2019 Gryphon's LAAIR – Market Validation Grant - Program Guide

Deadline to Apply: Noon on Friday 15 March 2019

Purpose

The purpose of this grant is to support market research to accurately determine the market potential of new research results which appear to have commercial benefits for the Ontario agri-food industry.

Vision:

Gryphon's LAAIR (GL) Grants were created by the Ontario Agri-Food Innovation Alliance to provide financial support to UofG researchers who have identified an opportunity to accelerate adoption of new commercially viable technologies that will make the Ontario agri-food industry more competitive. These grants aim to increase the number of UofG technologies that are adopted for use by the Ontario agri-food industry.

The GL grants provide financial support for new technologies developed from previous applied research projects that have the potential to evolve into real products and services that will help grow Ontario's economy and make it more globally competitive.

New and disruptive technologies need continual support from the time they are first created and discovered to the time when they are launched into the market as new product. As these newly created technologies mature – so does their Technology Readiness Level (TRL, see below). GL Market Validation Grants are meant to provide support to new technologies (TRL 2-5) immediately after they have completed the basic and applied research stages. This GL grant enable researchers to confirm that real market exists – before starting work on developing a commercial product.

Annual Funding Envelop:

Up to $140,000 is allocated to support Market Validation Grants. Approximately seven projects, each up to a maximum of **$20K for one-year duration may be awarded**.

Background

Continuous improvement of the Ontario agri-food sector depends on the continual support of new technologies with research that enables these technologies to mature into a Minimum Viable Products (MVP) that have economic impact in the market place. MVPs require support from the time of discovery often called Technology Readiness Level 1 (TRL 1, see below) to full maturity (TRL 9) when it is launched into the market place. Market Validation Grants provide support for technologies immediately after applied-research stage but before any market research has been completed.

Market Validation Grants are designed to enable UofG researchers to assess the current market potential of an existing well-developed UofG technology which has the potential to be the basis of a new product, process or service that will benefit the Ontario economy.

Understanding "product-market fit" is crucial when launching a new product, process, or service and the GL Market Validation funding is to be used to help identify industry and market issues that need to be addressed to successfully move the technology into the market place.

The learnings derived from of a completed Market Validation project will better position a new technology to secure follow-on funding such as a Product Development Grant to advance a technology even closer to market launch or transfer to industry.

The aim of a Market Validation project is to conduct primary research, often called Customer Discovery, which will reveal the wants and needs of stakeholders from all levels of industry, government regulators, supply chain controllers and end-users. Implementing solutions to real problems requires a deep understanding of the stakeholders most affected and most invested in the problem. Ultimately every solution needs to be tailored and developed to the ever-changing needs of the end users and the market place.

A key goal of this funding is to accurately assess the market opportunity for the proposed technology by testing an early stage concept with potential customers and end users. This first conceptual product is often called a Minimum Viable Product (MVP). This assessment should be supported with objective data gathered from trusted primary and secondary sources that allow the research team to quantify and catalogue market size, customer demographics, regulatory requirements, costing outlook, competitive landscape and the time and resources required to launch a first product.

As a result, all applications should clearly describe the approach, activities and tools to be used to perform your market validation project.

Applicants should develop a project plan which aims to answer these key questions:

1. Does a significant problem (unmet need) exist in the agri-food market that is worth developing a practical commercial solution?

2. What do customers want and more importantly need, to solve their problem?

3. What resources are needed by your research team to develop a commercial solution (i.e. minimum viable product) that customers are willing to pay for, to solve their problem?

The most important output from a Market Validation Project is underlined *customer generated evidence that confirms the problem your technology solves; the market size, the stakeholders, payees, customers, competitors and the barriers you must overcome to get your technology to market.*

A successfully completed Market Validation Project will greatly improve the probability that your technology gets to market to solve real customer's problems.

Guiding Principles

- Develop new technologies (products & solutions) to make the Ontario agri-food sector more competitive
- Use market-based evidence to determine the commercial value of agri-food research and new technologies, now and in the future.
- Remove barriers preventing the adoption of technologies with commercial potential

Key Goals:

- To motivate researchers to "get out of the building" (off academic campus) so you can understand how well your technology fits the real needs of the commercial market
- Accurately and objectively understand how difficult it will be to prepare a technology to be adopted by industry
- Identify the barriers that must be removed or managed to prepare a technology to be adopted by industry
- Advance the Technology Readiness Level (TRL) of technologies with commercial potential
- Understand why industry is willing or not willing to commit to adopting/developing your technology
- Better understand industry's needs and the challenges to bring new products and services to the agri-food market in Ontario
- Provide current and substantiated evidence of end-user needs, market size and demand and viable product features, all of which can be used to secure follow-on funding for future product development of your technology

Eligibility Criteria

- The Lead Applicant must be UofG faculty, CARG researcher, or eligible UofG adjunct (Adjunct Eligibility Criteria), with a well-defined and appropriate team assembled, that has demonstrated adequate experience and understanding of the project's field of research.
- The Project must fit appropriately within the scope of the OMAFRA Research Advisory Network (ORAN) and address at least one of the Ontario Agri-Food Innovation Alliance – Research Themes

Ontario Agri-Food Innovation Alliance – Research Themes:

- Agri-food and Rural Policy
- Bioeconomy – Industrial Uses
- Emergency Management
- Environmental Sustainability
- Food for Health

- Products and Value Chains
- Production Systems – Plant
- Production Systems – Animal

For more information, visit the [Ontario Agri-Food Innovation Alliance](#) website.

