



Department
for Environment
Food & Rural Affairs

Bidder Pack

Procurement Specific Requirements

**Life Cycle Assessment of UK Insect Protein
Production Processes for Pig and Poultry Feed**

Procurement Reference Number: C17115

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1. Section 1: The Invitation

Defra group Commercial on behalf of Defra group and its Arm's Length Bodies invite you to bid in this competition.

The Bidder Pack comes in two parts.

This first part, **The Core Requirements**, provides details of the General Requirements, Government Transparency Agenda and Government Priorities.

The second part, **The Procurement Specific Requirements**, provides details of the Specification Requirements, Terms and Conditions of Contract, Evaluation Methodology, Procurement Timetable and Definitions.

The Definitions that apply to both parts can be found in Section 5, Appendix 1 of the Procurement Specific Requirements.

The tendering process seeks to determine the Most Economically Advantageous Tender (MEAT). The Authority will evaluate the Tenders using the tender evaluation criteria and weightings listed in Section 4, Evaluation Methodology.

The Opportunity

This opportunity is advertised by Defra group Commercial on behalf of Defra.

Defra is responsible improving and protecting the environment. We aim to grow a green economy and sustain thriving rural communities. We also support our world-leading food, farming and fishing industries. For further information please visit [About us - Department for Environment, Food & Rural Affairs - GOV.UK \(www.gov.uk\)](https://www.gov.uk/about-us)

The Authority requires a Contractor to provide **Life Cycle Assessment of UK Insect Protein Production Processes for Pig and Poultry Feed**. The project is planned to commence **July 2023 and last until July 2024**.

The main aim of Life Cycle Assessment of UK Insect Protein Production Processes for Pig and Poultry Feed is to:

- Deliver an assessment of the environmental impacts from UK black soldier fly larvae protein production for pig and poultry feeds, and compare these impacts against conventional protein sources (e.g. soybean meal and fish meal) and other processes through the use of LCAs.

Timetable

The timetable below is subject to change from time to time as notified by the Authority. All Tenderers will be informed via the Authority's.

Procurement Activity	Anticipated Date	
Finalise Contracts Finder Notice and Bidder Pack (ITT)	26/04/2023	
Clarification deadline	22/05/2023	12:00pm
Bidder Pack / ITT response date	05/06/2023	12:00pm
Compliance Checks	06/06/2023	
Evaluation	06/06/2023 – 14/06/2023	
Moderation Meeting	15/06/2023	
Produce Contract Award Report and Draft Letters	19/06/2023	
Approval of Contract Award Report	26/06/2023	
Issue Notification of Intention to Award letters and Contract Award	03/07/2023	
Contract Start Date	17/07/2023	
Publish Contract Award Notice and Redacted Contract	17/08/2023	
Contract End Date	16/07/2024	
Possible Extension	16/01/2025 (6 months possible extension)	

All timescales are set using a 24-hour clock and when referring to “days” it means calendar days unless otherwise specified (for example, working days).

Variant Tenders

The Authority shall not accept variant Tenders.

For the avoidance of doubt, if the Authority has reserved a right to waive a requirement in this Bidder Pack and chooses to exercise such discretion, the Tender will not be considered a variant Tender.

Abnormally Low Tenders or Pricing Anomalies

If the Authority considers your Tender to appear abnormally low, an initial assessment will be undertaken using a comparative analysis of the pricing proposals received from all Tenderers and the Authority's valuation of the procurement. If that assessment indicates that your Tender is abnormally low the Authority will request a written explanation of your Tender, or of those parts of your Tender which the Authority considers contribute to your Tender being abnormally low. The Authority reserves the right to reject your Tender if the response does not satisfactorily account for the low level of price or costs proposed.

The assessment of abnormally low tenders will be undertaken strictly in accordance with Regulation 69 of the Public Contracts Regulations 2015, which outlines how abnormally low tenders must be assessed and the circumstances in which the contracting authority can reject the tender.

Pricing Anomalies

If in the opinion of the Authority your Tender contains any pricing anomalies (for example apparent discrepancies between the financial submission and other parts of your response) the Authority may seek clarification. If the clarification response indicates that the pricing anomaly was the result of a clear and obvious error, in the interest of fairness the resulting change will be taken into consideration. If the clarification response results in a change to the initial tendered Commercial Response and price, it will not be taken into account.

Section 2: The Specification of Requirements

The Authority's Priorities

The Authority is the UK Government Department responsible for the environment, food and farming and rural affairs. The Authority's priorities are to secure a healthy natural environment; a sustainable, low-carbon economy; a thriving farming sector and a sustainable, healthy and secure food supply. Further information on the Authority can be found at: <https://www.gov.uk/government/organisations/department-for-environment-food-rural-affairs>

Introduction

This document sets out the requirements for a new research project: life cycle assessment (LCA) of UK insect protein production processes for pig and poultry feed.

Proposals are invited from organisations and consortia that can demonstrate a clear appreciation of the policy context, a sound methodological approach that adequately manages the risks involved in the project and relevant experience and breadth of expertise in LCAs.

Aims

Deliver an assessment of the environmental impacts from UK black soldier fly larvae protein production for pig and poultry feeds, and compare these impacts against conventional protein sources (e.g. soybean meal and fish meal) and other processes through the use of LCAs.

Research Questions

- What are the potential environmental impacts of black soldier fly larvae protein and associated by-product production for pig and poultry feeds and how do these compare to benchmarks (soybean meal and fishmeal)?
- How could negative environmental impacts be reduced (e.g. through feeding certain substrates, co-locating with anaerobic digestion sites to recycle heat outputs)?
- Are there any implications related to insect sentience/welfare from production methods?

Factors to be examined should include all aspects of black soldier fly protein (destined for pig and poultry feeds) production life cycle, including by-product end use. Outputs may include land and water use, greenhouse gas and biodiversity impact comparisons among insect protein and conventional proteins (e.g. soybean meal and fishmeal).

