



# Major Science Initiatives Fund

Guidelines for completing the mid-term  
performance report

January 2014

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## **CONTEXT**

Major Science Initiative (MSI) funding is intended to enable large-scale research facilities (referred to as MSIs) to fully exploit their capabilities and allow researchers to undertake world-class research and technology development that lead to social, economic or environmental benefits for Canada. Under the MSI Fund, the Canada Foundation for Innovation (CFI), in collaboration with other funders, provided operation and maintenance (O&M) funding to a select number of MSIs in March 2012.

The CFI funding decisions for each MSI were reached following a rigorous merit review process. These initial funding decisions provided a baseline measure of scientific, governance, management and operational excellence against which each MSI will be assessed under the mid-term review.

Now at the mid-point of the MSI funding cycle, the funded facilities will undergo a merit review with an emphasis on assessing their ability to maximize their scientific and technological capabilities as a result of the MSI funding. Accordingly, the mid-term review will provide an assessment of the overall impact of MSI funding on the scientific excellence of the research program(s), the research outcomes and impacts, and on the governance, management and operations. Finally, the future management plan and the need for O&M funds for the remaining period (i.e. 2015 to 2017) will be assessed. The CFI future contribution to the O&M costs will be dependent on the outcome of the mid-term review.

Each MSI mid-term performance report will be evaluated by a review committee tasked with providing the final funding recommendation and funding amount to the CFI Board of Directors. Their recommendation will be based on the performance of the MSI during the first part of the MSI funding cycle and the need for funds for the remaining period of the MSI Fund. Funding decisions will be made by the CFI Board of Directors in March 2015. The outcome could result in either stable or increased funding to reflect the appropriate level of contribution to the total O&M costs of the MSI for the remaining two years of the funding cycle, or if the MSI fails to demonstrate improved performance of an appropriate level, a reduction or even termination of funding could result.

## **MSI MID-TERM REVIEW TIMELINE**

<b>Dates</b>	<b>Activities</b>
October 15, 2014	Submission of the mid-term performance report
December 2014 – January 2015	MSI review committee meetings
March 2015	CFI Board decision

## **EVALUATION CRITERIA**

The mid-term performance report will provide a detailed demonstration of the impact of the MSI O&M funding for each of the following MSI evaluation criteria:

### **1. Scientific excellence of the MSI**

- The facility is internationally competitive and ranks among the leading facilities in the world.
- The facility supports innovative and leading-edge research programs.
- The MSI is used by researchers of the highest calibre.
- The MSI attracts highly qualified personnel (HQP) of the highest calibre (including students, technicians and professionals) allowing them to acquire high-level skills for research and other careers.

### **2. Benefits to Canada**

- The research activities of the MSI benefit society, the economy or the environment through the development of new or improved products, processes, services, public policies, and/or sustainable job creation. The MSI ensures that appropriate measures are taken to transfer the research results in a timely manner.

### **3. Advanced governance and management**

- The MSI adopts international best practices in governance, including long-term strategic planning.
- The MSI implements a high-quality management plan to achieve the objectives of the strategic plan.

### **4. Enhancement of capacity for innovation**

- The MSI demonstrates the continued need for operating and maintenance support to fully exploit the capabilities of its state-of-the-art facility.
- The facility is accessible and used by a broad range of national and international users from diverse sectors, and has an established merit-based access policy.

## **REVIEW AND DECISION MAKING**

### **Review committee**

The review process is designed to assess the performance of the MSI over the funding period of the award, both for scientific excellence and research outcomes and impacts, and for governance, management and operational excellence. In addition, the review will assess the future management plan and the need for O&M funds for the last two years of the MSI funding period.

A review committee will be convened for each MSI and will be composed of members chosen for their scientific expertise, as well as members with managerial, operational, financial and governance expertise. The committee may include members from the initial MSI expert committee review.

The review committee will hold a face-to-face meeting with representatives of the MSI, user community and applicant institution(s). The one-day meeting will be conducted in two parts: the

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first part of the meeting will involve an assessment of the scientific excellence and the research outcomes and impacts with presentations from selected principal users of the facility. The CFI will solicit a list of suggested principal users of the MSI and will invite a limited number of users to participate in the scientific assessment. The second part will consist of an assessment of the science, the governance and the management and operational excellence of the MSI, with presentations from the MSI (management team and representative of the Board of Directors) and institutional representatives.

Both parts will begin with short presentations either from researchers or MSI representatives, followed by a question and answer period, moderated by the review committee Chair. The review committee will be tasked with preparing a report that will incorporate their findings on the overall impact of MSI funding on the scientific excellence of the research program(s), the research outcomes and impacts, and on the governance, management and operations and the extent to which the MSI:

- Has addressed the CFI awards conditions and has progressed on the initial expert committee review recommendations; and,
- Has been able to fully exploit its capabilities and enabled researchers to undertake world-class research and technology development that lead to social, economic or environmental benefits for Canada.

