CANADA FOUNDATION FOR INNOVATION

2025 Innovation Fund Call for proposals

June 2024



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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 nonprofit 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.

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Part 1: What you need to know about this competition

Purpose of the Innovation Fund

The success of the Canadian research community rests on its ability to realize the full potential of both its people and its infrastructure. The Innovation Fund provides continued investments in infrastructure, across the full spectrum of research, from the most fundamental to applied through to technology development. The Innovation Fund serves to not only invest in new infrastructure but also to support and renew existing equipment and facilities.

The Innovation Fund supports a broad range of research programs including those in natural sciences and engineering, health, social sciences, humanities and the arts, as well as interdisciplinary research. Projects funded through the Innovation Fund will help Canada remain at the forefront of exploration and knowledge generation while making meaningful contributions to generating social, health, environmental and economic benefits and addressing global challenges, such as the ones defined by the United Nations' Sustainable Development Goals.

Research infrastructure projects should:

- Align with the institution's strategic priorities
- Demonstrate **appropriate maturity** and offer the best potential for transformative impact; it is expected that projects will be finalized promptly and completed within a reasonable time frame.
- Build on established capacity to accelerate current research and technology development or bolster emerging strategic priority areas
- Empower teams to maximize the use of research infrastructure and foster world-class research.

Objectives of this competition

The objectives of the 2025 Innovation Fund are to:

- Enable internationally competitive research or technology development through the equitable participation of expert team members
- Enhance the capacity of institutions to conduct the research or technology development program over the useful life of the infrastructure
- Generate benefits for Canadians.

Important dates

Table 1: Deadlines

Activity

| Activity | Deauine |
|---|-----------------|
| CFI issues draft call for proposals | Apr 18, 2024 |
| Deadline to submit feedback on the draft call for proposals | May 17, 2024 |
| CFI issues call for proposals | Jun 6, 2024 |
| Deadline to submit notices of intent | Oct 2, 2024 |
| Deadline to submit proposals | Feb 4, 2025 |
| Review by Expert Committees | Mar to Jun 2025 |
| Review by Multidisciplinary Assessment Committees | Sept 2025 |
| Review by Special Multidisciplinary Assessment Committee | Oct 2025 |
| Decision by CFI Board of Directors | Nov 2025 |
| | |

Deadline

Competition budget

The CFI will invest up to \$425 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 \$127.5 million for associated operating and maintenance costs through the Infrastructure Operating Fund.

Institutional envelopes

Institutional envelopes fix the upper limit of funding an institution can request if it submits or collaborates on multiple proposals. The envelope size is based on the share of research funding the institution received from the three federal research funding agencies over the period 2020–21 through 2022–23 (which is the most recent available data).

Research hospitals and research institutes must apply within the institutional envelope of the eligible university with which they are affiliated.

The sum of all institutional envelopes is 2.75 times the competition budget, which allows us to aim for an approximate funding rate of 35 percent. Refer to <u>Appendix 1</u> of this document for the list of institutional envelopes.

Eligible institutions without a specified institutional envelope will receive an envelope of \$4 million.

Adhering to your institutional envelope

At the notice of intent deadline, your institution can exceed its institutional envelope by up to 10 percent. However, at the proposal deadline, the total value of CFI funding requested by your institution must be within its envelope.

There are exemptions for projects in the social sciences, humanities and arts. There are also exemptions if your institution submits or collaborates on just two proposals. See "Envelope exemptions for SSHA projects."

Operating and maintenance costs

We will contribute to the operating and maintenance (O&M) costs of funded projects through our <u>Infrastructure Operating Fund</u>. Your institution will automatically receive an allocation equivalent to 30 percent of the CFI contribution to your funded projects.

Eligible institutions

Canadian universities, colleges, research hospitals and non-profit research institutions recognized as <u>eligible to receive funding from the CFI</u> can apply to this competition. If your institution is already eligible, make sure your institutional agreement with the CFI is up to date before you submit a proposal.

Institutions that are not currently eligible must provide the necessary documentation to become eligible no later than July 9, 2024. Email us at <u>eligibility@innovation.ca</u> to find out more about the process and required supporting documentation to apply for institutional eligibility.

Eligible infrastructure projects and costs

An eligible infrastructure project involves acquiring or developing research infrastructure to increase research capacity and support world-class research. Eligible costs are described in <u>section 4.6</u> of our <u>Policy and program guide</u>.

