



Canada Foundation for Innovation
Fondation canadienne pour l'innovation

Brief to the
House of Commons
Standing Committee on Government
Operations and Estimates

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1. Overview of the Canada Foundation for Innovation

The CFI, established as a foundation by the Government of Canada in 1997, has the mandate to strengthen the capacity of Canadian universities, colleges, research hospitals, and other non-profit research organizations to carry out world-class research and technology development. More specifically, the CFI's focus is on the provision of infrastructure to support leading-edge research.

Six years into its mandate, the CFI has committed almost \$2 billion for 2,884 research infrastructure projects at 113 institutions in 56 municipalities. Including accumulated interests, this leaves approximately \$2.5 billion for continued infrastructure support over the next seven years.

Sound decisions on such investments require advice from people knowledgeable in matters related to research and its potential benefits, as well as to the infrastructure needed to support this research. The CFI Board makes the final decisions on all projects following an independent and competitive process that involves an in-depth and rigorous review by experts and multidisciplinary committees made up of individuals from Canada and abroad.

Through a unique funding partnership, the CFI funds up to 40% of a project's infrastructure costs. The funded institution commits its own resources and works with its partners—provincial governments, private sector, federal departments and voluntary sector—to generate the remaining 60% required to complete these projects.

Investments from the CFI and partners have had a significant impact on the capacity of the Canadian research community to compete internationally. State-of-the-art infrastructure is helping to:

- transform the way research is done;
- create a strong and vibrant research environment across Canada;
- attract and retain excellent researchers;
- enhance research productivity and the training of highly qualified people;
- build new national and international networks and partnerships.

The research enabled by this infrastructure is generating benefits for Canadians through the strengthening of training, the attraction and retention of excellent researchers, the creation of spin-off ventures, the commercialization of discoveries, as well as better health, environment, and public policy for the benefit of all Canadians.

Because of its unique status as an independent organization entrusted with large amounts of public money, the CFI places paramount importance to operating in an economical, effective and transparent manner, and to communicating its

activities and results to a wide audience. The CFI also expects institutions to be accountable and to report publicly on results.

The following sections of this document focus on the areas identified in the invitation letter sent to the CFI, namely: What are the key accountability relationships created by the foundation model? How do they work in practice? Has the CFI achieved the benefits that were anticipated from the model?

More information on the CFI, its programs, and its results, is available on the CFI website: www.innovation.ca.

2. The CFI Governance and Accountability Structure

The CFI Governance and Accountability Structure is summarized in the chart on the following page and is briefly described below.

2.1 Governance

The CFI is governed by a Board of Directors which makes final decisions on projects to be funded and sets strategic objectives in the context of the funding agreement between the CFI and the federal government.