Background and Policy Context

In order to achieve net zero, we must reduce agricultural greenhouse gas emissions whilst supporting farm productivity and resilience. In the context of climate change,

changes may be required to improve the resilience of the food chain, including through identifying sustainable, nutritionally balanced animal feeds. Insects, being extremely feed efficient, are one potential alternative protein source that could be used to boost animal feed protein security in a sustainable way. Insects are also able to cope with a variety of substrates, effectively valorising waste into usable protein for animal feeds. However, where products that could be fed directly to livestock are used, insect meal may be a less sustainable option. Opportunities appear greatest where insects are playing a role in upcycling and concentrating nutrients.

The EU have recently permitted the use of insect proteins to be used within poultry and pig feed. These changes occurred after the UK's withdrawal from the European Union (EU), and so do not apply to Great Britain (GB; Northern Ireland exempt through the Northern Ireland Protocol), but have resulted in pressure from stakeholders to align GB feed regulations with the EU's. One of the arguments for using insect protein is its potential sustainability benefits, e.g. lower carbon, land use and biodiversity impacts than proteins from unsustainably-sourced soybean meal or fishmeal and waste valorisation potential. These credentials have not been robustly demonstrated in a UK context and a lack of publicly available life cycle analysis data has previously been identified for the UK industry (WWF, 2021; Insect Biomass Task and Finish Group, 2019). Therefore, a life cycle assessment (LCA) of the insect bioconversion industry is required to understand the environmental impacts, and conditions for optimal sustainability outcomes, of using insect protein in livestock feeds prior to any consideration of regulatory changes.

Previous LCAs have been undertaken for systems outside of the UK and individual UK companies may have undertaken LCAs which are not freely available, however comparisons among existing LCAs is difficult due to their differing goals and scopes (Smetana et al., 2021). To fully understand the potential of utilising insect processed protein in poultry and pig sectors LCAs should be produced which can be compared to the production of conventional animal feed proteins such as soybean meal and fishmeal.

Proposed Methods

An environmental life cycle assessment should be undertaken to examine potential land and water use, greenhouse gas and biodiversity impacts* of UK-produced processed insect protein, inclusive of insect rearing, at an industrial scale. Black soldier fly, *Hermetia illucens*, should be the focal insect species. Assessments should consider the preparation of insect feed substrate, breeding and larvae rearing, processing of insect products and frass use. Ideally, different types of permitted substrates and those that are not currently utilised would be considered and analysed as appropriate. A comparison of insect production and fishmeal and soybean meal production should be made. Information on utilising insect frass and waste valorisation potential should be included in the assessment and the impact of predicted future climates should be considered (e.g. in regards to husbandry/energy usage and any biodiversity impacts). Whilst insects are not recognised as sentient in animal welfare legislation in the UK, there is increasing interest in exploring the likelihood of insect sentience and evidence that they exhibit certain sentient relevant criteria (Barrett et al., 2022; Gibbons et al., 2022). We would therefore welcome perspectives on how

production could minimize the risks of low animal welfare if the farmed insects are sentient.

Procedures for conducting a life cycle assessment are specified in ISO standards (ISO 14040:2006 and ISO 14044:2006). We expect an LCA that uses consistent methodology, which can be used to compare across systems, whilst being transparent and understandable with easily communicable results. We anticipate main steps would include:

Task	How to achieve
Defining the goal and scope of the LCA	Identify the purpose and outputs of this with Defra (including through this specification).
Life cycle inventory analysis	Determine the inventory of input/output data for the system being studies and collect the data required to meet the objectives defined previously.
Life cycle impact analysis	Evaluate the significance of potential environmental impacts using the life cycle inventory results.
Life cycle interpretation	The results of the life cycle inventory and impact analyses are summarised and discussed to generate conclusions and recommendations.

**These are suggested outputs from the project, although these will likely be informed by availability of data for the LCA but should include greenhouse gas impacts as a minimum.*

Deliverables

The project will commence with successful contractors meeting with Defra Farming Science officials to refine study scope, methods, and relevant details of approach.

The main deliverables of the project will be:

- A technical report outlining the insect protein production LCA and comparisons with other options.
- A 500 words executive summary outlining the approach, most relevant findings of the study and policy implications.
- A presentation of the above report to further identify, test and explain the implications and recommendations.
- A knowledge exchange pack (4/5 slides plus 200 word abstract) suitable for the intelligent non-scientist.

Expertise required

Bidders will need:

- Experience/expertise within the livestock/insect bioconversion sector and with life cycle analysis.
- Familiarity with the relevant literature and approaches used in life cycle assessments.
- To be able to synthesise existing literature and clearly summarise and describe key findings.
- The ability to critically analyse evidence and identify and explain the underlying limitations and drawbacks.
- Good drafting and report writing skills, including the ability to communicate complex technical information to audiences of differing levels of expertise.
- Strong project management skills to ensure that deliverables are produced to time and quality.

Proposal

The proposal shall include:

Tender evaluation will be conducted in accordance with standard Defra procedures. Assessment will be based on technical merit and value for money against the following criteria:

- Appraisal of specification and relevance to scientific objectives.
- General and detailed approach to tasks, methodologies and research plan.
- Work plan and milestones.
- Contractor's team suitability, experience, and track record (CVs of lead and partner organisations).
- Financial estimates.

Tenders will be assessed by a panel, comprising representatives from Defra. Tenderers should ensure that their tender clearly explains the expertise that their proposal will bring to the project and highlight any added value. Tenderers shall note that Defra is not obliged to accept the lowest cost or any tender.

Proposed timelines and deliverables

We envisage that this will be a 12-month project, ending on 16th July 2024.

Event	Proposed date(s)
Start-up meeting	At week 1
Inception report	At week 3
Monthly progress report/meeting/minutes	Each month
Presentation of draft results	1 month before end
Draft EVID4 (final project report) received	
Final EVID4 (final project report) received	End (12 months)
Knowledge exchange pack received	

Reporting Requirements

Start up:

The contractor will be expected to attend a project inception meeting with the members of the project board. The contractor should be prepared to discuss the project in detail and provide a presentation of their proposed work programme to meet the project objectives. The meeting will address the following:

- Clarification of objectives and timescales.
- Proposed methodology and work programme.
- Agreement on level of Defra support.

