# Performance, evaluation, risk and audit framework (PERAF)

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## 1.0 INTRODUCTION

Since it was introduced in 2008, the Canada Foundation for Innovation's (CFI) *Performance, evaluation, risk and audit framework* (PERAF) has served as a guide for how the organization manages risk and tracks and assesses its performance in relation to its objectives and expected results. In the spirit of continuous improvement and given the completion of the *Overall performance evaluation and value-formoney audit* in 2014-15, changes to the funding architecture in 2010 and the introduction of a new *Contribution agreement* in 2014, the CFI determined that it was timely to perform a full-scale review of the PERAF.

The PERAF applies to the CFI as a whole and includes:

- A profile of the organization;
- An organizational risk assessment and management plan;
- A plan for the ongoing collection and reporting of information on CFI's performance; and,
- An evaluation strategy.

The CFI established an internal working group (see Appendix A) to refresh the PERAF and subsequently review its contents on an as-needed basis. This ensures that the activities and information requirements remain appropriate and relevant, and that the resulting information can be used for management, accountability and communication purposes.

This report is the result of this full-scale review. It is inspired by the Treasury Board Secretariat's guidelines for developing performance measurement strategies<sup>1</sup>. The 2015 PERAF replaces the PERAF approved by the CFI's Board of Directors in March 2011.

<sup>&</sup>lt;sup>1</sup> Treasury Board of Canada Secretariat. Supporting Effective Evaluations: A Guide to Developing Performance Measurement Strategies. December 2014. <a href="http://www.tbs-sct.gc.ca/cee/dpms-esmr/dpms-esmr/2-eng.asp">http://www.tbs-sct.gc.ca/cee/dpms-esmr/dpms-esmr/2-eng.asp</a>

# 2.0 ORGANIZATIONAL PROFILE

# 2.1 Context

In creating the CFI and several other related research funding initiatives over the past 18 years, the Government of Canada has played a vital role in transforming Canada's science and technology (S & T) landscape. The CFI funds research infrastructure — advanced equipment, laboratories, databases, specimens, scientific collections, computer hardware and software and communications linkages — which sets the stage for discovery research and fuels innovation.

The CFI's activities and program architecture are aligned with the principles outlined in the 2014 federal government's new science, technology and innovation strategy, Seizing Canada's Moment: Moving Forward in Science, Technology and Innovation<sup>2</sup>, including:

- · Promoting world-leading excellence;
- Encouraging partnerships between academia, business and the public sector; and,
- Demonstrating accountability, not only in ensuring transparency in the allocation of its funds, but also in communicating to Canadians the benefits of these investments.

The Government of Canada's ongoing support has allowed the CFI to adjust its program architecture to meet the evolving research infrastructure needs of Canada's research institutions while safeguarding the public interest.

## Mission and mandate

Created by the Government of Canada in 1997, the Canada Foundation for Innovation (CFI) strives to build our nation's capacity to undertake world-class research and technology development to benefit Canadians. Thanks to CFI investment in state-of-the-art facilities and equipment, universities, colleges, research hospitals and non-profit research institutions are attracting and retaining the world's top talent, training the next generation of researchers, supporting private-sector innovation and creating high-quality jobs that strengthen Canada's position in today's knowledge economy.

Although the CFI is not alone in supporting innovation in Canada, it is the only national organization focused on providing the infrastructure required to conduct world-class research and technology development in eligible institutions. The CFI supports all areas of research, and because it works directly with institutions rather than with individual researchers, institutions can ensure that their applications for funding are aligned with their own strategic research plans.

<sup>&</sup>lt;sup>2</sup> Industry Canada. Seizing Canada's Moment: Moving Forward in Science, Technology and Innovation. December 2014. http://www.ic.gc.ca/eic/site/icgc.nsf/eng/h\_07472.html

# CFI objectives and expected results

The objectives of the CFI, as defined in its funding and contribution agreements with the Government of Canada, have evolved since 1997 (see Appendix B). The current 2014 Contribution agreement states: "the Foundation shall have the following objectives:

- a) Support economic growth and job creation, as well as health and environmental quality through innovation.
- b) Increase Canada's capability to carry out important world-class scientific research and technology development.
- c) Expand research and job opportunities by providing support through research infrastructure for the development of highly qualified personnel.
- d) Promote productive networks and collaboration among Canadian universities, colleges, research hospitals, non-profit research institutions and the private sector."

These objectives have similar intent but some differences in emphasis compared to the expected results. The 2014 *Contribution agreement* states: "In using the Amount, the Foundation is expected to help enhance the capacity of Ultimate Recipients to:

- a) attract and retain the world's top research talent;
- b) train the next generation of researchers;
- c) enable researchers to undertake world-class research and technology development that lead to social, economic and environmental benefits for Canada; and
- d) support private sector innovation and commercialization."

#### Research infrastructure

The infrastructure funded by the CFI includes state-of-the-art equipment, laboratories, databases and facilities necessary to conduct research. CFI-funded infrastructure fosters collaboration among the academic, private, public and non-profit sectors and among researchers in various disciplines. Infrastructure makes a permanent impact on institutions because it builds long-term capacity, leaving a legacy from which many researchers — and ultimately Canadians — can benefit for years.

#### Eligibility for CFI funding

The CFI defines eligible institutions as:

- A university, college or research hospital that is situated in Canada and has demonstrated its capacity to support and conduct research; or
- A non-profit institution that is not an agency of federal, provincial or territorial governments or for-profit
  organization, has its activities primarily carried out in Canada, and has demonstrated its capacity to
  support and conduct research.

#### Unique funding formula

The CFI funds up to 40 percent of a project's research infrastructure costs, which is then leveraged to attract the remaining investment from partners in the public, private and non-profit sectors. Its multi-year funding programs allow institutions to engage in long-term strategic research planning.

# Structured merit review

CFI funding is awarded through an independent and rigorous structured merit-based review process that involves researchers, research administrators, and public- and private-sector administrators. These volunteers review proposals, either individually or within a committee, according to the fund under which

the proposal is submitted, the size of the requested investment and the complexity of the proposal. They then make funding recommendations to the CFI Board of Directors, which makes all final funding decisions.

# 2.2 Program architecture

The CFI's program architecture is designed to deliver on the CFI's mandate by meeting the current needs of the research community, partners and stakeholders.

At its core, the CFI program architecture involves a three-pronged approach that includes: open national competitions for innovative infrastructure projects (primarily through Innovation Fund competitions); an institutional allocation-based fund that gives universities the flexibility and rapid turnaround time to recruit and retain leading researchers (John R. Evans Leaders Fund); and a fund that covers a portion of operating and maintenance costs to ensure optimal use of CFI-funded infrastructure (Infrastructure Operating Fund).

