2023 Major Science Initiatives Fund

Call for Proposals
Information session for applicants
July 14th, 2021

https://www.innovation.ca/awards/major-science-initiatives-fund
Housekeeping items

- Recorded session
- Questions
Agenda

• Overview of application and review processes
• Competition timeline – key dates
• Funds available
• Expressions of interest
• Notices of Intent – demonstration of eligibility
• Proposals
• Questions
Overview of application and review process

Expressions of interest
- Gauge interest
- Brief facility description
- Annual operating budget
- Estimate of $ requested

Notices of intent
- Administrative purposes for MSI-funded facilities
- MAC review for eligibility for new applicants

Expert Committees
- Individual review of proposals
- Review of assessment criteria, incl. EDI
- Face-to-face meetings (virtual)

Multidisciplinary Assessment Committee
- Collective review of proposals
- Review of fund objectives

2023 Major Science Initiatives Fund (MSI)
Currently funded facilities

July 2021
Call for proposal &
invitation to submit proposal

Sept. 20, 2021
NOI deadline

Nov. 4, 2021
Proposal deadline

Dec. – Feb.
EC review

May 20, 2022
MAC review

June 22, 2022
Board decision

Funding will start April 1, 2023
Funds available

No significant increase to budget

Open competition for currently funded facilities and new applicants to the MSI Fund

2017-23
$610M/
6 years

2023-29
$660M/
6 years

Including funds for:
• MSI midterm (2025)
• Transitional funding for facilities funded in the 2017 competition (>2M/yr)

Note: MSI + IOF ≤ 40% of facility’s total eligible O&M costs (60% for a subset of facilities identified in the Fundamental Science Review report)
<table>
<thead>
<tr>
<th>Eligible costs</th>
<th>Non-eligible costs</th>
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<tbody>
<tr>
<td>Administrative, scientific and technical support personnel</td>
<td>Faculty members’ salaries</td>
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<tr>
<td>E.g. Non academic staff, incl. trainees, involved in the governance,</td>
<td>Scientific internships</td>
</tr>
<tr>
<td>management, O&amp;M, including technology development</td>
<td>Trainees not contributing to O&amp;M</td>
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<tr>
<td>Extended warranties/service contracts</td>
<td>Equipment and major construction/renovation costs deemed eligible under an infrastructure award</td>
</tr>
<tr>
<td>Replacement parts and minor upgrades</td>
<td>Buying or leasing of real property</td>
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<tr>
<td>Services e.g. Electricity, security, cleaning, telephone, internet, permits</td>
<td>Housing and rental fees (e.g., facility-run lodging for users)</td>
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<tr>
<td>etc.</td>
<td>Any cost to conduct research activities</td>
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<tr>
<td>Supplies and consumables</td>
<td>Expenses related to intellectual property</td>
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<tr>
<td>Communications and outreach activities</td>
<td>Transportation to and from the facility for users</td>
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<td>Training and professional development</td>
<td>Decommissioning costs of the facility infrastructure</td>
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<td>Contingency (10% maximum) for unforeseen events</td>
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<td>Other e.g. ramp-down activities</td>
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Expressions of interest

Facilities not currently funded

- Name and website of the facility
- Brief description in 200 words as well as the website address of the facility
- Annual eligible O&M costs
- Amount requested from the CFI for the 6 years

To: MSI-ISM@innovation.ca by August 10, 2021.
Notices of Intent

All Facilities

• Project information CAMS

• Management Team: up to 3 in addition to facility Director or CEO CAMS

• Participating Institutions CAMS

• Suggested reviewers CAMS

• Budget ask overview (Tables 2.5 and 2.6) – no page limit

• Demonstration of Eligibility (5 pages) (facilities currently not supported only)
  • Historic budget (not counted in page limit)

Deadline: Sept. 20, 2021, for all facilities
Three different forms to choose from

