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| DAERA DIRECTED AGRI-FOOD AND BIOSCIENCES INSTITUTE (AFBI) RESEARCH WORK PROGRAMME 2022/23Full Format Proposal Form/Project Extension Proposal Form  (Includes the economic appraisal where public funding is £500,000 or above) |  | For SEIPD use only |
|  | **Proposal Number****Agreement Date** |

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| **1. Title of project** |
| The information provided here **may be** used in DAERA publicity material |

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| **2a. Start Date** |  | **2b. End Date** |  |

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| **3. Contact details for DAERA’s nominated policy lead** |
| **Policy lead-name** | **Branch** | **Contact Telephone Number** |
|  |  |  |

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| **4. Contact details for AFBI’s nominated project lead(s)** |
| **Project leader(s) name** | **Branch** | **Contact Telephone Number** |
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| **5. [[1]](#footnote-1) Tick which PMB and Evidence and Innovation Strategy (EIS) Theme the proposal is relevant to – See the DAERA Evidence and Innovation ‘Call’ document for detail** |
| **Programme Management Board** | **(✓)** | **EIS Theme** |
| **PMB1 Performance in the market place** |  |  |
| **PMB2 Social & economic infrastructure of rural areas** |  |  |
| **PMB3 Animal and plant health and animal welfare** |  |  |
| **PMB4 Sustainable environment** |  |  |
| **PMB5 Strategic platform** |  |  |

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| **6 [[2]](#footnote-2)(a). Consult the DAERA Evidence and Innovation ‘Call’ document, and insert priority area relevant to this project** |
|  |
| **6 (b). Describe how the project will address this priority area and explain the specific problem that needs to be addressed (please ensure that all scientific terms/abbreviations used in the document are explained)**  |
|  |
| **6 (c). What is the overall Objective(s) of this project? Describe how the project will address this Evidence and Innovation Need.**Use Plain English and terms easily understood by a lay person. It is DAERA’s intention to update stakeholders and the general public on the ongoing progress of its research programmes, therefore this information may be used in DAERA publicity material. To assist in doing this, please provide a short synopsis of **no more than 400 words** summarising the Objectives of this project. |
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| **7. Research type** - **insert percentages to classify research into the following categories:** |
| Research Type | **Percent** |
| ***Fundamental Research****[[3]](#footnote-3)* |  |
| ***Industrial Research****[[4]](#footnote-4)* |  |
| ***Experimental Research****[[5]](#footnote-5)* |  |
| **Total** |   |

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| **8. What scientific knowledge already exists in relation to this Evidence and Innovation Need?** In completing this section you should provide concise and relevant background information on related projects undertaken by the Agri-food and Biosciences Institute (AFBI) (past and present) **AND** research published by **other groups** locally, nationally and internationally. List title, year, and publication (if relevant). It is recommended that this section does not exceed three A4 pages.  |
| [Cached](http://webcache.googleusercontent.com/search?q=cache:w8keDATDDvAJ:www.dardni.gov.uk/ruralni/print/index/crops/fruit/top_fruit/bramley_storage.htm+bramley+apple+ULO&cd=9&hl=en&ct=clnk&gl=uk)You +1'd this publicly. [Undo](http://www.google.co.uk/) |

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| **9. What additional information will this project provide, over and above that described in Section 8** (i.e. describe in detail the ‘gap’ in existing knowledge that is being filled by this proposal) |
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| **10. Outline the Project Team’s expertise/track record in this field and its capability to successfully complete the project proposed.** (This should include work on previous similar projects and reference any relevant research published by the group locally, nationally and internationally. List title, year, publication (if relevant). |
|  |