In addition to its three core funds, the CFI makes strategic investments through the Major Science Initiatives Fund, the College-Industry Innovation Fund, the Cyberinfrastructure Initiative and the Exceptional Opportunities Fund.

#### **Innovation Fund**

The CFI launched the 2015 Innovation Fund to capitalize on its sustained investment in research infrastructure. Supporting innovative and transformative infrastructure projects leads to scientific breakthroughs and produces social, economic, environmental and health benefits to Canada. Open to all disciplines, the Innovation Fund competition enhances Canada's capacity for leading-edge research and technology development. This competition challenges institutions to propose transformative research infrastructure projects that allow Canada to "strive for global leadership and reap the benefits."

# John R. Evans Leaders Fund

The John R. Evans Leaders Fund (JELF) is designed to help universities attract and retain the very best researchers at a time of intense international competition. To this end, the JELF offers universities the opportunity to:

- Acquire infrastructure for their leading research faculty to undertake cutting-edge research; and,
- Create competitive packages of research support in the form of infrastructure and a portion of the operating and maintenance costs from the CFI, coupled with direct research costs from partner organizations.

# **Infrastructure Operating Fund**

While it is the institution's responsibility to ensure that appropriate resources are provided for the operation and maintenance of the CFI-funded research infrastructure over its useful life, the Infrastructure Operating Fund (IOF) helps cover a portion of the operating and maintenance costs to ensure optimal use of CFI-funded infrastructure.

Most CFI-funded projects that are eligible for the IOF generate an amount equivalent to 30 percent of the maximum CFI amount approved at award finalization, and each amount is added to the institution's overall IOF allocation.

Individual institutions are responsible for deciding how their IOF allocation will be divided among its portfolio of CFI-funded projects. This offers institutions maximum flexibility to support projects with different needs and scope, while ensuring accountability.

# **Major Science Initiatives Fund**

Since 2012 the CFI has contributed through the Major Sciences Initiatives (MSI) Fund to the operating and maintenance costs of unique national research facilities funded by the CFI. To ensure that state-of-the-art MSI facilities enable researchers to undertake world-class research and technology development that lead to social, economic and environmental benefits to Canada, the CFI:

- Enables MSIs to fully exploit their capabilities by contributing to their operating and maintenance costs; and,
- Promotes the adoption of best practices in governance and management, including long-term strategic and operational planning.

Funding decisions are based on the demonstrated need for operating and maintenance support that will enable these facilities to fully exploit their capabilities, to adopt advanced governance and management practices, and to maximize their scientific excellence and potential benefits to Canada.

In 2014, the CFI conducted a special competition under the MSI Fund that broadened the eligibility criteria to include a greater range of unique national research facilities, both in size and complexity, across all research disciplines with diverse levels of CFI investment (not restricted to a one-time \$25 million capital investment, as was the case in the 2012 MSI Fund competition). In addition, facilities without previous CFI investments were also eligible to apply.

# **College-Industry Innovation Fund**

The College-Industry Innovation Fund seeks to enhance the capacity of colleges to support business innovation in Canada by providing them with state-of-the-art, industry-relevant research infrastructure to foster partnerships with the private sector in a specific area of strategic priority to the institution.

Colleges have taken advantage of their strong linkages with the private sector, mostly with small- and medium-sized enterprises at the local, regional and national level, to play an increasingly important role in supporting Canadian business innovation. Colleges develop and test new products, help businesses adopt innovative processes and adapt technologies to gain new competitive advantages.

## **Cyberinfrastructure Initiative**

The overarching objective of the Cyberinfrastructure Initiative is to enhance the capacity of Canadian institutions and researchers to conduct leading-edge research in areas of demonstrated strength by supporting the infrastructure needs of computationally- and data-intensive research. The Cyberinfrastructure Initiative enables the CFI to support these needs by investing in:

- A limited number of research data infrastructure projects that, in collaboration with Compute Canada, enable communities of researchers, along with data scientists, data analysts, software developers and other experts to devise optimal ways of organizing and using research data resources; and,
- Upgrading and modernizing the computational and data storage capacities of the pan-Canadian advanced research computing platform managed by Compute Canada.

# **Exceptional Opportunities Fund**

While most infrastructure projects require significant time to develop from conceptualization to implementation, there are rare instances where an exceptional research opportunity could be missed if it had to follow a regular national competition processes. The CFI created the Exceptional Opportunities Fund to assist institutions and their partners in seizing such unique opportunities.

To qualify for funding, a project must take advantage of an exceptional and time-sensitive opportunity and partnership — such as the potential loss of research funding from international sources or the private sector — that justifies it being considered outside the CFI's regular pan-Canadian competitive review process. The project must include the timely coordination and financial support of other relevant agencies for the funding of research, infrastructure and operations. Infrastructure must also be an indispensable element of the project. Projects that have already been reviewed, in whole or in part, by the CFI are not eligible.

Additional information on CFI Funds is available in the CFI's <u>Policy and program guide</u>, found under "Our funds" at Innovation.ca.

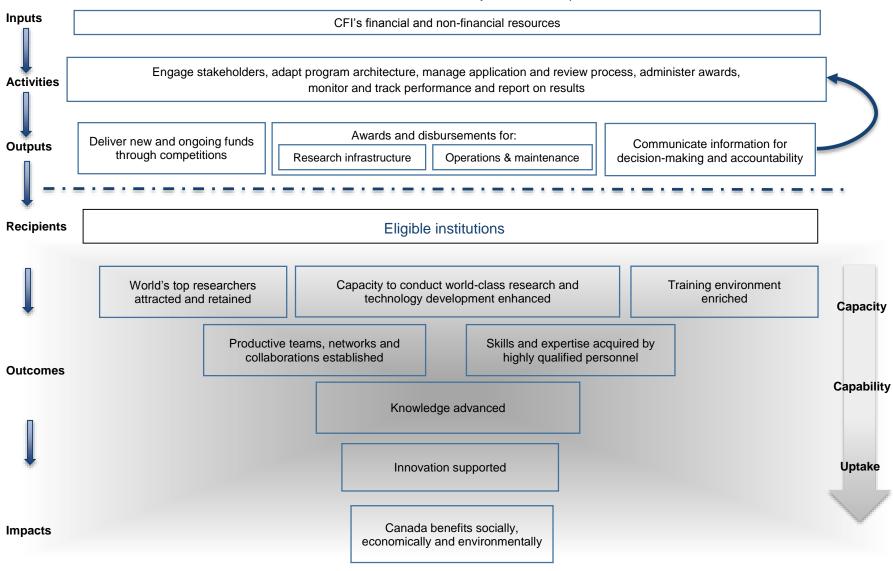
# 2.3 Logic model

The CFI logic model identifies the relationships between the organization's inputs, activities and outputs, and the outcomes and impacts that are achieved by the ultimate recipients as a result of infrastructure funding (Figure 1). It is through these inputs, activities and outputs that the CFI enables its ultimate recipients to make progress on the expected results and for the CFI to achieve its objectives. Appendix B presents an overview of the evolving nature of the CFI's national objectives, expected results and objectives. Not all expected results and objectives are explicitly listed in the CFI logic model since many are interdependent and overlapping. The CFI has determined that it is clearer to have some of these captured through broader outcome and impact statements.

