



Major Science Initiatives **2014 *Special Competition***

Call for Proposals

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INNOVATION.CA

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COMPETITION DESCRIPTION

Context

The CFI is expanding its support of the ongoing operations and maintenance (O&M) needs of unique national research facilities through a Major Science Initiatives (MSI) special competition. For this competition, eligibility has been broadened to include:

- A greater range of facilities, both in size and complexity, across all research disciplines
- Facilities with diverse levels of CFI investment (not restricted to a one-time \$25 million capital investment)
- Facilities without previous CFI investments.

Funding awarded under this MSI special competition is intended to **secure and strengthen unique national research facilities that support world-class research, the loss of which would represent a serious setback for Canada**. These facilities represent collective resources for the Canadian research enterprise, are currently fully operational, and are being used and accessed by a broad range of researchers from across the country and internationally. Funding provided will complement existing O&M resources to address unmet needs in O&M funding of the successful national research facilities. It is expected that current O&M funders will continue their support.

Definitions

Unique national research facility

An MSI addresses a set of leading-edge scientific problems or questions of such significance, scope and complexity that it requires unique facilities and equipment, substantial human resources and complex operating and maintenance activities. As such, MSIs are viewed as collective resources that are typically too large to be funded exclusively by any one institution or organization.

An MSI offers specialized capabilities, that are not standard in a discipline or research area, to a broad range of researchers from across Canada and, where appropriate, internationally. The term unique in this context applies to the national research facility itself rather than the research enabled by it, and signifies that its capabilities are not found elsewhere in the country so that a majority (>50%) of those accessing the facility are users from outside the host institution(s) and beyond its regional and provincial borders.

Initiatives requesting funds to cover the operating costs of a focused research program are not eligible for this competition. These funded programs, as opposed to facilities, are typically supported for a defined period, and their operating costs cease once the program funding comes to an end.

Management and governance

MSIs have an established governance and management structure commensurate to the level of specialization of the equipment and personnel, the service delivery model, the user base, the complexity of the funding profile and the risk associated with operating a specific facility. Typically, larger and more complex facilities require a higher level of governance (e.g. Board of Directors independent of research users), while smaller or less complex facilities may be governed by, for example, a Board of Trustees or an oversight committee.

Objectives

The MSI 2014 Special Competition will provide multi-year support toward the O&M needs of unique national research facilities owned by one or more CFI-eligible institutions, enabling researchers to undertake world-class research and technology development that will lead to social, health, economic or environmental benefits to Canada. CFI support through this competition is intended to secure and strengthen unique national research facilities in order to:

- Enable funded facilities to operate at an optimal level and to fully exploit their scientific capabilities; and

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- 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.

Competition timeline

Dates	Activities
January 21, 2014	Expression of interest / Feedback on draft Call for proposals deadline (completed)
February 27, 2014	Statement of qualification deadline
March 14, 2014	Invitation to submit proposals
May 20, 2014	Full proposal deadline
June – August 2014	Expert committee meetings
October 21, 2014	Multidisciplinary Assessment Committee meeting
November 25, 2014	Board funding decisions

FUNDS AVAILABLE

The CFI will invest up to \$25 million over three years (approximately \$8 million per year from 2014-15 to 2016-17) to cover a portion of the total eligible O&M costs of funded facilities. The total CFI funding, including Infrastructure Operating Funds (IOF) for those facilities that are partially funded by the CFI, must not exceed 40 percent of a facility's total eligible O&M costs.

Partner funding sources

CFI support is intended to complement the existing funding sources in order to meet the objectives of this competition. It is, therefore, expected that current funding partners will remain involved. As such, the use of CFI funds to displace or substitute existing sources of O&M funding is not permitted. The CFI encourages institutions to interact with current and future funding partners at an early stage in the planning and development of the proposal.

ELIGIBILITY

Eligible institutions

Canadian universities, colleges, research hospitals and non-profit research institutions that have been recognized as eligible by the CFI can apply. The institution must be deemed eligible to receive CFI funds prior to submitting the *Statement of qualification* (SoQ) for this competition.