Output (I) - Minutes of inception meeting (within 1 week)

Produce a project profile which gives a brief (1 side of A4) description of the project. The profile should include details of the purpose of the project, the context, the methodology, the objectives, the benefits, the outputs, and how they will be used.

Output (II) - project profile/inception report (within 2 weeks of start-up meeting)

Main study:

Output (III) - the contractor should provide Defra's project manager with a brief monthly progress report and meeting minutes from a monthly update meeting. The monthly progress report will include a summary of the work completed to date, confirmation that work is running to time, or warning if it is not (and a plan to bring project back on track), work to be completed in the following month and any issues, risks or problems.

Output (IV) – the contractor should provide Defra's project manager with a project report using an Annual/interim Report form (EVID3) at the six month point.

Project Closure:

Output (V) - Oral Presentation of Draft Results

The contractor will be required to attend a project finalisation meeting with the project executive, project manager and members of the project board. The contractor is required to discuss the project in detail and provide a presentation of their draft final evidence and draft recommendations, demonstrating how this met the project objectives.

Output (VI) - Draft Final Report and Summary

The contractor is required to produce a draft final report, including executive summary, using an Evidence Project Final Report form (EVID4). This will contain the evidence and guidance resulting from the project, which will be reviewed internally by the project officer and potentially other members of Defra, and possibly through external peer-review. Both scientific and general editorial amendments will be considered. This should be provided two months prior to the project's end date.

Output (VII) – Final Report

The contractor should correct any suggested changes to Output (VI), to provide the project officer with a final version of the report. The contractor should address/respond to all changes suggested by Defra or peer-reviewers.

Output (VIII) - Knowledge Exchange Pack.

The contractor is required to produce a brief knowledge exchange pack (4/5 slides plus 200 word lay abstract) suitable for the intelligent non-scientist. This will contain project background and justification, aims, brief methods, findings and the implications of these findings to Defra policy.

Dissemination of Project Outputs Defra will retain ownership of all produced output from this research and final sign-off on all publications. It is expected that Defra will publish, adhering to the publication style of government, see guidance: <https://www.gov.uk/guidance/style-guide>. Draft and interim reports will be confidential.

Payment Methods

The pricing schedule must be structured to describe hourly rates per expert and number of hours input. This will allow further insight into the amounts of time that staff are dedicating to the project. The project must be priced by deliverables with no monies due to the supplier until the Authority have satisfactorily accepted each deliverable. The ITT will make it clear that this is a fixed price project with no price incentivisation or opportunities for the supplier to increase price at a later stage. Where need be, taking associated project risk into consideration, the milestones and deliverables may be swapped round. However, this would be agreed with the successful contractor.

Additional Information

The performance of the consultant will be monitored through the successful completion of tasks and delivery of required outputs. Approval of outputs will be given by Defra and communicated to the consultant through the project manager.

Tenders should indicate specialist persons or organisations with whom they are associating (cross-functional teams and/or consortia), but no exclusive arrangement should be made at tender stage. An example of such association might be where specialist expertise might be best sourced from other organisations. Upon acceptance of this team no changes will be permitted thereafter during the execution of the contract, unless there are exceptional circumstances, with agreement of the Project Officer.

Clarifications

Please ensure that all clarification questions are forwarded to the Authority on or before the deadline as the Authority is not obliged to answer any question outside of this date.

References

Barrett, M., Chia, S. Y., Fischer, B., & Tomberlin, J. K. 2022. Welfare considerations for farming black soldier flies, *Hermetia illucens* (Diptera: Stratiomyidae): a model for the insects as food and feed industry. *Journal of Insects as Food and Feed*, 1-30. <https://doi.org/10.3920/JIFF2022.0041>.

Gibbons, M., Sarlak, S., & Chittka, L. 2022. Descending control of nociception in insects? *Proceedings of the Royal Society B*, 289, 20220599. <https://doi.org/10.1098/rspb.2022.0599>.

Insect Biomass Conversion Task and Finish Group. 2019. The insect biomass industry for animal feed – the case for UK-based and global business

https://www.fera.co.uk/media/wysiwyg/Final_Insect_Biomass_TF_Paper_Mar19.pdf

Smetana, S., Spykman, R. & Heinz, V. 2021. Environmental aspects of insect mass production. *Journal of Insects as Food and Feed*, 7, 553-571. <https://doi.org/10.3920/JIFF2020.0116>.

WWF. 2021. The future of feed: a WWF roadmap to accelerating insect protein in UK feeds. https://www.wwf.org.uk/sites/default/files/2021-06/The_future_of_feed_July_2021.pdf.

Division of the Contract into Lots – N/A

This procurement requirement is not divided into Lots.

Section 3: Terms and Conditions of Contract

The Terms and Conditions of Contract for this procurement are Defra standard Research and Development Terms and Conditions.

The Terms and Conditions are split into Core Terms and Contracting Authority Terms within the Annexes and Schedules, and details of the legal priority are provided in from the Conditions of Contract to be used, e.g. the standard Defra Terms and Conditions for Research and Development (R&D).

The anticipated commencement date is **July 2023**.

Suggested Changes to Conditions of Contract

Tenderers may raise clarification questions relating to the amendment of contract terms during the clarification period only, as specified in the Timetable, if it can be demonstrated that there is a legal or statutory reason why they cannot be accepted. Where a legal or statutory reason cannot be substantiated the Authority has the right to reject the proposed changed.

Such requests must follow the Clarifications Sought by the Tenderer process set out in the Core Requirements element of this Bidder Pack.

Section 4: Evaluation Methodology

The overall aim of the evaluation process is to select the Tender that is the most economically advantageous to the Authority, having regard to the Authority's overall objectives and the criteria set out below.

