Major Science Initiatives
Midterm review guidelines
May 2019
Intended audience

This document is intended for 13 facilities funded for a five-year period through the Canada Foundation for Innovation’s (CFI) Major Science Initiatives (MSI) Fund in the 2017 competition (see table below). Facilities funded for three years should refer to the document Major Science Initiatives: Guidelines for applying for an extension of funding.

Facilities subject to midterm review

<table>
<thead>
<tr>
<th>Project title</th>
<th>Project leader</th>
<th>Administrative institution</th>
<th>CFI maximum approved amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Canadian Centre for Electron Microscopy</td>
<td>Botton, Gianluigi</td>
<td>McMaster University</td>
<td>$3,750,000</td>
</tr>
<tr>
<td>The André E. Lalonde Accelerator Mass Spectrometry Facility for Environmental Radionuclides</td>
<td>Clark, Ian</td>
<td>University of Ottawa</td>
<td>$2,615,000</td>
</tr>
<tr>
<td>Canadian Cancer Trials Group Operations and Statistics Centre at Queen’s University</td>
<td>Dancey, Janet</td>
<td>Queen’s University</td>
<td>$8,675,000</td>
</tr>
<tr>
<td>Canadian Research Icebreaker Amundsen</td>
<td>Fortier, Louis</td>
<td>Université Laval</td>
<td>$18,187,281</td>
</tr>
<tr>
<td>The Ocean Tracking Network (OTN)</td>
<td>Iverson, Sara</td>
<td>Dalhousie University</td>
<td>$11,400,000</td>
</tr>
<tr>
<td>The Centre for Phenogenomics</td>
<td>McKerlie, Colin</td>
<td>Sinai Health System</td>
<td>$15,410,000</td>
</tr>
<tr>
<td>SuperDARN Canada: A Global Space Weather Collaboration</td>
<td>McWilliams, Kathryn</td>
<td>University of Saskatchewan</td>
<td>$1,556,000</td>
</tr>
<tr>
<td>Ocean Networks Canada</td>
<td>Moran, Kate</td>
<td>University of Victoria</td>
<td>$46,620,000</td>
</tr>
<tr>
<td>Plateforme de recherche en sciences humaines et sociales – ERUDIT.ORG</td>
<td>Niemann, Tanja</td>
<td>Université de Montréal</td>
<td>$4,100,000</td>
</tr>
<tr>
<td>International Vaccine Centre (InterVac)</td>
<td>Potter, Andrew</td>
<td>University of Saskatchewan</td>
<td>$19,294,669</td>
</tr>
<tr>
<td>Canada’s Genomics Enterprise</td>
<td>Scherer, Stephen</td>
<td>The Hospital for Sick Children</td>
<td>$31,975,000</td>
</tr>
<tr>
<td>CRDCN: Evolving to Meet New Research Data Needs and Policy Priorities</td>
<td>Taylor, Martin</td>
<td>McMaster University</td>
<td>$5,923,043</td>
</tr>
<tr>
<td>The Metabolomics Innovation Centre</td>
<td>Wishart, David</td>
<td>University of Alberta</td>
<td>$6,013,000</td>
</tr>
</tbody>
</table>

Midterm review process

As per the Call for Proposals, facilities funded through the 2017 competition will undergo an external review at or near the midpoint of the award cycle. The MSI midterm review is meant to assess how well each facility was able to maximize its scientific and technological capabilities as a result of the MSI funding. Accordingly, the midterm review will provide an assessment of the overall impact of MSI funding on the scientific excellence of the research enabled by the facility; the research outcomes and impacts; and the governance, management and operations of the facility, with an emphasis on the facility’s areas for improvement as identified by the initial merit-review committees. The facility’s future plans and need
for funds for the final three years of the 2017–23\textsuperscript{1} period will also be assessed. The outcome of the review process could result in either stable or increased funding to reflect the appropriate level of contribution to the total operating and maintenance (O&M) costs of the facility. Conversely, if the facility fails to demonstrate satisfactory performance, a reduction or even termination of funding could result.

