Ontario

Ministry of Colleges and Universities, Research Excellence, and Security

2027 Ontario Research Fund - Large Infrastructure Fund (ORF-LIF) Application: Program Guidelines

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1.0 Overview

The Ontario Research Fund – Large Infrastructure Fund (ORF-LIF) program ensures that Ontario's publicly assisted research institutions continue to have competitive, state-of-the-art infrastructure to engage in world-leading research and technology development.

The program assists institutions in capitalizing on their research strengths by investing in facilities that bring together researchers from a range of disciplines, technology experts and industry partners that support commercialization to generate new ideas, stimulate technology development and support the growth of strong regional economies.

The ORF-LIF program is a competitive, non-entitlement program and will not automatically match the Canada Foundation for Innovation (CFI) awards to Ontario institutions. Funding decisions will be based on scientific excellence, alignment with Ontario priority sectors, as well as an assessment of strategic value to Ontario adjudicated through a peer review by the Ontario Strategic Value Review Panel. The Ministry of Colleges, Universities, Research Excellence, and Security (Ministry) has also integrated research security assessments into all of its research funding programs to protect the province's long-term economic security and interests.

Applications from all research disciplines and across all three CFI 2027 Innovation Fund (IF) funding streams will be accepted, funding will be prioritized for applications that align with at least one of the Ontario strategic priority areas:

- Defence research to support Ontario Defence Industrial Strategy. (New)
- Forestry and forest products to support Ontario's Roadmap to Protecting Ontario's Forest Sector. (New)
- Agri-food innovation and adoption to support Grow Ontario. (New)
- Automotive industry (including electric vehicles) to support the Driving Prosperity: The Future of Ontario's Automotive Sector plan
- Critical minerals (or other research areas) to support the Critical Minerals Strategy within Ontario's Ring of Fire
- Life sciences (including genomics and medical devices) to support the Ontario's Life Sciences Strategy
- Quantum and Artificial Intelligence to support The Pan-Canadian AI Strategy

Applicants are expected to elaborate on any project alignment with Ontario strategic priorities in the Strategic Value Criteria section of the application.

2.0 Funding

Ontario will contribute a maximum of forty percent (40%) toward the total eligible costs. The research institution is responsible for obtaining at least sixty percent (60%) from the CFI-IF, through any private funding partners, or its own resources. For further information, please review the CFI guidelines for the 2027 IF competition

Final determination of the level of funding rests with the province. If the project cost decreases after the date of the Ontario award, then the Ontario contribution will decrease accordingly.

Grants received for a specific purpose from the Ontario government or from an Ontario government agency, or funding which has already fully leveraged Ontario government funding, cannot be used as an institutional contribution toward the project.

3.0 Eligibility

3.1 Eligible Applicants

Ontario institutions that are eligible to apply to the CFI-IF and meet the requirements listed below are also eligible to apply and must submit a co-funding application to the CFI 2027 IF competition.

Funding is open, on a competitive basis, to:

- publicly assisted universities
- colleges of applied arts and technology
- affiliated hospitals and research institutes
- Ontario based non-profit research institutions recognized as eligible to receive funding from the CFI as listed on the CFI Website
- consortia of the above, with one institution as lead applicant that, assumes responsibility and accountability.

Applicants must indicate whether the infrastructure project is eligible to receive infrastructure funds and:

- Institutional: will involve only one Ontario research institution
- Regional: will involve more than one Ontario research institution
- National: will involve research institutions outside of Ontario, but within Canada

Note that in the application, the Applicant Institution is taking legal responsibility for the project. If multiple institutions submit a joint application, one institution must be assigned as the Applicant Institution.

3.2 Eligible Infrastructure Costs

An eligible infrastructure project involves the acquisition or development of research infrastructure to increase research capacity and support world-class research.

The Ministry will be accepting applications across all three CFI 2027 IF competition streams. Only one stream can be selected per proposal:

- Stream 1: Leading edge of exploration and knowledge generation (open)
- Stream 2: Leading edge of exploration and knowledge generation in the social sciences, humanities and arts (SSHA)
- Stream 3: Creation, renewal and upgrade of core facilities

To be eligible for funding, expenditures and in-kind contributions must have taken place on, or after November 1, 2025. The Ministry considers expenditures incurred once goods are received, services have been rendered or work has been performed.

All costs normally considered by the CFI as eligible costs for an infrastructure project per section 4.6 of the CFI Policy and Program Guide are eligible, as long as they are incurred in the context of an eligible project as described in these guidelines.

In addition to the eligible costs outlined in section 4.6 of the CFI Policy and Program Guide, the Ministry will accept the following operating costs as eligible for this competition:

- For all three CFI funding streams:
  - Database personnel - Salaries of database technicians or professionals involved in the design, development and maintenance of a database are eligible.
  - A project manager and other administrative costs associated with the management and governance of multi-institutional projects where eligible per CFI 2027 IF competition guidelines.
- For CFI funding stream 2:

    - Community interface personnel – Salaries of personnel involved in the design and development of partnerships and community networks are eligible costs for proposals with a primary field of research in SSHA.
- For CFI funding stream 3:
    - Core facility personnel – Salaries of scientific and technical personnel involved in the operation and management of a core facility.