<table>
<thead>
<tr>
<th>Fund</th>
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<tbody>
<tr>
<td>John R. Evans Leaders Fund – Funding for research infrastructure</td>
<td>associated with an application for research support funding from</td>
</tr>
<tr>
<td>John R. Evans Leaders Fund – Funding for research infrastructure</td>
<td>another program</td>
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<tr>
<td>2023 Major Science Initiatives Fund competition – Renewal of</td>
<td>funding for facilities funded in the 2017 competition (eligible</td>
</tr>
<tr>
<td>facilities funded in the 2017 competition (eligible for maximum</td>
<td>for maximum 40 percent from the CFI)</td>
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<td>60 percent from the CFI)</td>
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<tr>
<td>2023 Major Science Initiatives Fund competition – Funding for</td>
<td>facilities not funded in the 2017 competition (eligible for</td>
</tr>
<tr>
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<td>maximum 40 percent from the CFI)</td>
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You are the project leader for one or more proposals that are being prepared or are under review. Each proposal can consist of several modules. Click a module name to access a particular form.
Demonstration of eligibility: NOI review

CFI administrative review

1. The facility is owned by one or more CFI-eligible institutions.
2. The facility is fully operational.
3. Annual eligible O&M costs $1,000,000.

Multidisciplinary assessment committee

4. Facility capabilities
5. User community
6. Governance
7. Management
8. Access policy

Supporting data: 4 years of costs and revenues (19-20 to 22-23)

Invitation to submit proposal
Communicated by Nov. 4, 2021

Facilities not currently funded only
Demonstration of eligibility: requirements

4 Highly specialized capabilities
The facility provides highly specialized equipment, services, resources, or scientific and technical personnel that:

- Are not readily available at most institutions
- Serve both basic and applied research in multiple fields or offer discipline-specific infrastructure with specialized capabilities not offered elsewhere in Canada
- Would represent a serious setback for Canada if they were lost.

5 User community
There is a demonstrated demand for the facility’s equipment, services, resources and scientific and technical personnel from a research community that:

- Represents a critical mass of researchers in an area of research strength for Canada and reflects the diversity of the country’s research community
- Is typically pan-Canadian and multidisciplinary
- Can be multi-sectoral, including the private sector, and international in scope.

Required data (in addition to the 5-page narrative):
- Three years of user distribution (2019-20 to 2021-22)
- by type of user, geography, and sector
Appropriate governance model
The facility has as an established governance model appropriate to its size and complexity, with a clearly defined national mandate, and a structure and procedures to address:

- Accountability, legal duties and responsibilities
- Financial controls
- Policy formulation and strategic planning, including stakeholder communications
- Oversight of facility performance.

Appropriate management structure and practices
The facility has a management structure and practices appropriate to its size and complexity to address:

- Operation and maintenance of the facility
- Human resources and succession planning
- Risks and risk mitigation
- Monitoring of performance
- Cybersecurity
- Data management.

Required data (in addition to the 5-page narrative):
Organizational charts
Demonstration of eligibility (cont’d)

Established access policy
Any interested user can request access to the facility through a publicly available user access policy. Access to limited resources is only granted following an appropriate selection process.

Additional supporting evidence:

- Access to limited resources is based on an open competition; the scientific excellence of the proposals is evaluated through independent merit review
- A defined fee schedule is publicly available
- Access to facility data is available to any interested researcher at no cost.

Required data (in addition to the 5-page narrative):

- Three years of requests for user access: (2019-20 to 2021-22)
Proposal forms

Project module

- Plain language summary (1500 words)
- Executive summary (2 pages)
- Assessment criteria and budget justification

<table>
<thead>
<tr>
<th>Total CFI request ($)</th>
<th>Maximum # of pages</th>
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<tbody>
<tr>
<td>≤ $15 million</td>
<td>30 pages</td>
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<tr>
<td>&gt; $15 million</td>
<td>40 pages</td>
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</table>

- Project attachments in addition to page limits

Finance module

CAMS

2023 Major Science Initiatives Fund (MSI)
Assessment Criteria

1 Scientific Excellence

The facility is used by researchers and highly qualified personnel of the highest calibre and enables innovative and leading-edge research that leads to social, health, economic or environmental benefits to Canadians. The research directions proposed in the facility’s strategic plan are forward-looking and reflect the state-of-the-art in the supported fields.

