

# DAERA Directed AFBI Research Work Programme

2022/23















# **Background**

The 2022/23 DAERA Directed AFBI Research Work Programme (DDARWP) will be part the Department's transition from the Evidence and Innovation Strategy updated for 2015-17 (EIS)<sup>1</sup>, and associated commissioning processes, to the full implementation of the DAERA new Research and Development Operational Strategy and the DAERA Innovation Strategy<sup>2</sup>.

The mission of the DAERA Research and Development Operational Strategy 2022 is to get the best R&D (informed, influential science from high quality impartial scientists<sup>3</sup>); at the best value; and make the best use of it to support the achievement of the DAERA purpose and sets the following three goals towards the achievement of this mission:

- DAERA gets the best R&D;
- DAERA gets the best value from its R&D; and
- DAERA gets the best use from its R&D.

The DAERA Innovation Strategy 2020-2025 outlines the goals and objectives for DAERA to create an enabling environment for innovation to flourish and to enhance the impact of knowledge generation and science investments to help DAERA deliver Departmental and PfG objectives and meet our commitments under the UN Sustainable Development Goals.



<sup>&</sup>lt;sup>1</sup> See <a href="https://www.daera-ni.gov.uk/publications/evidence-and-innovation-strategy-updated-2015-17">https://www.daera-ni.gov.uk/publications/evidence-and-innovation-strategy-updated-2015-17</a>







<sup>&</sup>lt;sup>2</sup> See <u>DAERA Innovation Strategy launched | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)</u>

<sup>&</sup>lt;sup>3</sup> High quality science is promoted through commissioning from providers who assure the quality of their scientists and science through peer review arrangements and adherence to best practice quality standards.

The 2022 DDARWP will continue to utilise the Programme Management Board structures under the previous Evidence and Innovation Strategy until new governance arrangements are fully agreed and implemented as part of the implementation of the new R&D and Innovation strategies. A new PMB (5) has been established to lead governance arrangements relating to long-term Strategic Research projects.

EIS Goal		PMB
Goal 1: To help the Agri-Food Industry Prepare for Future Market Opportunities and Economic Challenges	<b>→</b>	PMB1: Performance in the Marketplace
Goal 2: To Improve the Lives of Farmers and Other Rural Dwellers, Targeting Resources where they are most needed	<b>⇔</b>	PMB2: Informing Policy and Improving the Lives of Farmers and Other Rural Dwellers
Goal 3: To enhance Animal Fish and Plant Health and Animal Welfare on an all-Ireland basis	<b>↔</b>	PMB3: Animal and Plant Health and Animal Welfare
Goal 4: To Help Deliver Improved Sustainable Environmental Outcomes	<b>⇔</b>	PMB4: Sustainable Environment
Goals 1-4: Long term strategic research platform to support EIS Goals	<b>↔</b>	PMB5: Strategic Research Platform

## **Programme Development**

One of the major roles and responsibilities of each PMB is to review, identify and prioritise investment in evidence gathering or innovation support activity in light of policy needs and/or evidence gaps. Evidence and innovation needs are identified by DAERA on an ongoing basis, informed by both informal and formal engagement with stakeholders.

This process ensures the development of an evidence and innovation programme that is appropriately aligned to policy needs, provides a robust evidence base for future policy development, implementation and review and/or supports industry innovation within the scope of DAERA's policy interests.

The Evidence and Innovation Priorities Group (**EIPG**), to which the PMBs report, is responsible for making the final decisions on the overall priority assigned to evidence and innovation needs and the projects that will be commissioned through the DAERA Directed AFBI Research Work Programme.

Proposals agreed through this annual process form part of the work programme delivered by AFBI for DAERA4.







<sup>&</sup>lt;sup>4</sup> See http://www.legislation.gov.uk/nisi/2004/3327/article/6/made

# DAERA Directed AFBI Research Work Programme 2022/23

DAERA Evidence and Innovation needs for 2022/23 for the DDARWP are set out in the sections that follow.

- It is anticipated that AFBI will submit Full Format Proposals (FFP) to address each of the Evidence and Innovation needs identified. If AFBI is not able to address a particular 'need' due to capacity or capability reasons, it should highlight this to DAERA at the earliest opportunity;
- Proposals which do not address DAERA's Evidence and Innovation needs, or are outside DAERA's strategic remit are ineligible for inclusion in the Research Work Programme;
- DAERA is particularly interested in receiving FFPs which support the development of capability in areas of key strategic importance (e.g. behavioural science; land-use and economic modelling; data mining; genomics).