Not depicted in the model are important considerations such as external influences and risks. External influences can be defined as the environment in which the organization exists and includes a variety of external factors that interact with and influence the CFI's ability to achieve its intended outcomes. Examples include availability of funding (i.e. partner funding to complement CFI funds, tri-council funding) and the level of excellence of submitted proposals. A risk assessment was completed as part of the PERAF review, which is addressed in Chapter 3.0.

Figure 1: Canada Foundation for Innovation's logic model

# Canada Foundation for Innovation: Objectives and expected results



# 2.3.1 Inputs, activities and outputs

These components outline the central inputs and activities, or actions, taken by CFI staff. Inputs include the financial and non-financial resources used to deliver activities. The activities and outputs — the results of activities — are directly within the control of the CFI.

# 2.3.2 Description of outcomes and impacts

The CFI contributes to the outcomes and impacts identified in the logic model. By bringing together partner research funding and the infrastructure, the recipients of CFI funds achieve the outcomes and impacts.

# Capacity

- World's top researchers attracted and retained Investment in research infrastructure enables
  eligible institutions to attract and retain researchers who are highly productive and recognized in their
  respective fields.
- Capacity to conduct world-class research and technology development enhanced Investment in state-of-the-art infrastructure, along with planning for its optimal use, enhances the ability of eligible institutions to compete globally in research and technology development.
- Training environment enriched Availability of high-quality infrastructure, together with top
  researchers, creates the optimal conditions to train the next generation of researchers and highly
  skilled technical personnel.

# Capability

- Productive teams, networks and collaborations established The provision and use of state-ofthe-art infrastructure supports eligible institutions in bringing together a diverse and multi-sectoral community of users and enhancing networks and collaborative arrangements.
- Skills and expertise acquired by highly qualified personnel The use of state-of-the-art infrastructure allows students, post-doctoral fellows, other trainees and technical staff to develop skills in a world-class research environment and gain knowledge from leading researchers in their fields.
- **Knowledge advanced** The use of state-of-the-art infrastructure allows researchers to produce, collect, analyze and interpret data that advances scientific and technological knowledge.

#### Uptake

- Innovation supported The undertaking of activities that facilitate the comprehension, uptake and
  implementation of research knowledge acquired through the use of CFI-funded infrastructure allows
  researchers and institutions to encourage their adoption into practice and policy, and ultimately
  contribute to the innovation system.
- Canada benefits socially, economically and environmentally The innovative research that results from the confluence of world-class infrastructure and great minds leads to discoveries and better public policy, and fosters the commercialization of discoveries, all of which improve the overall quality of life for Canadians.

# 2.4 Key stakeholders and beneficiaries

As the primary federal funding organization mandated to invest in research infrastructure in partnership with eligible post-secondary institutions and their funding partners in the public, private and non-profit sectors, the CFI has a number of key stakeholders and beneficiaries. These include:

- Canadian universities, colleges, research hospitals, and non-profit research institutions —
  Research infrastructure projects funded by the CFI are under the effective control of their respective
  institutions. This support helps these institutions to carry out world-class research and technology
  development that benefits Canadians.
- Researchers Researchers are the users of CFI-funded research infrastructure. Access to state-ofthe-art infrastructure allows them to conduct leading-edge work. It also serves to attract and retain top minds at Canadian institutions, and promote productive research collaborations and networks.
- Highly qualified personnel (HQP), (post-doctoral fellows, graduate students, undergraduates and technicians or professionals) — CFI funding provides HQP with opportunities to train in stateof-the-art environments with world-class researchers. Funding also supports the development of technical personnel for the operation and maintenance of the research infrastructure.
- Governments and funding organizations The CFI is a key component of the Government of Canada's science and innovation portfolio. As an instrument of government policy, the CFI furthers the objectives and priorities of the Government of Canada and works alongside federal and provincial governments and in partnership with federal and provincial granting agencies and organizations to support and strengthen the research environment in Canada.
- Private-sector firms and non-profit organizations These stakeholders are contributing partners
  to CFI-funded projects and users of the knowledge generated from these projects. The research
  coming out of CFI-funded infrastructure helps businesses develop new or improved products,
  processes or services, gain intellectual property rights, negotiate licencing agreements and create
  spin-off companies.
- The Canadian public The Canadian public has a stake in the CFI since taxpayer dollars are used
  to fund CFI's programs and operations. They are also the ultimate beneficiaries of the research that
  flows from CFI-funded infrastructure, which contributes to the prosperity and quality of life of
  Canadians.

## 3.0 ORGANIZATIONAL RISK ASSESSMENT AND MANAGEMENT STRATEGY

# 3.1 Risk assessment and mitigating measures

Through a systematic risk identification and assessment process, CFI management revisited and updated the analysis of the key risks faced by the CFI in October 2014. The CFI also reflected on the adequacy of existing risk mitigation measures and ensured that there is a cost-effective balance between the risk levels, investments in response measures and stakeholder interests.

# Methodology

In the CFI's 2014 update of the corporate risk profile, risks were assessed in the context of events or circumstances that could affect the achievement of the CFI's objectives and strategic directions as well as the related expected outcomes established in the logic model. The risk assessment was conducted through the following key steps:

- An initial risk inventory was developed based upon interviews conducted with management and representatives of the Board of Directors, and building upon the risks identified through the previous risk assessment.
- CFI management, Board Directors and Members were asked to select the risks they viewed as being
  most significant in the risk inventory through a survey to help identify the main risks that required
  further analysis.
- These risks were formally measured through a risk assessment workshop with participants consisting
  of one member of the CFI's Board of Directors and all members of the CFI management team. In the
  workshop, participants were asked to measure the impact and likelihood of each risk, giving
  consideration to the existence or effectiveness of any controls or management practices related to
  these risks. Impact and likelihood were each measured using a five point scale through the use of
  anonymous voting technology.

# Key risks and mitigating measures

Seven risks spanning three different risk areas were identified as having higher than average potential likelihood of occurrence and potential impact. None of these risks relate to institutional or operational risks as there is a high level of comfort with existing controls in place to manage these risks at the project and program level, thereby resulting in an overall low likelihood of occurrence for these categories of risks.

