



Canada Foundation for Innovation
Fondation canadienne pour l'innovation

Brief to the

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Standing Committee on
Industry, Science & Technology

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Role of the Canada Foundation for Innovation (CFI)

Created in 1997 as an independent corporation, the CFI's mission is to strengthen the capacity of Canadian universities, colleges, research hospitals and non-profit research institutions to carry out world-class research and technology development that benefits Canadians both socially and economically through the provision of research infrastructure.

The CFI funds up to 40 percent of a project's infrastructure costs. Institutions, often in partnership with organizations in the public, private and non-profit sectors, must secure the remainder. Since its creation, the CFI has committed almost \$5.2 billion in support of more than 6,300 projects at 129 research institutions in 65 municipalities across Canada.

All CFI investments in infrastructure have been guided by the strategic research priorities of individual institutions. This approach has been instrumental in creating the environment required to allow many research programs to achieve world-class status and to recruit and retain outstanding new faculty members and students. Many of these programs have also become integral to the creation of regional innovation clusters that bring together the academic, industrial and financial sectors.

Collectively, these institutional research priorities represent the overall strength of Canada's science and technology (S&T) enterprise. The majority of CFI funds have been invested in areas identified as research priorities in the federal S&T Strategy, including environmental science and technology, natural resources and energy, health and related life sciences and technologies, and information and communications technologies.

The strategic focus adopted by the CFI's programs to date provides a strong platform upon which to support the goals envisioned in the federal S&T Strategy. In fulfilling its mandate, the CFI continues to promote the four core principles that underlie Canada's S&T Strategy: promoting world-class excellence; focusing on priorities; fostering partnerships; and enhancing accountability.

The 2009 Federal Budget reinforced the CFI's position as an essential element of the country's S&T capacity by providing \$750 million in funding for future CFI activities.

Canada's future prosperity rests on its capacity to innovate — to generate knowledge and ideas that result in the development of new products and services, create wealth, enhance social foundations, sustain the environment, and ultimately improve the quality of life for all Canadians.

CFI's strategic approach

The success of the CFI strategy, which continues to address the competitive advantage provided by leading edge research infrastructure and facilities, ultimately rests on the integrity of the foundation, the professional connections between institutions and CFI staff, and the transparency of CFI's merit-review processes.

The CFI delivers on its mandate of funding world-class research infrastructure through a suite of programs designed to provide capital, replacement, and initial operating and maintenance funds, as well as attracting and retaining research talent. The CFI's

funding mechanisms are continually adjusted and refined to align with the evolving research landscape.

Together, the elements of this strategy assure the CFI's relevance to all stakeholders and ensure the greatest impact of its investments on Canada's research enterprise. The underlying logic of the strategy from a policy perspective is included in Appendix I.

This strategy has proven to be highly adaptable, allowing the CFI to effectively support Canada's S&T Strategy by enhancing the nation's research enterprise (Figure 1).

Figure 1. Suite of funds for 2009-10



Program activities and competitions in 2009-10

The national and international S&T landscapes continue to evolve rapidly, resulting in a research environment that is increasingly:

- competitive;
- strategic at both national and regional levels;
- collaborative across disciplines, sectors, and political jurisdictions; and
- focused on outcomes and benefits.

The CFI's program activities during 2009-10 will focus on promoting excellence through a major competition designed to build on Canada's Knowledge, People and Entrepreneurial advantages. The core objective of the CFI remains the enhancement of the nation's research capacity by funding research infrastructure.

Activities and competitions in 2009-10

- *Leading Edge Fund (LEF)/New Initiatives Fund (NIF)*

In its January 2009 budget, the federal government allocated \$150 million to the CFI "to increase the funding available for meritorious projects in the 2009 Leading Edge and New Initiatives Funds Competition," which had an original total budget of \$520 million (\$400 million for capital, and \$120 million for operating and maintenance). Subject to the signing of an amended funding agreement, the total budget for this competition will increase to \$666 million (\$513 million for capital and \$153 million for operating).