Evaluation of Tenders comprise of the stages set out in the table below.

The Authority will carry out its evaluations of the Technical and Commercial elements according to the criteria, sub-criteria and weightings set out in the table below:

Evaluation Stage 1 - Technical	Section Reference	Evaluation Criteria	Question Scoring/Weighting (%)
	Selection Stage: Selection Questionnaire (SQ) responses submitted in response to the Contract Notice	<p>Part 1: covers the basic information about the supplier, such as the contact details, trade memberships, details of parent companies, group bidding and so on and is provided for information only.</p> <p>Part 2: covers a series of self-declarations by the supplier regarding whether or not any of the questionnaire exclusion grounds apply and will be assessed on that basis.</p> <p>Part 3: covers a series of self-declaration questions regarding whether or not the company meets the selection criteria in respect of their financial standing and technical capacity.</p>	<p>Pass/Fail</p> <p>Pass/Fail</p> <p>Pass/Fail</p>
	Section Reference	Evaluation Criteria	Question Scoring/Weighting (%)
	Form of Tender	This stage is not scored but if you do not upload a complete, signed and dated Form of Tender in accordance with the instructions in the e-Sourcing System/accept the Form of Tender statement in the SQ your Tender will be rejected as non-compliant.	Pass/Fail

	Section Reference	Evaluation Criteria	Question Scoring/Weighting (%)
Evaluation Stage 1 - Technical	Evaluation Stage: Technical	This stage will be evaluated in accordance with the criteria set out in the Technical Questionnaire. Responses that do not meet the minimum thresholds will be excluded from the process at the stage where they do not meet the required level – this will be determined during the consensus meeting	
		E01 Equality and Diversity	Pass/Fail
		E02 – Strength of the Methodology to Meet Research Objectives; demonstrating understanding of the Policy, Aim and Objectives	55%
		E03 – Relevant Experience and Expertise	20%
		E04 – Project Management, Quality Assurance, Risk Management and Mitigation	15%
		E05 – Social Value	10%
The Technical evaluation will account for 70% of the total score . All responses will be scored in accordance with the detailed guidance within the Authority’s e-Sourcing System and the Technical Questionnaire.			
Tenderers must achieve a minimum score of 50 for E02 – E05 the ‘Technical Threshold’ in order to progress to the Commercial evaluation. Tenderers who fail to achieve the stated Technical Thresholds will not proceed to the Commercial evaluation.			
Evaluation Stage 2 - Commercial	Section Reference	Evaluation Criteria	Question Scoring/Weighting (%)

	Evaluation Stage: Commercial - Pricing Schedule	Prices will be evaluated in accordance with criteria set out in the Pricing Schedule in the Authority's e-Sourcing System.	Scored
The Commercial evaluation will account for 30% of the total score . All responses will be scored in accordance with the detailed guidance within the Authority's e-Sourcing System and the Specification of Requirements.			
	Section Reference	Calculation	
	Final score	<p>The final score is calculated by adding the total quality weighted score with the total commercial weighted score.</p> <p>The most economically advantageous tender will be the Tender with the highest final score.</p>	

Selection Questionnaire - Financial standing

The Authority will review the economic information provided as part of the Selection Questionnaire response to evaluate a Tenderer's economic and financial standing. The Authority's evaluation will be based on all the information reviewed and will not be determined by a single indicator. If, based on its assessment of the information provided in a Response, the Authority decides that a Tenderer does not meet the Authority's required level of economic standing, the Authority may:

- ask for additional information, including information relating to the Tenderer's parent company, if applicable; and/or
- require a parent company guarantee or a performance bond.

If the Authority decides that a parent company guarantee or performance bond is required, the Authority will reject a Response if the Tenderer is unable to offer a commitment to make such provision. In addition to the information provided in a Response, the Authority may, at its discretion, consult Dun & Bradstreet reports and other credit rating or equivalent reports depending on where a Tenderer is located.

The Authority's assessment of economic and financial standing will consider financial strength and risk of business failure. Financial strength is based on tangible net worth and is rated on a scale of 5A (strongest) to H (weakest) obtained from Dun & Bradstreet. There are also classifications for negative net worth and net worth undetermined (insufficient information). Financial strength will be assessed relative to the estimated annual contract value.

The Authority will also consider annual turnover. For this procurement, the Authority expects the contractor to have an annual turnover for each of its last two financial years of at least **£5 million British Pounds Sterling**.

In the case of a joint venture or a consortium bid, the annual turnover is calculated by combining the turnover of the relevant organisations in each of the last two financial years. In addition, the annual turnover of at least one of those organisations is expected to be £5 million GBP.

Risk of Business Failure is rated on a scale of 1 (minimal) to 4 (significant) obtained from Dun & Bradstreet. There is also a classification of insufficient information. The Authority regards a score of 4 as indicating inadequate economic and financial standing for this procurement. The Authority will also calculate and evaluate the Tenderer's:

- operating performance: growth or reductions in sales, gross profit, operating profit, profit before tax and earnings before interest, tax, depreciation, amortisation, exceptional items and profit/loss on sale of businesses;
- liquidity: net current assets, movements in cash flow from operations, working capital and quick ratios, and average collection and payments periods; and
- financial structure: gearing ratios and interest cover.

Evaluation of Responses

Evaluation of Responses will be undertaken by a panel appointed by the Authority. Each panel member will first undertake an independent evaluation of the Responses applying the relevant evaluation criteria for each question. Then, a moderation meeting will be held at which the evaluation panel will reach a consensus on the marking of each question.

During the consensus meeting, the decision may be taken that a Response will not be carried forward to the next evaluation stage if the consensus view is that the Tenderer has failed to meet any minimum or mandatory requirements, and/or provided a non-compliant response.

All tenderers should be aware of the timescales set to deliver this requirement and only submit a response where they are fully confident of being able to deliver within these parameters.

Tenders will be evaluated by the Target Programme Management team for appropriateness, on the basis of scope, methods, expertise, and value for money.