The review committee report will include a funding recommendation and funding amount for the remaining period of the MSI Fund and may also propose award conditions, if applicable.

### Mid-term review package — Supporting documentation

The following documents will be included in the review package for the review committee:

- 2011-2012 MSI proposal (including the original strategic plan and management plan)
- 2011-2012 MSI expert committee report
- The funding decision letter listing all award conditions
- MSI mid-term performance report

### Participation of funding partners

The CFI will work with current and potential funding partners to develop an integrated approach for the mid-term review process. 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. In addition, representatives from the relevant funding partners will be invited, where appropriate, to participate as observers in the review process. This will imply the institution's consent that the CFI will share relevant application and review materials with the appropriate funding partners.

### Funding decision

Funding decisions will be made by the CFI Board of Directors at its March 2015 meeting. Following this meeting, the applicant institution of each MSI will receive a letter informing them of the final decision, as well as the review committee report.

### **MSI mid-term performance report structure**

The following sections provide instructions to help in the preparation of the mid-term performance report. The report should not exceed 35 pages (not including appendices). An additional 10 pages will be allowed for the budget justification. Sufficient information should be provided to enable reviewers to evaluate the MSI mid-term performance report in accordance with the evaluation criteria outlined above. Where appropriate in the different report sections, the MSI should briefly describe how the relevant key performance indicators relate to the management plan and how the targets are determined, tracked and attained.

#### **A. Cover page (Appendix A)**

The covering page of the proposal includes tombstone information on the project. The overall O&M budget must include actual expenditures for the previous two years, the forecasted expenditures for 2014-15 and an updated budget for 2015-16 and 2016-17.

#### **B. Executive summary**

This summary should highlight major accomplishments made possible by the MSI funding over the first two years of the funding period.

#### **C. Research program and researchers**

Provide an overview of the research program(s) carried out in the first two years of MSI funding. Describe the major achievements of the MSI research program(s) (by research discipline, theme, project or experiment as appropriate), addressing the following:

- The international competitiveness of the research program(s)
- The role of the principal users (and team) in carrying out the research program(s)
- The research outputs, outcomes and impacts of the research program(s)
- How MSI funding has contributed to the achievements of the research program(s)

Append up to 10 *curricula vitae* of key researchers who are the principal users of the MSI.

#### **D. Training of HQP**

- Describe how the MSI was successful in attracting, retaining and training HQP of the highest calibre, including technicians and research associates, as well as post-docs and graduate and undergraduate students. Provide examples of the skills acquired by the HQP while training and working at the facility.
- Describe the impact of the award on HQP activities over the funding period. This should also address the development of a cadre of skilled professionals able to assist researchers to fully exploit the capabilities of the MSI.
- Complete the HQP training table (Appendix B) summarizing training activities over the funding period. Outline, where appropriate, the ratio of HQP trained in the areas of natural sciences and engineering, health and social sciences.

**E. Competitiveness of the facility**

- Demonstrate how the MSI compares to leading facilities in the world.
- Describe how the award contributed to:
  - Enhancing or securing the position of the MSI as a leader in the field; and,
  - Enabling users of the facility to fully exploit its capabilities by helping them to undertake research programs that were beyond its reach for lack of adequate O&M funding.

**F. Access to the facility**

- Describe the impact of MSI funding on access to the facility by users over the funding period.
- Describe the impact of the MSI funding on the user base, in terms of the number and provenance (region, country and sector) of researchers and the level and breadth of support services provided by the facility. Outline, where appropriate, the ratio of services provided in the areas of natural sciences and engineering, health and social sciences.

**G. Benefits to Canada**

- Describe the achievements made possible by the MSI over the funding period in terms of the transfer of research results to end users.
- Describe the new knowledge/technology transfer activities enabled by the MSI award, and provide a knowledge/technology transfer activity table (Appendix C).
- Describe the most important benefits to Canada realized to date.
- Describe any potential benefits anticipated by the end of the MSI funding.

**H. Governance**

- Describe the improvements and changes to MSI governance, strategic planning and related activities of its Board of Directors made possible by the MSI funding over the funding period. Discuss the impacts of these changes and provide examples.
- Describe how the MSI governance model compares with international best practices.
- Discuss how the MSI has addressed any governance conditions and recommendations expressed in the initial review process.

Append the current strategic plan and an up-to-date organizational chart, including the composition of the current Board and its sub-committees.

**I. Management and operations**

- Describe the improvements and changes to MSI management and operations practices and other related activities made possible by the MSI funding over the funding period. Discuss the impacts of these changes and provide examples.
- Describe how management practices for the MSI compare with international best practices in its field.
- Discuss how the MSI management has addressed any management and operations conditions and recommendations expressed in the initial review process.
- Outline the changes to the existing internal policies regarding human resources, risk management, outreach and networking, access, and decommissioning. Describe the impact of the changes.

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- Describe how the performance management tools are integrated in day-to-day operations management of the MSI<sup>1</sup>.

