

CANADA FOUNDATION FOR INNOVATION

College Fund

Guidelines for expert reviewers

July 2024

Building partnerships between colleges
and their communities

INNOVATION

Canada Foundation
for Innovation

Fondation canadienne
pour l'innovation



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About the Canada Foundation for Innovation

With a bold, future-looking mandate, the CFI equips researchers to be global leaders in their fields and to respond to emerging challenges. Our investments in state-of-the-art tools, instruments and facilities at universities, colleges, research hospitals and non-profit research institutions underpin both curiosity- and mission-driven research that cuts across disciplines and bridges all sectors. The research infrastructure we fund mobilizes knowledge, spurs innovation and commercialization, and empowers the talented minds of a new generation.

The Canada Foundation for Innovation respectfully acknowledges that its head office is located on the traditional, unceded territory of the Anishinaabe Algonquin People.



Who should use these guidelines?

These guidelines are for expert reviewers assessing proposals for the Canada Foundation for Innovation's College Fund.



A word of thanks

The Canada Foundation for Innovation (CFI) would like to thank you for agreeing to participate in the review process for the College Fund. The review process relies on the dedicated people who generously lend their time and expertise to its success. The CFI and Canada's research community greatly appreciate your efforts.

Part 1 – What you need to know about this fund

Purpose of the College Fund

The purpose of the College Fund is to support partnerships between colleges and a range of public, private or not-for-profit partners.

Through the College Fund, the CFI:

- Supports innovative projects that enhance the capacity of Canadian colleges to carry out applied research and technology development across all disciplines
- Provides colleges with research infrastructure to foster partnerships (in their strategic priority areas) with the public, private or not-for-profit sector.

The innovation generated through these research partnerships must address the social, business, health or environmental needs of a Canadian industry or community. It is expected to lead to the creation or adaptation of knowledge and technology to develop or improve a product, process or service.

The proposed activities and requested infrastructure supported through this fund should not:

- Duplicate existing services or facilities in the region
- Be used to compete with private-sector businesses.

Objectives of the College Fund

- Create and enhance partnerships with the public, private or not-for-profit sectors that lead to innovation. These innovations must address social, business, health or environmental needs of a Canadian industry or community
- Enhance and optimize the proven applied research capacity of the college that is related to the proposed applied research or technology development activities
- Generate social, economic, health or environmental benefits locally or nationally including the development of highly qualified personnel.

Competition budget

The CFI will invest up to \$15 million in research infrastructure funding and will fund up to 40 percent of a project's eligible infrastructure costs. We will also provide up to \$4.5 million for associated operating and maintenance costs through the Infrastructure Operating Fund.

Operating and maintenance costs

We will contribute to the operating and maintenance (O&M) costs of funded projects through our [Infrastructure Operating Fund](#). The institution will automatically receive an allocation equivalent to 30 percent of the CFI contribution to the funded projects.

Review process

Proposals will be evaluated in a two-stage review process with final funding decisions made by the CFI's Board of Directors.



The CFI’s commitment to equity, diversity and inclusion

The CFI is committed to the principles of equity, diversity and inclusion. In all our activities, we recognize that a breadth of perspectives, skills and experiences contributes to excellence in research.

Equity: We aim to ensure all CFI-eligible institutions have the opportunity to access and benefit from our programs and CFI-funded infrastructure through our well-established, fair and impartial practices.

Diversity: We value attributes that allow institutions and their researchers — from any background and from anywhere — to succeed. This includes individual attributes such as gender, language, culture and career stage; institutional attributes such as size, type and location; and attributes that

encompass the full spectrum of research, from basic to applied and across all disciplines.

Inclusion: We encourage a culture of collaboration, partnership, contributions and engagement among diverse groups of people, institutions and areas of research to maximize the potential of Canada’s research ecosystem.

We believe that nurturing an equitable, diverse and inclusive culture is the responsibility of every member of the research ecosystem, including funders, institutions, researchers, experts and reviewers.

Figure 1: Review process



Rating scale

We use a five-point rating scale with statements about the degree to which a proposal meets each criterion standard or competition objective (Figure 2).

Figure 2: Rating scale



Expert review

In the first stage of review, experts review the proposals to assess their strengths and weaknesses in relation to the five assessment criteria (see Table 1).

We select expert reviewers from diverse sectors for their specific expertise in the area of the proposal. They are knowledgeable about the needs of the targeted industry or community and the college environment.

Only proposals with ratings that meet the threshold across the five assessment criteria will advance to the next stage of review. (See "What is the threshold to advance?")