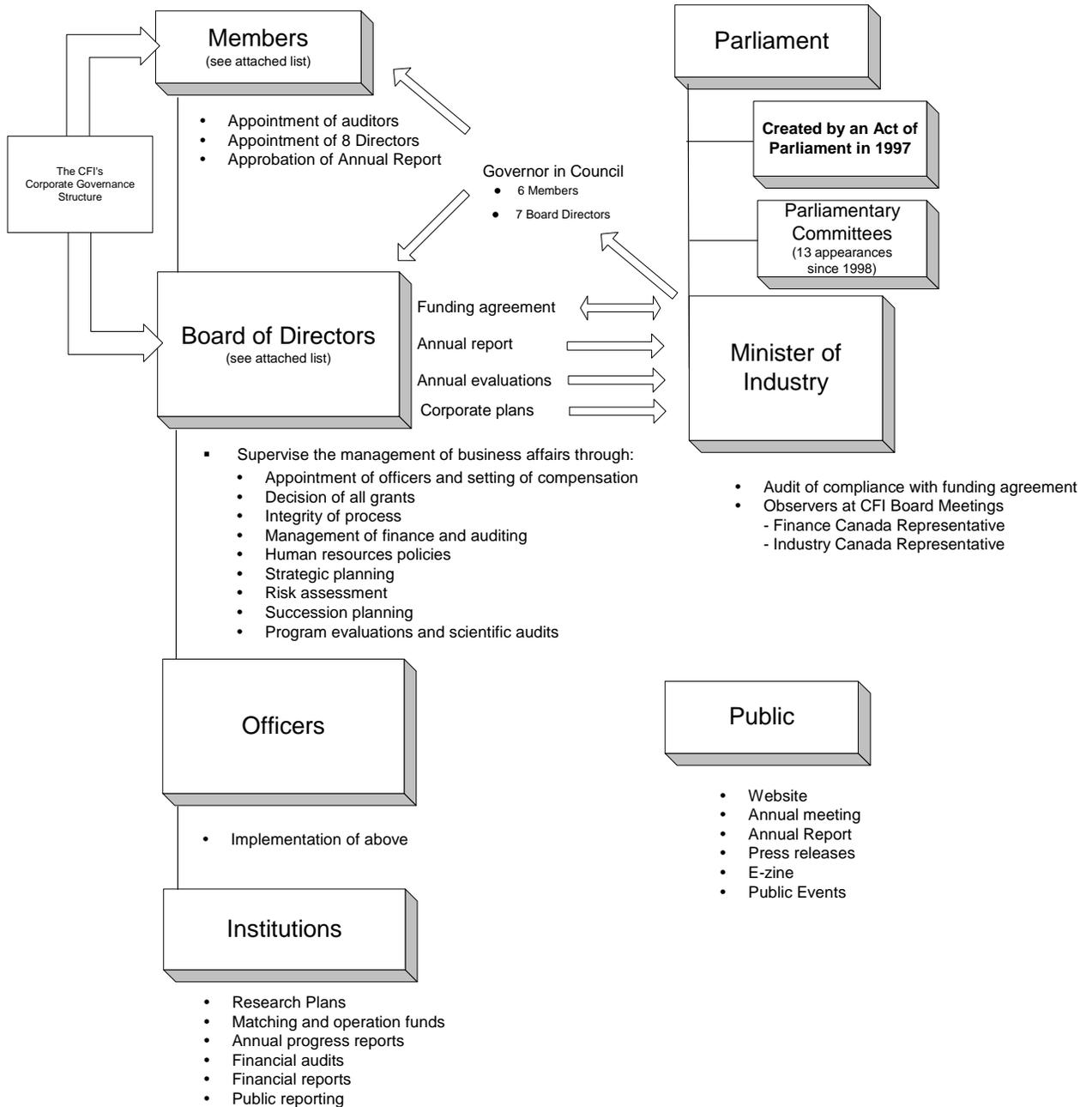
The Board of Directors also oversees management's responsibilities for financial reporting through its Audit and Finance Committee. The Audit and Finance Committee reviews the financial statements and recommends them to the Board of Directors. The Committee's other key responsibilities include reviewing the budgets, internal control procedures, investments, and advising the Directors on auditing matters and financial reporting issues.

The Board of Directors reports to 15 Members—a higher governing body similar to a company's shareholders, but representing the Canadian public. The first six Members of the Foundation were appointed by the Governor in Council. Their first responsibility was to appoint nine other Members.

The Members are responsible for the appointment of eight of the 15 members of the Board, the seven others, including the Chair, are appointed by the Governor in Council. Members also appoint individuals to replace Members whose term has expired.

The Board of Directors, staff, and reviewers sign a *Statement on Ethics* to deal with any conflict of interest issues.

Governance and Accountability Structure



2.2 Accountability

The CFI accountability structure includes accountability to Parliament, accountability to the government (represented by the Minister of Industry), an internal accountability mechanism, accountability of award recipients, and accountability to the public.

2.3 Accountability to Parliament

As required by the legislation, the CFI makes an annual public report on its activities and performance to Parliament. The Annual Report includes the following information:

- Financial statements, prepared in accordance with generally accepted accounting principles, as approved by the Board and the report of the auditors respecting those statements;
- Detailed statement of the Foundation's investments activities during the year, its investment portfolio (in generic terms in accordance with the Funding Agreement guidelines) at the end of the year and its investment policies, standards and procedures;
- Detailed statement on its activities;
- Summary of the evaluation of the overall results achieved by the funding of research infrastructure during the year and since its inception;
- Corporate plans including planned expenditures, objectives, and performance expectations;
- Disclosure of compensation for officers of the corporation.