Eligible Major Science Initiatives

An eligible MSI must meet all of the following five criteria:

Facility

1. The MSI is a unique national research facility offering to all Canadian and international researchers highly specialized capabilities that are not standard in a discipline or research area and are not readily available elsewhere in Canada.
2. The MSI has demonstrated annual eligible O&M costs exceeding \$500,000 to support significant human and operational resources beyond what is standard in Canadian research institutions. In the case of facilities that are part of a pre-existing integrated network, the O&M threshold applies to the network as a whole.

Governance and management

3. The MSI has an established governance and management structure appropriate to the size and complexity of the facility. For larger or more complex facilities, this may include a Board of Directors responsible for such activities as long-term strategic and multi-year business planning and risk management at both strategic and operational levels.

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4. The MSI is owned by one or more CFI-eligible institutions.
5. The MSI is fully operational and accessed by a broad range of users from across Canada and internationally, the majority of whom (>50%) are from outside the host or local institutions and beyond its regional and provincial borders. It also has an established user access policy.

Furthermore, the CFI expects that all eligible MSI facilities will rank amongst the leading comparable facilities internationally and will provide an environment to conduct leading-edge research. This will be a key aspect of the merit-review process under the criterion of *scientific excellence*.

Eligibility is **restricted to unique national research facilities**. The following are not eligible in the current MSI 2014 competition:

- Thematic institutes, memberships and TRIUMF;
- Facilities that are the responsibility of, or are included within the mandate of, a federal agency (e.g. astronomy facilities, National Research Universal reactor at Chalk River); and
- Facilities that were funded or deemed eligible in principle under the 2011 MSI Fund competition.

Eligible funding partners

Any partner may contribute to the facility's eligible O&M costs, including 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).

Eligible costs

- Salaries of non-academic managers, professionals, technicians, administrative personnel and consultants directly involved in the governance, management, operation and maintenance of the facility
- Internal financial auditors
- Training for the main operator(s) of the research infrastructure. It is expected that the main operator(s) will train other users. Alternatively, a group training session may be provided by the vendor at the institution.
- Board of Director and governance committee meetings and related travel
- Communication/outreach activities
- Extended warranties and/or service contracts and extensions to warranty coverage and software upgrades
- Maintenance and repairs
- Replacement parts and replacement of an item needing repair if the replacement is more cost-effective than the repair (the replacement item must have similar functionality)
- Minor upgrades to maintain the operational capacity of the facility
- Insurance directly related to the facility
- Services that directly support the facility (e.g. electricity, security, cleaning, telephone, internet)
- Regulatory requirements compliance costs
- Supplies and consumables required to keep the facility in a state of readiness for researchers, independently of the number of researchers actually using the resource and not associated with specific research projects

Non-eligible costs

- Equipment and construction/renovation costs
- Buying or leasing of real property
- Trainee stipends (undergraduates, graduates and post-doctoral fellows) and faculty members' salaries
- Administrative personnel not directly related to the governance, management, operation and maintenance of the infrastructure (e.g. institutional research office, library and finance services)
- Any cost to conduct research activities
- Expenses related to intellectual property
- Costs not directly related to the facility

APPLICATION PROCESS

Expression of interest (completed)

Given the limited funding available in this competition, institutions were requested to identify the facilities for which they anticipated submitting a proposal to the CFI. Expressions of interest included the facility name, a brief description of the facility and website address, the facility's current total operating budget, and a rough estimate of the anticipated total amount to be requested from the CFI for 2014/15 through 2016/17. The expressions of interest were used by the CFI to gauge the potential level of interest in this competition to better plan the CFI's administrative requirements.

The expressions of interest were requested by the CFI by email to MSI-ISM@innovation.ca no later than January 21, 2014

Statement of qualification

The 2014 MSI competition requires that institutions submit a *Statement of qualification* (SoQ) to establish the eligibility of the proposed facility. The SoQ, to be submitted as part of the Notice of Intent, will be reviewed to assess the eligibility of the MSI based on the five established eligibility criteria. Institutions must submit the SoQ through the CFI Awards Management System (CAMS) no later than February 27, 2014. The CFI will post a full list of SoQs on its website, including the names of the lead institutions, project leaders and the MSIs, shortly after they are received.

The SoQ will also be used by CFI staff to plan its merit review process and to start the recruitment of reviewers who will assess the proposals. The SoQ budget will be used to determine the nature of the review process; therefore, the CFI expects that budgets presented in the SoQ will be reasonable estimates of the annual operating costs of the facility.