Eligible expenditures must be incurred before the deadline to submit the final CFI financial report. Please see the CFI 2027 IF program guidelines for further details.

Applicants are required to provide a breakdown of their total request by capital and related costs and by operating costs in their application. Specifically, the budget in the application should list:

- **Request for Operating Costs**: If applicable, the request for expenditures for either, or all, of the above operating costs, as eligible for the competition.
- **Request for Capital and Related Costs**: The request for all other eligible expenditures outlined in section 4.6 of the CFI Policy and Program Guide.

All costs must adhere to the *Broader Public Sector Accountability Act – 2010*, including any procurement directives issued thereunder, to the extent applicable.

Final determination of an item's eligibility rests with the Ministry, which may make eligibility subject to terms, conditions and limits as set out in the Grant Agreement.

Institutions that incur costs in advance of an Ontario approval do so at their own risk, in the event that provincial funding is not awarded.

3.3 Project Funding Section of the Application

It is essential that applicants provide their best forecast of project expenditures in the budget table(s). The annual budgets provided will form the basis of the annual payment amount that will be determined when the contract is negotiated. Applicants should pay particular attention to whether their timelines are realistic. The decision to allow a grant extension will be viewed in the context of the Ministry's fiscal plan. Projects should not assume that extensions will automatically be granted.

Table 1 – Ontario Infrastructure Request: Please describe the funding requests from the Ministry, CFI and total for projects within Ontario. The first table only describes the funding request to Ontario. For national projects, please ensure the CFI Request in this table pertains only to the Ontario component of the project, not the CFI Request for the entire project.

If any funds are being requested for the following operations-related costs as defined and eligible under the CFI 2027 IF Call for proposals, they must be separated out into the "Request for Operating Costs" (vs. "Request for Capital and Related Costs") by year:

- For all three CFI funding streams:
    - Database personnel - Salaries of database technicians or professionals involved in the design, development and maintenance of a database are eligible.
    - Project manager and other administrative costs associated with the management and governance of multi-institutional projects where eligible per CFI 2027 IF competition guidelines.
- For CFI funding stream 2:
    - Community interface personnel – Salaries of personnel involved in the design and development of partnerships and community networks are eligible costs for proposals with a primary field of research in SSHA.
- For CFI funding stream 3:
    - Core facility personnel – Salaries of scientific and technical personnel involved in the operation and management of a core facility.

Funds requested for all other costs eligible under the section 4.6 of the CFI Policy and program guide must be listed under “Request for Capital and Related Costs”.

Table 2 – National Project Budget Breakdown: Please describe the total project costs if the project also involves research institutions outside of Ontario. For projects being led outside of Ontario, please indicate the national lead institution’s name, province, and project leader. For multi-institutional projects with distributed infrastructure across Canada or infrastructure sites outside of the province, the lead Ontario institution should submit an application for the Ontario component of the project. Note for this table, the Request by year should be the total – combining both capital and related costs and operating costs (if applicable) - requested from the program.

3.4 Regional and National Projects

The lead Ontario institution seeking provincial funding for a national project must submit an application for the Ontario component of the project, explicitly demonstrating the project’s benefits to Ontario especially if the project will be located outside of Ontario (i.e., how will the strategic review criteria be met and what is the impact for Ontario). Institutions should ensure that out-of-province partners submit funding applications to their respective governments for their components of the regional/national project.

Note that, for the application, a collaborating institution is one that receives part of the infrastructure or uses part of its institutional envelope in a multi-institutional project.

3.5 Advanced Research Computing Infrastructure

For the purposes of this competition, the Ministry will adopt CFI’s definition of “advanced research computing infrastructure”. Proposals that include advanced research computing infrastructure and related resources to carry out a research or technology development project are eligible. However, proposals that focus predominately on major, collective and shared advanced research computing infrastructure are not.

Investments in advanced research computing infrastructure are maximized when those resources are shared. For that reason, and similar to CFI’s expectation that the Digital Research Alliance of Canada is consulted if applicants are planning to request advanced research computing infrastructure as part of their CFI application, the Ministry’s expectation is that applicants have also consulted with Compute Ontario if requesting advanced research computing infrastructure as part of the application given Compute Ontario’s role in helping to coordinate advanced research computing resources in Ontario. The engagement with Compute Ontario can take place at the same time applicants engage the Digital.

3.6 Eligible Partner Contributions

Only contributions to the eligible costs of projects described above can be counted as partner contributions.

A specific partner contribution that has already been used to leverage or match funds for another capital project at the institution will not be recognized as an eligible matching contribution.

3.7 Eligible In-Kind Contributions

In-kind contributions are defined as non-monetary resources that external partners provide to eligible projects.

Eligible in-kind contributions include the value of:

- capital items that eligible external partners donate to the institution, such as equipment and facilities;
- certain non-capital eligible costs needed to bring the infrastructure into service (eg., professional services and training); and,
- title to real property to be transferred to the institution (unless ownership has been transferred to the institution at the time the application is submitted).

The Ministry retains the right to determine eligibility of any in-kind contribution and may make eligibility subject to terms, conditions and limits.