In addition, the CFI has made 13 appearances before parliamentary committees since 1997 and has a process in place to provide briefings to Members of Parliament, Senators, and senior government officials.

2.4 Accountability to the Minister of Industry

The Funding Agreement between the Foundation and the Minister of Industry, approved by Treasury Board, sets out the terms and conditions under which the Foundation must operate, including investments, eligible recipients, eligible projects and costs, selection criteria, and evaluation.

The CFI submits to the Minister the results of independent third-party evaluations of its grants in accordance with a framework and timeframe approved by the Board of Directors. These evaluations assess the overall

performance in achieving the national objectives identified in the Funding Agreement.

The CFI's Funding Agreement with the Government of Canada has recently been amended to strengthen the accountability provisions, in particular with respect to annual reporting requirements and to enable the government to have audits carried out or, to ask the Board to have audits carried out, to ensure compliance with the terms of the Funding Agreement. Another important change to note is that, if the CFI is wound up or dissolved, any remaining amounts not otherwise committed may be repaid to the government or, at the discretion of the Minister, distributed among all the eligible recipients that have received grants from the CFI in proportion to the grants received.

Representatives of Industry Canada and Finance Canada attend meetings of the CFI's Board of Directors as observers.

2.5 Internal Accountability Mechanisms

2.5.1 Merit Review Process

Eligible Canadian universities, colleges, research hospitals, and non-profit research organizations can apply for CFI support. Before submitting proposals to the CFI, institutions must prepare strategic research plans that outline their priorities for research and infrastructure.

Applications must meet the three CFI criteria:

- Quality of research and need for infrastructure;
- Contribution to strengthening the capacity for innovation;
- Potential benefits of the research to Canada.

The assessment process involves the rigorous and independent evaluation of each project's strengths and weaknesses against the three criteria. This task is accomplished by experts in the relevant fields—either alone or in committee, depending on the size and complexity of the project. Decisions are made by the Board of Directors.

Committee members come from every region of Canada and from around the world. They are selected for their broad experience and expertise in research, research management, and the use of research results. When selecting these volunteer members, the CFI strives to achieve a reasonable balance between language, gender,

region, sector of the economy, discipline, and type of institution. Committee membership is posted on the CFI website. It should be noted that proposals submitted by colleges and smaller universities are evaluated by separate committees composed of persons who are familiar with the research environment in such institutions.

2.5.2 Financial Controls

CFI financial statements and processes are reviewed annually by independent external auditors. They report directly to the Audit and Finance Committee of the Board of Directors.

Awards are paid only when all conditions are met, including a statement that the partner funding has been secured. The CFI estimates that approximately \$1.4B will have been paid by March 31, 2004. Funds held by the CFI are invested in low-risk securities, in accordance with strict guidelines outlined in the CFI Funding Agreement with the government. An external advisor provides advice to the Board, through the Audit and Finance Committee, with respect to compliance of investments with the terms of the Funding Agreement. Since 1997, the return on the investment has averaged 5.69% per annum.

2.5.3 Auditing

Consistent with the practices of well-managed organizations, the CFI has implemented a strong internal control environment to carry out its activities. This environment was created to ensure an appropriate segregation of duties, as well as a thorough review process and an adequate approval process over cash disbursements and investment decisions (i.e. appropriate checks and balances are in place to ensure that the funds are properly handled).

The internal controls implemented at the CFI are widely accepted in the business and public community and are reviewed by external auditors as part of their annual external audit of the CFI's financial statements.

Auditors reviewed, as two separate engagements, CFI's approval process as well as award disbursement process. The reviews concluded that the controls in place were sufficient and adequate, and suggestions were implemented.

Given the recent events in the accounting and reporting environment in North America, the Board has taken prudent measures to ensure that adequate accountability and governance practices are in place, as well as to ensure that there is adequate auditor independence.

At the June 2003 meeting of the Board of Directors, separate internal and external auditors were appointed.

