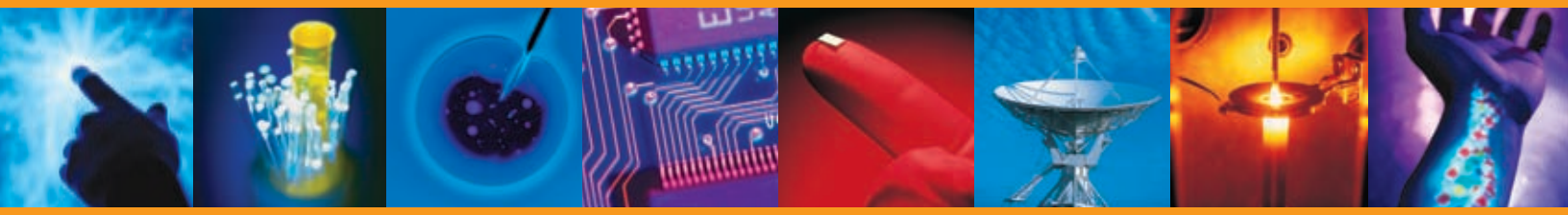
SOLID FOUNDATIONS

Leading Innovations Through Research Infrastructure

Canada Foundation for Innovation
Fondation canadienne pour l'innovation

ANNUAL REPORT 2005–2006



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"CANADA'S UNIVERSITIES ARE RECOGNIZED AS BEING GLOBAL LEADERS IN RESEARCH THAT IMPROVES THE LIVES OF CANADIANS. CONTINUED INVESTMENT IN THESE WORLD-CLASS RESEARCH PROGRAMS WILL ENSURE THAT IMPORTANT ADVANCEMENTS IN SCIENCE AND TECHNOLOGY ARE MADE."

The Right Honourable Stephen Harper, Prime Minister of Canada

SOLID FOUNDATIONS

Leading Innovations Through Research Infrastructure

Within the general Canadian public, infrastructure might at first seem to be a less exciting or compelling term than innovation. But ask any researcher in any scientific discipline, and you'll soon appreciate the power and promise of solidly funded, sustainable, and advanced research infrastructure.

The reason is this: in our complex, multidisciplinary, information-driven world, the great breakthroughs in research now spring not from lone minds, but from great collaborations of scientific professionals who share their data, insights, even workloads. And without infrastructure—state-of-the-art equipment, buildings, laboratories, and databases—there can be no breakthroughs.

That's where we come in. The Canada Foundation for Innovation is the only national organization focused on providing the infrastructure that enables research and training.

At the CFI, we support the collaborative relationships that lead to innovation. Our ultimate aim is to enable the kind of research that improves the lives of Canadians. We know that innovation results in increased competitiveness and productivity, and that leads to prosperity.

Last year we set some ambitious objectives. We committed to maintaining the positive momentum of Canada's research enterprise, while clearly demonstrating the value of key investments made to date. In this way, we hoped to engage Canadians about the benefits and impacts of R&D investments, all the while remaining innovative ourselves.

In the following pages, we review the objectives set in 2004–2005, and report on how the CFI delivered on these objectives in 2005–2006.

Solid objectives. Solid results. Solid foundations.

THE CFI AT A GLANCE

The mission

The Canada Foundation for Innovation is an independent corporation created by the Government of Canada to fund research infrastructure. The CFI's mandate 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.

The focus

Research infrastructure consists of the state-of-the-art equipment, buildings, laboratories, and databases required to conduct research. Research infrastructure projects at institutions span all R&D areas—from engineering to health to economics, for example—and encourage collaboration among academic, business, government, and non-profit sectors.

The budget

Since its creation in 1997, the CFI has been entrusted with $3.65 billion by the Government of Canada. The CFI funds up to 40 percent of a project's infrastructure costs. These funds are invested with eligible institutions, while their own funding partners in the public, private, and non-profit sectors provide the remainder. Based on this formula, the total capital investment by the CFI, the research institutions and their partners will exceed $11 billion by 2010. To date, the CFI has committed almost $3 billion to more than 4,600 research projects.

The benefits

Support from the CFI enables institutions to set their own research priorities in response to areas of strategic importance to Canada. Researchers can better compete with the best from around the world, which helps to position Canada in the global, knowledge-based economy. CFI support is intended to:

> strengthen Canada's capacity for innovation;

> attract and retain highly skilled research personnel in Canada;

> stimulate the training of young Canadians through research;

> promote networking, collaboration, and multidisciplinarity among researchers;

> ensure the optimal use of research infrastructure within and among Canadian institutions.

The research supported by the CFI also creates the necessary conditions for sustainable, long-term economic growth—including the creation of spin-off ventures and the commercialization of discoveries.

The difference

There are many organizations in Canada that support R&D while contributing to national innovation objectives. But among these, only the CFI is focused on providing the infrastructure required to conduct research and training. How does this approach set us apart? The CFI:

> works directly with institutions, as opposed to with individual researchers;

> supports all disciplines within the R&D spectrum;

> uses experts from relevant fields in its rigorous and independent merit review process;

> requires institutional strategic plans in advance of applications for funding;

> encourages the leveraging of federal resources through its funding formula;

> has the financial flexibility to negotiate multi-year funding with institutions, which facilitates funding from other partners, including provincial and municipal governments, as well as the private and non-profit sectors.