3.8 Assessing the Value of In-Kind Contributions

The policy for assessing and documenting the value of in-kind contributions will be addressed in the Grant Agreement. As a general rule, Ontario will adopt CFI's policy.

The Ministry reserves the right to make the final determination of the eligibility and value of in- kind contributions, to disallow expenditures, and reduce the final award. To avoid a situation where in-kind contributions may later be deemed ineligible or incorrectly valued, institutions are advised to contact Ministry staff early in the process to confirm the eligibility and valuation of an in-kind contribution.

4.0 Tips For Preparing Applications

Common application errors and weaknesses identified in previous ORF rounds have resulted in the following suggestions for submitting successful applications:

- Clearly describe the project's unique and anticipated benefits to Ontario related to economic / commercialization, societal, health or environmental with an emphasis on economic / commercialization.
- Be sure to indicate how the proposal differs from the current state-of-the-art research in the field, within the Ontario context as well as nationally and internationally.
- Indicate how the proposed research differs from research previously funded by the Ontario government.
- Ensure enough specificity in the description of the project and its outcomes to show how the proposed work is important to the appropriate Ontario sector/community, and how it will contribute to the field.
- Clearly explain the steps that will be taken to maximize the likelihood of achieving the research impacts.
- Provide a cohesive, focused description of the proposed research (avoid presenting numerous, unrelated or loosely related projects).
- Ensure the content and language of the proposal is clear and accessible to people outside of the applicant's field (Ontario Strategic Review Panels are multidisciplinary and the application will be reviewed by panel members that are both within and outside of the applicant's specific field of research).
- Next-stage recipients and end-users of research should be clearly engaged.
- If applicable, including support letters from industry and/or other partners that specifically address supports for commercialization and adoption.
- Accurate descriptions of industry and/or other partner contributions, including how in-kind contributions are valuated, should be provided.
- Budget numbers should be carefully justified.
- Provide a clear and justified Highly Qualified Personnel (HQP) plan.
- Provide a clear Intellectual Property (IP) plan.
- Sustainability of the infrastructure beyond government funding should be evident.

5.0 Application and Adjudication Process

5.1 Adjudication Process

The ORF-LIF adjudication process consists of the following independent peer-review process:

- CFI coordinated expert committees will complete a scientific review of full applications;
- The Ontario Strategic Value Review Panel will provide an in-depth review of the full proposals' alignment with Ontario priority sectors and strategic value to Ontario and make recommendations on the priority grouping of proposals (high priority, medium priority or low priority) with an enhanced weighting on economic/ commercialization benefits;
- The IP plans are further reviewed by Intellectual Property Ontario (IPON) or an organization or individuals with similar expertise;
- Proposals are further reviewed by the Ministry of the Solicitor General (SOLGEN) for research security-related due diligence;
- Proposal may be further reviewed by partner ministries to comment on alignment with Ontario's strategic priorities;

- Recommendations may be provided to the CFI Special Multidisciplinary Assessment Committee to help inform CFI funding decisions;
- Following receipt of the results of the CFI adjudication process, the Ontario Research Fund Advisory Board (ORFAB) will make recommendations to the Minister of Colleges, Universities, Research Excellence and Security (the Minister);
- The final funding decision rests with the Minister who may approve applications, approve subject to terms and conditions, or decline applications at the Minister's sole discretion.

5.2 Important Dates

Activity	Date
Deadline to submit full applications to Ontario	March 19, 2027
Strategic review of full applications	Early Fall 2027
ORFAB meeting	Late Fall 2027
Ontario funding decisions	Early Spring 2028

5.3 Submission of Applications

Applications must be submitted by the deadline via your organization's preferred secure cloud storage solution (File Transfer Protocol, drop box, google drive, etc.). Send the link to: ORFInfrastructure.Mailbox@ontario.ca

You are responsible for ensuring Ministry access to the preferred solution. Ministry staff will access the storage drive and confirm access has been granted.

On the application cover letter list the application(s) submitted, title of the project(s) and the name of the Principal Investigator(s). Late or incomplete applications will not be accepted.

- Complete the electronic application form and submit it to the Ministry. Please do not submit scanned copies of a scanned application form as these will not be accepted.
- The application(s) should be signed by the Vice-President of Research or any other officer of the institution with the authority to bind the institution. A digital signature is preferred; however, a scanned signed signature page will also be accepted.
- The Ministry requires an electronic copy of the CFI-IF application as a separate document accompanying your application.
- The Ministry requires a zipped file containing all the completed Application Attestation Form for Researchers Applying to the Ontario Research Funding Programs. The applicant (the lead institution in the application) is responsible for collecting all completed and signed Application Attestation Forms from all named researchers in the application, including the PI and providing the signed forms as a zipped file.
- The Ministry requires an electronic copy of the Mitigating Economic and Geopolitical Risk Checklist for Ontario Research Fund Applications as a separate document accompanying your application.
- The Ministry requires an IP plan as a separate document accompanying your application.
- Electronic attachments should be clearly named in the following format: Institution Name_PI Last Name_Attachment Type.
- Any scanned PDF documents should be done at a lower resolution to minimize the size of the file.