The Board approves a risk management plan on an annual basis. The newly appointed internal auditor is establishing an internal audit charter and is reviewing the risk management plan. This charter will be presented to the Audit and Finance Committee for approval. Once approved, the internal control environment will be reviewed thoroughly by the auditor, in the priority sequence identified by the Board.

The CFI also carries out audits of awards (see below) and is developing a process for scientific audits of completed infrastructure projects.

2.6 Accountability of Awards Recipients

To ensure that the institutions receiving infrastructure support generate the best possible results for the benefit of Canadians, the CFI requires that they be accountable in a number of ways. Institutions are requested to develop and periodically update strategic research plans and priorities to reflect the changing environment. These have been through an institutional approval process that uses its own governance processes. In addition to regular financial reports, institutions are also required to submit annual reports describing progress against these plans as well as communications plans. Institutions must report on the results of each project for a period of at least five years. Annual reports are analysed by the CFI and the results of this analysis are posted on the CFI website.

All approved projects with a CFI contribution greater than \$4 million are subject to independent audits at the institution. In addition, a sampling of all other projects is audited by the CFI. Audits conducted to date concluded that institutions use CFI funding in a responsible manner. The CFI also conducts regular monitoring visits to confirm the soundness of financial accounting practices at the institutions.

Institutions themselves have their own boards and have independent auditors that review their financial statements and that includes a category

called sponsored research and one called capital. In other words, there is also an independent financial audit process at each institution.

In order to assess the results and impacts of infrastructure projects in more depth, the CFI is taking a new approach called scientific audits. This process will assess whether projects meet their objectives and generate, or are likely to generate, the anticipated results. This will give the CFI and the government assurance that there is value for the invested money. Given the long term nature of research, this process will initially look at more mature projects.

2.7 Accountability to the Public

The following are examples CFI's commitment to public accountability:

- The CFI Annual Report has been distributed to over 2000 individuals and is posted on CFI's website.
- An annual public meeting of the Board is held each year and is widely publicized in several of Canada's leading newspapers. Over 700 invitations were sent out last year.
- The CFI website includes comprehensive information on the CFI, its programs, and its review processes. It includes lists of awards and a searchable database of awards as well as evaluation reports, institutional reports, and analyses of progress reports.
- The CFI publishes *InnovationCanada* (www.InnovationCanada.ca), an electronic magazine featuring success stories of CFI-funded research in universities and research institutions across Canada. This online magazine boasts up to 160,000 hits monthly. The eighth issue was recently launched.
- The CFI has undertaken a municipal outreach initiative aimed at informing municipalities of the impacts of the CFI investments in their communities. The CFI considers that institutions have the responsibility to report to the public on the research enabled by infrastructure and strongly encourages them to do so.
- The CFI will organize or be involved in over 75 events this year. These events provide opportunities for Members of Parliament and government representatives to join the CFI in showcasing the research enabled through CFI investments.

The CFI has adopted practices that are consistent with the privacy and access to information policies of the federal government. The CFI also follows the spirit of the Official Languages Act and offers its services in both official languages as required by the legislation.

3. Results and Benefits to Canada

Third-party evaluations have been completed for all of the CFI programs except the newly created International Funds and the Infrastructure Operating Fund. The results of these evaluations are clear: overall, the programs have had a marked impact and are meeting the objectives set out by the government. For example:

- The opportunities created by the CFI's programs have helped to reinvigorate the R&D climate, and have changed the atmosphere at Canada's research institutions to one of optimism.
- CFI's programs have transformed the quality of infrastructure. Where more than half of the infrastructure was poor or fair prior to the awards (and none was world-class), 90% of respondents (in case studies for an evaluation) now rate it as excellent or world-class in the disciplines affected by the awards.
- Institutional transformation and renewal are taking place. For example, the New Opportunities Fund has been a critical factor in attracting high-calibre researchers to universities. From the 2001 awards, 64% of new investigators named the fund as one of the reasons they were attracted to the institution and/or Canada.
- Smaller institutions in particular reported increased visibility and credibility both nationally and internationally as a result of CFI infrastructure.
- A review of infrastructure support programs in other countries showed not only that the CFI contains all elements considered important in other countries and programs, but also that it is very well-regarded by the international community and even envied in some quarters.
- There is every reason to think that the projects, once operational, are being effectively and efficiently used and shared.
- The programs were well-designed and are well-delivered, with very few problems being reported in any area.
- There is every indication that ongoing need for infrastructure investment remains high, and may even increase as social sciences and humanities researchers begin to participate more.
- Both implementing the projects and finding financial resources for operations and maintenance have been problematical in many institutions.
- Maintaining long-term sustainability of the programs will require institutions to convince their provincial partners (and others) to continue to supply matching funds, given that the CFI contributes a maximum of 40% of total project costs.
- The CFI, in cooperation with its partners, is helping to create a more innovative society and ensuring a brighter future for generations of Canadians.