#### **Assessment and Approval Process**

- Projects cannot commence until AFBI receives a commissioning letter from DAERA Chief Scientific Adviser's Office; and
- Publicity or marketing of any of successful projects must acknowledge DAERA as the primary funder.
- All FFPs received by the closing date will be reviewed by PMBs and EIPG.
- The associated timetable and evaluation procedures are set out in Annex A on page 18.

#### Liaison with DAERA Policy

- Further information on each E&I need can be obtained from the nominated DAERA Policy Lead. Contact details are listed at <u>Annex B</u> on page 19;
- To help with co-design of projects, AFBI Project Leads may submit outline proposals to the DAERA Policy Lead using the Concept Note pro-forma which is available on the DAERA website. **This step is recommended but not mandatory**;
- A FFP should be completed for each proposed submission. The template form can be downloaded from the DAERA website.

#### **Closing Date**

- The proposal window closes on **Friday 2nd September 2022** and all FFP(s) received up to this date will be reviewed by DAERA;
- FFPs received after this deadline will not be accepted unless prior approval for delayed submission is agreed; and
- All completed forms should be submitted via the AFBI central contact point to:-

e&i@daera-ni.gov.uk







### **Evidence and Innovation Needs**

Evidence and Innovation needs to be addressed in 2022/23 for each Programme Management Board are set out in the following sections (pages 6-17).

- PMB 1 Performance in the Marketplace
- PMB 2 Informing Policy and Improving the Lives of Farmers and Other Rural Dwellers
- PMB 3 Animal and Plant Health and Animal Welfare
- PMB 4 Sustainable Environment
- PMB 5 Strategic Research Platform

#### PMB 1 - PERFORMANCE IN THE MARKETPLACE

The overall objective of PMB 1 is to identify and prioritise evidence gathering and innovation support activity to promote the sustainable economic development of the local agri-food, fisheries and forestry industries. In order to inform policy development and delivery, it is paramount that there is a sound understanding of the complex social, political and economic interactions which affect the operating environment in which these industries function.

The Future Agricultural Policy Framework Portfolio for Northern Ireland aims to develop a framework that is better suited to local needs and one that will underpin long term sustainability within the industry. The framework's vision for future agricultural policy is defined around four desired outcomes:

- Increased productivity;
- Environmental sustainability;
- Improved resilience; and
- An effective functioning supply chain.

The Future Agricultural Policy Framework Portfolio for Northern Ireland and The Northern Ireland Food Strategy Framework, are both are part of the cross-departmental approach to Green Growth.

PMB 1 aims to achieve this objective through the research relating to Evidence and Innovation Research Needs Areas outlined below:

#### Evidence and Innovation Research Needs Areas (E&I RNAs):

- 1. Evaluate impact of policy changes on the sector;
- 2. Sustainable and competitive production evidence;
- 3. Sustainable and competitive production innovation;
- 4. Efficient use of resources:
- 5. Novel and innovative products and processes;
- 6. Production sustainability in energy resource technologies;
- 7. Improving forest productivity and exploiting opportunities;
- 8. Competitiveness and sustainability of fisheries and aquaculture; and
- 9. Responding to climate change adaptation and mitigation.

FFPs should be developed to address the E&I needs outlined below. The requested proposals for projects represent a programme of work with a focus on behavioural science, hence coordination and linkages between the projects is encouraged.