- The following attachments can be included as part of your pdf application form:
    1. Letters of support (if included) should be combined into a single PDF. Do not attach individual support letters separately.
    2. Other figures and tables (if required) related to the Project Abstract and Linkages to Previous Ontario Awards sections of the application, should be included in a single document.
    3. A scanned signed signature page if a digital signature can not be provided on the pdf application form.

When preparing an application, review and consider the following:

- Font type must be Arial and size must be no smaller than 11 pts. Condensed type is not acceptable.
- Attachment text must be in black and of letter quality.
- Please ensure that all pages are numbered.
- Adhere to the restrictions on characters and number of pages.
- The character limit includes spaces.
- Figures, tables and references are not included in the character limit.
- Avoid technical jargon in Project Summary section.
- Avoid long descriptive narrative. Use bullet points or summary tables where possible and appropriate.

5.4 Use of Generative Artificial Intelligence

As noted in the CFI guidelines for the 2027 IF competition, the use of generative artificial intelligence (AI) in preparation of proposals is an emerging and complex issue. Consistent with CFI's approach, applicants are encouraged to review and follow the Government of Canada's Guidance on the use of AI in the development and review of research grant proposals and, where applicable, disclose any use of generative AI in the preparation of the proposal. Institutions are ultimately accountable for the complete contents of their proposal. Privacy, confidentiality, data security and the protection of intellectual property must be prioritized in the development and review of proposals.

6.0 Information Sharing Between CFI and Ontario

Before submitting an application, institutions must complete and submit a "Release of Information" form. Please contact ORFInfrastructure.Mailbox@ontario.ca to obtain this form. Institutions that have already submitted a form do not need to resubmit (unless the institution had since notified the ministry in writing that it had withdrawn consent).

The release form ensures that institutions understand that:

- Applicants will be required to request that CFI release to the Ministry, on a confidential basis, all review material related to the project;
- The proposal review carried out by the CFI will be an important component of the ORF-LIF assessment;
- Ministry staff may attend meetings with expert committees regarding their review of projects;
- It is necessary to streamline and harmonize the ongoing administration and monitoring of successful projects with the CFI;
- The CFI will release to the Ministry, on a confidential basis, ongoing progress and financial information; and,
- Ministry staff may attend financial monitoring/audit visits, as well as site visits to review project progress and impact.

Sharing of information with the Ministry begins immediately.

7.0 Assessment Criteria and Review Process

The peer review process to assess the scientific merits of proposals will be managed by CFI. This will ensure that CFI and the province have a common reference point in evaluating the strategic value of proposals and engaging in discussions on federal/provincial priorities. Where possible, the Ministry will work with CFI to reduce duplication of efforts and administrative burden on the institutions.

CFI will select expert reviewers to assess the strengths and weaknesses of the proposals against their five assessment criteria (see CFI's 2027 Innovation Fund Call for Proposals). The results from the CFI's expert review process will inform the Ministry's Ontario Strategic Value Review and funding decisions.

7.1 Expert Review (Coordinated by CFI)

- **Research*** — The research program is innovative, feasible and internationally competitive. In the case of core facilities, the facility enables innovative, feasible and internationally competitive research.
- **Team** — The team members and their partners have all the experience and expertise to conduct the proposed activities and will do so in an inclusive and equitable working environment. In the case of core facilities, the team has all the experience and expertise needed to enable multiple research activities and will do so in an inclusive and equitable working environment.
- **Infrastructure** — The requested infrastructure is necessary and appropriate to conduct the research program. In the case of core facilities, the requested infrastructure is necessary, appropriate and will enhance the facility's services.
- **Sustainability** — The infrastructure will be well managed, appropriately used and financially sustainable to ensure reliable long-term operation.
- **Benefits** — The project will generate relevant and impactful benefits for Canadians. The team members and their partners have defined pathways for real-world uptake through knowledge mobilization and end user engagement. In the case of core facilities, the facility and the projects it enables will generate relevant and impactful benefits for Canadians. The team members and their partners have defined pathways for real-world uptake through knowledge mobilization, technology transfer and end user engagement.

*Research refers to the full spectrum of research (e.g., fundamental research, applied research, technology development or creative works).

7.2 Ontario Strategic Value Review (Coordinated by the Ministry)

The Ontario Strategic Value Review Panel (the Panel) will be asked to assess the proposals against alignment with priority sectors and on each of the three strategic value criteria outlined further below. The Panel will be asked to evaluate the strategic impact based on size, complexity and nature of the project.

The Panel will also be asked to group proposals into the following priority categories:

- High Priority – Proposals that are highly aligned with Ontario's priorities.
- Medium Priority – Proposals that are aligned with Ontario's priorities.
- Low Priority – Proposals that are not aligned with Ontario's priorities.

7.2.1 Strategic Value Criteria

The Ministry recognizes the importance of extracting value from research investments and in stimulating sector and cluster productivity that will help Ontario communities innovate and compete nationally and internationally.

Applications are assessed based:

- Alignment with Ontario Priority Sectors
- Economic / commercialization benefits to Ontario (this includes the IP Plan)
- Societal benefits to Ontario
- Plan for achieving impact and end-user engagement.

Applicants are encouraged to document all benefits associated with their proposal.