- *Leaders Opportunity Fund (LOF)*

In 2009-10, the CFI will commit approximately \$81 million to about 500 projects (at a rate of approximately 140 successful applications and \$27 million per four-month review cycle) that will assist universities in attracting and retaining world-class researchers.

- *Research Hospital Fund (RHF)*

More than \$620 million has been allocated in support of meritorious projects since the inception of this program in 2003. Extensive post-award activity related to the Clinical Research Initiatives and Large Scale Institutional Endeavours components of the RHF is underway to ensure that these large-scale projects are implemented in a timely manner for the benefit of all Canadians.

- *Infrastructure Operating Fund (IOF)*

Thirty percent of the value of each CFI award is committed to maintain and operate research infrastructure. Approximately \$120 million will be awarded to support successful LEF and NIF projects, and \$18 million to successful LOF projects.

- *Consulting the research community*

Budget 2009 provided new funding for CFI, including \$600 million "for future activities of the Foundation, including the launch of one or more new competitions by December 2010 in support of areas of priority identified by the Minister of Industry in consultation with the Canada Foundation for Innovation, and guided by the Foundation's strategic plan." The CFI will present Industry Canada with a strategic plan for use of the \$600 million which will be guided by input from CFI management consultations with its client institutions, the federal government and other stakeholders.

Focus on accountability

Because of its status as a foundation entrusted with public money, the CFI operates in an economical, effective and transparent manner, and communicates its activities and results to a wide audience. It also recognizes its responsibility to deliver programs that focus on Canada's needs and enable institutions and their researchers to compete in the global, knowledge-based economy (see CFI's Governance and Accountability Structure, Appendix II).

The Board of Directors of the CFI has established strong governance, accountability and reporting practices which have been recognized repeatedly for their integrity and effectiveness. This year, the CFI had the honour of being ranked among the 50 Best Small & Medium Employers in Canada for 2009 by the Centre for Business Venturing at Queen's School of Business and Hewitt Associates, in partnership with the Globe and Mail. This designation, together with the Conference Board of Canada/Spencer Stuart National Award in Governance received by the CFI Board in 2006, highlights the fact that effective organizations require commitment and engagement at all levels — from Board Directors to staff employees.

The CFI assures responsible stewardship of public funds through ongoing management of performance within a broad framework that integrates performance measurement, evaluation, risk assessment and audit activities. As part of the CFI's ongoing efforts in assessing impacts and disseminating results, activities in 2009-10 will include:

- *Overall Performance Evaluation and Value-for-Money Audit (OPEA)*

The CFI will carry out a simultaneous overall performance evaluation and value-for-money audit. An International Review Panel has been assembled to formulate objective conclusions about the overall performance of the CFI. The review will assess progress against objectives and ascertain the extent to which the CFI has achieved results, maintained relevance and demonstrated the effectiveness of program design and delivery. The current Funding Agreement with Industry Canada requires that this audit be completed by March 31, 2010.

- *Progress reports*

As in previous years, the CFI will analyze the data from institutional progress reports and post it on its website. Improvements to the data collection forms will enhance the quality of the 2009 Report on Results.

- *Outcome Measurement Studies (OMS)*

The OMS is designed to assess the degree to which the CFI's investment in research infrastructure is a critical contributing factor in the realization of five outcomes (strategic research planning, research capacity, highly qualified personnel, research productivity and innovation). The OMS helps demonstrate to the CFI Board, the Government of Canada, the Canadian public and other key stakeholders the extent to which the CFI is achieving its national objectives. The CFI is pleased to report that these studies demonstrate the significant progress being made as a result of CFI investments in research infrastructure across the country. There will be five more OMS visits in 2009-10 focused on exploring the outcomes of CFI investments in selected thematic areas.