| **11. Scientific Objectives and Tasks****Outline the key Objectives of the research and provide detailed main Tasks required to achieve each Objective** (e.g analytical tests to be used; number of replicates)**. Insert target date (mth/yr) for achievement of Tasks and provide indicative duration (mths).** Add additional lines as required. |
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|  | **Objective**  | **Tasks required to achieve Objective (including indicative duration mths)** | **Milestone****(start date)** | **Milestone (target date of achievement)** |
| **11.1** |  |  |  |  |
|  |  |  |  |
| **11.2** |  |  |  |  |
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**AS THIS PROJECT INVOLVES MORE THAN £500K OF PUBLIC MONEY, AN OPTION ANALYSIS IS REQUIRED – PLEASE TURN TO ANNEX 1, AND INSERT THE RELEVANT DETAILS BEFORE COMPLETING THE REMAINDER OF THIS FORM.**

**The following sections should be completed for the ‘preferred’ option as determined in Annex 1.**

| **12. List the Deliverables and the date by which it will be achieved (mth/yr).** Add additional lines as required. |
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|  | **Deliverable (e.g. paper to be published; report to be submitted; knowledge exchange opportunity)** Include a brief description of deliverable if appropriate. Add additional lines as required. | **Milestone****(start date)** | **Milestone (target date of achievement)** |
| **12.1** |  |  |  |
| **12.2** |  |  |  |
| **12.3** |  |  |  |

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| **13. Publications/ Knowledge and Technology Transfer.** Please provide details of all planned publications, knowledge transfer opportunities/events over the duration of the project.  |
| **Output description**  | **Target number** |
|  | **Year 1****(2023/24)** | **Year 2****(2024/25)** | **Year 3****(2025/26)** | **Year 4****(2026/27)** | **Year 5****(2027/28)** |
| Refereed scientific publications |  |  |  |  |  |
| Non-refereed scientific publications |  |  |  |  |  |
| Knowledge transfer/popular articles |  |  |  |  |  |
| Knowledge transfer events -  | to DAERA  |  |  |  |  |  |
| to key stakeholders |  |  |  |  |  |
| to the public |  |  |  |  |  |

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| **14. List and detail collaboration with others, and explain what their role(s) will be?** List any opportunities that have been identified within this proposal for collaboration with other research Institutions and/or Higher Education Institutes/Industry. Add additional lines as required. |
| **Institution/Company** | **Lead Scientist/Collaborator**  |
|  |  |
| **Detail of Collaboration (e.g. knowledge exchange, networking, co-funding, resource-sharing)** |
|  |
| **Delivery Partnerships -** Please list delivery partners involved in this project. Please also state why the delivery partners are required. |
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| **15. Are there any Intellectual Property Rights (IPR) issues? Y/N** |  |
| **If yes, please provide details:** |
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| **16. Are there any General Data Protection Regulations (GDPR) issues? Y/N** |  |
| **If yes, please provide details:** |
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| **17. Project Risk Register - List the key risks relating to the completion of the project on time and within budget, the likelihood and impact of the risk, and briefly outline how these risks will be managed****NOTE:** Examples of risks include: key staff retirement; potential for staff to be redeployed (e.g. in emergency response); possible loss of technical support or of equipment resource; failure to complete field trials due to inclement weather; increases in consumables costs. Where risks likelihood/impact is identified as medium/medium, medium/ high, high /medium or high/high plans to mitigate the risk must be discussed and agreed with Policy Leads and AFBI Senior Management. Add additional lines as required. A Risk Manager **must** be named against each risk. Add additional lines as required. |
| **Risk****no** | **Description of Risk**  | **Likelihood****(High,****Med,****Low)** | **Impact****(High,** **Med,** **Low)** | **How will this risk be managed?** | **By whom?** |
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| **18. Project Proofing** |
| **18.1 Does the project require an environmental assessment? Y/N** |  |
| **If Yes, please identify the person responsible**  |  |
| **18.2 Does the project require an animal welfare and ethics assessment? Y/N** |  |
| **If Yes, please identify the person responsible**  |  |
| **18.3 Are there any specific licensing requirements associated with this project? Y/N** |  |
| **If Yes, please identify the person responsible** |  |

