



Canada Foundation for Innovation  
Fondation canadienne pour l'innovation

## **Notes for a presentation**

by

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to the

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***Check Against Delivery***

Thank you for the opportunity to appear before the Finance Committee today to brief you on the activities of the Canada Foundation for Innovation (CFI). This is the 17<sup>th</sup> appearance of CFI before a Parliamentary Committee since the Foundation was created by an Act of Parliament in 1997.

Since that time, the research landscape in Canada has changed dramatically as a result of the commitment made by the Government of Canada to invest in research and development in publicly funded institutions.

These investments are creating jobs and are leading to innovative solutions in some of today's most important and exciting areas of investigation—from bioinformatics and genomics, to nanotechnology, high performance computing, sustainable development, and early childhood development.

Furthermore, advances in several of these areas are now converging to magnify the rate of change and the economic and social impact of the research initiatives. Discoveries are moving from the laboratory to the marketplace. Spin off companies are being created to supply highly-demanded technology for the biotech, communications, aerospace, and other business sectors. And high quality personnel are being trained for careers in both the public and private sectors.

Eight years after its creation, the CFI has invested in nearly 4,300 projects at 127 institutions in 62 municipalities across Canada. These projects have helped to attract more than 8,000 researchers to Canadian universities, colleges, research hospitals, and non-profit research institutes since the year 2000 – with approximately 20% coming from the U.S. and 17% coming from other countries. More than 34,000 graduate and post-doctoral students in Canada have used state-of-the-art research facilities and equipment supported by the CFI.

CFI's investments are made on the basis of a rigorous assessment of merit, using international standards; and on the capacity of the program to enhance the training of future researchers, and to bring economic and social benefits to Canadians.

As a result of the Federal Government investments in research since 1997, there is an unprecedented level of enthusiasm and a sense of optimism for the future throughout Canada's research community, particularly and

importantly among young researchers; and internationally there is a growing recognition, indeed admiration, that when it comes to science, “Canada matters.” In short, Canada has become a place where researchers want to work.

Today I want to speak to you about maintaining the momentum.

The challenges we face as a nation early in the 21<sup>st</sup> century are well known -- namely an aging population and intensifying international competition. Canada cannot afford to slip into the global race to the bottom that will be marked by low-skill and low paying jobs, nor should we want to.

Rather, in the knowledge-based and highly competitive international economy we need to ensure our competitive advantage as new middle class consumer markets in China, India, Brazil and other emerging economies drive up the demand for new ideas, products, and services, and for the highly qualified personnel who produce them. How will our nation of 33 million compete successfully in this environment? One solution is to ensure that the best and the brightest from around the world continue to see Canada as a destination of choice when it comes to research, development, and innovation.

In meeting this challenge, the CFI has an important role to play in helping Canada compete. Think of how far we’ve come in only eight short years. When CFI was created, the public sector research landscape in Canada was characterized by years of under-funding and of deferred renewal of the physical infrastructure. As a result, much of the equipment and facilities in Canadian universities, colleges, and research hospitals was in an advanced state of obsolescence, and Canadian institutions were severely limited in the scope of research that could be undertaken. In addition, Canadian universities were at a distinct disadvantage in recruiting new faculty, particularly in their ability to provide equipment and infrastructure that were competitive with those of universities in other countries. The result was a “brain drain” of graduate students, junior faculty, and established investigators to those countries.

Thus, just at the time that innovation was rapidly becoming the industrial doctrine of the 21<sup>st</sup> century, Canadian research institutions were falling behind in the highly competitive international research environment. The creation of the CFI in 1997 was therefore extremely timely, as were several

other subsequent Government initiatives, including creation of the Canadian Institutes of Health Research, the Canada Research Chairs Program, Genome Canada, support for the indirect costs of university research, increased funding of the three Federal research funding agencies, and, most recently, investment in graduate student support.

However, the rest of the world is not standing still. Like all industrialized countries, Canada will have to continue to position itself to remain competitive in the innovation-based economy of the 21<sup>st</sup> century by maintaining its commitment to the research agenda. Much like education and health care, investing in knowledge creation is not a “one-time-only” event, but rather requires ongoing investments to ensure the future prosperity of the country and a better quality of life for all Canadians.

Leading edge research in the 21<sup>st</sup> century is critically dependent on having the tools to do the job. Furthermore, the pace at which cutting-edge research infrastructure must be renewed today is radically different than even a decade ago.

Imagine for a moment that I had stood before you in 1995 and boldly declared that a decade from now, Saskatoon would be home to Canada’s biggest science project in a generation; Chicoutimi would be a world leader in developing de-icing technology for commercial use on airplane wings and hydroelectric wires around the world; that St. Mary’s University in Nova Scotia would be a world leader in astronomy and astrophysics; and that coronary surgery could be performed on a patient by surgeons located hundreds of miles away thanks to robotics and internet technology developed by researchers in London, Ontario. The reaction would likely have been one of disbelief. Yet I am pleased to report that in 2005 all of the advances I’ve described are a reality, in large part due to investments made by the CFI to funded institutions and their partners.

However, as the CFI enters into the 2006-2010 phase of its mandate, the funds available for support of research infrastructure will not be sufficient to meet future needs and to maintain Canada’s international competitiveness.

In June of this year the CFI launched its last major competition (apart from the Research Hospital Fund) with final decisions to be announced in the fall of 2006. Unless it is known well in advance that additional funding will be available after this last competition, universities and colleges will no longer

be in a position to undertake large infrastructure projects whose planning, design, and construction may span several years.

If Canada is to remain competitive in world-class research, the ratio of infrastructure support through the CFI to research funding support through the three funding agencies should be brought to a level of at least 20 percent. This ratio would ensure that Canadian research institutions remain competitive with the leading institutions in the world as new technologies become available. It is also important that government recognize that a continued enhancement of the budgets to the funding agencies is necessary.

**To achieve the 20% ratio and maintain a balance between research funding and infrastructure support, the CFI would require an additional \$1 billion in funding between now and 2010. This ratio would be comparable to that of other research intensive countries.**

Investments made in research infrastructure serve as a beacon for attraction of researchers, helping institutions to build their human infrastructure, our most important renewable resource, and enhance their expertise. As a result of the investments made by the CFI, the Canadian capacity for research, development, and innovation is being dramatically enhanced in areas of strategic importance. We owe it to future generations to maintain the commitment.

*This concludes my formal remarks. My thanks to the Chair and Members for this opportunity.*