Note that the economic / commercialization benefits to Ontario will be weighted more heavily than the Societal benefits to Ontario in the project evaluation and scoring. Applicants are encouraged to emphasize the specific benefits to Ontario that are most relevant to their project.

It is strongly recommended that applicants consult their institution's industry liaison office, knowledge mobilization unit, or equivalent as well as their external partners in the completion of this section. Demonstrate this engagement where appropriate.

7.2.1a Economic / Commercialization Benefits and Results

Describe the economic and commercialization benefits and provide an IP Plan for the proposed infrastructure and the activities it enables could generate for Ontario.

Explain how the infrastructure will support commercialization, private-sector adoption and/or market facing technology development.

Address the following, where relevant:

- **Ontario benefits**: Describe how the project could benefit Ontario, who could benefit and when those benefits could begin.
- **Commercialization pathway**: Explain how the infrastructure will support testing, validation, demonstration, scale-up, regulatory approval or another step toward commercial use or industry adoption.
- **Demand and intended users**: Identify expected users, customers, adopters or commercialization partners. Provide the strongest available evidence of demand.
- **Industry access**: Explain how firms and other external organizations will access and use the infrastructure and related expertise.

Projects that include industry partnership(s) with Canadian-controlled companies or companies with a substantial presence in Ontario, and that support commercialization and adoption will be given preference in the adjudication process. Where it is anticipated that industry partner(s) will own the intellectual property (IP), the application should demonstrate that they:

- Own intellectual property (IP) or are an exclusive licensee, intending to commercialize or monetize it in Ontario.
- Have the financial ability to protect and commercialize IP.

Provide evidence to support the expected benefits. Be clear about what is confirmed, what is planned and what is a longer-term expectation. Evidence could include identified users, planned projects, partner participation, documented industry demand or interest in testing or adopting a technology.

Select up to three indicators that best describe the project’s anticipated economic or commercialization results. For each indicator, provide the current baseline, expected result, timeframe and basis for the estimate.

These estimates are not guarantees of commercial success. If the project is funded, the indicators may be refined during award finalization and used as reference points for progress reporting.

Possible indicators include:

- external organizations using the infrastructure;
- Ontario firms or small and medium-sized enterprises supported;
- industry-led or industry-supported projects;
- products, technologies or processes tested, validated or demonstrated;
- technologies advanced toward regulatory, clinical or procurement milestones;
- technologies adopted by firms or public-sector users;
- invention or innovation disclosures and IP protection decisions;
- licences, options, assignments or new ventures;

- follow-on investment or industry funding;
- direct jobs created or retained;
- highly qualified personnel placed in Ontario firms; or
- software, datasets, standards or research tools adopted

Select indicators that reflect the project's maturity and the role of the infrastructure. Explain how each indicator will be measured. Distinguish direct jobs created, jobs retained and training opportunities. Applicants are not expected to forecast patents, licences, licensing revenue or new ventures where these are not appropriate measures of success.

Indicators will be interpreted in the context of the project's infrastructure type, maturity, discipline and intended pathway. Indicators will not be used alone to compare projects or institutions.

7.2.1b Societal Benefits

Describe the potential of your research to achieve societal benefits for Ontario and when they could be achieved. Describe how your research will contribute to societal outcomes including—but not limited to—positive effects on human health, environmental wellbeing, poverty reduction, education, quality of life, public policy, and profound shift in understanding of a given discipline.

This section should provide supporting analysis of the societal areas being discussed, including sources of information. Please note that your analysis can be qualitative, but quantitative information would strengthen the application.

Potential benefits could include:

- Improving health and wellbeing of Ontarians
- Preserving environmental quality
- Reducing poverty
- Engaging and mentoring youth
- Improving public policy
- Effecting a profound shift in the understanding of a given discipline
- Placing Ontario at the forefront of a particular research discipline from an international perspective

7.2.1c. Plan for Achieving Impact and End-User Engagement

Describe the operational strategy, team capacity, and end-user engagement required to realize the project's anticipated economic, commercialization, or societal benefits. Focus on concrete execution steps and risk management.

Address the following, where relevant:

- **Engagement and Knowledge Translation Strategy**: Outline how research outputs will be translated into practical application (e.g., technology transfer, clinical adoption, policy guidelines, open-source tools, or community co-design). Describe past engagement and planned activities with end-users throughout the project lifecycle.
- **Partnership and End-User Commitment**: Identify key external partners or end-user groups (e.g., private sector firms, trade associations, healthcare providers, government agencies, non-profits). Detail their specific role, level of involvement, and financial or in-kind contributions.
- **Letters of Support**: Applicants are strongly encouraged to attach signed Letters of Support from key partners. Strong letters should detail the partner's specific role, quantify cash or in-kind commitments, and outline how they plan to test, adopt, or scale the research outputs.
- **Team Capacity & Collaborations**: Describe the project team's track record in knowledge mobilization or commercialization. Highlight multi-disciplinary expertise and cross-institutional partnerships (such as university-college collaborations) that strengthen delivery.

- **Risk Management & Mitigation**: Identify potential technical, regulatory, market, or operational barriers that could impede progress, and describe strategies to mitigate these risks.