Lead Applicant's Responsibilities and Requirements

- Successful applicants must agree to prepare and submit a final project report using the Ontario Agri-Food Innovation Alliance's Research Management System (RMS) which will be used to keep OMAFRA informed and up to date on each project. Note: Recipients who submit incomplete or late reports may have reduced probability of securing future grants form OMAFRA.
- Granted funds must be utilized, according to the projected budget, within 12 to 18 months of the date of project approval and must be used for Ontario Agri-Food Innovation Alliance eligible and approved expenses.
- Projects must support Equality, Diversity and Inclusivity of all participants.
- Project Leaders may be asked to submit a separate confidential survey on Equity, Diversity and Inclusivity.

Tips for Creating a Winning Proposal:

The following questions are the most common knowledge gaps experienced by academics and other entrepreneurs wanting to develop technologies into commercial products. Your work plan should clearly indicate how you plan to obtain objective relevant and customer validated data to answer the following key questions:

- What problem(s) does the customer want/need solved?
- How big is the problem; where does it occur; and, how often?
- Who is currently looking for a solution to the problem and what are they willing to pay to solve it?
- How does your technology (i.e. solution) address the customer-identified problems and who will pay for the solution? Likewise, where does your technology fall short of satisfying customer needs?
- Why hasn't this problem been solved already?
- What barriers exist now (or in the foreseeable future) which are obstructing the use or implementation of your technology to solve the problem? How can you overcome the barriers?
- How is your technology (i.e. solution) different than existing solutions, and why will someone choose your solution over another?

Helpful Hints:

- To help clarify and communicate the expected benefits delivered by your technology, it is highly recommended that you review the You Tube video on the [Value Proposition Canvas](#) . This video may help you create a well-articulated explanation of how the fully commercialized technology will eventually help industry and/or end-users.
- Researchers who need advice on what tools and resources exist to help them gather customer and consumer insight are encouraged to contact the Research Innovation Office for direction.
- A portion (20%, or up to $5K) of the funds may be used to hire professional services or be used as leverage for additional grants (such as I2I) related to market validation or commercialization of early stage technologies.

Examples of Potential Projects – to be completed

- Focus groups with customers and suppliers
- Demonstration trials to obtain customer feedback
- Trade show attendance and networking among end users to build relationships and identify new customers or market segments
- Product development surveys
- Interviews with customers and suppliers
- Producing materials and information necessary to conduct concept testing with customers

Evaluation Criteria – Market Validation

Project proposals will be scored on the merit of supporting the following factors:

	Criteria	Weight
1	**Problem to be solved** Understanding of the industry problem that needs to be solved	10
2	**Industry's role** Degree of involvement of industry partners and end-users in this project	10
3	**Economic Benefits** Potential benefits your technology will bring to the Ontario Agri-food industry	10
4	**Research Team** Relevant experience and capability of the project team	10
5	**Work Plan** Quality and clarity of the project plan and the probability of successfully executing according to plan	20
6	**Cost Effectiveness** Cost vs Benefit ratio that justifies the expected deliverables	5
7	**Technology Readiness Level** The current TRL and the potential for advancement the TRL	10
8	**Competitive Intellectual Property** Probability of creating competitive and protectable intellectual property	5
9	**Future Development and Adoption** Probability that industry will get involved in product development or adopt your product after the completion of this project	10
10	**Communication** Overall clarity and professionalism of the written proposal and especially the Executive Summary	10
	Total	100

Application Process

1. Discuss your preliminary proposal with the Research Innovation Office and get feedback on your work plan, barriers you plan to remove, and potential industry partners
2. Obtain access to the Research Management System (RMS) used by the Ontario Agri-Food Innovation Alliance. A login and password to RMS is required and the application must be completed on-line using RMS.
3. Complete the written application using RMS and save your draft.
4. Read and click the Applicant's Declaration, as part of the application.
5. Complete an OR-5 and obtain signatures from your Chair and Dean (note: Office of Research signature is not required – this will occur if the project is approved).
6. Obtain any desired Letters of Support confirming industry interest in your MVP/project or Letters of Commitment confirming any financial support from an industry partner willing to help you execute your project.
7. Ensure that you have attached the following supporting documentation (PDF) to your submission in RMS.
   a. OR5
   b. Letters of Support or Letters of Commitment from industry
   c. CV of the Project Leader
   d. Any other relevant documents needed and referenced to support your proposal

   Note: all supporting documentation must be submitted in RMS as a PDF file.

Questions:

For more Information contact David Hobson ext 58859 or dhobson@uoguelph.ca

Appendix

Technology Readiness Level

Please refer to the following scale (developed and used by many governments, funders, investors and NASA) to determine the current Technology Readiness Level (TRL) of any commercially feasible product, process 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.*