

## University of Guelph Applicant's Guide Canada Foundation for Innovation – Innovation Fund

This guide is designed to assist University of Guelph faculty in development of a competitive, compelling CFI IF Assessment Criteria. Please refer to the 2025 Innovation Fund Call for Proposals for full instructions and context.

**Additional resources,** including timeline and resources for budget development can be found on the University's <u>CFI – Innovation Fund webpage</u>

**NEW** Institutions applying for CFI funding have research security obligations at the time of application under both the Government of Canada's National Security Guidelines for Research Partnerships and the Policy on Sensitive Technology Research and Affiliations of Concern (STRAC).

If you answer "yes" to the research security questions in the project module, you will have access to the necessary documents in the research security module including STRAC attestation forms, Risk assessment forms and Private-sector partner identification forms.

U of G guides to assist with these forms can be found at the University's <u>CFI – Innovation Fund</u> webpage (under Internal Resources)

**NEW** The third pillar of the CFI's 2023–28 strategic plan is Contributing to a sustainable world. The CFI encourages applicants "to reflect on how to align with the United Nations Sustainable Development Goals (UNSDGs) in the conduct of your research activities."



#### **Notice of Intent**

The notice of intent is NOT assessed as part of the review process. It is submitted via CAMS and consists of the following sections:

- Project information
- Project summary (1500 characters): Include enough information about the proposed research activities and requested infrastructure to allow potential collaborators to identify possibilities for collaboration or multi-institutional initiatives.
- Team: You can identify and invite <u>up to 10 team members</u>, including team leaders, in the notice of intent and proposal forms. Only the CVs of these 10 team members will be appended to the proposal. Team members must have a CAMS account and agree to participate in the project. They may be from organizations that are not CFI-eligible.
- Project description (Maximum three pages): The project description should reflect the full scope of the planned activities. This document helps CFI staff understand the breadth of expertise required on the Expert Committee to assess the merits of your proposal. It should include a:
  - High-level overview of the research or technology development program that will be enabled by the infrastructure and the anticipated outcomes of these activities, including expected applications
  - Table of the requested infrastructure including a brief description and approximate cost of the major pieces
  - Table of current and planned partners and other potential conflicts of interest. The table should include the name of the partner organizations and the name of individuals involved in the research.
- Collaborating institutions: Collaborating institutions must use CAMS to agree to participate in the project and confirm their contribution, if any, from their institutional envelope. This will be confirmed by RSO.
- Suggested reviewers: Suggest reviewers with the appropriate expertise who are at different stages of their career, with diverse backgrounds and from underrepresented groups



### 1. APPLICATION

The **Project Module** consists of the following sections:

- Project information [populated with info provided at NOI]
- Plain language summary and project summary: For the project summary, provide a general description of the research or technology development activities to be conducted and an overview of the infrastructure you are requesting. This summary must address the extent to which the proposal meets the competition objectives. (See "Objectives of this competition.") The project summary is the only section of the proposal we will provide to the S-MAC to help with its deliberations.
- Team [populated from info provided at NOI]
- Assessment criteria
- Financial resources for operation and maintenance. Please refer to this table when addressing the "Sustainability" criterion. Please use the U of G CFI budget template, O&M tab.
- Enhancement of past CFI investments, core and national facilities.

The **Finance Module** will be completed by RFS, based on the budget spreadsheet.



### CFI IF Assessment Criteria – Stream 1

Total Project Costs (\$)	Max. number of pages
≤ \$10 million	25 pages
>\$10 million	30 pages

This section of the guide is organized according to the competition's assessment criteria and includes:

- <u>CFI Objectives</u>. The Multi-Disciplinary Assessment Committees (MAC) evaluate proposals against the program objectives.
- **CFI IF CRITERIA REQUIRED HEADINGS** The Expert Reviewers evaluate proposals against these criteria.
- CFI instructions
- U of G suggestions for responding to criteria
- Common weaknesses. These reflect comments from expert reviewers and MACs. See Innovation Fund 2023- Strengths and Weaknesses

Objective 1: Enable internationally competitive research or technology development through the equitable participation of expert team members.