Applicants must also complete the IP and Commercialization Summary (max 1000 characters) under Other Project Requirements.

8.0 Other Project Requirements and Considerations

8.1 Intellectual Property (IP) and Commercialization

The Ministry does not claim ownership of intellectual property materially enabled by ORF-LIF funded infrastructure.

Ownership and use rights will be determined under applicable law, institutional policies, collective agreements and project agreements. For consortia, the inter-institutional agreement will govern.

The Ministry does not require a specific ownership or licensing model. Arrangements should reflect:

- the nature of the activity;
- each party's contribution and risk;
- existing background IP and third-party rights;
- the needs of external users;
- the investment needed to advance the opportunity; and
- the pathway most likely to support use, adoption or commercialization.

Applicants must have processes to:

- establish appropriate rights in background IP and project results;
- protect confidential and commercially sensitive information where needed;
- manage publication and IP protection decisions;
- identify and assess promising opportunities;
- connect opportunities to appropriate expertise or partners; and
- establish timely and commercially appropriate arrangements with external users.

Applicants may rely on internal or external expertise. The Ministry does not expect every institution to own resulting IP, maintain a patent portfolio or provide all commercialization services internally.

8.2 IP and Commercialization Summary:

Provide a summary of no more than 1000 characters that addresses the following:

- **Governing Framework**: Identify the institutional policy, consortium agreement or other framework that will govern IP and project results.
- **External User Access**: Explain how IP, confidentiality, publication rights, and user access terms will be managed for external partners or facility users.
- **Commercialization Support**: Identify the internal unit (e.g., tech transfer office) or external partner responsible for assessing IP opportunities, managing protection decisions, and driving adoption.
- **Constraints and Barriers**: Identify any third-party, federal, or institutional constraints that could affect commercialization or adoption.

If no material IP or commercialization is anticipated, provide a brief statement on how project outputs (e.g., datasets, open tools, policy briefs) will be broadly disseminated and made accessible for public benefit.

8.3 Protection and Use of Intellectual Property:

Recipients must use reasonable and commercially appropriate measures to protect, use, disseminate or commercialize IP and other innovation outputs materially enabled by the infrastructure, where relevant.

The approach should reflect the nature of the output, the recipient's rights and obligations, available evidence, and the pathway most likely to generate a net benefit to Ontario and Ontarians.

8.4 IP Resources:

Ontario's Intellectual Property Action Plan established a province-wide approach to improving the generation, protection and commercialization of homegrown IP. Related initiatives include the Commercialization Mandate Policy Framework for publicly assisted colleges and universities and the establishment of Intellectual Property Ontario.

8.5 Intellectual Property Ontario (IPON)

IPON provides IP education, expertise and financial support for eligible Ontario institutions, businesses, researchers and entrepreneurs.

- **For postsecondary and research institutions:** IPON postsecondary support includes direct co-investment for eligible IP agreements, IP audits, IP strategy and IP registration, as well as commercialization capacity-building and the Innovation Fellowship Program.
- **For eligible Ontario companies:** IPON services may include education, benchmarking, coaching, IP insurance and funding for approved IP strategy, protection and commercialization services.

Before relying on a service or funding stream, review IPON eligibility and current program requirements.

8.6 Federal and National Resources

ElevateIP supports eligible Canadian start-ups and SMEs with IP education, strategy development and implementation. In Ontario, support is delivered through Communitech and its delivery partners. Research-based spin-offs and eligible companies working with funded infrastructure may wish to explore this support.

The Canadian Intellectual Property Office (CIPO) provides practical tools through IP Central, including e-learning, IP strategy tools, patent and trademark roadmaps, and a map of Canadian IP supports. IP Village brings together education, advisory, funding and commercialization resources from CIPO and other federal and ecosystem partners.

8.7 IP Education Resources

Applicants may use the following programs to build foundational IP knowledge:

- IPON learning platform - access to Foundations of IP Strategy and other IP learning resources.
- University of Toronto IP Education Program - free online training for students, faculty, staff, researchers and entrepreneurs, with content on IP foundations, strategy and application.
- CIGI Foundations of IP Strategy - a free self-directed course on using IP strategically to support business and commercialization objectives.

8.8 Additional IP Tools

- Intellectual Property Institute of Canada - professional education, events and information on obtaining IP advice.
- CIPO patents database and CIPO trademarks database - Canadian patent and trademark searching.
- WIPO Academy - introductory and advanced courses on IP, patents, trademarks, designs, copyright and IP management.
- WIPO PATENTSCOPE - international patent searching.

8.9 Ethical, Safety and Integrity Requirements

Institutions are responsible for ensuring any experimentation will be acceptable on ethical and safety grounds.

- Research involving human subjects or human stem cells must comply with the Tri-Council Policy Statements: Ethical Conduct for Research Involving Humans – TCPS 2 (2022).
- In the case of laboratory animal experimentation, the institution must comply with the guidelines and policies of the Canadian Council on Animal Care and the requirements under Ontario's Animals for Research Act.
- Institutions must ensure that any research involving databases containing personal information adheres to ethical and legal requirements relating to privacy, confidentiality and security of the database information.
- Any research involving biohazards must adhere to the standards outlined in the Public Health Agency of Canada's Laboratory biosafety guidelines.
- Research involving radioactive materials must comply with Canadian Nuclear Safety Commission regulations.
- Institutions must ensure compliance with the Tri-Agency Open Access Policy on Publications.
- The Ministry expects researchers and participating research institutions to maintain the highest standards of research integrity. Research institutions are expected to have and abide by policies and procedures that govern research integrity.