Table 1: The College Fund's assessment criteria and standards

Assessment criteria	Criterion standard
Applied research or technology development	The proposed applied research or technology development activities respond to clearly identified needs of an industry or community and have been developed in collaboration with partners to ensure the research achieves the intended outcomes.
Partnerships	The institution has demonstrated its ability to build and maintain productive partnerships with an industry or community. The institution has identified partners for the planned applied research or technology development activities. The institution has a plan to stimulate new partnerships with the industry or community.
Infrastructure	The requested infrastructure is necessary and appropriate to conduct the proposed applied research or technology development activities. It enhances and integrates with the college's existing applied research capacity. The infrastructure will be optimally used and maintained to ensure continued collaborations with, and relevance to, the industry or the community.
Team	The team comprises the breadth of expertise and experience needed to conduct the proposed applied research or technology development activities and operate the requested infrastructure.
Benefits	The proposed activities are likely to lead to social, economic, health or environmental benefits at the local or national level. The proposed activities will enable the development of highly qualified personnel.

Multidisciplinary Assessment Committee

In the second stage of review, the Multidisciplinary Assessment Committee (MAC) assesses the proposals that met the threshold at the expert review stage.

We select MAC members for their broad understanding of the applied research and technology development environment, the role of colleges in the innovation process and the needs of partners.

The MAC conducts a careful analysis of the proposals and of the reports of the expert reviewers.

They have two responsibilities:

- Identifying proposals that best meet the three competition objectives relative to other competing requests
- Providing a funding recommendation and funding amount for each project to the CFI Board of Directors.



What is the threshold to advance?

Proposals will meet the threshold to advance to the Multidisciplinary Assessment Committee unless they receive three or more ratings of "Satisfies the criterion standard with minor weaknesses" or one of either "Partially satisfies the criterion standard" or "Does not satisfy the criterion standard."

Funding decisions

The CFI Board of Directors will make funding decisions for this competition annually at its March meeting. Following this meeting, applicants will receive the funding decisions, the anonymized reports of the expert reviewers and the MAC reports including the committee membership.

Principles of merit review

Our merit-review process is governed by the underlying principles of integrity and confidentiality. This is to ensure that we continue to have the trust and confidence of the research community, the government and the public. All expert reviewers must follow our [Conflict of interest and confidentiality agreement](#).

Integrity

We expect reviewers to maintain the highest standards of ethics and integrity. This means that personal interests must never influence, or be seen to influence, the outcome. You are appointed as an individual, not as an advocate or representative of your discipline(s) or organization. If you have a conflict of interest, you should declare it to the CFI. We will determine if the conflict of interest is manageable or if we must withdraw your invitation to be a reviewer.

Confidentiality

Our review process is confidential. When you agree to review for the CFI, you are bound by our [confidentiality agreement](#). This means that everything we send you is confidential and must be treated as such at all times. You must not discuss or share proposals with anyone. If you do not think you have the expertise to provide a useful review without discussing it with a colleague, you should decline the invitation.

Avoiding bias

Merit review is subjective by nature. Bias can be unconscious and show up in several ways. It could be based on:

- A school of thought or ideas about fundamental versus applied or translational research, areas of research, sub-disciplines or approaches (including emerging ones)
- The size or reputation of a participating institution
- The age, language, identity factors or gender of the applicant.

We strongly encourage you to complete the [Bias in Peer Review training module](#) developed by the Canadian Institutes of Health Research, the Natural Sciences and Engineering Research Council of Canada and the Social Sciences and Humanities Research Council. This short, online module promotes understanding of bias, how it can affect merit review and ways to mitigate bias. (See "[The CFI's commitment to equity, diversity and inclusion](#).")

Official languages

The CFI offers its services in both of Canada's official languages — French and English.

Part 2 – How to conduct your review

Tools to conduct your review

Use the [CFI Awards Management System \(CAMS\)](#) to access the documents and information you need to conduct your review. We will create a CAMS account for you once you have accepted to participate in the review process. If you already have a CAMS account, you can use it to access the review materials for this competition.

CAMS is divided into dashboards for different types of users. The “Reviewer” dashboard is where you will access the review materials and conduct your assessment.

Consult [Getting started with CAMS: A guide for reviewers](#) for more information on using CAMS.

Summary of key activities for expert reviewers

- Activate your account and log in to the CFI Awards Management System ([CAMS](#))
- Access the review materials on the “Reviewer” dashboard
- Complete the recommended [Bias in Peer Review training module](#) (See “[Avoiding bias](#)”)
- Evaluate the proposal against the assessment criteria
- Submit your assessment in CAMS by the deadline set by CFI.

Steps in the expert review process

Step 1 – Access the review materials

To access the review materials, click on the committee name. This will bring you to the “Review and documentation” page, where you will find:

- Reference materials (Criterion standards and instructions provided to applicants (with instructions for reviewers), these guidelines, etc.)
- The proposal
- Assessment form (under the “Your review” tab).