To be eligible for funding, research infrastructure expenditures and in-kind contributions must have taken place on, or after, November 1, 2023. We consider expenditures incurred once goods are received, services have been rendered or work has been performed.

Maximum time to implement projects

The CFI reserves the right to withdraw its support for projects not finalized within nine months of funding decisions, or for which the final financial report is not submitted within a reasonable time frame.

Table 2: Project completion expectations

| Total project costs | Deadline to submit final financial report |
|---|---|
| ≤ \$2.5 million | November 2029 |
| > $$2.5 \text{ million and} \leq 10 million | November 2030 |
| > \$10 million | November 2032 |

Minimum cost for projects

Total project costs must be greater than \$1 million for proposals to be considered for this competition.

Large, complex and/or multi-institutional projects

We encourage you to include a project manager and other administrative costs associated with the management and governance of large, complex and/or multi-institutional projects.

Infrastructure projects located at national or international research facilities

If the infrastructure you are proposing will be located at a national or international research facility, your institution must:

- Consult with the host facility
- Comply with the facility's established planning and project approval processes
- Obtain the approval of the host facility before submitting a notice of intent.

We may seek confirmation from the research facility regarding its commitment to host the infrastructure.

Advanced research computing infrastructure

Institutions may submit proposals including advanced research computing infrastructure and related resources to carry out a research or technology development project. However, proposals that focus predominantly on major, collective and shared advanced research computing infrastructure are not eligible. These advanced research computing needs are addressed through the <u>Digital Research Alliance of Canada</u> (the Alliance).

Advanced research computing infrastructure normally includes systems or resources such as:

- Capacity or throughput computing
- Capability computing supporting tightly coupled, fine-grained applications
- Shared memory systems
- Systems supporting very large memory requirements
- High-performance storage
- Long-term storage
- Cloud computing
- Computing using specialized accelerators, including GP-CPU and others
- High-performance visualization systems
- Systems suitable for computational steering and interactive use.

Advanced research computing infrastructure encompasses both the software and environment needed for a given discipline to effectively utilize these types of infrastructure such as high levels of data security and integrity.

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Investments in advanced research computing infrastructure are maximized when those resources are shared. New or additional research computing resources costing more than \$100,000 will typically be housed, managed and operated by the Alliance.

Consult with the Alliance if you are planning to request advanced research computing infrastructure. Visit the <u>Alliance's website</u> for information on their established process for facilitating collaboration with institutions.

To facilitate the consultation process and allow timely responses to institutions, the CFI will share with the Alliance the proposals including advanced research computing infrastructure costing more than \$100,000. Release of this information will be done in a timely manner and on a confidential basis. By submitting such a proposal to the CFI, you acknowledge that this information can be shared with the Alliance for the purpose of determining if the infrastructure should be integrated at a national host site.

New in the 2025 competition

For this competition, we have introduced three streams with tailored assessment criteria as well as some changes to cost eligibility and envelope exemptions. There is no predetermined distribution of funding among the streams.

Stream 1: Leading edge of exploration and knowledge generation (open)

This stream is open to proposals from all disciplines.

Stream 2: Leading edge of exploration and knowledge generation in the social sciences, humanities and arts

Social sciences, humanities and the arts (SSHA) play a critical role in the Canadian research ecosystem. For example, SSHA researchers increasingly use new technologies to leverage large amounts of data to make new discoveries that will fundamentally change how research is conducted.

To access this stream, the primary field of research must be in SSHA.



Extending eligibility for database personnel in all three streams

We recognize that database infrastructure requires specialized expertise and ongoing support.

In addition to the eligible costs listed in the Policy and program guide section 4.6.3, salaries of technicians or professionals are now also eligible for the following activities:

- Helping researchers and other users appropriately operate and access the database
- Maintaining the database and integrating updated data sets and information.

Personnel costs are eligible if they are incurred before the deadline to submit the final financial report, as outlined in Table 2: Project completion expectations.

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Envelope exemptions

Each institution can submit one proposal with a primary field of research in SSHA outside its institutional envelope.

If your institution submits or collaborates on a single

proposal from any research discipline or on two proposals with one from an SSHA field of research, you are not restricted by your institutional envelope.

See Figure 1: Envelope exemptions.