9.0 Research Security Requirements

The Ministry's Research Security Guidelines outline the processes related to research security for all applications to Ministry research funding programs.

Applicants that are the lead institutions applying for Ministry research funding programs are required to follow Ontario's research security process and meet the relevant requirements specified in the guidelines, including:

- All Named Researchers in an application, including the Principal Investigator, are required to complete the Application Attestation Form.
- The Principal Investigator is also required to complete a Mitigating Economic and Geopolitical Risk Checklist (the "Checklist"), and upon completion, the Checklist is to be reviewed and signed by the lead institution and submitted to the Ministry as part of its application package.

Please review the Research Security Guidelines in conjunction with the program guidelines when applying for funding under this program.

10.0 Awards

Following the completion of the CFI's 2027 IF adjudication processes, the Minister may approve applications, subject to terms and conditions, or decline applications at their sole discretion.

10.1 Award Finalization Expectations

Type of Project	Deadline to submit documents required to execute TPA
Co-funded by the ORF-LIF and CFI	Within 60 days of CFI award finalization
Funded by ORF-LIF only (requires applicant to secure matching funds in place of CFI funding)	Within 12 months of ORF-LIF funding decisions

The Ministry reserves the right to withdraw its support for projects without an executed agreement within one year of the funding decision. The Ministry also reserves the right to withdraw its support for projects for which the final report (including request for holdback payment) is not submitted within a reasonable time frame to be outlined in the transfer payment agreement for the project.

Please Note: Sections of the Project Summary in the application may be used in whole or in part in news releases or similar material, if the project is approved.

10.2 Award Agreements

Approved applicants will enter into a Transfer Payment Agreement (TPA) with the Ministry. The TPA stipulates terms and conditions governing the payment of the grant, including, but are not limited to, the following:

- project budget;
- project management;
- research security;
- communications strategies monitoring and reporting requirements, including annual progress reporting, audits and financial reports;
- milestone and performance measures;
- mode and schedule of payments; and,
- contract termination.

TPA extension requests may be submitted to the Ministry; however, applicants should not assume that extensions will automatically be granted.

10.3 Ownership and Control of Assets Funded by the Ministry

Ownership and control of the assets acquired with the grant funds must remain with the institution for a period of five years after acquisition and/or installation in the case of equipment, or five years from the date of occupancy in the case of a building.

In the case of a project with a multi-institutional composition or consortium, the inter- institutional agreement should dictate the arrangements made with regard to the ownership, control and disposal of research equipment and other assets.

Research equipment and other assets must be located at an eligible research institution, unless it can be successfully shown that an alternate location provides the most effective placement of the equipment or other assets. Any change in location requires a notification in writing to the Ministry and may require Ministry approval.

It is important to ensure that a system is established to monitor the safe and secure use of ORF-LIF-funded assets.

10.4 Disbursement of Funds

Approved projects will be paid through a Request for Disbursement process. The grant is subject to a ten percent (10%) holdback, which will be disbursed after the final review of the project's impact, finances and fulfillment of project objectives.

This program may be subject to change. Grant disbursements are subject to the Ministry having an appropriation approved by the Legislative Assembly of Ontario for the fiscal year in which the disbursement is to be made.

11.0 Communications

To ensure continuity, consistency and open communication between the applicant and the Ministry, the institution's project officer and the assigned advisor will coordinate all project-related discussions.

12.0 Program Contact

If you have questions please contact:

ORFInfrastructure.Mailbox@ontario.ca

13.0 Freedom of Information and Protection of Privacy Act

The Ministry is subject to the *Freedom of Information and Protection of Privacy Act, R.S.O. 1990 c.* F.31, as amended ("FIPPA"). Any information provided to the Ministry in connection with an application to the Ontario Research Fund Program may be subject to disclosure in accordance with the requirements of that Act or other laws. FIPPA also protects the privacy of individuals with respect to the collection, use and disclosure of personal information under the control of the provincial government and certain provincially funded organizations.

When submitting an application, applicants may wish to consider clearly labelling or otherwise identifying any information being provided to the Ministry under this application that in their view may be considered confidential, commercially sensitive or proprietary information with reference to section 17 of FIPPA.

Applicants are asked not to provide any unsolicited personal information when completing the application form. If personal information is included in the application form, the applicant shall ensure that the individual to whom the information relates has been notified and provided with a copy of the Ministry's notice of collection of personal information, set out in Appendix B of the Guidelines.

If you have any questions about the collection and use of your personal information, please email ORFInfrastructure.Mailbox@ontario.ca:

Appendix A: Canadian Research and Development Classification Codes

The Ministry has implemented the Canadian Research and Development Classification (CRDC), a system that provides a common approach to classifying research across institutions and governments. It was published by Statistics Canada on October 5, 2020.