Step 2 – Complete the recommended Bias in Peer Review training module

This short, online module promotes understanding of bias, how it can affect merit review and ways to mitigate bias (see “[Avoiding bias](#)”).

Step 3 – Conduct your assessment

The materials provided must be the sole information source upon which you base your review. Applicants had to demonstrate in the proposal how the project satisfies each assessment criterion and justify the need for the requested funding.

After reading the proposal, you will identify the proposal’s relevant strengths and weaknesses based on the assessment criteria.

Use the five-point rating scale ([Figure 2](#)) to reflect the degree to which the proposal meets each criterion standard. A rating of “SA” indicates that the proposal clearly meets the criterion standard and addresses all the instructions for that criterion. Where a proposal clearly meets the criterion standard, addresses all the instructions for that criterion and exhibits qualities or strengths that exceed what is required, you can

assign a rating of "EX." We encourage you to use the full range of ratings to assess proposals based on the strengths and weaknesses identified.

In CAMS, select your rating for each assessment criterion from a drop-down menu and input the strengths and weaknesses in the relevant comments section.

An anonymized copy of your report will be provided to the MAC and to the applicants after funding decisions are announced. To ensure that anonymity is preserved, we kindly ask that you refrain from writing any comments in your report that could reveal your identity.

See "[Part 3 – Criterion standards and instructions provided to applicants \(with instructions for reviewers\)](#)" for detailed instructions for assessing the criteria.

Part 3 – Criterion standards and instructions provided to applicants (with instructions for reviewers)

To assess proposals, use the rating scale shown in Figure 2 of this document and repeated here for quick reference.

Figure 2: Rating scale



Objective 1

Create and enhance partnerships with the public, private or not-for-profit sectors that lead to innovation. These innovations must address social, business, health or environmental needs of a Canadian industry or community

Assessment criteria under this objective are:

- Applied research or technology development
- Partnerships

Applied research or technology development

Criterion standard: The proposed applied research or technology development activities respond to clearly identified needs of an industry or community and have been developed in collaboration with partners to ensure the research achieves the intended outcomes.

Address each of the following aspects:

- What are the needs of your industry or community and how did you determine them (e.g., stakeholder consultations, environmental scan)?
- What applied research or technology development activities will you undertake with your partners? For each, include the following:
 - What are the objectives?
 - What is the methodology?
 - What are the intended outcomes?

Make sure your descriptions provide a sufficient level of detail for experts in the field who will judge the feasibility of the activities.

Describe collaborations with partners in the “Partnerships” section.

Partnerships

Criterion standard: The institution has demonstrated its ability to build and maintain productive partnerships with an industry or community. The institution has identified partners for the planned applied research or technology development activities. The institution has a plan to stimulate new partnerships with the industry or community.

Address each of the following aspects:

- What is your college's track record of establishing and maintaining research partnerships with the industry or community? Please include information about the:
 - Outcomes of previous partnerships
 - Longevity of previous partnerships
 - Partner contributions to research in the past (e.g., financial, personnel time, participation in the research activities). (Only address the last two aspects if you are requesting more than \$250,000.)
- Who are your partners for the proposed applied research or technology development activities?
- How did you select your partners? (Only address this aspect if you are requesting more than \$250,000.)
- How will you reach out to the industry or community to stimulate new partnerships?

Instructions for reviewers

The level of involvement of partners from the public, private or not-for-profit sectors is a key consideration in making funding decisions. We consider close collaborations between the college and its partners essential to enabling innovation that is relevant to the industry or community.

Your assessment should include whether the proposal clearly demonstrates the commitment of partners including their active participation and contribution to the applied research or technology development program and their anticipated benefits.

Objective 2

Enhance and optimize the proven applied research capacity of the college that is related to the proposed applied research or technology development activities

Assessment criteria under this objective are:

- Infrastructure
- Team

Infrastructure

Criterion standard: The requested infrastructure is necessary and appropriate to conduct the proposed applied research or technology development activities. It enhances and integrates with the college's existing applied research capacity. The infrastructure will be optimally used and maintained to ensure continued collaborations with, and relevance to, the industry or the community.

Address each of the following aspects:

- Describe each requested item and justify why acquiring the infrastructure is the best way to meet the needs of the proposed research or technology development program. Indicate the item number, quantity, location, cost that you have entered in the "Cost of individual items" table. Provide a cost breakdown for any grouping of items. For construction or renovation, provide a description of the space including its location, size and nature (e.g., wet lab, greenhouse).
- How does the requested research infrastructure enhance and integrate with the existing research infrastructure at your college?
- How is the requested infrastructure relevant and essential for creating and enhancing collaborations with partners? (Only address this aspect if you are requesting more than \$250,000.)
- How is the requested infrastructure versatile and able to respond to immediate and longer-term applied research or technology development needs of the industry or the community? (Only address this aspect if you are requesting more than \$250,000.)
- How will the infrastructure be optimally used and maintained? Specify the operating and maintenance costs and revenue sources needed to sustain the requested infrastructure over its useful life (five years and beyond). Refer to the "Financial resources for operation and maintenance" table in the finance module.

