AG EMISSIONS CENTRE | New Zealand Agricultural Greenhouse Gas Research Centre

AgriZero^{NZ}

2026 INNOVATION INVESTMENT ROUND

Both the Ag Emissions Centre (AgEC) and AgriZero^{NZ} are working to provide New Zealand farmers with a suite of fit for purpose, practical and cost-effective tools to reduce agricultural greenhouse gas (GHG) emissions. During 2025/26, the AgEC and AgriZero^{NZ} are partnering to run a competitive round to identify and support innovative ideas and opportunities.

FOCUS FOR 2026

The AgEC and AgriZero^{NZ} welcome applications that are seeking to develop novel approaches, and / or significantly strengthen or accelerate current approaches that show major promise for bringing practical, farm-level solutions closer to implementation within a timely manner for New Zealand farmers and growers. As part of this round, ideas are welcomed that seek to overcome barriers to the development, measurement, or delivery of agricultural GHG emissions reduction solutions (this could range from basic science to application of advanced technologies, such as A.I., or include tech transfer from other disciplines).

Expressions of Interest (EOIs) are sought for projects that address the following research challenges:

1. Automatic identification of urine patches
2. Novel low emissions nitrogen fertilizers
3. Better prediction of *in-vivo* outcomes from *in-vitro* methodology
4. Dietary manipulations with a focus on pasture to reduce agricultural GHG emissions

If your idea doesn't fit into one of the above challenges, we are still interested in submissions if they address:

5. New/improved approaches to reducing nitrous oxide emissions from ruminant animal deposited urine and/or reducing methane emissions from enteric fermentation that can rapidly bring about a step-change in emissions at scale in grazing ruminants

See Appendix A for further information about the research challenges.

FEATURES OF THE 2026 INNOVATION INVESTMENT ROUND

For this round, we are trialling a new way of attracting ideas. If you have an idea, but don't have a full team together, you can submit a shorter 'R&D Idea' proposal (see below).

R&D FULL PROPOSALS

- NZ$2 million is available for this round. The funding may not be evenly split across the research challenges. The funding split will be determined by the quality of applications.
- Applications are invited from both New Zealand and international organisations and individuals.
- Collaborations are encouraged.
- The applicant must have a research team in place which is able to conduct the project once contracting has been completed.
- Individual projects have a maximum duration of two years.

- **Two stage process:**

Stage 1
Applicant submission of EOI, minimum eligibility check by the AgEC, and short-listing by an independent Technical Assessment Panel.

Stage 2
AgEC / AgriZero^{NZ} staff work with short-listed applicants to develop contract-ready research proposals for Technical Assessment Panel re-assessment and approval by the AgEC and AgriZero^{NZ} Executives. The Executives will make the final decision on which projects are successful, taking into account the recommendations of the Technical Assessment Panel, the existing funding portfolios and the broader New Zealand funding landscape.

- If a project is not successful via this process, but deemed to have scientific merit relevant to the AgEC portfolio, the AgEC reserves the right to contact the applicant to discuss alternative support options.
- Research projects should be conducted in a manner that ensures the widest possible benefit to New Zealand, including accelerating the delivery of tools to market.
- To support the acceleration of tools to market, it is anticipated that all new Project IP (PIP) developed during the course of the project will be owned by AgriZero^{NZ} . However, other IP arrangements may be considered where Background IP (BIP) is involved or another commercialisation structure is deemed more suitable to achieve the benefits.
- Any BIP will be retained by the respective owner(s) but the AgEC or AgriZero^{NZ} may request a royalty-free licence to use BIP if deemed necessary to utilise the PIP.

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R&D IDEA PROPOSALS

- Up to NZ$50k per project is available for this round (through the AgEC). Up to four projects will be funded in this round, determined by the quality of applications.
- Applications are invited from both New Zealand and international organisations and individuals.
- The applicant can submit an idea without a full team in place.
- Individual projects have a maximum duration of six months.
- The purpose of this funding is to progress and develop ideas to determine feasibility. This could be in the form of access to scientific expertise, building skills and capability, trial design etc. It is envisaged that these projects, if successful, will allow applicants to potentially prepare proposals for additional R&D funding.