Stream 3: Creation, renewal and upgrade of core facilities

An increasing number of institutions have adopted core facilities and formal policies to support them. Core facilities have proven instrumental in attracting, retaining and training top researchers from around the globe. They also foster collaborations across academic, private, public and not-for-profit sectors.

To access this stream, all requested infrastructure must be housed in and managed by a core facility.

In this stream, we have expanded eligible costs to include scientific and technical personnel for the operation and management of core facilities. Optimal and efficient use of the infrastructure is predicated upon sustained support for highly skilled scientists, technicians and personnel for facility management and outreach.

Eligible activities performed by specialized personnel include:

- Platform management and coordination
- · Operating and maintaining specialized equipment
- · Interfacing with researchers from a variety of disciplines
- Outreach with the private sector
- Training highly qualified personnel.

Personnel costs are eligible if they are incurred before the deadline to submit the final financial report, as outlined in Table 2: Project completion expectations.

It is not possible to request such personnel costs if the requested infrastructure is expected to be housed in and managed by a facility funded through the CFI's Major Science Initiatives Fund.



What is a core facility?

A core facility provides access to the following, which are generally too expensive, complex or specialized for researchers to cost-effectively provide and sustain themselves:

- State-of-the-art research services and analyses
- Instruments and technology
- Expertise
- Training and education.

Also, a core facility:

- Is broadly available to many researchers to conduct their research activities, irrespective of their administrative affiliation and with no requirement for collaboration or co-authorship
- Has dedicated equipment and space serving one or more institutions, research programs or fields

- Is formally recognized as a core facility and supported by the research institution where it is located
- Has a clearly defined governance and management structure and a sound management plan reflective of its mandate, breadth and complexity
- Has dedicated management involving individuals with the technical and subject matter expertise necessary to oversee all aspects of the facility.

Local, regional or national computing infrastructure are not eligible. (See "Advanced research computing infrastructure.")

Review process

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

Figure 2: 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.

3

Figure 3: Rating scale





criterion standard/ all aspects





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Expert Committees

In the first stage of review, Expert Committees review small groups of proposals from the same area of research. They evaluate proposals based on five assessment criteria:

- Research or technology development
- Team
- Infrastructure
- Sustainability
- Benefits

The assessment criteria for all streams are similar, but the sub-criteria have been tailored to better fit the types of proposals in those streams.

See "Part 3: Criterion standards and instructions" for details on how to address each assessment criterion in your proposal.

Only proposals that meet a minimum threshold across the five assessment criteria will move to the next stage. Proposals meet the minimum threshold to advance to the MAC 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."

Multidisciplinary Assessment Committees

In the second stage of review, the Multidisciplinary Assessment Committees (MACs) review groups of proposals of similar size or complexity and assess them against the three competition objectives. Proposals from all three streams will be assessed together.

One or more MACs exclusively review proposals submitted by small institutions. Small institutions are defined as those whose share of research funding received from the three federal research funding agencies is less than one percent.

We choose MAC members for their broad understanding of the research environment, and their expertise across many domains including health, natural sciences, engineering, social sciences and the arts. All MACs will include members that are well-versed in principles of equity, diversity and inclusion. We structure our committees to reflect the proposals they will assess; for example, the MAC that reviews proposals from small institutions will be composed of members who have experience in and knowledge of that environment.

The MACs conduct a careful analysis of the proposals and of the Expert Committee reports. They have two responsibilities:

- Identifying proposals that demonstrate excellence and best meet the three competition objectives relative to other competing requests
- Providing a funding recommendation and funding amount for each proposal for the next stage of review.

Special Multidisciplinary Assessment Committee

In the third and final stage of review, a Special Multidisciplinary Assessment Committee (S-MAC) reviews reports from the MAC meetings for the proposals that the MACs recommend for funding. The S-MAC makes sure the MACs were consistent in their assessment. If recommendations from the MACs exceed the available budget, the S-MAC recommends to the CFI Board of Directors the proposals that best support the CFI's mandate, meet the objectives of the competition and represent the most beneficial portfolio of investments for Canada.

Collaborating with provinces and territories

To coordinate the review processes and avoid duplication of efforts, we will share the following with relevant provincial and territorial funding authorities:

- List of notices of intent
- Proposals
- Expert Committee reports (including names and affiliations of reviewers).

