questions or More info contact:** [support@funding-service.ukri.org](mailto:support@funding-service.ukri.org)