	Cuidalina	DAEDA
PMB 1 Evidence and Innovation Needs	Guideline Duration	DAERA Policy Lead
Sustainable and Competitive Production - Environmental Business Development Groups Research is required to develop an evaluation methodology and framework to measure and assess the impact of CAFRE Environmental Business Development Groups. This should apply and develop the methodology developed by AFBI in previous monitoring and evaluation studies relating to DAERA innovation programmes.	1 year	Peter Simpson
Sustainable and Competitive Production - Supply Chain Collaboration Research is required to more deeply understand NI producer attitudes, behaviours and motivations in relation to supply chain collaboration, specifically within the red meat and horticulture sectors.	1-2 years	George Moffett Paul Mooney Joy Alexander
<ul> <li>Understanding how best to affect behavioural changes affecting safety within the farming sector</li> <li>Building on a previous AFBI project<sup>5</sup>, research is required to underpin new policies to increase the awareness and adoption of farm safety best practice on Northern Ireland farms<sup>5</sup>. A proposal should include work to:</li> <li>(a) Determine how farmers perceive safety risk and their awareness of risk in relation to routine farming practices.</li> <li>(b) Gain an understanding of the barriers to adopting better practices in relation to safety on the farm.</li> <li>(c) Identify effective strategies and mechanisms to encourage farmers towards adopting safer working practices on farm.</li> </ul>	2-3 years	Louise Millsopp/ Albert Johnston
Sustainable and competitive production evidence - disease control policy - stakeholder perspectives (1)  Research is required to understand herd-keepers' attitudes, behaviours and motivations in relation to their approach to preventing infectious disease in their herd. A greater understanding of these drivers would assist in the implementation of disease eradication programmes. The proposal should relate to the elucidation of these factors for both endemic (to include bTB and DVD) and exotic notifiable diseases.	2 years	VSAHG lead

<sup>&</sup>lt;sup>5</sup> This would build on the findings of DAERA E&I project 18/1/19 - A socioeconomic study to examine those factors which impact on behaviours and actions in order to improve farm-level safety).

PMB 1 Evidence and Innovation Needs	Guideline Duration	DAERA Policy Lead
Sustainable and competitive production evidence-disease control policy - stakeholder perspectives (2)  A study is required to review the effectiveness of channels used to communicate messages on epizootic preparedness and response to stakeholders – farmers and the general public. This should consider sociological and psychological factors affecting stakeholder compliance with epizootic control measures (specifically the Avian Influenza Protection Zone) and best measures to affect farm management changes to minimize epizootic threats.	2 years	VSAHG lead
Responding to climate change – Adaptation and mitigation- Sustainable pasture for grazing and conserved forages (sub-Programme)	3 years	Martin Mullholland
Research is required to investigate nitrogen-efficient swards (beef, sheep and dairy) requiring low or minimal use of inorganic fertilizer applications. To include studies to investigate the potential of multi-species and pure legume swards:  (a) to lower carbon footprint through:  • Reduced use of inorganic fertiliser applications;  • Improved soil carbon sequestration;  • Improved animal health & performance; and/or  • Lowering methane emissions  (b) to deliver other ecosystems services, such as:  • Improved soil health;  • Improved biodiversity; and/or  • Improved water quality.  (c) to assist with climate adaptation.		
Responding to climate change – Adaptation and mitigation – agroforestry (desk based study)  A desk-based study is required to consider the optimal approach to integrating agroforestry into beef, sheep and dairy systems. As part of this, a synthesis report is required to outline the current state of knowledge and evidence gaps.	1 years	Martin Mulholland
Responding to climate change – Adaptation and mitigation - feed additives  Research is required to evaluate the long-term impacts of feed additives as mitigation measures for methane emissions in cattle. Studies should include an investigation on the concept of pre-weaning nutritional programming of dairy-bred (male and female) calves fed 3-nitrooxypropanol (3-NOP) feed additive.	2 years	Martin Mulholland

# PMB 2 – INFORMING POLICY AND IMPROVING THE LIVES OF FARMERS AND OTHER RURAL DWELLERS

A key objective of PMB 2 is to build the evidence base to inform the Department's broad rural policy agenda. In particular, it is seeking to use research to develop a more robust and sophisticated understanding of the social and economic characteristics of rural areas, with a particular focus on identifying the specific needs of disadvantaged groups and what this means for the development and equitable delivery of government policy for both the farming and non-farm sector. A second key objective of PMB 2 is to commission cross-cutting economic research that will provide a deeper insight into the impact of policy options right across the Department's remit and inform future policy development on agri-food industry competitiveness, animal health and welfare, and environmental sustainability.

PMB 2 aims to achieve this objective through the research relating to Evidence and Innovation Research Needs Areas outlined below:

FFPs should be developed to address the E&I needs outlined below. Where possible AFBI proposals should seek to exploit opportunities in Big Data, Artificial Intelligence and Transformative Bioeconomy within its research proposal.