The midterm review process will entail an assessment by an independent committee of experts recruited for their experience and knowledge of comparable facilities. The Expert Committee will review documentation prepared by the facility and will meet to formulate recommendations to the CFI. The agenda will include a face-to-face meeting (either in person or virtually) with representatives from the facility and the administrative institution to allow committee members to ask questions and clarify their understanding of the facility and the progress achieved in the first half of the funding period. The committee will recommend to the CFI the level of funding for the facility for 2020–21 to 2022–23. Should the funding recommended across all MSI-funded facilities exceed the funding available to the CFI for this fund, the CFI may convene an advisory committee or use other approaches to reduce the budget to fit within the available funding.

**Assessment criteria**

The midterm review will assess the facilities on the basis of the MSI fund objectives, namely:

- Secure and strengthen state-of-the-art national research facilities that enable Canadian researchers to undertake world-class research and technology development that lead to social, health, economic, or environmental benefits to Canadians;

- Enable funded facilities to operate at an optimal level and to have their scientific and technical capabilities fully exploited; and,

- Promote the adoption of best practices in governance and management, including long-term strategic and operational planning in keeping with the scale and complexity of the facility.

The midterm review committee will be tasked with determining the degree to which the MSI funding for the facility has supported, and will continue to support, the achievement of these objectives.

**Timeline**

<table>
<thead>
<tr>
<th>Dates</th>
<th>Activities</th>
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<tbody>
<tr>
<td>June 25, 2019</td>
<td>Final document submission deadline</td>
</tr>
<tr>
<td>July to September 2019</td>
<td>Expert Committee meetings</td>
</tr>
<tr>
<td>October 2019</td>
<td>Advisory committee meeting (if required)</td>
</tr>
<tr>
<td>November 2019</td>
<td>Funding decisions</td>
</tr>
<tr>
<td>December 2019</td>
<td>Communication of results to administrative institutions</td>
</tr>
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</table>

**Available funding**

The CFI has set aside approximately $183.5 million to allow facilities that have been recommended for funding for three years to reapply for funding in 2019–20, and to allow for potential adjustments to other

\textsuperscript{1} In March 2019, the CFI extended the MSI award cycle from the initial five-year period to six years.
national research facilities following the midterm review, including extending the MSI award cycle to six years.

While the margin for flexibility is limited, the CFI has sufficient funds available to accommodate modest adjustments in the MSI-funded facilities' budgets at the midterm review. The CFI will entertain adjustments to the approved budget for years four through six (2020–21 to 2022–23) of the project, however, facilities should not see the midterm process as an opportunity to develop a new request but as a means to make minor changes to their O&M budget to meet their evolving needs.

Documentation required

The facility’s strategic plan\(^2\) and its annual performance reports for 2017–18 and 2018–19 will be used to assess the facility’s performance at the midterm review. In addition to the performance reports the administrative institution is required to submit an amendment module to provide an updated budget for the project including the requested funding for 2020–21 to 2022–23. The institution must also submit a brief executive summary that highlights the overall impact of the MSI funding on the facility’s operations and a selected list of key publications since 2017. Additional documentation may be requested by the CFI as required.

The CFI will collate the executive summary, strategic plan, annual reports, updated budget with justification and the review materials from the previous review (i.e. the Expert Committee and Multidisciplinary Assessment Committee reports from the 2017 competition). This information will be shared with the midterm review committee to inform its assessment. For facilities funded conditionally, the CFI will also include the facility’s responses to the conditions imposed. Facilities should ensure that any reviewer concerns from the 2017 competition are addressed in the documentation submitted to the CFI.

Executive summary

The executive summary (maximum three pages) should include a brief overview of the facility and summary of changes since 2017 that highlight the overall impact of the MSI funding. The summary should refer to the annual reports and not repeat the information already contained therein.

The summary should be prepared as a PDF document in US letter format (8.5 x 11 inches). The font and layout should be chosen to maximize legibility both on-screen and in printed form.

List of publications

Provide a selected list of publications since 2017 (up to two pages) that showcases the quality and reach of the research and/or technology development enabled by the facility.