Table 1: Key risks and mitigating measures

STRATEGIC				
Risks	Mitigation measures			
Risk that the CFI is unable to maintain and/or secure ongoing political support at the federal level.      Risk that the CFI is unable to maintain and/or secure ongoing political support at the federal level.	<ul> <li>The CFI undertakes regular ongoing discussions with Government of Canada officials in ministerial offices and senior department managers on the requirements for research infrastructure, the leveraging of benefits, the multidisciplinary reach and impacts of CFI investments and ideas for the future of the CFI and the research and innovation ecosystem.</li> <li>The CFI regularly provides parliamentarians with evidence on the ways that infrastructure assists in attracting and retaining top research talent, enables world-class research and supports innovation.</li> <li>The CFI leads and participates in outreach and communications activities specifically targeted to parliamentarians.</li> <li>The CFI consistently demonstrates value-formoney and how infrastructure funding has been and continues to be responsive to government priorities and research community requirements.</li> <li>The CFI disseminates success stories and evaluation assessments to demonstrate the results of CFI investments.</li> <li>The CFI seeks to capitalize on the strength of its solid reputation as a world-class funding agency.</li> <li>The CFI includes elected officials and media in celebrations and public events.</li> </ul>			
2. Risk that the fiscal realities of the provinces will result in reduced and/or delayed support for CFI	Provincial partners are given opportunities to provide input on activities, processes and			
projects (e.g. via matching funds, S&T funding in	funding mechanisms.			
the province).	The priorities of provincial partners are taken into consideration in the application review process.			
	The CFI conducts ongoing monitoring of			
	<ul> <li>provincial research and innovation activities.</li> <li>The CFI communicates the value of the 40</li> </ul>			
	percent funding provided by the CFI.			

3. Risk that key stakeholders, including federal funders at both the administrative and political levels, do not understand the activities, outcomes and impacts associated with CFI funding.	<ul> <li>The CFI communicates with provinces on funding parameters and competition schedules to assist them in their planning.</li> <li>While the CFI endeavours to accommodate provinces with cash flow challenges, CFI funding is provided only when partner funding has been secured.</li> <li>The CFI consistently sends the message that world-class research requires state-of-the-art infrastructure.</li> <li>The CFI reports on and communicates to all stakeholders the outputs, outcomes and impacts of the research enabled by infrastructure.</li> <li>The CFI maintains a dialogue with the Government of Canada and with other funding agencies on its role and programs and on the level of funding provided.</li> <li>The CFI's communications strategy focuses on highlighting the key results and social and economic outcomes of the research enabled by CFI investments.</li> <li>The CFI Navigator fosters and enables communication and linkages between CFI-funded institutions and external stakeholders in the private and public sectors.</li> </ul>
	The CFI consistently sends the message that
levels, do not understand the activities, outcomes	<ul> <li>infrastructure.</li> <li>The CFI reports on and communicates to all stakeholders the outputs, outcomes and impacts of the research enabled by infrastructure.</li> <li>The CFI maintains a dialogue with the Government of Canada and with other funding agencies on its role and programs and on the level of funding provided.</li> <li>The CFI's communications strategy focuses on highlighting the key results and social and economic outcomes of the research enabled by CFI investments.</li> <li>The CFI Navigator fosters and enables communication and linkages between CFI-funded institutions and external stakeholders</li> </ul>
	The CFI continues to explore new ways of telling the stories of the impacts of research enabled by CFI-funded infrastructure.
4. Risk that overall funding cannot be balanced to support different stakeholder needs (e.g. between capital and operating and maintenance investments).   Output  Description:	<ul> <li>The CFI conducts ongoing consultations with the research community and government to determine the balance of funding types for major science initiatives and multi-institutional facilities.</li> <li>The CFI undertakes discussions with government and other funding organizations on funding pressures and how best to optimize the overall funding system.</li> <li>The latest Innovation Fund competition provides additional operating and maintenance funding for projects with greater needs for operational support.</li> <li>The Infrastructure Operating Fund provides institutions with flexibility to address projects with varying needs.</li> <li>The CFI continues to advocate for a national strategy to best address the requirements for large-scale research infrastructures.</li> </ul>

5. Risk that <i>Funding agreement</i> requirements	The CFI regularly consults with institutions to
impairs the ability of the CFI to be responsive to	
1 ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	understand their needs and explain the
stakeholder needs in a timely and flexible manner	specifics of federal funding programs and
(e.g. through new programs).	opportunities.
	<ul> <li>The CFI briefs parliamentarians and senior</li> </ul>
	government officials on the value of a flexible
	model, alignment of funding mechanisms with
	the federal Science, Technology and
	Innovation Strategy and the granting agencies
	and on the needs of institutions.
	<ul> <li>Communication and outreach activities</li> </ul>
	underscore the need for flexibility as a means
	to enable the CFI to achieve the expected
	results specified in its Funding agreements.
	<ul> <li>The CFI encourages the research community</li> </ul>
	to work with the CFI to communicate its
	needs to key decision-makers.
	· · · · · · · · · · · · · · · · · · ·
	The CFI periodically assesses whether
	funding mechanisms are addressing
	stakeholder needs and, when necessary,
	makes appropriate adjustments in the
	program architecture and fund delivery
	mechanisms.

HUMAN RESOURCES			
Risk	Mitigation measures		
6. Risk of turnover and/or loss of corporate memory among critical leadership positions.	<ul> <li>The horizontal structure of the CFI facilitates the effective transfer of corporate knowledge throughout the organization and in periods of leadership turnover.</li> <li>The CFI maintains a competitive compensation structure and a balanced work environment that help attract and retain top talent.</li> <li>The CFI succession plan is reviewed and updated every two years.</li> </ul>		

INFORMATION TECHNOLOGY/INFORMATION MANAGEMENT			
Risk	Mitigation measures		
7. Risk that information is not managed and/or accessible in a manner to support and enable effective and timely decision making	<ul> <li>The CFI's business units consistently review and update the information captured for both structured data (i.e. corporate database systems) and unstructured data (i.e. business unit specific activity) to support their operational and strategic business decisions.</li> <li>The Performance, evaluation, risk and audit framework (PERAF) exercise periodically</li> </ul>		



reviews and updates information requirements needed to inform strategic business decisions and directions.

- Information access follows a decentralized approach. Business units have staff with advanced-level expertise using the CFI Business Information (BI) tools to effectively support decision making. All BI users are supported by the Information Management team. BI training is available on an ongoing basis, and specialized training sessions are provided as needed.
- All information captured at the CFI occurs within a secure and protected environment using up-to-date industry-standard technology and infrastructure and software supported by contracted experts. Regular data-backup schedules and maintenance operations are in place.
- The CFI's Information Technology Strategy includes plans to focus on an Information Management Strategy for 2015-16.
- The Information Management Strategy will optimize the value of data within the organization, produce repeatable results, enrich analytical capabilities and provide tools for the CFI to be a trusted voice.