Year	# Visits	Thematic areas
2006-07	3	Human genetics and genomics, advanced materials, oenology and viticulture
2007-08	4	Biomedical engineering, ICT, musculoskeletal, cognition and brain imaging
2008-09	7	Environment and oceans, immunology, food science and soft materials, textiles, energy, material science, river ecosystems
2009-10	5	Cardiology, nanotechnology, e-society, geo-engineering [1 more to be determined.]

Representatives from provincial governments and other funding agencies will be invited to participate and attend these visits.

- *Evaluations and special studies*

While the CFI will concentrate on the OPEA and OMS, it will also continue its ongoing examination into the need for new research infrastructure and renewal of existing research infrastructure.

- *Information systems*

The CFI will initiate the implementation of an upgraded CFI awards management system and database to build on the CFI Management Information System (MIS) currently in place. The overall goal is to improve the service to the research community by providing better functionality and tools, and improve responsiveness through updated technology and processes.

Monitor and Report on financial performance

- *Investment plan*

The CFI will review its Investment Strategy and Investment Policy in the fall. It will also implement changes to the Funding Agreement that was signed in early 2008, specifically new requirements regarding cash-flow statements.

- *Monitoring activities*

The CFI conducts monitoring visits and related preliminary meetings at institutions to 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 strategy used by the CFI is to visit all recipient institutions whose aggregate funding from the CFI represents 85%-90% of the total awards committed by the CFI. On average, monitoring visits are conducted at institutions every three years. The CFI anticipates conducting a dozen visits and/or meetings in 2009-10.

- *Award audits*

The CFI modified its approach for the selection of projects that will be subject to an audit during the fiscal year. While a risk-based statistical approach was previously used, a new risk-based judgemental approach has been approved going forward. These audits are conducted using either external auditors or internal resources. In some instances, experts are mandated to perform cost assessments on specific items. The CFI anticipates performing approximately 30 audits in the fiscal year ahead.

Communicating with Canadians

Communicating the results of research investments is critical on a number of fronts. It draws national and international attention to the needs and benefits of research. It attracts the interest of potential partners, increases the potential for commercialization, encourages funding and research partnerships, attracts talent to Canada and provides the CFI with an opportunity to recognize the Government of Canada for entrusting the CFI with its important mandate. The CFI will continue to work with its client institutions to report to the public through the media on the research enabled by its infrastructure investments. Every CFI news release announcing new investments includes a quote approved by the Government of Canada.

Conclusion

The CFI is successfully meeting its mandate to strengthen the capacity of Canadian universities, colleges, research hospitals and other non-profit research institutions to carry out world-class research and technology development for the benefit of Canadians. Its infrastructure investments have clearly had a dramatic impact on the R&D landscape in Canada, paving the way for the country's transformation to a knowledge-based economy.