#### Evidence and Innovation Research Needs Areas:

- 1. Understanding and evaluating socio-economic challenges, needs and potential of traditional land and marine-based industries and appropriate policy responses;
- 2. Identifying the particular challenges, needs and potential of rural and fishing communities and appropriate policy responses;
- 3. Using economic modelling frameworks to develop and test policy interventions and to assess their impacts;
- 4. Evaluating the costs and benefits to the economy of animal and plant disease prevention and control:
- 5. Understanding the economic value of improving environmental footprint in land and marine-based industries;
- 6. Understanding how best to affect behavioural changes within the agri-food, forestry and fishing sectors;
- 7. Understanding how best to maximise the returns from education and technology transfer;
- 8. Understanding how best to embed economic sustainability into rural policy interventions, including the role of innovative solutions, new technologies and social enterprise;
- 9. Evaluating the potential of innovation and new technologies (ICT) to deliver better social and economic outcomes in rural areas; and
- 10. Responding to climate change adaptation and mitigation.

PMB 2 Evidence and Innovation Needs	Guideline Duration	DAERA Policy Lead
Using economic modelling frameworks to develop and test policy interventions and to assess their impacts - Whole Farm Dairy Systems Model  A proposal is requested based on the application of a Whole Farm Dairy Systems Model to assess the technical, environmental and economic performance of dairy systems under various market and policy conditions.	3 years	Paul Keatley
Understanding the economic value of improving the environmental footprint of land and marine-based industries – afforestation policy  A study is required to assess the multiple environmental and economic benefits of a land use change to afforestation and identify the behavioural change impactors required for landowners to adopt this change.	3 years	Diane Stevenson
Evaluating the costs and benefits to the economy of animal and plant disease prevention and control- tree diseases.  There is a need to increase the evidence base on the impact of plant health issues on overall environmental health in Northern Ireland. Consequently, a study is required to quantify place values on the ecosystem services that are negatively impacted by plant and tree disease across N.I.	3 Years	Diane Stevenson
Understanding how best to maximise the returns from education and technology transfer – Qualifications A longitudinal study is required on the impact of the Level 3 Head of Holding qualification on the productivity, resilience and environmental performance of farm businesses.	5 years	Zita Hale
Understanding how best to maximise the returns from education and technology transfer – adoption of research findings  An assessment is required of how effectively education, training and knowledge exchange agri-food programmes are informed by emerging research findings which can be applied in a Northern Ireland context.	1 year	Zita Hale

#### PMB 3 - ANIMAL AND PLANT HEALTH AND ANIMAL WELFARE

The overall objective of PMB3 is to develop a strategic approach to protecting animal and plant health and animal welfare supported by sound scientific evidence. Information, gathered through targeted research, on the wider implications of animal / plant disease control strategies and interventions and animal welfare issues is needed to evaluate and inform the direction of future policy within Northern Ireland and to inform discussions with other Government bodies.

The proposed Northern Ireland Animal Health and Welfare Strategic Framework aims to provide an overarching and integrated approach to animal health and welfare programmes and activities in NI. It is proposed that the Framework should have a 10 year lifespan and adopt the following five animal health and welfare outcomes:

- We keep our animals healthy and treat them well;
- We have a competitive, innovative livestock industry that contributes to our economic prosperity;
- We protect public health and our food from animal related disease;
- We take a sustainable approach to farming of animals that respects the environment;
- We have animal health and welfare safeguards that are widely recognised and trusted.

The One Health concept recognises that the health of people is closely connected to the health of animals and our shared environment. An understanding of the changing interactions between people, animals, plants and our environment is becoming increasingly important in the context of growing and expanding world populations; climate change and land use; and the spread of endemic and zoonotic diseases.

PMB 3 aims to achieve this objective through the research relating to Evidence and Innovation Research Needs Areas outlined below. FFPs should be developed to address the E&I needs outlined below. Where possible AFBI proposals should seek to exploit opportunities in Big Data, Artificial Intelligence and Transformative Bioeconomy within its research proposal.

#### Evidence and Innovation Research Needs Areas:

- 1. Improving detection and control of endemic animal diseases;
- 2. Understanding risks to aquaculture and fish health;
- 3. Assessing and improving animal welfare;
- 4. Animal disease horizon scanning emerging risks;
- 5. Improving diagnosis and surveillance of plant pests and disease;
- 6. Costs, benefits and risk profile of animal and plant disease prevention and control strategies
- 7. New techniques/approaches to disease prevention and control; and
- 8. Responding to climate change adaptation and mitigation.