Updated budget and request for funding for 2020–23

An updated budget for the six-year funding period (2017–23) must be submitted in the CFI Awards Management System (CAMS) using the Amendment module. Select "Midterm review" as the reason for the amendment. Institutions must provide actuals for 2017–18 (Year 1) and 2018–19 (Year 2) and forecasts for 2019–20 through 2022–23 (years three to six). The forecast for 2019–20 must not exceed the amount approved at finalization or in the most recently approved amendment for the project.

As noted previously, the CFI has sufficient funds available to accommodate modest adjustments in the MSI-funded facilities’ budgets at the midterm review. The CFI will entertain adjustments to the approved budget for years four through six (2020–21 to 2022–23) of the project, however, facilities should not see the midterm process as an opportunity to develop a new request but as a means to make minor changes to their O&M budget to meet their evolving needs. The budget will be a key factor in the assessment by the review committee.

\(^2\) Note that the CFI will include the strategic plan of the facility as submitted in April 2016 as part of the 2017 MSI proposal. If the strategic plan has been updated since then, please ensure that the CFI has received the updated version.
A budget justification, not to exceed 10 pages, must be attached to the amendment module. The budget justification should clearly describe the costs and sources of funding for the facility, as well as justify the need for the funds requested from the CFI. If an increase in funding from the CFI is requested, a compelling rationale for the increase must be provided.

**Eligible costs**

Eligible costs are defined as the costs related to the operations and maintenance of the national research facility. If a particular item is not clearly defined as eligible or non-eligible, the CFI will consider the request on a case-by-case basis. For examples of eligible and ineligible costs, refer to Appendix 2 of the MSI oversight framework.

**Eligible partners**

Any partner from Canada or abroad may contribute to the facility’s eligible O&M costs, including the Canadian Institutes of Health Research, the Natural Sciences and Engineering Research Council of Canada, the Social Sciences and Humanities Research Council, departments and agencies of the federal, provincial, territorial and municipal governments, firms and corporations, institutions and other users (e.g. through user fees).

**Suggested reviewers**

Identify a minimum of ten potential reviewers and provide their names and contact information to the CFI by January 31, 2019. Suggested reviewers should be well-qualified to review the facility but must not be in a position of conflict of interest (refer to the CFI’s conflict of interest and confidentiality agreement).

The list of suggested reviewers must collectively include individuals with the expertise to evaluate the governance, management and financial oversight of the facility in addition to the quality of the research enabled by the facility. Preference should be given to individuals from comparable research facilities. In accordance with its equity, diversity and inclusion statement, the CFI encourages the suggestion of a diverse cross-section of potential reviewers (diversity may include gender, culture, career stage, sector, etc.)

The final choice of committee members rests with the CFI.

**Submitting documentation to the CFI**

The annual performance report with the signed cover letter, the executive summary, the list of key publications and the list of suggested reviewers must be submitted to the CFI by email to MSI-ISM@innovation.ca. The updated budget and budget justification must be submitted in CAMS through the amendment module.

<table>
<thead>
<tr>
<th>Deadline</th>
<th>Document(s)</th>
</tr>
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<tbody>
<tr>
<td>June 17, 2018</td>
<td>Annual performance report for 2017–18</td>
</tr>
<tr>
<td>October 31, 2018</td>
<td>Responses to conditions (if applicable)</td>
</tr>
<tr>
<td>January 31, 2019</td>
<td>List of suggested reviewers</td>
</tr>
<tr>
<td>June 25, 2019</td>
<td>Annual performance report for 2018–19</td>
</tr>
<tr>
<td></td>
<td>Executive summary</td>
</tr>
<tr>
<td></td>
<td>List of key publications since 2017</td>
</tr>
<tr>
<td></td>
<td>Updated budget and request for funding for 2020–23</td>
</tr>
<tr>
<td></td>
<td>Updated strategic plan of the facility (if applicable)</td>
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</tbody>
</table>
Merit review

For each facility the CFI will select a committee Chair and recruit a committee of experts normally made up of four to five individuals. These individuals are: subject matter experts in the research or technology development enabled by the facility; and/or professionals familiar with key areas of activities such as the governance and administration of large-scale facilities, or knowledge translation and transfer (i.e. use of the research findings in areas such as industry, policy etc.). Expert Committee members are invited several months in advance of the review meeting.