We will disclose these documents only in accordance with agreements between the CFI and provincial or territorial authorities, as permissible pursuant to the Privacy Act.

We invite representatives of the relevant provincial or territorial authorities to participate as observers at the Expert Committee stage. They will also have the opportunity to submit to the S-MAC their views on proposals for consideration.

We encourage institutions to work with relevant provincial and territorial funding authorities as partners at an early stage in the planning and development of proposals.

Funding decisions

The CFI Board of Directors will make funding decisions for this competition at its November 2025 meeting. Following this meeting, we will notify your institution of the decisions and share the review material for your proposals in the <u>CFI Awards Management System (CAMS)</u>.

You may start the implementation of projects as soon as decisions have been communicated. You need not wait until the public announcement.

Public announcement

The Government of Canada organizes and makes public announcements of new funding from the Innovation Fund. Public announcements provide institutions, their researchers and partners, along with government representatives, the media and the CFI, opportunities to highlight the research and technology development enabled by CFI-funded infrastructure in their communities. We encourage institutions to work with local and national media after the announcement to promote the benefits of research and technology development to Canadians.

Part 2: How to apply

Tools to apply

Use the <u>CFI Awards Management System (CAMS)</u> to prepare, share and submit your notices of intent and proposals. This call for proposals and the <u>Getting started with CAMS documents</u> contain all the information you need to apply to this competition, including guidelines for preparing notices of intent and proposals. All submissions must conform to these guidelines.

We strongly recommend that you review the completed notice of intent and proposal forms before you submit them to make sure they comply with these guidelines.

Submitting notices of intent

To be able to submit a proposal to this competition, your institution must first submit a notice of intent. Submitting a notice of intent will give you access to the proposal modules in CAMS. Please ensure that you select the appropriate stream when submitting your notice of intent.

We use notices of intent to:

- Identify what expertise is needed to assess each proposal
- Recruit committee members
- Ensure that the requested infrastructure is eligible.

Notices of intent are not assessed as part of the review process.

We will publish a list on <u>Innovation.ca</u> of the notices of intent we receive. The list will include project summaries. We encourage institutions with complementary projects to consider potential collaborations or multi-institutional initiatives, where appropriate.

If you must make changes to the team leaders or administrative institution after you submit your notice of intent, contact innovation.fund@innovation.ca as soon as possible.

The notice of intent consists of the following sections:

- Project information
- Project summary
- Team
- Project description
- Collaborating institutions
- Suggested reviewers.

Project information

The "project information" section captures basic information about the project such as the application stream, title, applicant institution, keywords and research security information.

Project summary

(Maximum 1,500 characters)

Provide a short summary of the project. 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

We expect that the requested infrastructure will support a research team's internationally competitive research activities. The team can be comprised of researchers from different institutions, sectors and countries. For proposals in Stream 3 (Creation, renewal and upgrade of core facilities), include scientific and technical personnel who are key to the operation and management of the facility.

You can identify up to 10 team members, 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
- Must agree to participate in the project before you can submit the notice of intent
- May be from organizations that are not CFI-eligible.

You can select up to two team leaders to allow you to recognize leaders within the team and to compose a more diverse research team.

The user who creates the notice of intent in CAMS (typically an academic researcher) must be associated with the administrative institution and will be a team leader by default. They will have the opportunity to designate an additional team leader. The newly designated team leader does not need to be associated with the administrative institution.

The CAMS user who creates the proposal will be responsible for completing the "Submit to institution" step in CAMS.

Project description

(Maximum three pages for proposals written in English, or four for those written in French.)

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

Before you can submit the notice of intent, collaborating institutions must use CAMS to agree to participate in the project and confirm their contribution, if any, from their institutional envelope. Institutions can track the use of their envelope in the report repository section of their CAMS dashboard.

Suggested reviewers

We encourage you to suggest reviewers with the appropriate expertise who are at different stages of their career, with diverse backgrounds and from underrepresented groups as appropriate for the proposed program. The decision whether to contact the reviewers you suggest remains with the CFI.

Submitting proposals

The proposal should clearly present the project's merits and excellence. Provide enough information to enable reviewers to evaluate the proposal according to the assessment criteria and competition objectives.

If you must make changes to the team leaders and team members, administrative or collaborating institutions, stream or suggested reviewers after you submit your notice of intent, contact <u>innovation.fund@innovation.ca</u> as soon as possible.