PMB 3 Evidence and Innovation Needs	Guideline Duration	DAERA Policy Lead
Animal disease horizon scanning – emerging risks- Fish health  Northern Ireland is declared free for listed finfish pathogens; it is essential that that this high fish health status is protected. Recent outbreaks of Infectious Haematopoietic Necrosis virus in Denmark, previously free from the disease mean that trout ova are being sourced from a range of other countries. In view of this background, a scoping study is required to evaluate the risks associated with the importation of trout ova into NI from EU and non-EU countries.	1 year+	Donna Lyons
Improving detection and control of endemic animal diseases - Farm fragmentation.  Bovine Tuberculosis (bTB) has a devastating impact on the cattle industry in Northern Ireland and local transmission is thought to be a key component. Conacre land is usually leased annually with no guarantee of renewal, making it difficult for the farmer leasing the land to justify potentially expensive modifications to improve bio-security. Research building on previous AFBI work <sup>6</sup> is required to develop a greater understanding of conacre-specific issues, which are currently poorly understood.	2 years	Lee Williamson
Improving detection and control of endemic animal diseases - alternative tests and method improvements for identifying bovine TB.  Research is required to define and establish a framework for validation and implementation of appropriate novel diagnostic tests and improvements to existing tests. This would enable rapid response to emerging technologies, statistically robust validation strategies and efficient use of funds through transparent interactions with test/technology providers. Proposals should seek to achieve this in 3 interconnected research strands:  1. Development of standardised roadmap for fast tracking evaluation/validations  2. Development of statistical framework (power calculation) for evaluations of different hypothetical assay types.  3. Evaluate novel assay candidate using framework and roadmap established in 1 and 2.	3 years	Lee Williamson

<sup>&</sup>lt;sup>6</sup> Research required would build on project 18/3/02 - FaRTHEr: Fragmentation As a Risk factor for TB in cattle Herds: impacts on ERadication

PMB 3 Evidence and Innovation Needs	Guideline Duration	DAERA Policy Lead
Improving detection and control of endemic animal diseases - wildlife diagnostic tools  Research is required to develop and/or further refine wildlife diagnostic tools for field or laboratory implementation and, in conjunction, use the opportunities presented to also assess the extent to which AMR bacterial species are present in local ecosystems. Proposals should consider two main research strands:-  1. Building on previous projects, evaluate potential "resource-efficient" testing adaptations e.g. use of dried blood spots for serological diagnostics and/or non-culture diagnostics for evaluation of badger carcasses.  2. Genome sequencing of bacterial species isolated from badger carcasses to define the bacterial species involved and the AMR genetic variants that underpin the phenotypes. Sequencing data could be used to enable better understanding of how AMR genes cycle through the farm and environment, potentially affecting human health.	3 years	Lee Williamson
Improving diagnosis and surveillance of plant pests and disease-epigenetic memory  As study is required to consider how transgenerational epigenetic memory for enhanced tree pathogen resistance might be exploited.  Identifying new trans-generational pathogen resistance mechanisms would inform new policies and strategies on tree pathogen management, forest management, and tree replanting.	3 years	Diane Stevenson
Assessing and improving animal welfare- dog breeding and supply and sale of pups  An evidence based review of current best-practice operational policies to regulate dog breeding and the sale and supply of pups is required. This evidence will inform a future DAERA policy and potential new legislation and regulation of dog breeding and the rules regarding the supply and sale of pups in Northern Ireland.	1 year	Christopher Andrews
Assessing and improving animal welfare-Improvements in farmed animal welfare which could support positive action to address climate change.  Research is required to investigate the relationship between higher welfare farming methods and Greenhouse Gas emissions in livestock sectors.	2 years	Christopher Andrews

#### PMB 4 - SUSTAINABLE ENVIRONMENT

The overall objective of PMB 4 is to address the environmental considerations which are major factors in health and wellbeing. Such issues include climate change, pollution, air / water quality, bio-diversity, waste management and protection of the landscape and natural resources. The main focus of evidence gathering and innovation support activity is to gain a better understanding of the issues surrounding environmental sustainability and climate change mitigation and the potential economic value attached to their effective management and exploitation. A better appreciation of the interaction between land/marine based industries and the natural environment and the regulatory compliance within and between these industries will help promote enhanced policy making and regulatory capabilities.

The Green Growth strategy is supported by the Environment Strategy<sup>7</sup> and actions to protect air, land, water and biodiversity.