The Expert Committee will meet in person to review the facility’s progress and make budget recommendations to the CFI for 2020–23. The meeting will include question and answer (Q&A) sessions with representatives from the facility and administrative institution. Q&A sessions will occur either in-person or virtually (e.g. teleconference/video conference). Up to five representatives may participate. These representatives should normally include:

- the project leader,
- the chair of the facility’s Board of Directors (or equivalent governance body),
- a representative from the administrative institution, and
- up to two other representatives of the facility’s choice

Facility representatives should be chosen based on their ability to address how the MSI funding for the facility has supported the achievement of the fund objectives and to demonstrate progress toward meeting the conditions that were imposed in the initial review (if applicable).

The Q&A sessions are facilitated by the committee Chair. All members of the Expert Committee, including the Chair, ask questions with the purpose of getting a better understanding of the operational realities, features, and outcomes and impacts of the facility. The insight gained from these discussions will assist the Expert Committee in its assessment.

The in camera sessions are dedicated to the committee deliberations and the preparation of recommendations to the CFI and feedback for the facility. Facility representatives may not attend these sessions.

The CFI Senior Programs Officer assigned to the MSI-funded facility will be present to act as secretary to the Chair and as a resource for the committee. Other CFI staff and observers from funding partners may be present, both during the Q&A and in camera sessions.

Expert Committee report

Following the Expert Committee meeting, a report will be prepared to summarize the committee’s assessment of the facility and to provide feedback. The report will include the committee’s assessment of the degree to which CFI funding has enabled the facility to meet the competition objectives to date and the recommended level of CFI funding for the 2020–23 period. If the overall demand for CFI funds exceeds the resources available, the CFI will ask Expert Committees to provide options to fit within the overall fund envelope.

Collaboration with funding partners

To coordinate the review processes and avoid duplication of review efforts, the CFI may provide committee reports, along with the names and affiliations of committee members, to relevant funding partners named in the proposal. In addition, representatives from the relevant funding partners will be invited, where appropriate, to participate as observers in the expert review process.
The CFI encourages institutions to work with all current and potential federal, provincial and territorial funding authorities and other funding partners at an early stage in the planning and development of the request for funding for 2020–23.

**Ensuring funding recommendations do not exceed available budget**

Expert Committees will be instructed to carefully review the 2020–23 budget requests and only recommend funding that is fully justified and necessary to meet the objectives of the MSI Fund. If the funding recommendations exceed the available budget for the MSI Fund, the CFI will consider a number of options to reduce the total recommended amount. This could include choosing from options for reduced funding provided by the Expert Committees, applying a percentage-based reduction to all funding recommendations, convening a multidisciplinary advisory committee, or other approaches as necessary.

**Funding decisions**

Funding decisions will be made by the CFI Board of Directors at its November 2019 meeting. Following this meeting, the review materials for each proposal will be provided to the administrative institution.

**Transitional funding**

In the event that funding is not renewed for one or more of the facilities, the CFI may provide short-term transitional funding to assist these facilities. They will be permitted to make a one-time request for funding that may be used over a maximum of two years (2020–21 and 2021–22) and may not exceed a total of 75 percent of the facility’s current annual CFI funding (e.g. the facility may plan on using the full 75 percent in a single year, or 50 percent in the first year and 25 percent in the second year).

If applicable, the CFI will follow up with the administrative institution to determine whether transitional funding is required. Should this be the case, the administrative institution will be given instruction on how to submit a request.
Appendix A - Cover letter template

To the CFI,

Re: Major Science Initiatives Fund - 2019 MSI review

We are pleased to submit the 2018–19 annual report for the <name of installation>.

By signing below, we acknowledge having received and read a copy of the annual performance report, as well as the MSI budget and justification, and further certify that all information incorporated in these documents is true, accurate, and complete, and that MSI Board members have seen and approved the report.

Chair of the facility's Board

Name: 
Signature: 
Date: 

President or authorized signatory of the lead institution

Name: 
Signature: 
Date: 