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| **19a. AFBI’s financial cost of project delivery (Full Economic Cost £’s)** Please note all research costs are now capital. A full breakdown of all costs associated with the project must be provided in the FFP Appendices.It is expected that most research projects will be completed within a 3 year time period. Where the cost of an item/salary is likely to increase over time due to inflation, ensure that the increases are included in the cost projections). |

**[PLEASE INSERT FFP SUMMARY TABLE AS SHOWN IN FFP APPENDICES SPREADSHEET]**

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| **19b. How will the AFBI costs be funded?**  |
|  | DAERA | Other Govt Depts | **University** | EU | Industry | Other | Total |
| Funding (£’s) |  |  |  |  |  |  | **£** |
| % of Cost |  |  |  |  |  |  | **%** |
| Source of funding |  |  |  |  |  |  |  |

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| **19c. How will the non-AFBI research costs be funded?** |
|  | DAERA | **Other Govt Depts** | University | EU | Industry | Other | Total |
| Funding (£’s) |  |  |  |  |  |  | **£** |
| % of Cost |  |  |  |  |  |  | **%** |
| Source of funding |  |  |  |  |  |  |  |

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| **20. Justification of non-AFBI costs identified in section 18a above, and its funding (19b) above** - For instance, there might be costs falling to CAFRE, Veterinary Service etc. for work carried out, or as a result of knowledge exchange programmes required. |
| **Name of Organisation that will be involved in the work** | **Describe briefly the work / service required** | **Total cost of work /service****£’s** | **Give a breakdown of cost incurred per annum** | **Which organisation will fund this cost?** | **Has it confirmed that it will be able to allocate funding to this work? Y/N** |
| **Year of project (e.g. yr 1)** | **£’s** |
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| **21. Describe how DAERA, and its stakeholders will benefit from the research**Include both monetary benefits (e.g. increases in farm gross margins, or processing sector value added); and non-monetary benefits such as environmental, conservation, safety, welfare, customer confidence, social benefits etc. Social benefits/impacts might include reductions in poverty, improvements in equality etc.): |
| **Beneficiary:** | **Specific section / group:** | **How they will benefit:** |
| **DAERA** |  |  |
| **Other Government Depts** |  |  |
| **Industry** |  |  |
| **Consumers** |  |  |
| **Other Stakeholders** |  |  |

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| **22. As far as is possible, it is important to quantify the likely benefits/outcomes**[[6]](#footnote-6) **that should arise as a result of this Evidence & Innovation project, and where possible, calculate their monetary value. In describing the quantifiable benefits arising from the project below*** **explain your assumptions;**
* **show how you calculated the level of benefit;**
* **provide details of the expected timeline for the achievement of the benefit.**
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| **23. When both monetary (Q22) and non-monetary benefits (Q21) are taken together, is it reasonable to assume that the benefits of the research will offset its costs? Y/N?** |  |