The CFI's key risks are reviewed periodically. Strategies and priorities are modified as needed to reflect changes in the key risks facing the CFI. The above table of key risks and mitigating measures is updated annually and is included in the CFI's corporate plan each year, which is available at <a href="Innovation.ca">Innovation.ca</a>.

# 3.2 Monitoring and contribution audits

This section provides a description of the CFI's monitoring and contribution audit practices. Overall, risk and performance are monitored through an integrated strategy which involves monitoring the achievement of established outputs and outcomes (see Chapter 4.0), as well as monitoring institutional compliance and project results through detailed operational and financial procedures (see details below).

# 3.2.1 Monitoring

# Monitoring outputs and outcomes

The CFI monitors the use of funds on an ongoing basis to ensure that the established outputs and outcomes are being achieved. This is accomplished through the CFI's *Performance measurement and evaluation strategy* (see Chapter 4.0). The CFI also consults with its various stakeholders on an ongoing basis to ensure that its program architecture and guidelines are appropriate.

In these activities, the CFI obtains qualitative and quantitative information on outputs and outcomes. This information is critical in informing decisions and ensuring that the CFI is achieving its objectives.

# **Project monitoring**

The CFI has adopted a risk-based approach for its oversight of funded projects. The nature and extent of the CFI's oversight activities are tailored to the risks facing each institution and project given that the risks vary greatly from one institution or project to the next. By tailoring the nature and extent of its management and oversight practices to the risks of each project and institution, the CFI can benefit from more effective and efficient mechanisms.

To assist with the identification of project-related risks and to establish an appropriate level of oversight for each project, the CFI has developed a *Tool for risk assessment and management* (TRAAM). This tool has two components: the CFI's risk assessment and a summary of the CFI's oversight activities commensurate with the identified project-related risks.

The CFI works collaboratively with each institution in the management of project-related risks. Input from the institution on its management and oversight activities is incorporated in the TRAAM; this may influence the CFI's risk assessment and its level of oversight activities. Over the course of each project, the CFI risk assessment is revisited annually, or more frequently based on need. The CFI also modifies its oversight activities to reflect any changes in risks for the project.

The CFI relies on a variety of activities for project monitoring, including monitoring recipients' compliance with terms and conditions of funding.

# **Monitoring visits**

The CFI conducts monitoring visits at recipient institutions to assess the adequacy and effectiveness of policies, processes and controls in place for the management of CFI-funded projects. This helps ensure that funds are being used for their intended purposes and in accordance with terms and conditions of award agreements as well as CFI policies and guidelines.

The objectives of the monitoring visits are threefold:

# 1. Oversight

 Obtain an understanding of key policies, practices, processes and controls in place at the institution for the management of CFI awards and assess their adequacy.

#### 2. Value to the institution

- Disseminate information on CFI policies, guidelines and expectations for accountability and integrity, as well as share examples of good practices used by recipient institutions in managing CFI funds.
- Highlight opportunities to increase efficiencies.
- 3. Feedback and knowledge building
- Obtain feedback from the institution that helps the CFI ensure that its policies, guidelines and expectations are clear and adequate.
- Gain community knowledge in specific areas of interest to the CFI.

A risk-based approach is used for the selection of institutions that are subject to a monitoring visit. Various risk factors are considered, such as the total value of ongoing infrastructure projects at an institution, along with other risk factors identified through the TRAAM. Institutions that are subject to a monitoring visit are also subject to a review of their Infrastructure Operating Fund expenditures which occur concurrently.

# Approval of infrastructure changes

Recipients must use their CFI funds to purchase or develop the infrastructure and to cover the eligible costs agreed to by the CFI under their award agreement. In a small number of instances, changes to an infrastructure project may be necessary. In these instances, the institution must ensure that the proposed change is acceptable.

Prior approval from the CFI is required if the cost of a new item is significant, and for any change that has a negative impact on the project and its research objectives regardless of cost implications. Timelines for the acquisition of the infrastructure are also monitored, and the institution must notify the CFI if there is a change in the designated project leader or if the institution is unable to carry out or complete the project.

# Financial reporting

Financial reports provide information on individual project costs, funding and timelines for the acquisition of the infrastructure. Project timelines are reviewed and follow-up procedures are performed if there are significant delays in the acquisition of the infrastructure. The frequency of financial report submissions varies based on project complexity and risk. It ranges from quarterly reporting to reporting every two years.

In its final financial report for each project, the institution must describe all changes to the infrastructure from the initial proposal. The CFI reviews all spending related to a project, including infrastructure

changes and new items (if any), following the receipt of the final financial report, to ensure they are acceptable.

# Other monitoring activities

Depending on the risks identified through the TRAAM for specific projects, the CFI may perform other monitoring activities. These could include, for example, project implementation meetings, project status reports, mid-term reviews, ad-hoc visits, etc. These activities are tailored to each project and help ensure the risks identified are being managed adequately.

# 3.2.2 Contribution audits

The CFI conducts audits, specified audit procedures or cost assessments (hereafter referred to as audits) to ensure that the funding received by institutions has been used in accordance with agreed-upon terms and conditions of the award agreements, and with applicable policies and guidelines.

The CFI uses a risk-based audit methodology and a risk-based, non-statistical approach to select projects to be audited. Using the TRAAM, various risk factors related to the appropriateness of expenditures are considered, such as the value of the CFI contribution and of the in-kind contributions, the complexity of the project, and the CFI's experience with both the project and institution (including findings from monitoring visits). All projects with a CFI contribution exceeding \$10 million are subject to an audit.

The CFI reviews project risks and assesses the need for audits periodically. The risk of a project determines the scope, timeline, nature and extent of the audit activities. Audits are conducted using either external auditors or internal resources.

A brief summary of the CFI's contribution audit methodology is provided in Table 2.

# Table 2: Summary of the CFI's contribution audit methodology

#### **INFRASTRUCTURE PROJECTS**

# Projects with a CFI contribution of more than \$10 million

All projects with a CFI contribution exceeding \$10 million are automatically subject to an audit. The first audit activities related to these projects normally takes place two years after award finalization. The need for additional audit activities in subsequent years (if any) is determined based on the risk of the project.

# Projects with a CFI contribution of less than or equal to \$10 million

The risk of the project determines if there is a need for an audit. It also determines the scope, timeline, nature and extent of the audit activities. In addition, the CFI selects for audit every year a few projects on a random basis to ensure that it obtains appropriate coverage of its population of projects.

# **INFRASTRUCTURE OPERATING FUND (IOF)**

Institutional recipients subject to a monitoring visit are also subject to a review of their IOF expenditures which occur concurrently.

