**2024 Advancing Research Impact Fund**

**Livestock Innovation Grant Application**

**Please consult with the Research Innovation Office or refer to the Grant Summary for instructions on applying for this Advancing Research Impact (ARI) Grant.**

**Word counts will be enforced. Additional text beyond the limits may not be reviewed.**

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| 1. **PROJECT INFORMATION**  |  |  | | --- | --- | | **Project Title:** |  |  |  |  | | --- | --- | | **Total Project Funding Requested from Food from Thought:** | **$** |  |  |  |  |  | | --- | --- | --- | --- | | **Project Start Date:**  (not before 1 Sept 2024) |  | **Project End Date:**  (no later than 30 Nov 2025) |  |  |  |  | | --- | --- | | **Principal Investigator Information:** | | | **Name:** |  | | **Department:** |  | | **College** |  | | **Email address:** |  | | **Phone:** |  |  |  |  |  | | --- | --- | --- | | **Optional Partner Contribution Summary (only if applicable):**  Provide the amounts of partner cash and/or in-kind contributions from all eligible sources. Totals must match those in the Budget Template. | **Total Partner Cash** | **Total Partner In-Kind** | | **$** | **$** |      |  |  |  |  | | --- | --- | --- | --- | | **Which Priority Problems are Addressed by the Project?** | | | | | Biosecurity |  | Animal Health Information Systems |  | | Farm Infrastructure |  | Delivery of Animal Health |  | | Climate Change |  | Other |  | |
| 1. **PLAIN LANGUAGE SUMMARY**  |  | | --- | | Using plain language, please describe the main aspects of your project:    The problem being addressed, stakeholders, potential solution, general method to improve/develop/test or delivery your solution, key project deliverables, timing, probability of success, and the most likely next steps if the project is successful.  *(Max 200 words)* | |  |  1. **Project Rationale & Potential Product-Market Fit**  |  | | --- | | A Minimum Viable Product (MVP) is a prototype that practically demonstrates a potential solution to a Problem. An MVP helps an End User to better understand how a potential final product may by used under real world conditions.  Please describe the science that is the foundation of your proposed MVP (ie solution) that you plan to build (or have already built) and test, or evaluate and demonstrate or deliver via knowledge mobilization to End Users. What is the current Technology Readiness Level (TRL – defined in Appendix 2) of your MVP.  Who currently lives with the Problem and how is it currently managed? Why is this research needed?    *(Max 500 words; references (only if needed) may be included in the Appendix-References)* | | [ Suggested starting points – if useful ]  The scientific principals at play here are:  The envisioned (or known) MVP is:  The current proposed MVP has a TRL of and if this project is successful, will have a TRL of  The End Users of this potential MVP are:  End Users are not currently using the MVP or a similar technology because:  End Users are currently dealing with the Problem by:  This research project is needed because: |  1. **POTENTIAL FUTURE IMPACT OF THIS PROJECT**  |  | | --- | | Using POINT FORM, please list the potential future impacts of this project if it is completed as planned.  Please try to estimate when these impacts will be achieved. These can be short, medium, or long-term outcomes.  For example: Generating positive Proof of Concept data will enable follow-on projects to be funded to advance a practical solution by industry. Or the POC data will aid in future policy decision-making. Or demonstrating the technology (MVP) and generating validation data will influence the agri-food sector and society to invest in (or quickly adopt) the technology. Etc….  *(Max 200 words)* | |  | |