# 2. RESEARCH OR TECHNOLOGY DEVELOPMENT The research or technology development program is innovative, feasible, and internationally competitive.

The proposal must describe:

- Details of the research or technology development program
- The innovative aspects and the breakthrough potential of the research within the national and international context (include references)
- The approach, methodology and key challenges as well as how the team will overcome them
- How principles of equity, diversity and inclusion have been considered in the design of the research program (if not applicable, explain why).

### *U of G Suggestions:*

1. Read the CFI description of "EDI in Research Design" Call for Proposals (p16)



- 2. Identify the major scientific and/or real-world challenge that your project targets. Why does it matter? How will your team respond to the challenge? Why is your **approach** innovative and likely to succeed? **Highlight breakthrough potential**.
- 3. Very clearly and explicitly explain how your project is **internationally competitive:** Demonstrate awareness of other universities/researchers who are engaged in similar research or in your research area nationally and internationally.
- 4. Organize the research description by theme and articulate clear and achievable research objectives. Articulate the organizational logic of your research program. (How are themes integrated? Why organize the program this way?) For each objective (or project) list examples of questions that you will answer.
- **5.** Describe the methodology to demonstrate **feasibility**. Make reference to requested equipment and expertise of specific team members (core team and collaborators).

#### Common weaknesses:

- Lack of details on methodology
- Approach is not feasible
- Not integrative/lack of focus
- Missing details on activity
- Suffers from comparison within the competition
- Approach is not feasible

3. TEAM EXPERTISE The team has all the experience and expertise needed to conduct the research and will do so in an inclusive and equitable research environment.

The proposal must describe:

- The expertise needed to conduct the research and use the requested infrastructure (include a competency matrix)
- The experience and output of each team member as it relates to their career stage and role in the team



- Specific actions taken to enable full participation of individuals from underrepresented groups and early-career researchers
- Specific actions taken to provide an equitable, inclusive and accessible working environment.

## *U of G suggestions:*

- 1. Read the CFI description of "the Declaration on Research Assessment and rethinking impact" Call for Proposals (p16)
- 2. For examples of matrix, see <u>National Research Council (2013)</u>. "<u>Enhancing the</u> Effectiveness of Team Science").
- 3. Provide an overview demonstrating that the team has the complementary expertise required to meet proposed program goals, highlighting prior track record of collaboration where possible. In this overview, summarize major recognitions, e.g. # are Canada Research Chairs (names), and identify 1-3 notable discoveries attributed to the team or a team member. Highlight track records of collaboration with industry partners or end-user sectors (provide 1-3 notable examples of success). Highlight training numbers (total # of HQP trained by team members) and/or provide 1-3 notable examples of successful trainee career trajectories.
- 4. List users beginning with project/theme leads. Try to keep it to 3-5 sentences /team member, organized in the same way each time. For example:
  - Name. Title/Affiliation. Honorary Title. Description of research area as it relates to proposed program of research. Two-three most influential publications (with # citations) or other evidence of impact. Technical expertise (if relevant—to demonstrate expertise with equipment, list 2-3 publications resulting from use of equipment similar to that requested, or from use of facility key to the proposal). HQP Training record. Innovation/Impact track record (any policy impacts or applications of research or other demonstrable impacts of research uptake). Role (on proposed project; i.e. what will this person *do* on which theme/objective).
- 5. Consult the Government of Canada's <u>Best Practices in Equity</u>, <u>Diversity and Inclusion in Research</u> guide for examples of specific actions to enable full participation and to provide an equitable, inclusive, accessible working environment
- 6. How an individual self-identifies in terms of belonging to one or more underrepresented groups is considered personal information. Do not in any way provide the personal information of team members (e.g., Dr. X identifies as a member of a visible minority; The team has X women, X men and X individuals who identify as persons with disabilities; etc.)
- 7. To develop your capacity in anti-racism and anti-oppression strategies, see Office of Diversity and Human Rights training opportunities.