The CRDC was developed through a collaborative effort by the Canada Foundation for Innovation (CFI), the Canadian Institutes of Health Research (CIHR), the Natural Sciences and Engineering Research Council of Canada (NSERC), the Social Sciences and Humanities Research Council of Canada (SSHRC) and Statistics Canada.

The CRDC includes all current sectors of research in Canada and supports a wide range of needs within the research and development ecosystem. It is modelled after the Australian and New Zealand Standard Research Classification and Frascati Model 2015 (from the Organization for Economic Cooperation and Development) and aligns with international standards.

The three classifications in the Canadian Research and Development Classification (CRDC) are:

1. Type of Activity (TOA);
2. Fields of Research (FOR); and
3. Socioeconomic Objective (SEO).

When completing your application, please refer to the CRDC guidelines and classification codes, available for download in HTML, CSV, and PDF formats (CRDC 2020 Version 1.0 is now replaced by CRDC 2020 Version 2.0):

- English: https://www.statcan.gc.ca/en/subjects/standard/crdc/2020v2
- French: https://www.statcan.gc.ca/fr/sujets/norme/ccrd/2020v2

Guidelines for classifying with the CRDC

This section must be complete fully prior to submitting the application to the Ministry.

Note: The applicant should use same CRDC codes as what was listed in their CFI proposal.

1. **Classifying by Type of Activity (TOA)**

   This way of classifying research refers to whether it is basic research, applied research or experimental development.

   - The research project should be allocated to a single TOA (basic research, applied research or experimental development). TOA Codes can be found online using the links noted above. You must provide the alphanumeric code as well as the title/name of the TOA in the fields provide on the application form.

     Example:

     Code: RDT2 Division: Applied research

2. **Classifying by Field of Research (FOR)**

   This way of classifying research includes major classes and related subclasses of research based on disciplines, knowledge sources, objects of interest, methods, processes, and techniques used in research and development activity. This is different from socioeconomic objectives, which refer to the purpose or outcome of the research and development activity.

   - You must provide the alphanumeric code as well as the title/name of the FOR in the fields provide on the application form.

- The research project should be allocated to a single FOR (major class and related subclass). FOR Codes can be found online using the links noted above.
  Example:

  Level 1 Code: RDF10 Division: Natural Sciences

  Level 2 Code: RDF104 Group: Chemical sciences

  Level 3 Code: RDF10404 Class: Macromolecular and materials chemistry

  Level 4 Code (optional): RDF1040401 Subclass (Field): Characterization of materials

3. **Classifying by Socioeconomic Objective (SEO)**

   This way of classifying research refers to the intended purpose or outcome of the research and development activity. This is different from fields of research, which refer to the disciplines, knowledge sources, objects of interest, methods, processes, and techniques used in the research and development activity in order to achieve objectives.

   - The research project should be allocated to a single SEO (major class and related subclass). SEO Codes can be found online using the links noted above.
   - You must provide the alphanumeric code as well as the title/name of the SEO in the fields provide on the application form.

     Example:

     Level 1 Code: RDS109 Division: Education

Appendix B: Notice of Direct and Indirect Collection of Personal Information

When an institution applies to a Ministry, research funding program (Program), the application and documentation relating to the application may include the personal information of the principal investigator, any other researchers on a proposed project (co-investigators), and any other individuals that may be involved in the proposed project.

The Ministry directly and indirectly collects personal information contained in a Ministry Program application and in documentation relating to the application, such as the Application Attestation Form, the Mitigating Economic and Geopolitical Risk Checklist, and if an applicant undergoes a risk mitigation process, the Risk Mitigation Form and any additional information requested to assess research security. This personal information is collected pursuant to s. 6 of the *Ministry of Economic Development and Trade Act and s. 2 and s. 15 of the Ministry of Training, Colleges and Universities Act.*

This personal information is collected for the purposes of administering a Ministry Program. Administering the Program includes organizing peer review panels to review applications, conducting research security assessments, conducting risk mitigation and attestations for high-risk projects, facilitating Ontario Research Fund Advisory Board (ORFAB) reviews, making funding determinations, and conducting performance assessments.

Information and documentation provided to the Ministry in, or in relation to, an application to a Ministry Program, including personal information, may be shared with Ministry staff, members of the Ontario Peer Review Panels, and members of ORFAB for the purposes of administering the program. The information and documentation, including personal information, may also be disclosed to other ministries within the Government of Ontario, such as the Ministry of the Solicitor General, for the purpose of administering the program, including undertaking research security assessments.

For the following additional Ministry program forms:

- Application Attestation Form
- Mitigating Economic and Geopolitical Risk Checklist

In respect of the above-noted additional Ministry Program forms, information and documentation provided to the Ministry in these forms and any supplementary research security information requested in relation to an application to a Ministry Program, including personal information, may be shared with Ministry staff and members of ORFAB for the purposes of administering the program. The information and documentation, including personal information, may also be disclosed to other ministries within the Government of Ontario, such as the Ministry of the Solicitor General, for the purpose of administering the Program including undertaking research security assessments.

If you have any questions about this notice of collection, please email ORFInfrastructure.Mailbox@ontario.ca: