



Request for Tender

CIEL Report: Net Zero & Livestock - The missing 40%

CONTEXT

CIEL has produced two reports on Net Zero for the UK Livestock-Food industry (links for [2020 Report](#) and [2022 Report](#)). The 2020 Report provided benchmarks for UK farms and identified hotspots of emissions. This was followed by the 2022 Report which described the ways farmers could reduce emissions and compared these based on criteria relevant to farmers. Both reports made the strong point, that for the objective of reducing emissions from agriculture by 64%, current technologies could only deliver a 24% reduction, when used in combination, and with much higher uptake than is currently the case. If we are to deliver this 64% reduction by 2050, we need new innovations to deliver the missing 40%.

This report will help define where we should target our efforts to get the biggest emission reductions for a given investment, by identifying areas and ideas we should focus on.

SCOPE

This **Request for Tender** relates to CIEL producing a report on “**Net Zero & Livestock – The missing 40%**”, written to inform industry where the biggest gains can be delivered through new innovations. This will provide signals to scientists, inventors, entrepreneurs and policymakers, GIVING insights to commercial businesses and investors on where they might best support innovators.

Tenders are invited from science and technology experts to produce **short reports** on ideas or focus areas for innovation. The focus must be on a technology, service, or management system, rather than a livestock and aquaculture type, but the types and production systems these ideas relate to must be clearly identified.

CIEL will commission a range of such short reports, with the aim of covering the livestock and aquaculture types as well as key issues identified in its 2020 & 2022 reports on Net Zero for UK Livestock. CIEL will compile the short reports on each area or idea into one larger report to present to industry.

Tenders are for production of a short report that provides a succinct description of a particular idea or “focus area” that does the following;

- Identifies the opportunity for innovation and the reasons why this presents itself as a better chance for emission mitigation than other options. Reference to other options is expected.
- Gauges the scale of benefit to be obtained in terms of reducing both total emissions and emissions per unit of product (so reductions in emissions intensity associated with increased total emissions is out of scope *e.g.* increased productivity from the same number of animals).
- Considers what technologies might be employed, or describes a technological solution that should be tested, with an assessment of the likelihood of success in delivering the gains sought.
- Makes reference to technologies or systems that the new innovation might replace or enhance when it comes to emission reductions.
- Identifies where possible ideas for new innovations lie on the Technology Ready Level scale.
- Identifies other key dimensions needed for success, *e.g.* public acceptance or government regulation.
- Predicts co-benefits in other areas of sustainability, *e.g.* social, food security, food system circularity, biodiversity, or impacts on air, water or energy use.
- Considers potential unintended consequences with impacts other than those directly sought.

POSSIBLE FOCUS AREAS OR IDEAS

The following list is illustrative rather than exhaustive. Authors are free to submit one or more of their own ideas where they offer significant scope for emission reductions.

- Novel feed additives like synthetic (3-NOP) or natural (seaweed) CH₄ inhibitors
- Physical CH₄ capture and neutralization devices (wearables)
- Novel feeds such as new varieties of feeds or fodder crops
- Novel feed approaches (microbiome manipulation)
- Methane vaccines
- Low-emissions genetic improvement programs
- Major impacts in the eradication of significant livestock or aquaculture diseases
- Manure management – storage, treatment, application
- Soil carbon sequestration
- Land management (including land use change and regenerative agriculture)
- Landscape planting of trees, shrubs or hedgerows
- Carbon removal straight from the atmosphere or by other means – e.g. see <https://www.gov.uk/government/news/projects-developing-innovative-carbon-removal-tech-benefit-from-over-54-million-government-funding>

GUIDES FOR AUTHORS

Style of writing

A concise, expert opinion piece that could be backed up with scientific evidence if challenged.

Length

Document should be 800 – 1000 words plus relevant photos or diagrams for each key idea or innovation (Approx 1-2 sides of A4).

Target Audience

Industry/Commercial; It is intended for people working across the livestock-food and aquaculture supply chains with language accessible to farmers and farm staff, processors, retailers, policymakers, and sector representative groups.

Report format

- Document should be provided in MS-Word
- Diagrams/figures should be provided in MS-Excel
- Font should be Calibri, 11
- Document subsections should be titled and font in bold

Additional Remarks

Graphs/Tables: The style is non-scientific, so graphs or tables should only be included if essential to the central idea(s) of the piece.

Authors should seek endorsement of each piece from independent (non-author) experts, before or within 5 days of submitting the final version of their report.

CHOOSING TENDERS TO COMMISSION

CIEL will review tenders submitted and select a range of these to commission based on a balance across all main livestock and aquaculture types and production systems in the UK, the potential impact and the scientific rationale presented.

TENDER SPECIFICATION

We are seeking tenders from a researcher or industry expert who:

1. Will write and deliver a short report on a defined idea or area for innovation.
2. Will be contracted to deliver the report to CIEL.
3. Additional authors may contribute critical expertise to cover breadth of the topic, as considered necessary. Sub-contracting other experts is the responsibility of the lead author and their organisation.
4. Produce a report of **800-1000 words** plus **relevant photographs** or **diagrams**.
5. Will deliver to specification short report outlined in **an appropriate style for an industry audience**. This last point is particularly important.
6. Address issues identified by CIEL through comments on a draft report.
7. Gain endorsement from another scientist with expertise in areas covered by the report. The aim is to highlight independence and rigour of the short report.
8. CIEL will modify the report format to fit a standard style for the version to be published and will produce the final report in a style accessible to the farming and food industry.
9. Support at least one press release and one significant briefing with industry or government after the full CIEL report is published.

NB: CIEL reserves the right to edit text for the final publication without changing meaning for key ideas.

Tender documents should contain the following information for CIEL to use to assess tenders.

- Commitment to deliver a report to the specifications detailed here and through discussion with CIEL.
- Name of the lead organisation and the science expert who will lead work to produce the report.
- A list of other scientists contributing to the report, describing the expertise they bring. (NB: CIEL considers this report could be produced by just one expert.)
- A list of 2 relevant publications or reports produced by the author(s) evidencing expertise. Review articles aligned with the report topic would be ideal.
- Name of another, independent scientist(s) who will be approached to endorse the short report.
- **A short summary of key ideas that will be addressed in the report, the scientific rationale and an estimate of potential impact.**
- A commitment to meet deadlines specified for the report.
- Cost to deliver the report (££ + VAT).

The deadline for submission of each short report is Wednesday 14th December 2022. Earlier submissions are encouraged. CIEL expects to be engaged with for the final draft of the report and can commit to providing constructive feedback on style and content within 8 working days.

PROCESS & TIMELINE

- Tenders submitted to CIEL by email (enquiries@cielivestock.co.uk) **by 14th September 2022, or before**, by email attachment with **“TENDER FOR MISSING 40% REPORT”** as first words in the subject line of the email message.
- Tender submissions will be reviewed by a panel of at least 2 people comprising:
 - A member of CIEL executive team.
 - Either or both of a CIEL Board member and an external farming or food industry expert.
- Notification of successful award by 5th October.
- Draft Report due to CIEL for consideration by 23rd November.
- Feedback from CIEL given to authors by 7th December.
- Final report delivered to CIEL by 14th December 2022.