We describe below the various sections that must be completed in CAMS.

Project module

The project module consists of the following sections:

- Project information
- Plain language summary and project summary
- Team
- Assessment criteria
- Financial resources for operation and maintenance
- Enhancement of past CFI investments, core and national facilities.

CAMS automatically populates the following sections of the proposal with information provided in the notice of intent:

- Project information
- Team.

Plain language summary and project summary

For the plain language summary, briefly describe what is being researched, how the research is being done and why it is important. Focus on the expected impacts and benefits to Canada, beyond academic accomplishments. This summary may be used in the CFI's communications products and on its website if the project is funded.

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 maximum length is three pages for proposals written in English, or four for those written in French. The project summary is the only section of the proposal we will provide to the S-MAC to help with its deliberations.

Team

CAMS automatically populates this section with information provided in the notice of intent.

Team members who agree to participate at the notice of intent stage do not need to reconfirm their participation at the proposal stage. However, newly added team members must have a CAMS account and agree to participate before you can submit the proposal.

Team leaders will have read and write access to the proposal while team members will each have read access.

Assessment criteria

For instructions on how to address each of the assessment criteria, see "Part 3 – Criterion standards and instructions."

Address the criteria according to the instructions to make your proposal as strong as possible.

Expert Committees rate the degree to which each proposal meets each criterion standard, whereas MACs rate the degree to which the proposal meets each competition objective.

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Document structure

Address the assessment criteria in a PDF document and upload it to CAMS. Include key information on how the proposal meets the objectives and assessment criteria for this competition.

Make sure the document follows the formatting guidelines for attachments outlined in the <u>Getting</u> <u>started with CAMS</u> documents for researchers or institutional administrators.

Address the criteria in the order that they appear in Part 3 of this document.

Page limits

The page limit for your PDF document depends on the total project costs and on whether you write your proposal in French or English. We allow more pages for proposals written in French. This provision is in support of evidence demonstrating that documents written in French require approximately 20 percent more space than similar documents in English, and will ensure an equitable amount of space for proposals written in either official language.

Table 3: Page limits

| | Maximum number of pages | | |
|---------------------|------------------------------|-----------------------------|--|
| Total project costs | Proposals written in English | Proposals written in French | |
| ≤ \$10 million | 25 | 30 | |
| >\$10 million | 30 | 36 | |

You have flexibility in how you address the assessment criteria. You could, for example, add figures and diagrams. The distribution of pages among criteria is at your discretion, up to the total page limits noted above.

Financial resources for operation and maintenance

This section captures the annual costs and funding sources needed to ensure the effective operation and maintenance of the research infrastructure for the first five years after it is implemented. Please refer to it when addressing the "Sustainability" criterion.

Do not include costs related to research or technology development in the "Funding sources for operation and maintenance" table. If funding sources include the Infrastructure Operating Fund, list these in the "institutional contribution" category.

Enhancement of past CFI investments, core and national facilities

You will find instructions for how to address this section in CAMS. The collected information is used for statistical purposes only.

Collaborating institutions

Before you can submit the proposal, collaborating institutions must confirm their contribution, if any, from their institutional envelope. Institutions can track the use of their envelope in the report repository section of their CAMS dashboard.

CAMS automatically populates this section with information provided in the notice of intent. If you add **new** collaborating institutions to the proposal, they must also confirm their participation before you can submit the proposal. You must notify <u>innovation.fund@innovation.ca</u> of any new collaborating institutions as soon as possible. This will help us to avoid conflicts of interest with potential reviewers.

Finance module

The finance module in CAMS consists of the following sections:

- Cost of individual items
- Construction or renovation floor plans (if applicable)
- Contributions from eligible partners
- Infrastructure utilization
- Overview of infrastructure project funding (generated automatically).

Please refer to this module when addressing the "Infrastructure" criterion.

Suggested reviewers

CAMS automatically populates the suggested reviewers module with information provided in the notice of intent.

Research security module

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). Visit <u>our website</u> to find out what your institution needs to provide with proposals to the 2025 Innovation Fund to meet those requirements.

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.

CVs

CAMS will append the CV of each team member to the proposal when you submit it. Make sure CVs are up to date before you submit your proposal.