### **Common weaknesses:**

- Missing expertise or critical mass of experts.
- Missing expertise on data management
- Weak evidence of working as a team
- Missing or lacking detail on EDI action plan
- Statements on EDI-related barriers were generic
- Relevant marginalized groups were excluded from discussion

Objective 2: Enhance the capacity of institutions to conduct the research or technology development program over the useful life of the infrastructure

# 4. INFRASTRUCTURE The requested infrastructure is necessary and appropriate to conduct the research.

Proposal must describe:

- Each requested item and a justification of its need (include a table matching infrastructure to research activities and methodologies)
- How the requested infrastructure complements the existing infrastructure at the institution and at partner institutions.

## *U of G Suggestions:*

- 1. If you require many items, group items into functional units (e.g. "data analysis suite"), making sure that the organization/terminology here matches that used in the spreadsheet. Provide a clear and concise explanation for the requested infrastructure items.
- 2. Justify items (or group of items) by answering the following questions:
  - How is this suite necessary to achieving the research objectives? Where possible, explicitly identify which objectives it's required for and/or explicitly refer to steps in your methodology.
  - Why do you require more than one of a given item, if applicable?
  - If a large percentage of in-kind is expected for an item, give an explanation



- How does this acquisition build institutional capacity (by complementing existing infrastructure)
- If similar equipment is located at U of G or partner institutions, identify and justify
- 3. Include any minor renovation work that may be needed to safely and adequately house your equipment (i.e., electrical needs, additional venting, will it fit through doorways, etc.) For construction or renovation, detailed cost breakdown, timeline and floor plans must be provided in a separate document as part of the Finance module.
- 4. Be specific with description—what building, what floor, square footage for each space within the lab, web lab or dry, ventilation (if special), load bearing (if special), colocation with other similar labs (if applicable), research use of each space, any additional security or safety features if these are included in costs. It should explain the floor plan.

### **Common weaknesses:**

- Not well justified/not connected to research
- Wrong equipment
- Missing infrastructure development/implementation plan
- Missing detail on similar/existing infrastructure

# 5. SUSTAINABILITY The infrastructure will be well managed, accessible and optimally used over its useful life.

### Proposal must describe:

- How the infrastructure will be operated and maintained
- How the infrastructure will be optimally used (e.g., user access, level of use, plan to maximize usage)
- Specific actions taken to ensure equitable and inclusive access
- How data will be securely and ethically managed
- The operating and maintenance costs and revenue sources.

## U of G Suggestions:

## Management plan:

- Explain the procedures and policies that will ensure equitable and inclusive access
- Are there any security, safety, or maintenance risks that you will need to mitigate?



• Who will maintain the equipment (What skills will your lab manager or technician need to have to maintain the equipment?)

### 0&M:

- Beyond IOF funding what funds will you use to support operation? Typically, these include Tri-Agency grants and user fees.
- Will your partners contribute to covering the operating costs?

#### Governance:

- Governance model (diagram) is often helpful.
- Ensure that partners (institutions and/or industry) are represented in decision-making, as appropriate for independent research.

### **Common weaknesses:**

- Potential user base or business development plan is missing
- Costs/revenues not detailed
- Weak operation & maintenance plan
- Weak governance or management structure
- Insufficient personnel
- Weak infrastructure or data management plan

## Objective 3. Generate benefits for Canadians.

6. BENEFITS The team and its partners have a well-defined plan to transfer research results and mobilize knowledge. The results are likely to lead to benefits for Canadians.

## Proposal must describe:

- Anticipated benefits of the research activities and their impact
- Planned knowledge mobilization activities (e.g., films, performances, commissioned reports, knowledge syntheses, contributions to public debate and the media)
- How principles of equity and inclusion for any people or communities that may be impacted by the research have been considered



- The training of highly qualified personnel
- How diversity and equity have been integrated in the training and mentorship programs.

## U of G Suggestions:

- 1. Read the CFI description of "Benefits" Call for Proposals (p16)
- 2. We encourage you to develop a logic model to help you think through the pathway to impact and to identify any gaps or challenges to success. Work with the Knowledge Mobilization group at the Research Innovation Office.
- 3. Delineate the impact pathway beyond sectors. Benefits to sectors can result in benefits to Canadians, but the line from application/industry adoption to broader benefit must be explicitly articulated.

### **Common weaknesses:**

- Missing details of benefits
- Weak plan for technology transfer/clinical transfer/knowledge mobilization
- Overstated impact