- **Two stage process:**

Stage 1
Applicant submission of EOI, minimum eligibility check by the AgEC, and short-listing by an independent Technical Assessment Panel.

Stage 2
AgEC staff work with short-listed applicants to develop contract-ready proposals for approval by the AgEC Executive Director.

- For this case, any Background IP (BIP) contained in the application will be retained by the respective owner(s). In the event of any anticipated new Project IP (PIP) creation, ownership will be negotiated on a case-by-case basis taking into account potential commercialisation opportunities, respective contributions to the project, and the applicant's experience and expertise.

ELIGIBILITY FOR FUNDING

- 'R&D Full Proposal' projects: New Zealand and international research providers, organisations and companies or persons with the ability to enter into a New Zealand contract and undertake research in their own right are eligible.
- 'R&D Idea' projects: New Zealand and international research providers, organisations and companies or persons with the ability to enter into a New Zealand contract in their own right are eligible.
- Co-funding is strongly encouraged for all applications.
- There is no specified limit on the number of EOIs any single organisation can submit. However, organisations are strongly encouraged to undertake a realistic approach to the number of individual EOIs they submit. We strongly encourage an internal review and coordination process before submitting a limited number of EOIs that represent the best science from that organisation.

MINIMUM ELIGIBILITY CRITERIA

Applications will be assessed against the following:

- Does it directly address at least one of the research challenges?
- Is the innovation applicable to common New Zealand farm systems?
- Will New Zealand be a high priority country for implementing any developed solution?
- Has the application been submitted by 2pm NZDT, 24 February 2026?

All EOIs will be checked for completeness. All sections of the EOI form must be completed.
Only EOIs deemed to be complete and in compliance with the eligibility criteria will be provided to the Technical Assessment Panel for evaluation.

EVALUATION BY THE TECHNICAL ASSESSMENT PANEL

The Technical Assessment Panel will evaluate the EOIs using the following high-level assessment criteria:

1. Scientific merit and innovation

- Does the project idea demonstrate a high level of scientific merit and innovation?
- Is the proposed methodology robust and are the anticipated outcomes realistic within the proposed time frame?

2. Ability to contribute to developing applied GHG mitigation solutions in a timely manner for New Zealand farmers and growers

- Will the proposed project contribute new knowledge that will significantly strengthen current research avenues and/or develop novel approaches that show major promise and for bringing practical, farm-level solutions closer to implementation in New Zealand by 2030 and/or 2040?
- If successful, what is the (i) abatement potential and (ii) breadth of impact for this solution?

3. Ability of the team to deliver high quality outcomes

- Does the research team have the necessary expertise, experience and track record to successfully undertake the project and deliver the stated outcomes?
- Are there any significant gaps in the team that, if filled, would make the team more likely to succeed?

APPLICATION TIMELINE
NO LATE ENTRIES WILL BE ACCEPTED

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9 DECEMBER 2025
ROUND OPENS

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24 FEBRUARY 2026, 2PM (NZDT)
EOIs CLOSE
EOIs must be submitted to innovation@ag-emissions.nz

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1 MAY 2026
Successful **STAGE 1** applicants notified

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18 MAY 2026
STAGE 2 proposals submitted

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19 JUNE 2026
Successful applicants notified and contract negotiations initiated

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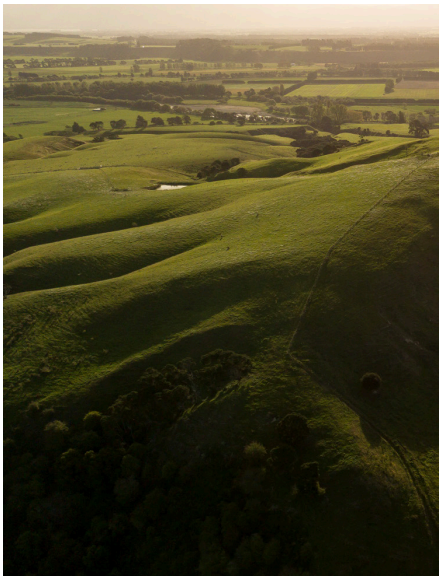
AgriZero^{NZ}