PMB 4 aims to achieve this objective through the research relating to Evidence and Innovation Research Needs Areas outlined below. FFPs should be developed to address the E&I needs outlined below. Where possible AFBI proposals should seek to exploit opportunities in Big Data, Artificial Intelligence and Transformative Bioeconomy within its research proposal.

#### Evidence and Innovation Research Needs Areas:

- 1. Understanding and improving the environmental footprint of the agri-food industry;
- 2. Assessing and improving the impact of agri-environment programmes;
- 3. Understanding the environmental impact of changes in agricultural land use patterns and intensity:
- 4. Sustainable manure and nutrient management;
- 5. Assessing and improving sustainable fisheries and aquaculture;
- 6. Delivering resilient forests, crops and amenity horticulture in a changing climate; and
- 7. Responding to climate change adaptation and mitigation.

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<sup>&</sup>lt;sup>7</sup> Environment Strategy for Northern Ireland – Public Discussion Document | Department of Agriculture, Environment and Rural Affairs (daera-ni.gov.uk)

PMB 4 Evidence and Innovation Needs	Guideline Duration	DAERA Policy Lead
Understanding the environmental impact of changes in agricultural land use patterns and intensity New technologies for monitoring aquatic environments.  Research is required to investigate options and operational applications of new technologies for monitoring the aquatic environment. The proposal should give consideration to the inclusion of remote sensing, earth observation, telemetry, monitoring buoys, drones and other emerging technologies, in both marine and freshwaters.	3 years	Wendy McKinley/ Colin Armstrong
Responding to climate change: adaptation and mitigation - investigating the impacts of weather and climate change on aquatic ecosystems in Northern Ireland. Research in required to investigate the impacts of weather and climate change on aquatic ecosystems in Northern Ireland, in particular impacts on nutrients and biological metrics(including PfG and WFD indicators), and accompanying sampling methodologies.  Proposals should consider integration within the use of new technologies for instrumented catchments, and focus on two distinct strands:  Lakes (nutrients, macrophytes, blue green algae and alien species) and Rivers (nutrients and diatoms).	3 years	Wendy McKinley
Responding to climate change – adaptation and mitigation. Management of saltmarsh as a nature based solution for climate change adaptation and mitigation.  Evidence is required to evaluate the contribution of saltmarsh in different management scenarios to the GHG inventory, and the relative importance of nitrous oxide and methane emissions versus carbon sequestration. This will inform future management action plans to restore and/or create saltmarsh habitat.	2 years	Colin Armstrong
Assessing and improving sustainable fisheries and aquaculture. Future opportunities for aquaculture. Research is required to explore the feasibility of establishing sites for algal culture that could provide a sustainable source of seaweed to be used as supplements in livestock diets. Proposals should seek to develop existing ecosystem models to determine full life cycle analysis and understand the net benefits of bivalve aquaculture in improving water quality.	2 years	Donna Lyons, Claire Vincent

PMB 4 Evidence and Innovation Needs	Guideline Duration	DAERA Policy Lead
Assessing and improving sustainable fisheries and aquaculture. Land to sea interface.  Evidence is required to support the development of land to sea policies through the use of integrated catchment to coast models. This modelling work is required to support the assessment and planning of land use management and nature-based solutions for managing nutrients and carbon.	2 years	Claire Vincent
Assessing and improving sustainable fisheries and aquaculture Pelagic ecosystems.  Research is required to increase understanding of primary productivity and look at potential long-term changes in plankton communities. Proposals should consider ways in which plankton communities might be utilised as climate change indicators.	3 years	Claire Vincent
Assessing the integrated environmental impact of new technologies to support sustainable agriculture  As technologies emerge to address the environmental challenges faced by NI agriculture, it is important that the impact on environmental metrics such as GHGs, ammonia, biodiversity and water quality is assessed and fully understood prior to widespread implementation.	2 years	Paddy Savage Devina Park
Research is required to assess a range of off-farm manure management strategies from techno-economic and sustainability perspectives.		
Responding to climate change – Adaptation and mitigation – hill and uplands  The hill and upland sector delivers a range of ecosystem services. Research is needed to investigate greenhouse gas emissions factors for grazing systems on upland farming systems with high organic matter soils. This research should include studies to mitigate emissions and maximise carbon capture and retention in these types of systems.	3 years	Martin Mulholland/ Brendan Gilroy

#### PMB 5 - STRATEGIC RESEARCH PLATFORM

The overall objective of PMB 5 is to address the need for a strategic research platform for scientific activities involving the collection and aggregation of data or evidence over a long time horizon. The aim is to provide an essential foundation/platform of long term evidence such as important data sets or data-driven models on which research projects to meet the needs of PMBs 1-4 can be developed from. Projects under this PMB are commissioned and reviewed on a rolling three year review cycle.