Scoring Criteria

If a Tenderer receives a 'Fail' in any of the questions **E01** they will be eliminated from the procurement.

If a Tenderer scores 20 or less using the 'Scoring Criteria' in Section 2: Tender Evaluation (Paragraph 1.8); for any of the questions **E02-E05** the Authority may choose to reject the Tender.

The technical questionnaire will be scored using the following scale:

Descriptor	Score	Definition
Very good	100	Addresses all the Authority's requirements with all the relevant supporting information set out in the Bidder Pack. There are no weaknesses and therefore the tender response gives the Authority complete confidence that all the requirements will be met to a high standard.
Good	70	Addresses all the Authority's requirements with all the relevant supporting information set out in the Bidder Pack. The response contains minor weaknesses and therefore the tender response gives the Authority confidence that all the requirements will be met to a good standard.
Moderate	50	Addresses most of the requirements with most of the relevant supporting information set out in the Bidder Pack. The response contains moderate weaknesses and therefore the tender response gives the Authority confidence that most of the requirements will be met to a suitable standard.
Weak	20	Substantially addresses the requirements but not all and provides supporting information that is of limited or no relevance or a methodology containing significant weaknesses and therefore raises concerns for the Authority that the requirements may not all be met.
Unacceptable	0	No response or provides a response that gives the Authority no confidence that the requirement will be met.

Each question will be allocated a score of between 0-100 for the documented response, based on the criteria above. The scores will be weighted against the technical sub-weighting, and a final technical score will be calculated. The highest technical score will then receive the maximum 70% technical score to be added to the commercial score in the overall tender evaluation. Other bidder's technical scores will be calculated pro rata to the highest technical score.

The Authority reserves the right to apply a tie-break mechanism, if the tender responses result in a two or more bids receiving an absolute tie in scores. This will

consider the scores of each criterion in order of importance (determined according to the weighting given to the criterion).

Bids in receipt of a 'fail' or scoring 20 or below for any of the following questions E02 – E05 will be eliminated from the procurement process.

To enable a consistent and fair evaluation of your tender, we require Suppliers to respond to the questions below, making sure you adhere to the page limits detailed in each section. Words submitted beyond these limits will not be evaluated as part of the tender response. All sections are mandatory and will be scored. The weighting given to each question is set out below as a percentage of the technical score available.

Please do not include any commercial information in your response to the technical questionnaire.

Please upload your response to each section (E02 – E05) as an individual document. This will allow evaluators to easily differentiate between the response to each section and allow consistent and fair evaluation of bids. Bidders should not cross reference information provided in each section as they will only be scored on the information requested and provided in each section.

Technical Evaluation

E01 Equality and Diversity Policy (Weighting - Pass/Fail)

The Authority is committed to promoting equality and diversity within its operations and service delivery. Please describe your organisation's commitment to equality and diversity and how you ensure that compliance with relevant legislation is achieved and maintained. Please describe how you will promote equality and diversity in relation to the delivery of this Contract. Please also provide a copy of your equality and diversity policy or an equivalent document.

Evaluation Criteria:

- Includes a copy of the Tenderer's equality and diversity policy or an equivalent document which shows their organisation's commitment to equality and diversity and confirms their compliance with relevant legislation.
- Describes how the Tenderer will promote equality and diversity in relation to the delivery of this Contract.

A Fail will be allocated to those responses that are not able to demonstrate any evidence of addressing equality and diversity.

Please upload your response with filename 'Your Company Name_E01'. Your response must be no more than 2 side of A4, minimum font size 10. Your Equality and Diversity Policy will be accepted in addition to this limit.

E02 – Strength of the Methodology to Meet Research Objectives; demonstrating understanding of the Policy, Aim and Objectives (Weighting: 55%)

Please provide details of your research design and methodology, stating clearly how this meets the aims, objectives and deliverables detailed in this specification.

Please also ensure you provide a brief project description, giving a non-technical summary of your proposal and a brief justification of your proposed method. It should be easily understood by non-specialists. If successful, this summary will be published on the Defra website.

Your response must include:

- A high-quality approach for holistically assessing the environmental impact of the insect bioconversion industry relevant to the UK and how this will be compared to impacts from conventional animal feed protein production.
- Details of the data to be used and how this may be collected.
- An outline of how key stakeholder needs will be considered.

Frame your methodology by demonstrating relevance to the policy, aims for this project.

Responses to this question are restricted to a maximum of five sides of A4, font size 11. Any responses exceeding five sides of A4 will not be evaluated beyond page four. Links to other documents will not be considered as part of your response. Please upload a document with the file name: "E02_Your Company Name".

E03 – Relevant Experience and Expertise - (Weighting: 20%)

Please provide details of the structure of the project team and key people, including the project director, manager and technical leads. CVs for key individuals who will be involved in delivering the project can be attached as an annex (see below).

Please detail examples of equivalent or relevant projects previously successfully undertaken by your organisation.

Please ensure you give a summary of level of expertise within your organization in undertaking environmental life cycle assessments and experience of generating evidence reviews to produce a high-quality impartial piece of work.

Responses to this question are restricted to a maximum of two side of A4, font size 11. CVs of no more than one side of A4 per person can be uploaded in addition to this – please do not repeat the level of detail of the CVs in your response. Any responses exceeding two side of A4 will not be evaluated beyond the second page and any CVs exceeding one side of A4 will not be evaluated beyond the first page. Links to other documents will not be considered as part of your response. Please upload a document with the file name: “E03_Your Company Name”.

E04 – Project Management, Quality Assurance, Risk Management and Mitigation - (Weighting: 15%)

Please provide details of the proposed project management arrangements including timelines and communication with Defra. If relevant, include details of any subcontracting arrangements and how this will be managed.

Please identify the individual(s) who will have overall responsibility for the contract and a lead and a deputy representative available for day-to-day contact with Defra’s project officer.

Please provide details of how you intend to quality assure work undertaken as part of this contract and outputs so that deliverables are provided efficiently, to a high standard and on time.