# 3.3 Internal auditing

The Institute of Internal Auditors defines the internal audit function as an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. It helps an organization accomplish its objectives by bringing a systematic, disciplined approach to evaluate and improve the effectiveness of risk management, control and governance processes.

The internal audit function provides the Board of Directors (through the Audit and Finance Committee) and CFI management with sufficient and timely assurance and consulting services on aspects of the CFI's risk management, control and governance practices.

The internal audit function has responsibility for the following activities:

- A risk assessment to determine areas of significant risk facing the organization;
- Development of risk-based internal audit plans in consultation with the management team, to be approved by the Board of Directors (through the Audit and Finance Committee);
- Development of terms of reference for every audit;
- Quality control throughout the audit engagements; and,
- Preparation of final internal audit reports for approval by the Board of Directors (through the Audit and Finance Committee).

The CFI outsources its internal audit function. A risk-based internal audit plan has been developed and is updated on a regular basis. Internal audits are performed in accordance with this plan as approved by the Board of Directors through the Audit and Finance Committee.

Results of contribution audit activities and other external audits and reviews as well as changes in circumstances are considered on an ongoing basis to determine whether significant changes in risks facing the CFI have occurred and to assess whether any modifications to planned internal audit activities are required.

## 4.0 PERFORMANCE MEASUREMENT AND EVALUATION STRATEGY

Performance measurement and evaluation are complementary and mutually reinforcing activities. Effective performance measurement systems support ongoing organization-wide monitoring and are important data sources for a range of evaluation activities, while evaluation provides a more in-depth understanding of why results were or were not achieved.<sup>3</sup>

The CFI's performance measurement and evaluation strategy describes how the organization effectively tracks and assesses its performance in relation to its objectives and expected results. The CFI gathers, analyzes and reports accurate, consistent and timely information that demonstrates the need for and relevance of the CFI, its funds and the performance of its investments to the CFI Board of Directors, the Government of Canada and the Canadian public.

# The approach

The CFI recognizes its responsibility in demonstrating the impacts of its science and technology investments to assess the efficiency of public spending, and to assess its contribution to achieving social and economic objectives. However, there are many complexities associated with measuring and evaluating the outcomes of CFI investments. Not only is research and innovation inherently risky, but outcomes and impacts linked to research infrastructure are difficult to measure (e.g. issues related to time lag, attribution, etc.). As such, the CFI uses a range of data and assessment approaches to evaluate progress at the organizational level through to the societal level.

# 4.1 Performance measurement strategy

Performance measurement refers to the systematic collection and analysis of information and data that monitor, track and assess how the CFI is progressing toward achieving its objectives and expected results. Key performance indicators are measured regularly to provide the CFI with information for management, learning and accountability purposes, as well as to inform evaluation activities.

- Performance measurement framework The performance measurement framework focuses on
  the nine levels identified in the organization-wide logic model and provides specific information with
  respect to the key performance measures, data sources, responsibility for data collection and
  reporting. These performance measures, presented in the table in Appendix C, inform annual project
  reporting, monitoring activities, outcome measurement, evaluations and other special studies at the
  CFI.
- Balanced scorecard The CFI also uses a balanced scorecard approach to align business
  activities with the vision and strategy of the organization and to provide senior management with
  indicators that enable tracking of organizational performance and progress in select strategic areas as
  described in the CFI Strategic roadmap 2012-2017.

Some of the scorecard indicators are also aligned with the logic model and are thus also included in the performance measurement framework. In some cases, the CFI requires additional lines of evidence to fully address a performance area. Evidence is gathered through special studies and other evaluation activities. To support information requirements for senior management as well as evaluation, performance measurement is conducted on an ongoing basis.

<sup>&</sup>lt;sup>3</sup> Treasury Board of Canada Secretariat. Supporting Effective Evaluations: A Guide to Developing Performance Measurement Strategies. December 2014. <a href="http://www.tbs-sct.gc.ca/cee/dpms-esmr/dpms-esmr02-eng.asp">http://www.tbs-sct.gc.ca/cee/dpms-esmr/dpms-esmr02-eng.asp</a>

# 4.2 Evaluation strategy

The evaluation strategy has been developed in consideration of current strategic priorities and current key information requirements of the CFI. Other studies may be identified and conducted in response to emerging interests and priorities. Although not described here, other activities within the CFI also address accountability and may inform studies, such as monitoring and audit activities by the organization's finance team and consultations by its programs team. This section further details how the CFI supports its need for performance and relevance information.

#### **Evaluation**

Evaluation refers to the systematic and objective assessment of an ongoing or completed project, program or policy, including its design, implementation and results. An evaluation aims to determine the relevance and fulfillment of objectives, efficiency, effectiveness, impact and sustainability of funded infrastructure projects. It should provide information that is credible and useful and enables the incorporation of lessons learned into the organization's decision-making process.<sup>4</sup> Two levels of assessment are completed by the CFI:

- **Corporate assessment** The CFI, when necessary, undertakes projects to determine if our activities, processes and policies are having the intended impacts in an effective and efficient manner with no unexpected biases or unnecessary burden.
- Outcome assessment The CFI strives to assess the extent to which its organizational objectives (outcomes) are being achieved. In addition to customary project monitoring tools (e.g. *Project progress reports*), the CFI explores, designs, implements and evaluates new practical initiatives to identify, track and measure the results of its investments, from basic research to innovation and societal benefits. The quantitative and qualitative data the Evaluation and Outcome Assessment (EOA) team collects serve to help demonstrate to the CFI Board and other key stakeholders the extent to which the CFI is achieving its expected results. The *Outcome measurement study* (OMS), the *Platform outcome measurement study* (POMS) and socioeconomic assessments are key tools in evaluating these outcomes.

An evaluation plan is developed annually and considers current strategic priorities and key information requirements of the CFI.

## **Overall performance evaluation**

In addition to the information above and per the CFI's *Contribution agreement* with the Government of Canada, the CFI is required to cause an evaluation of its activities and projects to be carried out according to its PERAF at least every five years by an independent third-party using recognized evaluation standards. The next overall performance evaluation is due in 2020.

• **Performance evaluation framework** — The framework will be developed at the time of the overall performance evaluation. It is expected that the evaluation will address key questions related to relevance and performance. The core evaluation issues as identified by Canada's Treasury Board Secretariat is presented in **Appendix D**.

<sup>&</sup>lt;sup>4</sup> Organisation for Economic Co-operation and Development. Glossary of Key Terms in Evaluation and Results-Based Management (2010). December 2014. <a href="http://www.oecd.org/development/peer-reviews/2754804.pdf">http://www.oecd.org/development/peer-reviews/2754804.pdf</a>

# 5.0 CONCLUSION

This document is the result of a comprehensive review of the CFI's 2011 *Performance*, *evaluation*, *risk* and audit framework (PERAF). Changes from the previous PERAF reflect an improved alignment to current programs and processes as well as to the 2014 *Contribution agreement*. It is a significant achievement for the CFI, since it facilitated an organization-wide dialogue for the review and update of:

- The CFI logic model;
- The organizational risk assessment and risk management plan;
- The performance measurement framework; and,
- The overarching evaluation strategy.