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| **24. If yes given for Q23, discuss why it is reasonable to assume that the benefits of the research will be sufficient to offset its costs** E.g. where benefits are mainly ‘monetary’ in nature, take into account average ‘benefit per farm’ projections, and discuss what level of uptake in industry would be required for the benefits to offset the cost of the research, and conclude on whether this is achievable given uptake rates delivered from broadly similar research undertaken in the past. Where benefits are mainly ‘non-monetary’ in nature, provide information on the:* fit with DAERA objectives;
* context data – e.g. the ‘value added’ [[7]](#footnote-7)of the sector supported by the research at farm production, and food processing stages; number of employees, if relevant;
* other relevant data (e.g. amount of interest from consumers/customers on the non-monetary benefits being generated; political drive to achieve these non-monetary benefits etc.);
* Discuss why, in your view, the non-monetary benefits are sufficient to offset the costs of the research.
 |
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| **25. Outline how it would be possible to measure robustly the monetary and/or non-monetary benefits actually achieved as a result of the research project** Include information on:* how the relevant baseline information could be captured;
* how the impact of the research could be measured.
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| **26. Outline when would be the most appropriate time (i.e. year) to measure the monetary benefits actually achieved as a result of the research project?** (e.g. for some projects, there may be a time-lag between the completion of the research project, and the benefits actually being delivered to industry, as knowledge exchange has to take place, and the industry adopt the new practices required. This question requires you to specify the year which is the earliest point in time that a meaningful estimate of the benefits should be possible.) |
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| **27a. Is there potential for any of the beneficiaries identified in Q21 above to contribute towards the cost of the research? If so, give details of relevant representative body that could be approached for funding/collaboration (and their responses, if they have already been approached).** |
|  |
| **27b. List any other non-financial contributions to support the project from industry/others** (e.g. meat samples; access to a membership database to use as a survey frame etc.) |
|  |
| **27c. If DAERA did not provide funding for this Evidence & Innovation project, to what extent, if any, might it be delivered by industry/private sector organisations; or the delivery funded by industry/private sector organisations or another public sector organisation?** |
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| **28. Project Evaluation Arrangements** |
| **Who will be responsible for completing the evaluation of the project?** |
| **Name:** |  | **DAERA Branch** |  |

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| **29. When will the Post Project Evaluation Table at 30 below be completed?** |
| **Date:** |  |

|  |
| --- |
| **30. Project Evaluation Table (deliverables/outputs should be consistent with those identified in sections 12 and 13)** |
|  | **Expected** | **Out-turn\*** | **Variance\*** | **Reason for variance\*** |
|  | Complete now | \*to be completed at PPE date given at 29 above. |
| **Project costs**  | £ | £ | £ |  |
| **Project funding*** **DAERA**
* **Other Government Departments**
* **Other University**
* **EU**
* **Industry**
* **Other sources**
 |  |  |  |  |
| **Project deliverables/outputs versus projections*** **no of refereed scientific papers published**
* **no of non-refereed papers/articles published**
* **no of KTT/popular articles published**
* **no of KTT events held**
* **no of people attending KTT events**
* **other deliverables/outputs (give details)**
 | 0 |  |  |  |

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| --- | --- | --- | --- | --- |
| **30. continued – Evaluation of objectives** | **Expected** | **Achieved?** **(Y/N)** | **Why objective not achieved in full, if applicable?** | **Lessons learned** |
|  | **To be completed now** | **\* to be completed at PPE date given in 29 above** |
| **Overall Policy Objective(s)** |  |  |  |  |
| **Scientific Objectives****Objective 1:****Objective 2:****Objective 3:** |  |  |  |  |

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| **Data Protection and Freedom of Information Issues***The Department takes data protection and freedom of information issues seriously. It takes care to ensure that any personal information supplied to it is dealt with in a way which complies with the requirements of the Data Protection Act 1998. This means that any personal information you supply will be processed principally for the purpose for which it has been provided. However, the Department may also use it for other legitimate purposes in line with the Data Protection Act 1998 and Freedom of Information legislation. These include:** *Administration of the Common Agricultural Policy and other aid schemes;*
* *The production and safety of food;*
* *Management of land and other environmental controls;*
* *Animal health and welfare;*
* *Occupational health and welfare;*
* *Compilation of statistics;*
* *Disclosure to other organisations when required to do so; and*
* *Disclosure under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004 where such disclosure is in the public interest.*
 |
| **31. FoI Implications** *(you should state here if any of the information provided in this form would be exempt from release under the Freedom of Information Act 2000, stating specific exemptions where possible)* |
|  |

**32. This document was prepared with input from AFBI project leader(s)**

|  |  |
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| **Name** | **Date** |
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**33. This document has been prepared and checked by policy lead(s) and is recommended for approval by the relevant PMB**

|  |  |
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| **Name** | **Date** |
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**34. This document has been accepted by me as the PMB Chair on behalf of the PMB and the project may proceed on this basis**