Your response must cover the following:

- A robust approach to project management with a description of how it will be implemented, including in relation to change management, issues escalation and quality control.
- A clear and achievable project plan, which sets out the key milestones, including timelines (considering time required for draft reviews by Defra and addressal of comments by the supplier), inter-dependencies, risks and issues. Please include a Gantt chart, which should not exceed one side of A4.
- Details of the strategies, policies or systems you will use to ensure the delivery of the project meets quality requirements, including work delivered by sub-contractors or through consortium arrangements.
- A table, up to two sides of A4, containing an assessment of project-specific key risks. Please include any technical, personnel, stakeholder, timetable and commercial risks, and provide details of risk mitigation and redress including in the event that outputs do not meet the specification.

Your response must be a maximum of two sides of A4, font size 11, with an additional one side of A4 for a Gantt chart and two sides of A4 for tabulated risks permitted. Any responses exceeding two sides of A4 (excluding Gantt chart and risks) will not be evaluated beyond page two. Gantt charts exceeding one A4 page will not be evaluated beyond the first page. A table of risks

exceeding two A4 pages will not be evaluated beyond the second page. Links to other documents will not be considered as part of your response. Please upload a document with the filename: 'E04_Your Company Name'.

E05 - Social Value – (Weighting 10%)

It is Government policy to use procurement to deliver against social value objectives¹. The Social Value², model has five themes, each of which is aligned to one or more Sustainable Development Goal. Two themes are a compulsory focus of social value creation for this contract:

Theme 2: Tackling economic inequality – increasing supply chain resilience

Theme 4: Creating equal opportunity

Contributions to other themes are welcome but will not be scored as part of the assessment in E05.

Quantify expected contributions, detail a plan for achieving them, and detail a measurement plan for capturing and reporting on progress. Describe the commitment your organisation will make to ensure that opportunities under the Contract deliver the Policy Outcome and Model Award Criteria³.

Please include:

- Your 'Method Statement', stating how you will achieve this and how your commitment meets the Award Criteria, and
- A timed project plan and process, including how you will implement your commitment, the number of hours this will represent and when the proposed activities will be completed by. Also, how you will monitor, measure and report on your commitments/the impact of your proposals. These are to include, but not be limited to:
 - a timed action plan
 - use of existing data
 - tools/processes used to gather data
 - reporting
 - feedback and improvement
 - transparency

¹ [Procurement Policy Note 06/20 – taking account of social value in the award of central government contracts](https://www.gov.uk/government/policies/taking-account-of-social-value-in-the-award-of-central-government-contracts) - GOV.UK (www.gov.uk)

²

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/940826/Social-Value-Model-Edn-1.1-3-Dec-20.pdf

³

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/940826/Social-Value-Model-Edn-1.1-3-Dec-20.pdf

Please do not include links to generic documents or websites. Your Response to this section is to be tailored specifically to the Social Value opportunities you can generate over and above the outputs of this Contract.

Please also see the further guidance on using the Social Value Model.

Your Response must be a maximum of two (2) sides of A4, font size 12. Any Responses exceeding two (2) sides of A4 will not be evaluated beyond the last page. Please upload a document with the filename: 'E05_Your Company Name'.

Calculation Method

For both elements, providing the bidder has met any mandatory criteria and minimum quality thresholds, the total weighted scores are calculated as follows (Please See Next Page):

Technical (WT) The calculation use

$$\frac{\text{Bidder's Total Technical Score}}{\text{i.e. 71.60\%}} \times 100\% = X \quad \text{Then i.e. } \frac{71.60\%}{100\%} \times 70\%$$

Commercial (WC)

$$\text{Score} = \frac{\text{Lowest Tender Price}}{\text{Tender Price}} \times 30\% \text{ Maximum available marks}$$

For example, if three Tender Responses are received and Tenderer A has quoted £30,000 as their total price, Tenderer B has quoted £50,000 and Tenderer C has quoted £60,000 then the calculation will be as follows:

Tenderer A Score = £30,000/£30,000 x 30 (Maximum available marks) = 20%

Tenderer B Score = £30,000/£50,000 x 30 (Maximum available marks) = 18%

Tenderer C Score = £30,000/£60,000 x 30 (Maximum available marks) = 15%

The Total Score (weighted) is then calculated by adding the Total Weighted Technical Score to the Total Weighted Commercial Score: **WT+ WC**.

Commercial Pricing Breakdown applicable to this ITT is on Atamis (<https://defra-family.force.com/s/Welcome>).

This should be downloaded; completed and attached to the commercial envelope.

Section 5: Appendices

1. Definitions

Unless the context otherwise requires, the following words and expressions used within the Bidder Pack (except for Section 3: Terms and Conditions of Contract) shall have the following meanings to be interpreted in the singular or plural as the context requires.

TERM	MEANING
“Authority”	the Department for Environment, Food and Rural Affairs acting as part of the Crown
“Bidder Pack”	this invitation to tender and all related documents published by the Authority and made available to Tenderers.
“Contract”	the contract (set out in Appendix B) to be entered into by the Authority and the successful Tenderer.
“EIR”	the Environmental Information Regulations 2004 (as amended) together with any guidance and/or codes of practice issued by the Information Commissioner or any Government Department in relation to those Regulations.
“eSourcing system”	eSourcing system is the eSourcing system used by the Authority for conducting this procurement, which can be found at https://defra-family.force.com/s/Welcome
“FOIA”	the Freedom of Information Act 2000 (as amended) and any subordinate legislation made under that Act together with any guidance and/or codes of practice issued by the Information Commissioner or any Government Department in relation to that legislation.
“Form of Tender”	means the form contained in Annex 2 to the Procurement Specific section of the Bidder Pack which must be signed, scanned and uploaded into the Authority’s eSourcing System by the Tenderer to indicate that it understands the Tender and accepts the various terms and conditions and other requirements of participating in the exercise.
“Information”	means the information contained in the Bidder Pack or sent with it, and any information which has been made available to the Tenderer by the Authority, its employees, agents or advisers in connection with the <i>Life Cycle Assessment of UK Insect Protein Production Processes for Pig and Poultry Feed</i> procurement.