The review of the PERAF demonstrates the CFI's continued commitment to improve the information available for its management, accountability and communication purposes. Since the PERAF is intended to be a living document, it will be reviewed and updated as necessary by an internal working group to ensure that the activities and information requirements remain appropriate and relevant for the CFI.

# GLOSSARY OF TERMS & APPENDICES

# **GLOSSARY OF TERMS**

# **Accountability**

The obligation to demonstrate and take responsibility both for the means used and the results achieved in light of agreed expectations.

#### **Activities**

An operation or work process internal to an organization, which uses inputs to produce outputs.

#### **Effectiveness**

The extent to which an organization, policy, program or initiative is meeting its expected results.

# **Efficiency**

The extent to which an organization, policy, program or initiative produces outputs in relation to resources used.

#### **Evaluation**

The application of systematic methods to periodically and objectively assess effectiveness of programs in achieving expected results, their impacts, both intended and unintended, continued relevance and alternative or more cost-effective ways of achieving expected results.

# **Expected result**

An outcome that a program, policy or initiative is designed to produce.

#### **Impacts**

Impacts represent the highest level of outcome that can be reasonably attributed to the organization in a causal manner and are the consequence of one or more long-term outcomes having been achieved.

# Input

The financial and non-financial resources used by organizations, policies, programs and initiatives to produce outputs and accomplish outcomes.

# Logic model

A depiction of the causal or logical relationships between activities, outputs and the outcomes of a given organization, program, policy or initiative.

#### **Outcome**

An external consequence attributed, in part, to an organization, policy, program, or initiative. Outcomes are not within the control of a single organization, policy, program, or initiative; instead, they are within the area of the organization's influence.

# Outcome measurement study (OMS)

A CFI methodology to gather in-depth quantitative and qualitative data on research outputs and outcomes from a specific theme at a given institution over the course of CFI funding.

#### **Outputs**

Direct products or services stemming from the activities of an organization, policy, program or initiative, and usually within the control of the organization itself.

# Performance, evaluation, risk and audit framework (PERAF)

A CFI initiative inspired by the Treasury Board Secretariat's guidelines for developing performance measurement strategies. Serves as a guide for how the organization manages risk and tracks and assesses its performance.

#### Performance measure

A quantitative or qualitative means of measuring an output or outcome, with the intention of gauging the performance of an organization, policy, program or initiative.

#### Performance measurement

The process and systems of selection, development and ongoing use of performance measures to guide decision making.

## Performance reporting

The process of communicating evidence-based performance information. Performance reporting supports decision making, accountability and transparency.

# Platform outcome measurement study (POMS)

A CFI methodology that assesses the outcomes of major specialized or multi-purpose research infrastructure. These "platforms" enable advanced research and support the development of research capacity of a broad, geographically distributed community of users.

# Socioeconomic impact assessment (SEIA)

A systematic analysis of the economic, social and cultural impacts, outputs and outcomes related to a particular set of investments.

## Tool for risk assessment and management (TRAAM)

A tool that assists the CFI with the identification of project-related risks and to establish an appropriate level of oversight for each project.

# **APPENDICES**

Appendix A: PERAF (2015) working group

**Appendix B:** Excerpts from funding and contribution agreements

**Appendix C:** Performance measurement framework

Appendix D: Core evaluation issues

# Appendix A: PERAF (2015) working group

Margaret Bloodworth, Board of Directors

Gilles G. Patry, President and CEO

Manon Harvey, VP, Finance and Corporate Services

Robert Davidson\*, VP, Programs and Planning

Pierre Normand, VP, External Relations and Communications

Laura Hillier\*, Director, Evaluation and Outcome Assessment

Christine Charbonneau, Director, Finance

Guy Levesque\*, Director, Programs

John Fryer\*, Director, Corporate Services

Elizabeth Shilts\*, Director, Communications

David Moorman, Senior Advisor, Policy and Planning, Programs and Planning

Brandon Downs\*, Senior Evaluation Officer, Evaluation and Outcome Assessment

Amanda Wark\*, Financial Monitoring Officer, Finance

<sup>\*</sup> Denotes PERAF sub-working group member. This group was responsible for drafting and reviewing documents prior to submission to the full working group.

# Appendix B: Excerpts from funding and contribution agreements

The CFI operates under two active funding agreements and one contribution agreement:

- The 1997 (Amended) Funding agreement, which includes four "national objectives;"
- The 2010 Funding agreement, which includes four "expected results;" and,
- The 2014 Contribution agreement, which includes slightly modified versions of the national objectives and expected results.

The "national objectives" are the objectives established by the Government of Canada that are to be achieved by the CFI, while the "expected results" are the results intended to be achieved by the recipients of CFI funding. These objectives and results are closely aligned and are interdependent.

For a depiction of changes over time, see Table A-I.

Performance, evaluation, risk and audit framework (2015)

# Table A-I: Select changes to funding and contribution agreements

Original <i>Funding agreement</i> 1997, first (1999) through eighth amendments (2009):	Up-front multi-year <i>Funding agreement</i> 2010-2011 to 2016-2017:	2014 Contribution agreement:
WHEREAS the Government of Canada desired to establish a Foundation:  (a) to support economic growth and job creation, as well as health and environmental quality through innovation; (b) to increase Canada's capability to carry out important world-class scientific research and technology development; (c) to expand research and job opportunities for young Canadians; and (d) to promote productive networks and collaboration among Canadian post-secondary educational institutions, research hospitals and the private sector; and whereas these are national objectives which reflect research strength in various regions of Canada	Expected Results (S2.3). The Minister anticipates that the Foundation will ensure that the following expected results will occur from the Up-front Multiyear Funding and success in achieving these results will be evaluated:  Enhance the capacity of Ultimate Recipients to:  (a) attract and retain the world's top research talent;  (b) enable researchers to undertake world-class research and technology development that lead to social, economic and environmental benefits for Canada;  (c) support private sector innovation and commercialization; and  (d) train the next generation of researchers.	Objectives (S2.6). In using the Amount, the Foundation shall have the following objectives:  (a) Support economic growth and job creation, as well as health and environmental quality through innovation.  (b) Increase Canada's capability to carry out important world-class scientific research and technology development.  (c) Expand research and job opportunities by providing support through research infrastructure for the development of highly qualified personnel.  (d) Promote productive networks and collaboration among Canadian universities, colleges, research hospitals, non-profit research institutions and the private sector.  Expected Results (S2.7). In using the Amount, the Foundation is expected to help enhance the capacity of Ultimate Recipients to:  (a) attract and retain the world's top research talent;  (b) train the next generation of researchers;  (c) enable researchers to undertake world-class research and technology development that lead to social, economic and environmental benefits for Canada; and  (d) support private sector innovation and commercialization.
CHANGES		(7, -1]   -1
While the national objectives remained stable across the amendments, amendments note specific criteria or objectives for programs or funds.	National objectives no longer appear in the Funding agreement, replaced by expected results.	Reintroduction of national objectives but as <i>objectives</i> :  (c) removed "young Canadians" and added "by providing support through research infrastructure for the development of highly qualified personnel"  (d) removed "post-secondary educational institutions, research hospitals and the private sector" and added "universities, colleges, research hospitals, non-profit research institutions and the private sector"  Maintained expected results, with minimal change:  (b) "train the next generation of researchers" was fourth, is now listed second  Note overlap and nuance of language between national objectives, expected results and objectives.