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| --- | --- |
| **Name** | **Date** |
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**ANNEX 1: CONSIDERATION OF OPTIONS**

**(A1) Long list of options considered - List all options that could potentially address the problem (i.e. the gap in research) identified.**

|  |  |  |
| --- | --- | --- |
| **Option No.** | **Option description** | **Carried forward to costing stage? Y/N** |
| E.g. 1.E.g. 2.E.g. 3. E.g. 4E.g. 5 | Status Quo – no NI research on x. Rely on research coming forward from other regions of the UK/ROI etc. to advise Policy.Literature Review only - Carry out literature review only, and use this to advise Policy on way forward.Small Scale Full Research Option - Carry out literature review, and also survey x farms, and collect y samples, and analyse these for z. Medium Scale Full Research Option – Carry out literature review, and also survey \_\_ farms, and collect \_\_ samples, and analyses these for \_\_.Large Scale Research Option – Carry out literature review, and also survey \_\_ farms, collect \_\_ samples, and analyse these for \_\_\_. | YNNYY |

**(A2) Discarding options – For those options that will not be carried forward to the costing stage, describe why each is being discarded.**

|  |  |
| --- | --- |
| **Option No.****Discarded** | **Reason why option is discarded:** |
| E.g. 2.E.g. 3.  | Need to carry out experimental work on applicability of ….. to NI conditions which differ from …………, therefore, lit. rev. only option will not meet the need identified.Small scale option…. Not sufficiently representative of ……. Results not likely to be robust enough to inform policy on …….. |

**(A3) Cost of each option compared.**

|  |
| --- |
| **Cost of project delivery (Full Economic Cost £’s) – totals for a three year project** |
|  | **Opt \_\_** | **Opt \_\_** | **Opt \_\_** |
| **AFBI financial costs** **(as per spreadsheet in appendix 3)** | **£** | **£** | **£** |
| **Non-AFBI Financial Costs** **(as per spreadsheet in appendix 3)** | **£** | **£** | **£** |
| **Total Financial Costs****(as per spreadsheet in appendix 3)** | **£** | **£** | **£** |
| **Rank order of option on basis of least costs (i.e. 1st, 2nd, 3rd)** |  |  |  |

**(A4) Benefits of each option compared**

|  |
| --- |
| **(i) Monetary Benefits: Where possible, quantify the likely benefits/outcomes[[8]](#footnote-8) that should arise as a result of each option. If possible, calculate their monetary value.**  |
|  | **Opt \_\_** | **Opt \_\_** | **Opt \_\_** |
| **(i.i) Estimate of Monetary Benefits** | **£** | **£** | **£** |
| **(i.ii) Justification of monetary benefit figure:*** **explain assumptions;**
* **show how you calculated the level of benefit;**
* **provide details of the expected timeline for the achievement of the benefit**
 |  |  |  |
| **(i.iii) Rank order of options by likely level of monetary benefits delivered. (i.e. 1st, 2nd, 3rd).** |  |  |  |

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| **(ii) Non-Monetary Benefits: Describe how DAERA, and its stakeholders, will derive non-monetary benefits from the research. E.g. environmental, conservation, safety, welfare, customer confidence, social benefits etc. Social benefits/impacts might include reductions in poverty, improvements in equality etc. Where quantification of non-monetary benefits is possible, explain and justify assumptions used.** |
|  | **Opt \_\_** | **Opt \_\_** | **Opt \_\_** |
| **(ii.i) Describe non-monetary benefits:** |  |  |  |
| **(ii.ii) Rank order of options by likely level of non-monetary benefits delivered (i.e. 1st, 2nd, 3rd).** |  |  |  |