When you describe each item, be sure to specify the item's main features so reviewers can judge its suitability for conducting the proposed activities using the methodology described.

Consider explaining how much the infrastructure will be used in your regular operations for the proposed applied research or technology development activities (e.g., number of samples processed per day, hours of operation, number of users).

- If you are requesting funding for construction or renovations essential to house and use the CFI-funded infrastructure or to conduct the research or technology development



How is the useful life of research infrastructure defined?

The useful life of the research infrastructure is the period over which it is expected to provide benefits and be usable for its intended purpose, factoring in normal repairs and maintenance.

activities described in the proposal, provide the following information in a separate document as part of the finance module:

- A timeline identifying key dates for the various stages of the proposed construction or renovation. (We expect colleges to finalize contracts and start the construction or renovation component of a funded project within 18 months of the funding decision. This applies to every site when a project involves multiple sites. While we recognize that some projects involve large and complex construction or renovation components, we expect your college to have completed planning and development work for such a project before applying.)
- Floor plans of the proposed new area(s), showing the location of the requested infrastructure and the scale of the plans
- A detailed breakdown of the overall cost of the construction or renovation project, categorized by cost component (i.e. direct costs, soft costs and contingency costs), when these costs are expected to be more than \$500,000.

Instructions for reviewers

Your assessment should consider the appropriateness of the budget and cost estimates. This budget evaluation should identify any expenses that you feel are not adequately justified for the planned activities.

Team

Criterion standard: The team comprises the breadth of expertise and experience needed to conduct the proposed applied research or technology development activities and operate the requested infrastructure.

Address each of the following aspects:

- What is the experience, expertise and contribution of the research and technical staff (from your college and from your partners) to conducting the applied research or technology development and operating the requested infrastructure?
- How will staff from your college (e.g., administrative, business development) support the research or technology development and ensure the sustainability of the infrastructure? (Only address this aspect if you are requesting more than \$250,000.)
- What are the specific challenges or systemic barriers (see "[How are systemic barriers defined?](#)") that exist in the context of your research or technology development program that could prevent individuals from underrepresented groups from participating equitably within the research team?
- Describe at least one concrete practice that you put in place to overcome the challenges or systemic barriers previously described and which demonstrates that equity and diversity were intentionally considered when composing the research team and recruiting team members.



How are systemic barriers defined?

Systemic barriers are defined as policies or practices that result in some individuals from underrepresented groups receiving unequal access to or being excluded from participation in employment, services or programs. Underrepresented groups can include, but are not limited to, women, Indigenous Peoples, persons with disabilities, members of visible minorities/racialized groups, members of LGBTQ2+ communities and early-career researchers.

- Describe at least one concrete practice that you will adopt to facilitate the ongoing inclusion of underrepresented groups in the research team, and how you will implement that best practice given the challenges or systemic barriers previously described.

For examples of best practices, consult the [Government of Canada's Best Practices in Equity, Diversity and Inclusion in Research](#).

Objective 3

Generate social, economic, health or environmental benefits locally or nationally including the development of highly qualified personnel

Assessment criterion under this objective is:

- Benefits

Benefits

Criterion standard: The proposed activities are likely to lead to social, economic, health or environmental benefits at the local or national level. The proposed activities will enable the development of highly qualified personnel.

Address each of the following aspects:

- What are the anticipated benefits of the applied research or technology development activities for the industry or community beyond the outcomes described in the “Applied research or technology development” section? This can include knowledge mobilization and technology transfer activities.
- What is your plan for training highly qualified personnel through applied research or technology development activities (e.g., co-op projects, capstone projects, paid internships) using the requested infrastructure? How many people will be trained and which skills will they acquire?
- Describe at least one action that you will take to promote equitable access to applied research or technology development opportunities for highly qualified personnel using the requested infrastructure. What efforts will be taken to ensure an inviting and inclusive training environment? (While we encourage you to consider this aspect in your applied research or technology development activities, you are not required to provide information. We will assess this aspect in a future competition.)

If applicable, quantify the anticipated benefits of the applied research or technology development activities for the industry or community (e.g., number of jobs created, amount of increased revenue, number of people helped).

Instructions for reviewers

Your assessment should consider a broad range of potential benefits. In addition to more common benefits, some other examples include:

- Increased participation of underrepresented groups (including those who may face systemic barriers (see “[How are systemic barriers defined?](#)”))
- Increased scientific literacy among the public
- Public engagement
- Partnerships outside of academia
- Published datasets.