“Involved Person”	means any person who is either working for, or acting on behalf of, the Authority in connection with this procurement and/or the Contract including, without limitation, any officer, employee, advisor, agent, member, partner or consultant”
“Pricing Schedule”	the form accessed via e-Sourcing system (https://defra-family.force.com/s/Welcome) in which Tenderers are required to submit their pricing information as part of a Tender.
“Regulations”	the Public Contracts Regulations 2015.
“Relevant Body	means any other organisation, body or government department that is working with or acting on behalf of the Authority in connection with this procurement and/or the Contract including, without limitation, its officers, employees, advisors, agents, members, partners or consultants.
“Response”	means the information submitted in response to the Bidder Pack via the online response forms on eSourcing system including the Tenderer’s formal Tender.
“Specification of Requirements”	the Authority’s requirements set out in Section 2 of the Bidder Pack Procurement Specific Requirements.
“Tender”	the formal offer to provide the goods or services described in section 1.1 of part 1 of the Bidder Pack and comprising the responses to the questions in eSourcing system and the Pricing Schedule.
“Tenderer”	anyone responding to the Bidder Pack and, where the context requires, includes a potential tenderer.
“Timetable”	the procurement timetable set out in Section 1 of the Bidder Pack Procurement Specific Requirements.
“Workstreams”	these are the three different areas of the interventions covering animal welfare, health, and environmental sustainability outcomes. Each workstream may be present in an intervention (i.e. all three workstreams are included in the mandatory reporting intervention) and other interventions may only include some of the workstreams (i.e. environmental sustainability as part of the mandatory methodology intervention).
“Headline Outcomes”	there are three main outcomes for the FDTP (see Table 1). The outcomes within each area may differ by workstreams, as such this document will talk about different outcomes within an outcome area.

2. Form of Tender

The Form of Tender document is located on the Authority's eSourcing system Atamis <https://defra-family.force.com/s/Welcome>

It is to be printed, signed, scanned and uploaded into the Authority's e-Sourcing System as instructed within the e-Sourcing system (<https://defra-family.force.com/s/Welcome>)

3. Specification

For information. Located on the Authority's eSourcing system Atamis (<https://defra-family.force.com/s/Welcome>)

Governance and Contract Management

1. The quality of the service provided will be regularly monitored by the Authority against the elements outlined in Section 7 and Section 8 below.
2. An official within Defra Farming Science team will act as the Project Officer responsible for the day to day management of the contract, Defra Digital Data and Technology Service will also appoint a Project Manager responsible for overseeing the digital aspects. The Supplier will appoint a Project Manager who will act as the principal point of contact for Defra. Tenderers may propose consortium or subcontracting arrangements but should provide a single manager responsible to Defra for fulfilment of the contract and for liaison with Defra's contact person.
3. The Supplier will be required to provide the Project Officer at Defra with regular progress updates. The form of these updates will be agreed in the inception meeting but is likely to involve weekly project management telephone meetings initially, changing to every two weeks when project is well-established. The Supplier will also agree to make all reasonable efforts to meet with Defra officials as and when required.
4. Following completion of a deliverable a 'Post-Assignment Feedback' review will be undertaken with key members of the programme team to discuss what was achieved, what went well and any opportunities for improvement on future assignments.
5. The Supplier shall meet the agreed deadlines for delivery of the project deliverables and will notify the Authority without delay if there is a risk that they may be unable to meet this deadline. Tenderers should provide an assessment of risks and countermeasures in a risk management plan as part of their submission.

6. Efficiencies and Continuous Improvement in Service Lifetime

- 6.1. During the Contract, the Contractor shall look to develop, maintain, and improve efficiency, quality and where possible provide a reduction in charges to enhance the overall delivery of the Contract.
- 6.2. The Contractor shall have an ongoing obligation throughout the Contract to identify new and potential improvements to the Services which shall include, but are not limited to:

- New or potential improvement which enhances the quality, responsiveness, procedures, methods and/or customer support services; and
- Changes in business processes and ways of working that would enable the Services to be delivered at lower costs and /or at greater benefits to the Authority.

7. Performance Management

- 7.1. Key Performance Indicators (KPIs) are essential in order to align supplier performance with the requirements of the Authority and to do so in a fair and practical way. KPIs have to be realistic and achievable; they also have to be met otherwise indicating that the service is failing to deliver.
- 7.2. The Contract shall be managed in accordance with the Authority's Terms and Conditions and KPIs under the Performance Management Framework.

The proposed KPIs are set out in Section 7 and Section 8.

Travel and Subsistence

All Travel and Subsistence should be in line with Defra's Travel and Subsistence Policy. Claims should always be supported by valid receipts for audit purposes and must not exceed any of the stated rates below. Should the

stated rate be exceeded, Defra reserve the right to reimburse only up to the stated rate.

Rail Travel

All Journeys – Standard class rail unless a clear business case demonstrating value for money can be presented. This includes international rail journeys by Eurostar and other international and overseas rail operators.

Mileage Allowance

Mileage Allowance	First 10,000 business miles in the tax year	Each business mile over 10,000 in the tax year
Private cars and vans – no public transport rate*	45p	25p
Private cars and vans – public transport rate	25p	25p
Private motorcycles	24p	24p
Passenger supplement	5p	5p
Equipment supplement**	3p	3p
Bicycle	20p	20p

*NB the 'no public transport rate' for car and van travel can only be claimed where the use of a private vehicle for the journey is essential e.g. on grounds of disability or where there is no practical public transport alternative. If the use of the vehicle is not essential the 'public transport rate' should be claimed.