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| 1. **WORK PLAN (MVP Advancement and KMB Plan)**  |  | | --- | | Using POINT FORM – please describe your work plan, including expected deliverables and timelines.  The work plan may be primarily Product Development (creating/validating an MVP) or primarily Knowledge Mobilization activities (delivering a solution or MVP) - or a balance of BOTH.  ALL work plans should include some Knowledge Mobilization activities that target and involve End Users (farmers) and/or Industry Stakeholders. (It does not need to be complex or the major focus of the work plan – but some KMB is required to disseminate results)  *(Max 1000 words)* | |  | |
| 1. **TRAINING OF HIGHLY QUALIFIED PERSONNEL**  |  | | --- | | Describe how graduate students or other HQP will participate in and benefit from the project. What unique training opportunities and experiences will they gain?  (Max 200 words) | |  | |
| 1. **EQUALITY, DIVERSITY, & INCLUSIVITY**  |  | | --- | | Describe how you will support the University’s goals to provide equal, diverse, and inclusive opportunities to project participants.  (Max 100 words) | |  | |
| 1. **EXPERTISE OF THE RESEARCH TEAM AND INDUSTRY PARTNERS**  |  |  |  |  | | --- | --- | --- | --- | | Please identify members of the project team, including research team members (farmers, industry collaborators, HQP (MSc, PhD, DVSc, Postdoc, Undergrad students) and other staff), partners and external advisors, and describe how their expertise, skills and capacity are best suited to contribute to the success of the project. | | | | | Academic Research Team | | | | | Name | Affiliation & Position | Role in the project | Overview of expertise, as relevant to this project | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | | Partners, End Users, Farmers, Industry Reps, and Advisors (as applicable) | | | | | Name | Affiliation | Role in the project | Overview of expertise, as relevant to this project | |  |  |  |  | |  |  |  |  | |  |  |  |  | |  |  |  |  | |
| 1. **BUDGET**  |  |  | | --- | --- | | The FfT funds requested must not exceed $40,000.  Complete the budget in the Excel template provided AND transfer the final values to this summary below.  Indirect cost rate (overhead) is zero (0%) and does not need to be included in your budget. The entire $40K is available for use in the project.  Budget items must be justified and represent good value for funds requested. Use the Budget Notes section at the bottom of the budget to provide more details on any unusual or contentious expenses which require explanation. | | | **Description** | **Amount $** | | **FUNDING REVENUE** | | | Partner Cash (optional) |  | | Partner In-Kind Value (optional) |  | | FfT Funds Requested (max $40K) |  | | Total Project Value |  | | Note: Total Project Value = Partner Cash+ In-Kind Value + FFT Funds | | | **SUMMARY OF EXPENSES** | | | 1 Salaries and Benefits |  | | 2 Travel, Subsistence, per diems |  | | 3 Equipment and Supplies |  | | 4 Computers and Communications |  | | 5 Dissemination of Research Results, Networking |  | | 6 Service and Miscellaneous |  | | Total Expenses | $ | | Note: In-Kind is not included in the cash expenses | | | **Budget Notes: Explanation of unusual items** | | |  | | |
| 1. **CONFLICT OF INTEREST - DECLARATION**  |  |  | | --- | --- | | Definition of Conflict of Interest:  When you, or any member of your research team, or any direct family member is:   1. an officer, director, partner, trustee, employee, advisory board member, or agent of any company or organization that is   (a) funding this project in whole or in part (cash or in-kind); or  (b) from which goods or services will be obtained for this project (including sub-contractors); or  (c) whose financial position could benefit from the results of this project   1. an actual or beneficial owner of stock or controlling interest in any company or organization as defined in (a), (b) or (c) above? 2. employed by or deriving income or a personal benefit within the past year, or anticipate being employed by or deriving income or a personal benefit, from any company or organization as defined in (a), (b) or (c) above? 3. holding an interest in or entitled to receive revenue from any intellectual property (e.g. patents, copyrights, trademarks, plant breeders’ rights) owned by or licensed to any company or organization as defined in (a), (b) or (c) above?   When funding for this project is used to employ or otherwise compensate any direct family member of you, the Co-Investigator or any family member of your research team?  Any Conflict of Interest must be declared, according to Tri-Agency funding policy. | | | Do you (Principal Investigator), the Co-Investigator, or any other active member on your research team have any potential Conflict of Interest, if this project is awarded funding? Y/N. |  | | If you suspect yes…. briefly explain. | | | Explain: | | |  | | |
| 1. **SIGNATURES**  |  | | --- | | I hereby certify that I am eligible to hold Tri-Agency awards, and that I have read and understand the PI Responsibilities as set out in the Food from Thought Funding Guidelines.  **PRINCIPAL INVESTIGATOR:**  Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  **DEPARTMENT CHAIR**:  Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ DATE: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |   Note:  A Data Management Plan will be required for submission to the library if your proposal is recommended for funding. And if required, a Collaborative Research Agreement with industry and a Conflict of Interest Management Plan may also be required prior to award approval. |

**Submit this Grant Application (PDF preferred) AND your signed OR5 AND your Excel Budget Worksheet**

**Before NOON – Friday 31 May 2024 to:**

**David Hobson: dhobson@uoguelph.ca**

**Copy: Kelly Ziggler: kziggler@uoguelph.ca**

**Appendix 1 - References**

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| Include all references cited in the application |
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**Appendix 2 - Technology Readiness Levels**

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| Use the following scale to determine the current Technology Readiness Level (TRL) of your product or technology according to the definitions below: |
| ***TLR-1 Basic Principles Observed:*** *The translation of basic scientific research into applied research. This is mostly the exploration of a technology’s basic properties.*  ***TLR-2 Technology Concept Formulated:*** *The study of how technologies could be applied in the market. This is the point where the project’s direction takes form.*  ***TLR-3 Experimental Proof-of-Concept Created:*** *At this phase, active product development begins, and a technological solution is developed. This stage looks at the critical function of the technology and attempts to determine what is required for this technology to meet the end user’s requirements.*  ***TLR-4 Prototype Validated in the Lab:*** *The integration and testing of basic components in a laboratory environment. This can be done multiple times during technology development to ensure that the technology is progressing toward its desired purpose.*  ***TLR-5 Prototype Validated in the Field:*** *The integration and testing of basic components in a real or simulated field environment. This is done following lab testing and usually involves accessing better testing equipment to identify potential issues in the field.*  ***TLR-6 Prototype Demonstrated in an Industrial Relevant Field:*** *Upon completion of the technology’s design, more thorough testing under industrial conditions can commence. This will provide data critical to the commercialization phase for which the technology is applied.*  ***TLR-7 Prototype Demonstrated under Industrial Operational Environment:*** *Using the prototype in an operational environment to understand how well it performs in non-simulated testing. Further development and optimization may be required to address performance issues.*  ***TLR-8 Final Testing and Evaluation:*** *Upon further testing and commissioning under all predicted operating conditions, the technology has proven itself to be successful.*  ***TLR-9 Successful Deployment:*** *The technology, in its final form, is manufactured and deployed to end users for use in real-life conditions.* |