Evidence and Innovation Needs	Duration: 3 years to first review	DAERA Policy Lead
Grasscheck  AFBI has delivered the Grasscheck project on behalf of DAERA and AgriSearch for around 20yrs. A proposal is required to refocus that work for future years and to maintain the underpinning science.	3yrs	TBC

#### Annex A

#### 1. Timetable

- The assessment process for 2022 will commence from Monday 5<sup>th</sup> September with AFBI notified of the outcome by 21<sup>st</sup> January 2023;
- The purpose of this additional step is to present a proposed programme to EIPG based on final FFPs which will be ready to commence from April 2023;
- To meet the overall timetable, submission deadlines will be strictly applied.

Date	Activity
20 <sup>th</sup> May 2022	Proposal window opens
2 <sup>nd</sup> September 2022 (15 weeks)	Closing date for FFP submission
21st October 2022 (7 weeks)	FFP assessment & feedback on required revisions issued to AFBI
18 <sup>th</sup> November 2022 (4 weeks)	Closing date for revised FFP submission, if requested
21 <sup>st</sup> January 2023 (9 weeks)	AFBI notified of outcome of FFP evaluation
From February 2023	Commissioning of approved projects
From April 2023	Commissioned projects commence

#### 3. Additional information

• FFP forms should be completed in Arial font size 12.

#### 4. Feedback

 Feedback on unsuccessful proposals will be coordinated by DAERA Science, Evidence and Innovation Policy Division and passed to a central contact in AFBI. DAERA Policy leads will not provide feedback to AFBI Project Leaders directly.







# Annex B

# **DAERA Contact Details**

DAERA Contact	Division/Branch	Tel. No	E-mail
Albert Johnston	Sustainable Agri-Food Development	028 9442 6948	Albert.Johnston@daera-ni.gov.uk
Brendan Gilroy	Agri Emmisions and Land Branch	028 9052 5005	Brendan.Gilroy@daera-ni.gov.uk
Christopher Andrews	Animal Health and Welfare Policy	028 7744 2067	Christopher.Andrews@daera- ni.gov.uk
Claire Vincent	Marine and Fisheries	028 9056 9250	Claire.Vincent@daera-ni.gov.uk
Colin Armstrong	Marine Conservation and Reporting	028 9056 9235	Colin.Armstrong@daera-ni.gov.uk
Devina Park	Agri Environment Policy	028 9052 4366	Devina.Park@daera-ni.gov.uk
Diane Stevenson	Plant Health Policy	028 6634 3012	Diane.Stevenson@daera-ni.gov.uk
Donna Lyons	Marine and Fisheries	028 4461 8039	Donna.Lyons@daera-ni.gov.uk
George Moffett	Knowledge Transfer & Innovation Policy	028 9442 6633	George.Moffett@daera-ni.gov.uk
Joy Alexander	Sustainable Agri-Food Development	028 8676 8132	Joy.Alexander@daera-ni.gov.uk
Lee Williamson	TB/BR Policy and Research	028 7744 2137	Lee.Williamson@daera-ni.gov.uk
Louise Millsopp	Sustainable Agri-Food Development	028 7744 2057	Louise.Millsopp@daera-ni.gov.uk
Martin Mulholland	Carbon Reduction Branch	028 9442 6750	Martin.Mulholland@daera-ni.gov.uk
Paddy Savage	Ammonia Policy	028 9076 5839	Patrick.Savage@daera-ni.gov.uk
Paul Keatley	Economics and Evaluation Branch	028 9052 4063	Paul.Keatley@daera-ni.gov.uk
Paul Mooney	Horticulture Branch	028 9442 6675	Paul.Mooney@daera-ni.gov.uk
Peter Simpson	Food Technology Development	028 8676 8130	Peter.Simpson@daera-ni.gov.uk
Wendy McKinley	Water Assessment, Data & Evidence	028 9262 3089	Wendy.McKinley@daera-ni.gov.uk
Zita Hale	Policy, Economics and Statistics Division	028 9037 8511	Zita.Hale@daera-ni.gov.uk