Performance, evaluation, risk and audit framework (2015)

#### Appendix C: **Performance measurement framework**

**Table A-II: Performance measurement framework** 

	PERFORMANCE MEASURE	DATA SOURCE(S)	RESPONSIBILITY FOR DATA COLLECTION		
Context	Context				
Research funding environment	Federal granting agency funding (000's)	Government of Canada, main estimates	Evaluation and outcome assessment (EOA)		
	CFI disbursements as a percentage of federal granting agency funding (%)	Finance database	EOA and Finance		
	CFI commitments as a percentage of federal granting agency funding (%)	Finance database	EOA and Finance		
Inputs					
Financial and non-financial	Annual federal payments to the CFI (\$)	Finance database	Finance		
resources	CFI's annual operating budget (\$)	Finance database	Finance		
	Number (#) of fulltime staff	Human resource database	Human Resources		
Activities					
Engage stakeholders, adapt program architecture, manage application and review	Number (#) of formal interactions, by audience	Various	EOA, External relations and communications (ERC), Finance, Programs, senior management		
process, administer awards, monitor and track	Number (#) of full applications received, in total and by fund	Programs database/ CFI Award Management System (CAMS)	Programs		
performance and report on results	Number (#) of monitoring visits completed	Finance database	Finance		
resuits	Number (#) of contribution audits performed	Finance database	Finance		
	Proportion (%) of financial reports received by CFI deadline	Finance database	Finance		
	Proportion (%) of project progress reports received by CFI deadline	CAMS	EOA		
Outputs					
Deliver new and ongoing	Number (#) of active Funds	Programs database/ CAMS	Programs		
Funds through competitions	Number (#) of new Funds and competitions launched	Programs database/ CAMS	Programs		

**RESPONSIBILITY FOR DATA** DATA SOURCE(S) PERFORMANCE MEASURE COLLECTION Awards and disbursements Number (#) of new awards, by Fund (new Programs database/ CAMS **Programs** for research infrastructure commitments) and operations and Value (\$) of new awards, by Fund (new Programs and Finance Programs database/ maintenance commitments) CAMS/Finance database Number (#) of awards, by Fund (on-going Programs database/ CAMS Programs disbursements) Value (\$) of awards, by Fund (on-going Programs database/ Programs and Finance disbursements) CAMS/Finance database Communicate information for Number (#) of published editorials Communications database **ERC** decision-making and ERC Number (#) unique visitors to Innovation.ca. Communications database accountability by page Number (#) of subscribers to Innovation Now Communications database **ERC** Number (#) of newsletters sent and opened ERC Communications database by group/population Number (#) of click-throughs to Innovation.ca Communications database ERC content by social media platform **Outcomes and impacts** World's top researchers Number (#) of researchers attracted to the Project Progress Report (PPR) **EOA** attracted and retained institution due to the infrastructure, by sector and by country Number (#) of researchers retained by the **PPR EOA** institution due to the infrastructure Percentage (%) of CRC holders among CCV data **EOA** above researchers **EOA** Capacity to conduct world-Rating of the quality of the infrastructure, by **PPR** class research and type technology development **EOA** Useful remaining life of the infrastructure, by **PPR** enhanced **EOA** Extent to which the infrastructure was utilized PPR

PPR

Level of the impact the infrastructure had on

the quality of the training environment

**Training environment** 

enriched

EOA

Performance, evaluation, risk and audit framework (2015)

	PERFORMANCE MEASURE	DATA SOURCE(S)	RESPONSIBILITY FOR DATA COLLECTION
	Number (#) of distinct types of research disciplines	CCV data	EOA
Productive teams, networks and collaborations	Number (#) of researchers at the institution advancing their research (# internal users)	PPR	EOA
established	Number (#) of researchers outside the institution advancing their research (# external users), by sector and region	PPR	EOA
	Research collaboration enabled by the infrastructure, number (#), type, region and sector	PPR	EOA
Skills and expertise acquired by highly qualified personnel	Number (#) of trainees using the infrastructure as a key resources	PPR	EOA
	Number (#) technical personnel trained on the use and maintenance of the infrastructure	PPR	EOA
	Number (#) highly qualified personnel completed training	PPR	EOA
Knowledge advanced	Number (#) of research outputs, by type	PPR	EOA
Innovation supported	Number (#) of research agreements, by type and region	PPR	EOA
	Number (#) of intellectual property rights, by type	PPR	EOA
	Number (#) of licensing agreements	PPR	EOA
	Number (#) of spin-off companies	PPR	EOA
Canada benefits socially,	Number (#) of benefits, by type	PPR	EOA
economically and environmentally	Number (#) of new job creation	PPR	EOA

# Appendix D: Core evaluation issues

The following core issues will be considered at the time of the overall performance evaluation.

Table A-III: Evaluation issues

CORE ISSUES			
Relevance			
Issue #1: Continued need for program	Assessment of the extent to which the program continues to address a demonstrable need and is responsive to the needs of Canadians		
Issue #2: Alignment with government priorities	Assessment of the linkages between program objectives and (i) federal government priorities and (ii) departmental strategic outcomes		
Issue #3: Alignment with federal roles and responsibilities	Assessment of the role and responsibilities for the federal government in delivering the program		
Performance (effectiveness, efficiency and economy)			
Issue #4: Achievement of expected outcomes	Assessment of progress toward expected outcomes (incl. immediate, intermediate and ultimate outcomes) with reference to performance targets and program reach, program design, including the linkage and contribution of outputs to outcomes		
Issue #5: Demonstration of efficiency and economy	Assessment of resource utilization in relation to the production of outputs and progress toward expected outcomes		

Source: Treasury Board Secretariat of Canada, <a href="http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=15681">http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=15681</a>