** Under HMRC rules this expense is taxable.

UK Subsistence

Location	Rate (Upper Limit)
London (Bed and Breakfast)	£130
UK Other (Bed and Breakfast)	£75
Rates for specific cities (bed and breakfast)	Bristol £100 per night Weybridge £100 per night Warrington £90 per night Reading £85 per night

SECTION 7: PERFORMANCE MANAGEMENT FRAMEWORK

1. Overview of the PMF

- 1.1. As part of the Authority's continuous drive to improve the performance of all Contractors, this PMF will be used to monitor, measure and control all aspects of the Supplier's performance of contract responsibilities.
- 1.2. The PMF purpose is to set out the obligations on the successful Contractor, to outline how the successful Contractor's performance will be monitored, evaluated and rectified for performance.
- 1.3. The Authority may define any reasonable performance management indicators for the Contractor under the following categories:
 - Contract Management
 - Delivery and Support
 - Quality of Service
- 1.4. The above categories are consistent with all Contract awards allowing the Authority to monitor Contractor' performance at both individual level and at the enterprise level with the individual Contractor.

2. Management of the PMF

- 2.1. Key Performance Indicators (KPI's) shall be monitored on a regular basis and shall form part of the contract performance review. Performance of KPI's will be reported by the Contractor to the Authority on monthly basis. The Contractor shall detail performance against KPI's in Monthly Reports and at quarterly Contract Meetings with the Authority; who will review this and make comments if any.
- 2.2. The Contractor shall maintain their own management reports, including a Risk and Issues Log and present these as requested by the Authority at any meeting requested by the Authority.
- 2.3. Any performance issues highlighted in these reports will be addressed by the Contractor, who shall be required to provide an improvement plan ("Remediation Plan") to address all issues highlighted within a week of the Authority request.
- 2.4. Key Performance Indicators (KPIs) are essential in order to align Contractor's performance with the requirements of the Authority and to do so in a fair and practical way. KPIs must be realistic and achievable; they also have to be met otherwise indicating that the service is failing to deliver. The successful Contractor will ensure that failure and non-performance is quickly rectified.

- 2.5. The Authority reserves the right to amend the existing KPI's detailed in Section 7 or add any new KPI's. Any changes to the KPI's shall be confirmed by way of a Contract Change Note.

Key Performance Indicators (KPIs)

KPI	What is required to make this measurable	KPI Measurement	KPI Rating		
KPI 1 – Project Deadlines	Deliverables will be presented by the Contractor(s) to the Authority at the agreed date and quality as outlined in the deliverables.	Quality deliverables are presented to the Authority on the day and or time (if appropriate) that has been agreed by both parties. The Authority's project officer deems the deliverable to be of sufficient quality.	Deliverables sent to the Authority greater than 5 (five) working days after the agreed deadline.	Deliverables sent to the Authority greater than 1 (one) working day after the agreed deadline, or less than one day but later than the agreed time if a restricted timescale.	Meets expectations - All deliverables sent to the Authority on time
KPI 2 – Invoices	Invoices to be received within three (3) working days of the end of each month.	Invoices quote the correct PO, Contract number, the Authority Contact, and qualitative description of the work being done.	Invoices received by the Authority which contains inaccuracies and/or greater than 10 (ten) working days after the agreed deadline.	Invoices received by the Authority greater than 5 (five) working days after the end of the month, and/or contains some inaccuracies.	Meets expectations - All invoices received by the Authority on time and accurately reflect agreed work
	Invoices and associated deliverables should be clearly linked.	Invoices must be clearly itemised: specific milestones and deliverables should be explicitly listed.			

	Note partial payment for milestones is not permissible: only completed milestones and deliverables are chargeable.	Associated reports should be clearly and explicitly linked to invoices to help financial tracking.			
KPI 3 – Quality of Deliverable: Error Free	Deliverables are accurate and free of errors.	Deliverables reviewed by the Authority for accuracy.	A significant error is identified that results in published documents or National Statistics being amended by Defra. Or an error is identified that results in Government incurring financial damages or significant reputational harm.	An error is identified that does not result in published documents or National Statistics being amended	Meets expectations – No errors within deliverables
KPI 4 – Check point risk Assessment	High quality, detailed and up to date project risk assessments in place.	Initial submission 1 month from commencement and kept up to date throughout the project. Evidence should be provided that risks are proactively managed.	Risk Assessment is not kept up to date and known risks are not communicated on the Risk Assessment	Risk Assessment is kept up to date but communication on the Risk Assessment is incomplete	Risk assessment is kept up to date and remains appropriate for use

KPI 5 – Monthly activity check-in with Authority	Contractor will give Authority monthly updates on project progression, any foreseen blockages or issues	Contractor will contact Authority at least monthly (email/phone/videocall) with relevant updates	Contractor goes more than 3 months without contacting Authority with relevant updates, OR without stating known future potential issues	Contractor goes more than 2 months without contacting Authority	Contractor contacts Authority at least monthly, stating project activities and any future potential issues
KPI 6 – Quality of Deliverable: Report QA	A credible QA development plan is in place with time bound deliverables to implement Defra Quality Assurance Guidelines for Reports. QA logs are implemented and accurately maintained for all Reports.	A credible and time bound plan to implement Defra QA Guidelines for Models is in place and adhered to. The guidelines are implemented within the lifetime of the Contract. QA logs are accurately maintained and annually updated.		Lack of a model QA development plan, a significant inaccuracy in the QA log or a failure to maintain the model to the required standard	Meets expectations

Appenices

3. Conditions of Contract

For information. Located on the Authority's eSourcing system Atamis (<https://defra-family.force.com/s/Welcome>)

4. TUPE Data N/A

5. Technical Evaluation Question

For information. Located on the Authority's e-Sourcing system Atamis (<https://defra-family.force.com/s/Welcome>)

6. Commercial Sensitive Information

For information. Located on the Authority's e-Sourcing system Atamis (<https://defra-family.force.com/s/Welcome>)

7. Commercial Pricing Book

For information. Located on the Authority's e-Sourcing system Atamis (<https://defra-family.force.com/s/Welcome>)

8. Staff time Book

For information. Located on the Authority's e-Sourcing system Atamis (<https://defra-family.force.com/s/Welcome>)