Supporting evidence:

• Overview of scope and nature of research enabled by the facility
• Priority research directions envisioned for the next six years in relation to your strategic plan
• List of selected publications (19-20 to 22-23) (2 pages), and discuss significant accomplishments
• Descriptions and tables summarizing over 19-20 to 22-23:
  • Distribution of individuals trained at the facility or using data (Undergrads to postdocs to professionals)
  • Knowledge transfer activities
  • Technology transfer activities
• Description of benefits realized to date and the anticipated benefits to Canadians
Assessment Criteria

2 International competitiveness

The facility’s highly specialized equipment, services, resources, and scientific and technical personnel are internationally competitive and a high priority for the user community. The loss of these capabilities would be a setback to Canada.

Supporting evidence:

• Identify and compare to similar facilities worldwide
• Describe the facility’s highly specialized equipment, services, resources, and scientific and technical personnel
• Demonstrate that the facilities’ highly specialized equipment, services, resources, scientific and technical personnel are in demand by, and a high priority for, the research community it serves
• Describe how the facility collaborates with its users to define future needs to maintain its competitive edge
Assessment Criteria

3 Need for CFI funding

The requested funding is necessary to allow the facility to fully exploit its scientific and technical capabilities and to operate at an optimal level to address the needs of the user community.

Supporting evidence:

• Budget justification for each expense outlined in the detailed CAMS budget

• Describe how the requested funding will allow the facility to fully exploit its capabilities, to operate at an optimal level and allow it to address the needs of the user community

• Describe the budgeting process and how the facility determines the level of funding requested from the CFI. Explain any variations in the budget compared to past years

• Describe the plan for maintaining, securing and diversifying funding sources as well as contingency plans for potential funding shortfalls. If applicable, describe the user fee structure and how anticipated revenues have been calculated

• For facilities currently receiving CFI funding (>2M/year), provide a plan for transitional funding if CFI funding is not renewed
The facility is effectively and efficiently operated and has established mechanisms to ensure optimal use by the user community. **Access to limited resources is only granted following an appropriate selection process.**

**Supporting evidence:**

- Describe the expertise and specialized support available and planned
- Define the optimal level of use of the facility
- Demonstrate how the facility is being and will continue to be used effectively and efficiently
- Provide User distribution – same as NOI
- Describe the process to allocate access and the annual number of access requests received/accommodated (same as NOI). Describe any differences between academic, public and private users.
- Identify any barriers to access and what steps will be taken to ensure equitable and inclusive access to the facility
The facility adopts best practices in governance, including long-term strategic planning, as appropriate to its size and complexity. Its needs over the life of the facility in consultation with the user community.

**Supporting evidence:**

- Describe and contrast the governance structure of the facility and its committees against relevant best practices
- Describe the steps taken to apply the EDI principles to the Board composition
- Explain how the facility is accountable to its administrative and member institutions
- Using performance measures, explain how the facility will measure its success in achieving its objectives/research priorities
- Discuss the facility’s strategic plan and process used to define the strategic directions
- Describe how the facility is integrating EDI best practices in strategic planning
- Describe the long-term vision for the facility and any major upgrades planned over the next 20 years
The facility adopts best practices in the management of its operations and risk mitigation (including cybersecurity) and of its financial, data, and human resources, including equity, diversity and inclusion. The management team has the core competencies required.