Institutions will be advised by March 14, 2014 whether they have met the MSI eligibility criteria and, if so, will be invited to submit a proposal.

Proposal

Institutions invited to submit a proposal will manage the submission process through the CFI Awards Management System (CAMS). Please note that institutions must use this secure portal to prepare and submit their proposals to the CFI.

The submission deadline for proposals is May 20, 2014.

REVIEW AND DECISION MAKING

Funding decisions will be based on the demonstrated need for O&M funding to enable MSIs to fully exploit their capabilities, on their scientific excellence, on their advanced governance and management structures and on their current and potential benefits to Canada. Proposals must, therefore, address all assessment criteria, outlined below.

Assessment criteria

The CFI will evaluate proposals on the basis of four broad criteria. To be considered for funding, a proposal must satisfy all four criteria.

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

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2. Enhancement of capacity for innovation
 - The facility offers highly specialized capabilities that are not standard in a discipline or research area and are not readily available to Canadian researchers.
 - There is a demonstrated need for operating and maintenance support to fully exploit the scientific capabilities of the facility.
3. Governance and management
 - The MSI adopts best practices in governance appropriate to the size and complexity of the facility, including long-term strategic planning.
 - To realize its objectives, the facility implements a high-quality management plan.
 - The facility has an established access policy and is openly accessible to, and used by, a broad range of national and/or international users from diverse sectors, as appropriate to the nature of the facility.
4. Benefits to Canada
 - The research and technology development enabled by the MSI will lead to social, health, economic or environmental benefits to Canada, including 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.

Merit-review process

The assessment of each proposal will be tailored to the nature and complexity of the proposal and will normally include two stages, as outlined below.

Expert review

In the first stage of merit review, expert committees will be convened to assess the *scientific excellence* and *enhancement of capacity for innovation* of each facility in relation to the established indicators for this competition. These committees will be tasked with recommending to the Multidisciplinary Assessment Committee (MAC) those proposals that meet the standard of scientific excellence for the competition and with establishing the amount that should be awarded to each proposal. Proposals not recommended by the expert committees will not be considered by the MAC.

As appropriate, expert committees will review small groups of similar or related proposals. These committees will convene either by teleconference or in person and may include a face-to-face meeting with the applicants. Written external reviews may be used when an expert committee review is not possible or when supplementary expertise is required.

Multidisciplinary Assessment Committee (MAC)

The second stage of review involves assessment by the MAC of the proposals deemed meritorious by the expert committees. Members of the MAC will be chosen for their capacity to assess proposals based on the assessment criteria and, in particular, on their breadth of expertise in the governance, management and operation of national research facilities.

The MAC will assess the strengths and weaknesses of the *governance and management* and *benefits to Canada* of each proposal in relation to the established indicators. Taking into consideration the advice of the expert committee evaluations and its own assessment of the proposals, the MAC will be tasked with providing the final funding recommendations and funding amounts to the CFI Board of Directors.

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. In addition, representatives from the relevant funding partners will be invited, where appropriate, to participate as observers in the review process.

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The CFI encourages institutions to work with all funding partners at an early stage in the planning and development of proposals.

Funding decisions

Funding decisions will be made by the CFI Board of Directors at its November 2014 meeting. Following this meeting, the review materials for each proposal will be provided to the applicant institution.

OVERSIGHT AND MONITORING

The CFI will endeavour to create a streamlined oversight framework and to coordinate financial oversight activities with other funding partners of the MSI facilities. This could include, for example, combining financial reporting requirements, audit activities and sharing of the audit results, as applicable, for each of the funders.

The oversight framework will guide the CFI in the monitoring activities of the individual MSIs. The activities will be tailored to the complexity of the facility and will include:

- Financial and progress reports, including short- and medium-term outputs and outcomes;
- Risk assessment and mitigation strategy;
- Performance monitoring strategy; and
- Decommissioning plans.

ADMINISTRATIVE REGULATIONS AND CONDITIONS OF FUNDING

For more information on administrative regulations and conditions of funding, please see the *CFI Policy and program guide*, which is available on the "[Our Funds](#)" section of the CFI website.