Append the management plan covering the activities of the MSI for the MSI funding period of April 1, 2014 to March 31, 2017.

### J. **Enhancement of capacity for innovation (up to 10 pages allowed for budget justification)**

This section provides information on the MSI’s need for funds and the details of the O&M expenditures and contributions from CFI and other sources.

- Describe the need for O&M funds enabling the MSI to fully exploit the capabilities, as outlined in the management plan for fiscal years 2015-2016 and 2016-2017.
- Budget justification (up to 10 pages).

Provide details and justification for all expenses listed under each sub-category in Table 6 of the template (refer to the ‘Eligible costs’ section in the description of the Major Science Initiatives Fund).

## FINANCIAL TABLES

Eligible in-kind contributions are defined as non-monetary resources that external partners offer as a contribution towards a CFI-funded project. It may include the value, in whole or in part, of eligible O&M costs. Contributions made by the recipient institution or by participating institutions, in the case of multi-institutional projects, are considered to be cash contributions. The sources of partner contributions are not a direct consideration in the review process. Nevertheless, it is expected that all stakeholders be involved. The presence of a specific source of funding may demonstrate the interest of potential users of the facility, beneficiaries of research results or potential employers of the MSI-trained highly qualified personnel.

### **Tables to be provided to the MSI**

NOTE: Gray shaded cells in any of the tables indicate cells that are automatically populated with information from other tables and are locked from editing. Please do not modify these tables.

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<sup>1</sup> The CFI will provide a summary of the KPI included in the annual reports. This table should be included in the mid-term performance report.



**Table 1 — Overview of O&M contributions**

In the first line of this table, the total amount of contributions to O&M costs from other sources will be automatically populated by the “Total contributions” line at the bottom of Table 2.

The CFI’s O&M contribution may come from three different sources: the Major Science Initiatives Fund request; any Infrastructure Operating Fund used for the MSI; and the O&M portion of an International Joint Ventures award associated with the MSI. If no contribution will be drawn from a given source in a given year, please leave the line blank.

**Table 2 — Summary of contributions to O&M costs from other sources**

Provide the breakdown of the total contributions to O&M costs from other sources (from line 1 in Table 1) by type of funding source. The columns for years 2013-14 to 2015-16 will be automatically populated by the information provided in Table 3.

**Table 3 — Details of contributions to O&M costs from other sources (2013-2014 to 2016-2017)**

Under each category of funding, list all sources of funding and their amounts indicating in the appropriate column if the funds are secured (s) or anticipated (a).

**Table 4 — Overview of eligible O&M costs**

It is recommended that Table 5 be completed first and that Table 6 be completed second in order to automatically populate the columns for years 2013-14 to 2015-16 of Table 4. The total amounts for each category for the remaining years should then be completed.

**Table 5 — Detailed personnel costs**

List the titles of each different position in the appropriate category of personnel, as relevant, or in the “Other” category, as necessary. Provide the number of full-time equivalents (FTEs) and the total salary amounts that apply to each position. The CFI does not request details for *each single personnel* but rather, for the category of personnel (e.g. software engineers – five FTEs – total annual salaries plus benefits \$500,000). Detailed justification for each category should be provided in the “Budget justification” section of the mid-term report.

**Table 6 — Details about proposed expenditures for the fiscal periods 2013-2014 to 2016-2017**

The “Personnel” category in this table will be automatically populated by the information from Table 5. If there are types of expenditures in a given category not listed as a sub-category, use the “Other” sub-category to list them. If some types of expenditures do not apply to the MSI, leave the lines blank. Details on individual expenses (for example, list of service contracts) should be provided in the “Budget justification” section.

There is a line in the table under “Other” for contingency. The CFI will accept an amount of up to 10 percent of the total annual O&M costs for the MSI. The funds under this sub-category will not accumulate from year to year and can only be used for unforeseen expenses. Please note that such expenses will require CFI approval.



**APPENDIX B:**

List in the table below how many HQP were, and are expected to be, trained at the facility.

	Number of Canadians					Number of non-Canadians				
	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017
Undergraduates										
Masters students										
PhD students										
Postdoctoral fellows										
Research associates										
Technicians										
Others										

**APPENDIX C:**

List the knowledge transfer (KT) or technology transfer (TT) activities, excluding the training of HQP, that have taken place since the beginning of the MSI award, based on research conducted at the facility.

<b>Knowledge or technology transfer activities</b>	<b>Number</b>	<b>Key examples/brief description</b>	<b>Value or significance to the end users</b>
Consulting services			
Contract research			
Dissemination of best practices (e.g. in health care, education)			
Improvements in professional practice (e.g. better teaching methods)			
Invention disclosures			
New products/process development			
New standards, policies, guidelines, regulations, codes of practice			
Patents awarded			
Start-ups/spin-offs			
Others <sup>1</sup> :			

<sup>1</sup> Where relevant, please add additional KT or TT mechanisms including brief descriptions and their value or significance to end users.



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