Supporting evidence:

- Describe the current management structure, identify individuals in key roles and demonstrate that these individuals have the core competencies required to effectively manage the facility
- Explain how equity, diversity and inclusion principles are applied to the recruitment of staff.
- Describe how the facility tracks/measures outcomes enabled by the facility and how this information is integrated into decision-making processes
- Identify the facility’s key risks and describe the strategies to mitigate these risks
- Provide the facility’s management plan
- Provide a plan or policies describing the facilities’ approach to data management, research security and cybersecurity
Proposal: Project module attachments

- In addition to the allotted pages to describe how the facility meets the assessment criteria established, the following additional documents will be requested:
  - Facility’s strategic plan
  - Management CVs (2-3 pages x 4)
  - List of selected publications (2 pages) in last three years
  - Management plan
    - Decommissioning plans (or separate)
    - Equity, diversity and inclusion policy/plan (or separate up to 5 pages)
    - Data management and cyber security policies/plan (or separate up to 5 pages)
    - Organizational charts (or separate)
  - Transitional funding plan, if the facility receives > $2M/year from CFI (up to 3 pages)
Proposal: Finance module

The 2023-2039 MSI Fund competition will require a:

- high-level historical budget for the past 3 fiscal years, including contributions and expenses
- detailed forecasted budget (2023-2029), including contributions and expenses
- CFI ask not more than 10% of the amount requested in the NOI
- Now includes FTEs and flexibility to provide more detailed costs

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<tr>
<th>Year</th>
<th>Historical Budget</th>
<th>Forecasted Budget</th>
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<td>Expenses (e.g. personnel)</td>
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Historical Budget

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Review of Proposals

**Competition objectives** (reviewed by the MAC)

1. Enable pan-Canadian research communities to undertake world-class research and technology development that lead to social, health, economic or environmental benefits for Canadians

2. Enable facilities to operate at an optimal level to ensure the best use of their specialized equipment, services, resources, and technical and scientific personnel

3. Promote responsible stewardship by the adoption of best practices in governance and management

**Assessment criteria** (reviewed by an Expert Committee)

1. Scientific excellence

2. International competitiveness

3. Need for CFI funding - budget justification

4. Operations and user access

5. Excellence in governance

6. Excellence in management
Q&A

MSI-ISM@innovation.ca
Thank you / Merci

https://www.innovation.ca/awards/major-science-initiatives-fund
How do we define a facility of national importance?

- Can be single-sited, distributed or virtual
- Addresses the needs of a community of Canadian researchers representing a critical mass of users distributed across the country
- Provides shared access to substantial and advanced specialized equipment, services, resources, and scientific and technical personnel
- Supports leading-edge research and technology development, and promotes the mobilization of knowledge and transfer of technology to society
- Requires resource commitments well beyond the capacity of any one institution
- Is specifically identified or recognized as serving pan-Canadian needs and its governance and management structures reflect this mandate
Equity, diversity and inclusion

The CFI is committed to the principles of equity, diversity and inclusion. In all our activities, we recognize that a breadth of perspectives, skills and experiences contributes to excellence in research. We believe that nurturing an equitable, diverse and inclusive culture is the responsibility of every member of the research ecosystem, including funders, institutions, researchers, experts and reviewers.

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

Diversity: We value attributes that allow institutions and their researchers — from any background and from anywhere — to succeed. This includes individual attributes such as gender, language, culture and career stage; institutional attributes such as size, type and location; and attributes that encompass the full spectrum of research, from basic to applied and across all disciplines.

Inclusion: Our culture encourages collaboration, partnership, contributions and engagement among diverse groups of people, institutions and areas of research to maximize the potential of Canada’s research ecosystem.
Equity, diversity and inclusion

As part of its commitment to EDI, the CFI is integrating EDI principles into its processes and evaluation criteria.
- review panel
- more inclusive language in our documentation
- flexibility in accommodating reviewer participation
- unconscious bias training for reviewers

In the next MSI competition, EDI considerations will be included as an element of existing assessment criteria.

**Governance:**
- Composition of the boards reflect EDI
- Strategic planning: understanding of EDI consideration/systemic barriers to access to the facility

**Management:**
- EDI in recruitment and staffing

**Operations and user access:**
- Equitable and inclusive access to the facility
Transitional funding

Currently funded under MSI Fund
>$2M annually

Not recommended for funding in 2023-29 competition

Proposal for transitional funding

Reviewed by MAC