Use of generative artificial intelligence

The use of generative artificial intelligence (AI) in preparation of proposals is an emerging and complex issue. We encourage you to review and follow the <u>Draft guidance on the use of artificial intelligence</u> in the development and review of research grant proposals and, where applicable, disclose any use of generative AI in the preparation of the proposal. Individuals remain personally accountable for the complete contents of their application.

Part 3: Criterion standards and instructions

This section describes important concepts to keep in mind in the development of your proposal followed by detailed instructions on what to include in your proposal according to which stream you apply to.

Research or technology development: Equity, diversity and inclusion in research design

Designing research around equity, diversity and inclusion (EDI) principles fosters excellent research outcomes that are both impactful and reflective of the broader Canadian population. While the relevance of EDI in research design may vary across fields, these principles should be considered for each proposal.

Rigorous research involves embracing inclusive practices at every step, from the original research questions to selecting collaborators, and from interpreting findings to sharing results. By addressing barriers to participation in research, we enhance innovation, foster creativity, encourage diverse problem-solving approaches, and achieve excellence.

Here are some examples of research-related practices to consider, where applicable:

Research planning and design

- Include diverse perspectives from marginalized or underrepresented groups.
- Ensure research design accounts for biases and includes measures to mitigate.
- Identify stakeholders from diverse backgrounds and include them in the process.

Literature search

- Include databases, journals and repositories from different regions and languages.
- Be mindful of citation bias.
- Include authors from diverse backgrounds.

Data collection and analysis

- Ensure that data collection methods are culturally sensitive and inclusive of diverse populations.
- Pay attention to intersecting factors to understand differing impacts in the analysis.

Team: The Declaration on Research Assessment and rethinking impact

As a signatory to the Declaration on Research Assessment (DORA), the CFI is committed to recognizing and assessing diverse forms of impactful research. Capturing research output often relies on familiar quantitative metrics like h-index, journal impact factor and citations, despite evidence that these indicators are narrow, often misleading and insufficient to capture the full richness of scholarly work. You should not include these metrics in your proposal and reviewers will be instructed not to consider them as a surrogate of quality.

We encourage you to describe academic achievements and outcomes through a wider range of research outputs including, but not limited to:

- Publishing research articles, technical reports or books
- Presenting at conferences or other venues
- Discussing an article, book or presentation on social media, podcasts or blogs
- Producing software
- Creating intellectual property
- Developing new technologies
- Producing community products such as Indigenous scholarly works or cultural sensitivity training
- Curating public exhibitions or events
- Contributing to policy or business decisions
- Conducting community engagement or outreach activities
- Training highly qualified personnel.

For more information, see the Declaration on Research Assessment website and the document <u>Rethinking</u> Research Assessment: Building Blocks for Impact.

Overcoming systemic barriers

Systemic barriers are policies or practices that result in the marginalization of specific groups of people. Individuals from these groups are receiving unequal access to or being excluded from participation in employment, services or programs, which ultimately, perpetuates their marginalization and underrepresentation. Underrepresented groups can include, but are not limited to: women; Indigenous, racialized or LGBTQ2S+ people; persons with disabilities; and, early-career researchers.

We expect that proposals submitted to this competition will identify the systemic barriers to participation of underrepresented groups and will demonstrate concrete, evidence-supported practices that will help overcome them and create an inclusive team environment. It is insufficient to rely exclusively on institutional guidelines and policies. You should develop and apply your own plans and have mechanisms to demonstrate if they are working. Your plans must consider recruitment and how to support members of underrepresented groups once they have been hired.

Examples of concrete practices include, but are not limited to:

- Appropriate institutional financial support for EDI actions
- Development of team culture statements
- Equitable and inclusive access practices (e.g., independent access committee)
- Focus on cultural humility and establishment of an environment of constructive cultural learning
- Implementation of gender equity and equality programs (e.g., Athena SWAN)
- Inclusion of early-career researchers within the leadership and advisory bodies
- · Inclusive recruitment and hiring practices
- Individuals with clearly identified responsibilities to support underrepresented groups
- Plans to re-assess EDI activities regularly
- Robust and safe feedback mechanisms
- Targeted financial support for underrepresented groups (e.g., reduced cost to access infrastructure).

Benefits: Examples of benefits of research

The benefits of research are wide-ranging:

- Health benefits could be new diagnostic tools, treatments or therapeutics
- Environmental benefits could be monitoring of climate change impacts, land and water conservation, pollution reduction, carbon emission reduction, or informing policies for environmental protection
- Sociocultural benefits could be improved wellbeing through strengthening communities, new policies or practices, increased public engagement, or improved decision making
- Economic benefits could be new jobs, products, services or sustainable industries.

Useful information to provide about highly qualified personnel

When describing the training of highly qualified personnel, indicate how many technicians, research associates, undergraduate students, graduate students and postdoctoral fellows will be trained and describe which skills they will acquire. Describe their potential career paths or further related contributions.

Stream 1: Leading edge of exploration and knowledge generation (open)



Objective 1:

Enable internationally competitive research or technology development through the equitable participation of expert team members

Assessment criterion: Research or technology development

Criterion standard: The research or technology development program is innovative, feasible and internationally competitive.

Proposal must describe:

- Details of the research or technology development program
- The innovative aspects and the breakthrough potential of the proposed activities 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 or technology development program (if not applicable, explain why).

Assessment criterion: Team

Criterion standard: The team has all the experience and expertise needed to conduct the proposed activities and will do so in an inclusive and equitable working environment.

Proposal must describe:

- The expertise needed to conduct the proposed activities 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
- Evidence-based actions taken to enable full participation of individuals from underrepresented groups and early-career researchers
- Evidence-based actions taken to provide an equitable, inclusive and accessible working environment.



Objective 2:

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

Assessment criterion: Infrastructure

Criterion standard: The requested infrastructure is necessary and appropriate to conduct the research or technology development program.

Proposal must describe:

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

INNOVATION

Assessment criterion: Sustainability

Criterion standard: 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)
- Evidence-based actions taken to ensure equitable and inclusive access
- How data will be securely and ethically managed
- The operating and maintenance costs and revenue sources.



Objective 3:

Generate benefits for Canadians

Assessment criterion: Benefits

Criterion standard: The team and its partners have a well-defined plan to transfer research or technology development results and mobilize knowledge. The results are likely to lead to benefits for Canadians.

Proposal must describe:

- Anticipated benefits of the research or technology development activities and their impact
- Potential pathways to transfer results to end users and partners (e.g., collaboration with communities, clinicians and the public or private sector)
- How principles of equity and inclusion for any people or communities that may be impacted by the proposed activities have been considered
- The training of highly qualified personnel
- How diversity and equity have been integrated in the training and mentorship programs.

Stream 2: Leading edge of exploration and knowledge generation in the social sciences, humanities and arts



Objective 1:

Enable internationally competitive research or technology development through the equitable participation of expert team members

Assessment criterion: Research or technology development

Criterion standard: The research or technology development program is innovative, feasible and internationally competitive

Proposal must describe:

- Details of the research or technology development program
- The innovative aspects and the breakthrough potential of the proposed activities 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 or technology development program (if not applicable, explain why).

Assessment criterion: Team

Criterion standard: The team has all the experience and expertise needed to conduct the proposed activities and will do so in an inclusive and equitable working environment.

Proposal must describe:

- The expertise needed to conduct the proposed activities and use the requested infrastructure
- The experience and output of each team member as it relates to their career stage and role in the team
- Evidence-based actions taken to enable full participation of individuals from underrepresented groups and early-career researchers
- Evidence-based actions taken to provide an equitable, inclusive and accessible working environment.



Objective 2:

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

Assessment criterion: Infrastructure

Criterion standard: The requested infrastructure is necessary and appropriate to conduct the research or technology development.

Proposal must describe:

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

INNOVATION

Assessment criterion: Sustainability

Criterion standard: 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)
- Evidence-based actions taken to ensure equitable and inclusive access
- How data will be securely and ethically managed
- The operating and maintenance costs and revenue sources.



Objective 3:

Generate benefits for Canadians

Assessment criterion: Benefits

Criterion standard: The team and its partners have a well-defined plan to transfer research or technology development results and mobilize knowledge. The results are likely to lead to benefits for Canadians.

Proposal must describe:

- Anticipated benefits of the research or technology development 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 proposed activities have been considered
- The training of highly qualified personnel
- How diversity and equity have been integrated in the training and mentorship programs.

Stream 3: Creation, renewal and upgrade of core facilities



Objective 1:

Enable internationally competitive research or technology development through the equitable participation of expert team members

Assessment criterion: Research or technology development

Criterion standard: The facility enables researchers to conduct research or technology development that is innovative, feasible and internationally competitive.