2026 INNOVATION INVESTMENT ROUND

Scoring and Weighting

The Technical Assessment Panel will use the following scale to score each EOI against each of the three criteria:

Score	Score description
5 - Excellent	EOI exceeds the requirements of the criteria in all areas
4 - Strong	EOI satisfies the requirements of the criteria and is strong in some areas
3 - Acceptable	EOI satisfies the requirements of the criteria to an adequate level
2 - Weak	Application satisfies some requirements of the criteria but demonstrates limitations/weakness in some areas
1 - Unacceptable	EOI does not meet the requirements of the criteria



Scores will then be combined using the following weightings:

	EOI Type	
Criteria	**R&D Full Proposal**	**R&D Idea**
Scientific merit and innovation	30%	100%
Ability to contribute to developing applied GHG mitigation solutions in a timely manner for New Zealand farmers and growers	40%	0%
Ability of the team to deliver high quality outcomes	30%	0%

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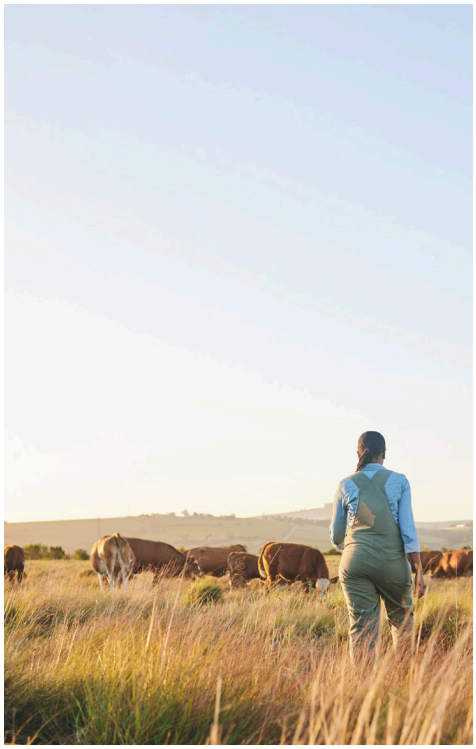
For projects that rank highly following the Technical Assessment Panel's evaluation, the AgEC and AgriZero^{NZ} will also take into consideration the following:



- **Co-funding**
  What co-funding would be provided for the project if successful? Co-funding is the commitment of new resources or the re-prioritisation of existing resources such that total investment in the proposed research area is increased if the request for funds is successful. Co-funding is encouraged.

- **Existing funding portfolios and the broader New Zealand funding landscape**
  Please note that the AgEC/AgriZero^{NZ} reserves the right to request more information on any EOI submitted that does not meet one aspect of the criteria adequately but where the overall EOI demonstrates merit.

QUERIES

A list of Frequently Asked Questions (FAQ) about this investment round can be found on the website below.

If you have a query that has not already been answered in the FAQ list, please contact innovation@ag-emissions.nz.

To ensure that all applicants have access to all Q&A, the online FAQ list will be updated weekly.

https://www.ag-emissions.nz/domestic/innovationinvestmentround/

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AgriZero^{NZ}

2026 INNOVATION INVESTMENT ROUND

APPENDIX A: 2026 ROUND RESEARCH CHALLENGES

1. Automatic identification of urine patches

Urine deposited by grazing ruminants is one of the largest sources of nitrous oxide (N_2O) emissions in New Zealand's pastoral systems. Each urine patch delivers a nitrogen load far exceeding plant demand, creating hotspots of N_2O emissions. However, accurately detecting and mapping these patches across farms remains a major barrier to effective mitigation. Existing detection methods are typically labour-intensive, costly, restricted in coverage, or insufficiently precise for real-world farm management. As a result, farmers lack practical tools to target mitigation strategies (e.g., nitrification inhibitors, variable rate fertiliser, targeted grazing management) where they are most effective.

We seek cost-effective, scalable, and scientifically robust solutions that enable automatic identification and mapping of urine patches in pasture environments. Solutions should minimise manual input and be feasible for routine farm use.