In their most recent annual reports, institutions continue to report that the CFI has helped transform the research landscape in this country:

- Institutions report a major impact of CFI infrastructure on attracting researchers, postdoctoral fellows, and graduate students. The infrastructure is also credited for advancing the training of almost 6,200 undergraduate students (or equivalent).

- They credit the CFI for their increased ability to obtain research funding. Many note that the CFI investment has leveraged not only the required matching funding, but additional capital investment and major research funding from Canadian and international sources. Almost 75% of respondents reported that the infrastructure had some impact on their ability to attract funding from the federal granting agencies. More than 50% reported a positive impact on their ability to attract provincial funds. More than 30% reported a positive impact on their ability to attract international funds.

The CFI is about stimulating partnerships and collaboration. In addition to the numerous partnerships between institutions and those organizations that contribute to infrastructure (provinces, federal departments and agencies, industry, and voluntary agencies), the CFI investment triggers partnerships and collaboration among institutions in the development of regional, national, and international infrastructure projects. In particular, the institutions have been extremely effective in putting together applications to various agencies in support of their plans and priorities.

Provincial governments have recognized the importance of investments in research and research infrastructure. Not only have they contributed to infrastructure projects, but many have also developed new programs and strategies in support of research and research training.

Last year for the first time, the CFI completed a detailed analysis of commercialization activities at Canadian universities. This information has recently been updated and the report will be posted shortly on the CFI's website. The overall picture is very encouraging. When results are normalized per dollar of research support, Canadian institutions perform as well if not better than their US counterparts with respect to most indicators of commercialization productivity. In particular, Canadian institutions are very active in the creation of spin-off companies. The results of the third Statistics Canada survey of intellectual property commercialization in Canadian universities and hospitals¹, published October 20, 2003, confirm the trends: revenues from royalties have doubled in the past two years.

¹ Statistics Canada, October 2003. Survey of intellectual property commercialization in the higher education sector, 2001. Catalogue no. 8F0006XIE — No. 012

4. Benefits of the Foundation Model

The CFI is meeting the objectives set out in its legislation and its Funding Agreement. The CFI is responsible for implementing government policy, and the model enables it to do it well and in the best interest of the public.

A stable financial environment enables medium and long term planning that increases the chances of wise, well-thought-out investments that will generate benefits in areas of strategic importance to Canada.

The foundation model has enabled the CFI to plan its investments in an orderly manner and to design innovative and flexible programs with a medium and long-term perspective. Most importantly, it has encouraged institutions to develop strategic plans for research and research infrastructure. The transformation of research is a long term process. Knowing that funds will be available in seven years, ten years, and beyond for new infrastructure projects or to provide infrastructure to new researchers is invaluable to institutions and researchers.

The model ensures the orderly spending of the funds: the CFI pays the awards when partner funding is secured and when the project is ready to start.

The independent merit review process whereby experts make recommendations on the funding of proposals in a highly non-partisan manner is a key benefit of the model. The fact that the CFI covers all disciplines encourages multidisciplinary research and the sharing of equipment across faculties and departments.

Another major benefit of the model is the development of funding partnerships. Institutions, working with provincial governments, industry, and others have contributed 60% of infrastructure costs, with the CFI providing 40%. The foundation model greatly facilitates the leveraging of additional resources as institutions work with their partners to raise the necessary funding. In summary, our experience of the last six years has shown that this model can work in an efficient, economical and effective manner.

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