**(A5) Risks associated with each option compared**

|  |
| --- |
| **Relative riskiness of each option:** |
|  | **Opt \_\_** | **Opt \_\_** | **Opt \_\_** |
| **(i) Please indicate if option is high, medium or low risk overall.****(ii) Justify risk category attributed to each option.** | **Risk category (i.e. H, M or L):****Justification:** | **Risk category (i.e. H, M or L):****Justification:** | **Risk category (i.e. H, M or L):****Justification:** |
| **(iii) Rank order of options by level of risk (i.e. 1st, 2nd, 3rd)** |  |  |  |

**(NB: Section 28 of the main document asks for a more detailed discussion of the risks associated with the “preferred option” and risk management actions required.)**

**(A6) Choice of preferred option**

|  |  |
| --- | --- |
| **Preferred Option Number** | **Rationale for choosing this option as the ‘preferred’ option:** |
|  |  |

**NB: It is the details of this ‘preferred’ option that must be inserted into the remaining sections (12 to 32) on the main form.ANNEX 2: Benefit Evaluation Table**

**(ONLY TO BE COMPLETED IF PROJECT IS SELECTED FOR BENEFIT EVALUATION)**

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| **A2. Benefit Evaluation** |
| **Only some research projects will be chosen for a full benefit evaluation, and as it generally takes some time after project completion for benefits to be realised, this will most likely be undertaken as part of a “benefit evaluation” research project at some stage in the future. If this project is subsequently chosen, the following tables should be completed at the Benefit Evaluation date given in A2.3.** |

|  |  |  |  |
| --- | --- | --- | --- |
| **A2.1 Name of evaluator:** |  | **A2.2 Branch of evaluator:** |  |

|  |
| --- |
| **A2.3 Date Benefit Evaluation undertaken** |
| **Date:** |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **A2.4 Benefit Evaluation** | **Expected** | **Achieved?** **(Y/N)** | **Why benefit not achieved in full, if applicable?** | **Lessons learned** |
|  | **(as per the Full Format Form)** | **\* to be completed at Benefit Evaluation date given in A2.3 above** |
| **Monetary benefits**  | : | : | : | : |
| **Non-monetary benefits**  | ::: | ::: | ::: | ::: |

1. Project Extension Proposals do not require Section 5 to be completed. [↑](#footnote-ref-1)
2. Project Extension Proposals do not require Section 6 to be completed. [↑](#footnote-ref-2)
3. **Fundamental research**: Experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without any direct practical application or use in view. [↑](#footnote-ref-3)
4. **Industrial Research**: Research aimed at the acquisition of new knowledge and skills for developing new products, processes or services or for bringing about a significant improvement in existing products, processes or services. It comprises the creation of component parts to complex systems, which is necessary for the industrial research, notably for generic technology validation, to the exclusion of prototypes. [↑](#footnote-ref-4)
5. **Experimental research**: The acquiring, combining, shaping or using existing scientific, technological, business and other relevant knowledge and skills for the purpose of producing plans and arrangements or designs for new, altered, improved products, processes or services. This may include other activities aiming at the conceptual definition, planning and documentation of new products, processes or services. [↑](#footnote-ref-5)
6. Outcomes - these are the eventual benefits to society that a project is intended to achieve. [↑](#footnote-ref-6)
7. The ‘value added’ of a sector is the monetary value of its overall contribution to the Northern Ireland economy. To estimate value added for agriculture production sectors, the aggregate gross margin figures are used. See “Aggregate Gross Margin Estimates for the Main Agricultural Sectors” in the DAERA Publication “Statistical Review of Northern Ireland Agriculture” <https://www.daera-ni.gov.uk/articles/statistical-review-ni-agriculture>

See “Value Added, by subsector” table in the DAERA Publication “Size and Performance of the Northern Ireland Food and Drinks Processing Sector” <https://www.daera-ni.gov.uk/articles/size-and-performance-ni-food-and-drinks-processing-sector> as this provides estimates of “value added” for subsectors at the processing stage. [↑](#footnote-ref-7)
8. Outcomes – these are the eventual benefits to society that a project is intended to achieve. [↑](#footnote-ref-8)