Solutions may explore (but are not limited to):

- Sensing technologies (e.g., sensor technology, imaging approaches, robotics)
- Data and algorithms (e.g., machine learning, real-time processing, integration with farm management tools, multi-senor fusion)
- System level solutions (e.g., map and track dynamics, relevance to NZ systems, robust, low cost, easy to use)
- Tech transfer from other industries

2. Novel low emissions nitrogen fertilizers

Synthetic nitrogen fertilizer use accounted for 4.3% of New Zealand's agricultural GHG emissions in 2023. While optimizing fertilizer inputs is an important and immediate strategy for reducing these emissions, emerging technologies worldwide offer new opportunities to further decrease environmental impact.

We are seeking innovative ideas and research proposals focused on the development and testing of novel low-emissions fertilizers that can be successfully adopted within New Zealand's diverse farm and growing systems.

Solutions may explore (but are not limited to):

- New fertilizer formulations or compounds
- Enhanced efficiency or slow-release technologies
- Microbial or biologically based fertilizers
- Reduced nitrous oxide production
- Approaches tailored to New Zealand's soils, climate, farming practices and regulatory system
- Precision delivery mechanisms

3. Better prediction of *in-vivo* outcomes from *in-vitro* methodology

Current *in-vitro* methodologies are widely used to study strategies for reducing methane emissions from ruminants. While these methods can be cost-effective, high-throughput, and ethically advantageous, they often fail to accurately predict *in-vivo* outcomes. Differences in rumen physiology, microbial interactions, and animal metabolism lead to poor translational reliability. This gap increases the time, cost, and uncertainty in developing effective methane mitigation strategies.

APPENDIX A: 2026 ROUND RESEARCH CHALLENGES - cont

We are seeking innovative ideas and research proposals that improve the predictive power of *in-vitro* systems, enabling more accurate, efficient, and reliable translation to *in-vivo* results.

Solutions may explore (but are not limited to):

- Advanced *in-vitro* systems that better mimic rumen physiology and microbial interactions
- Microbiome modelling and manipulation to reflect *in-vivo* microbial dynamics
- High-resolution analytical techniques for tracking fermentation products and methane precursors
- Machine learning or computational models linking *in-vitro* data to *in-vivo* outcomes
- Integrated experimental pipelines combining multiple *in-vitro* approaches for improved prediction
- Rapid validation methods to benchmark *in-vitro* results against *in-vivo* data

4. Dietary manipulation methods with a focus on pasture to reduce agricultural greenhouse gas emissions
Modifying animal diets can influence methane and nitrous oxide production; however, New Zealand's predominantly pasture-based livestock systems make it challenging to design and implement dietary strategies reliably and at scale. There is a need for new thinking and innovative, practical, and scalable approaches to dietary manipulation in pasture systems that can reduce methane and nitrous oxide emissions while maintaining animal health, productivity, and farm profitability.

Solutions may explore (but are not limited to):

- Pasture composition: management, selecting or breeding forage species relevant to New Zealand that can potentially reduce methane and/or nitrous oxide production at scale
- Targeted supplementation: approaches to supplementary feeding that can mitigate emissions in pastural farm systems
- Precision feeding tools: Technologies to monitor intake and optimize nutrient delivery

5. If your idea doesn't fit in the above topics we are still interested in submissions if they address:
New/improved approaches to reducing nitrous oxide emissions from ruminant animal deposited urine and/or reducing methane emissions from enteric fermentation that can rapidly bring about a step-change in emissions at scale from grazing ruminants

NOTE

For this round, we are not interested in EOIs which relate to the following:

- Soil carbon
- Forestry issues or agricultural adaptation research unless there is a direct link to agricultural emission reduction
- Field-trialling existing products in New Zealand
- Emissions research that is non-attributable to agriculture, forestry, and other land uses in the GHG inventory

If you have applied to a previous Innovation Investment Round, you must clearly note where substantive changes have been made to your earlier EOI to be considered eligible in this round.

By submitting an EOI form into Stage 1 of this funding round the applicant acknowledges that they accept the terms of the funding round in its entirety.