Proposal must describe:

- A high-level description of the types of projects the infrastructure will enable, and, in more detail, a representative sample of the projects to be conducted (include a link to the facility's website)
- The innovative aspects and the breakthrough potential of the projects within the national and international context (include references)
- The network of users and collaborators in academia, communities, public or private sector
- How principles of equity, diversity and inclusion have been considered in the design of the projects (if not applicable, explain why).

Assessment criterion: Team

Criterion standard: The team has all the experience and expertise needed to enable multiple research or technology development activities and will do so in an inclusive and equitable working environment.

Proposal must describe:

- The expertise and specialized skills needed to enable multiple research or technology development activities and use the requested infrastructure
- The experience and output of each team member as it relates to their career stage and role in the team
- Evidence-based actions taken to enable full participation of individuals from underrepresented groups and early-career researchers
- Evidence-based actions taken to provide an equitable, inclusive and accessible working environment.



Objective 2:

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

Assessment criterion: Infrastructure

Criterion standard: The requested infrastructure is necessary, appropriate and will enhance the facility's services.

Proposal must describe:

- Each requested item and a justification of its need (include a table matching infrastructure to proposed activities and methodologies)
- How the requested infrastructure integrates with the existing infrastructure and fits within the mission of the facility

INNOVATION

• The role in operating, maintaining or managing the facility of any personnel for whom funding is being requested.

Assessment criterion: Sustainability

Criterion standard: The infrastructure will be well managed, accessible and optimally used over its useful life.

Proposal must describe:

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



Objective 3:

Generate benefits for Canadians

Assessment criterion: Benefits

Criterion standard: The team and its partners have a well-defined plan to transfer research or technology development results and mobilize knowledge. The results are likely to lead to benefits for Canadians.

Proposal must describe:

- Anticipated benefits of the activities enabled by the facility and their impact
- Potential pathways to transfer results to end users and partners (e.g., collaboration with communities, clinicians and the public or private sector)
- How principles of equity and inclusion for any people or communities that may be impacted by the proposed activities have been considered
- The training of highly qualified personnel
- How diversity and equity have been integrated in the training and mentorship programs.

Appendix 1 – Institutional envelopes

| Institution | Envelope | Institution | Envelope | |
|--------------------------|--|---|--------------|--|
| University of Toronto | \$187,500,000 | Carleton University | \$14,300,000 | |
| The University of | \$107,100,000 | Concordia University | \$13,900,000 | |
| British Columbia | \$107,100,000 | Polytechnique Montréal | \$12,800,000 | |
| McGill University | \$94,200,000 | Université du Québec | ¢10,000,000 | |
| University of Alberta | \$67,000,000 | à Montréal | \$12,000,000 | |
| Université de Montréal | \$61,400,000 | Toronto Metropolitan | \$10,900,000 | |
| University of Calgary | \$58,200,000 | University* | \$10,900,000 | |
| University of Ottawa | \$53,600,000 | Memorial University | \$10,800,000 | |
| Université Laval | \$48,800,000 | of Newfoundland* | | |
| McMaster University | \$47,700,000 | Institut national de la recherche scientifique* | \$8,600,000 | |
| Western University | \$35,900,000 | University of Windsor* | \$7,200,000 | |
| University of Waterloo | \$35,300,000 | École de technologie | φ,,200,000 | |
| University of Manitoba | \$30,300,000 | supérieure* | \$6,000,000 | |
| Dalhousie University | \$28,300,000 | University of New | | |
| Queen's University | \$26,300,000 | Brunswick* | \$5,600,000 | |
| Université de Sherbrooke | \$23,200,000 | University of Regina* | \$5,100,000 | |
| Simon Fraser University | \$21,600,000 | Wilfrid Laurier University* | \$4,500,000 | |
| University of | \$21,400,000 Université du Québec à Trois-Rivières* | Université du Québec à | \$4,200,000 | |
| Saskatchewan | | \$4,200,000 | | |
| York University | \$17,500,000 | All other CFI-eligible | \$4,000,000 | |
| University of Guelph | \$17,000,000 | institutions* | φ4,000,000 | |
| University of Victoria | \$16,200,000 | | | |

* Small institution, defined as those whose share of research funding received from the three federal research funding agencies is less than one percent.