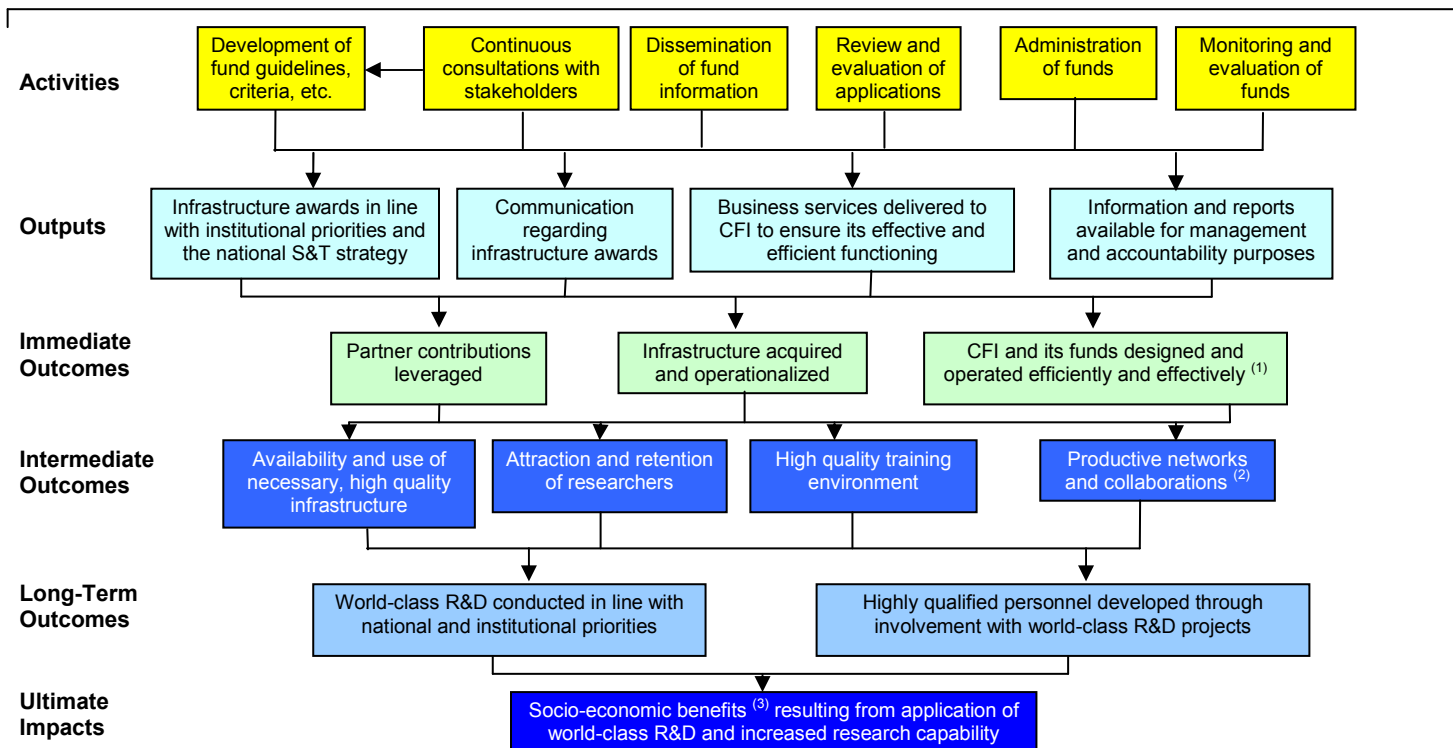
Canada has established a global reputation as a destination for high-quality research and training. Proof that its research investments are paying off can be seen in the calibre of talent this country is able to attract to its communities, and in the groundbreaking discoveries being made that have the power to improve our quality of life in ways we can't yet imagine.

For Canada to remain one of the most innovative countries in the world — a nation whose economic foundation increasingly depends on the knowledge-based economy — the Government of Canada needs to stay the course in supporting research. Canada's economic prosperity and quality of life depend on it.

Logic Model of the CFI program

To support economic growth and job creation; as well as health and environmental quality through innovation.
 To increase Canada's capacity to carry out important world-class scientific research and technology development.
 To expand research and job opportunities by providing support through research infrastructure for the development of highly qualified personnel.
 To promote productive networks and collaboration among Canadian post-secondary educational institutions, research hospitals and the private sector.

National Objectives



Note: The word *fund* includes CFI Funds (programs) and funds (awards disbursed).

- (1) Efficient and effective operation of the CFI's funds includes ensuring compliance with the Funding Agreement and fund guidelines and requirements.
- (2) Networks and collaborative arrangements include links between researchers, links between institutions, and links with end-users of the outputs of the R&D process. This objective also includes the sharing of new infrastructure – i.e., the arrangements that are set up include those related to infrastructure sharing.
- (3) Socio-economic benefits include economic growth, job creation (including jobs resulting from infrastructure construction), improved health and health care, and improved environmental quality.