The values

The CFI is guided by a set of principles and values that directs the organization in its decision-making. The CFI is:

> *transformative*, with an enduring and profound impact on the research environment;

> *accountable*, ensuring that funds are used in the most responsible way, while monitoring impacts and keeping stakeholders informed;

> *transparent*, with review processes that are visible, honest, fair, and independent;

> *consultative*, sustaining open dialogue with research institutions, their partners, and other stakeholders;

> *service oriented*, providing effective and efficient services to its clientele;

> *flexible*, adapting to changing environments and continually improving policies, programs, and services;

> *innovative*, with a positive environment in which employees are able to balance work and personal life.

The commitment

As part of its funding agreement with the Government of Canada, the CFI has committed to supporting several national objectives. The organization will:

> support economic growth and job creation, as well as health and environmental quality through innovation;

> increase Canada's capability to carry out important world-class scientific research and technology development;

> expand research and job opportunities for young Canadians;

> promote productive networks and collaboration among Canadian post-secondary educational institutions, research hospitals, and the private sector.

"IT REQUIRES INTENSE COLLABORATION TO CREATE THE CRITICAL MASS AND DISTINCTIVE QUALITY THAT ATTRACTS IDEAS, TALENTED PEOPLE, BUSINESSES, AND RISK CAPITAL FROM AROUND THE WORLD."

John R. Evans, Chair, Canada Foundation for Innovation

MESSAGE FROM THE CHAIR

Five steps for transformation of the learning and research environment

After nine years as Chair of the CFI, I am thrilled to have been part of such an extraordinary partnership with Canada's research institutions. I also know that so much more needs to be done to ensure the future prosperity and quality of life of Canadians. It is in the context of continuous improvement and response to a rapidly changing environment that I comment on five of the critical challenges that lie ahead.

Evolving the infrastructure

The CFI continues to demonstrate the profound impact of infrastructure investments on the recruitment and performance of academic groups. Complex technological infrastructure has become a vital and enabling advantage in research. To meet new research demands, the continued evolution of research must be matched by the sophistication of the infrastructure and its management.

Attracting the talent

With current demographics, universities and other research institutions worldwide are engaged in intense competition to recruit highly qualified new faculty. They must also ensure the personal and professional growth of the existing faculty. Attracting new talent while growing and developing its own stars is the real measure of a great institution.

Overcoming disciplinary silos

Some of the greatest research opportunities will be at the intersection of disciplines, or in solving problems that transcend disciplines. How can these opportunities be encouraged in a discipline-centred system? New information technologies create enormous opportunities to explore new domains. Students, therefore, may lead faculty in this process. There is a need for administrative encouragement and risk resources to test start-up ideas in these unstructured multi-disciplinary initiatives.

Promoting collaboration

To be competitive globally requires more than outstanding science. It requires intense collaboration to create the critical mass and distinctive quality that attracts ideas, talented people, businesses, and risk capital from around the world which, in turn, must feed innovation through the convergence of interests and serendipity. It requires the celebration of entrepreneurship and commercialization, and finding mechanisms by which partnerships can be actively promoted as part of the innovation process.

Expanding our geopolitical horizon

To shape Canada's future, we need to be prepared to influence it. To do that, we must expand our geopolitical horizon to recognize the rest of the world. We need to better understand the impact of emerging global economic powers such as China, India, Brazil, and Korea, and the global role Canada can play. We need to better understand the implications of global issues such as the desperate conditions of poverty and disease in the most disadvantaged countries. And we need to better understand the patterns of migration of populations and people with professional skills, the impact on the country of origin, and the nature and evolution of major diasporas in Canada arising from recent immigration.

These challenges are formidable, but agile and innovative institutions will find a way to rise to them—reaching beyond the institution itself to form partnerships and associations that propel the priority programs to the highest levels of global performance in teaching and research.

I would like to express my sincere thanks to the CFI Board of Directors and Members, to President & CEO Dr. Eliot Phillipson, to the thousands of expert volunteers who are essential to the merit review process, and to the incredible staff of the CFI. Your unwavering commitment to creating a culture of innovation has and will continue to be key to success.

John R. Evans

"IDEAS ARE THE MOST VALUABLE RESOURCE IN THE GLOBAL KNOWLEDGE-ECONOMY, AND CANADA'S ABILITY TO ATTRACT AND RETAIN THE PEOPLE WHO GENERATE THOSE IDEAS WILL HELP TO ENSURE THE NATION'S CONTINUING ECONOMIC AND SOCIAL PROSPERITY IN THE COMING DECADES."

Eliot A. Phillipson, President & CEO, Canada Foundation for Innovation

MESSAGE FROM THE PRESIDENT & CEO

Ensuring prosperity

Much like investments in childhood education, the full economic and social benefits of investments in research and development may take years, if not decades, to fully materialize. Nevertheless, the impact of Canada's enhanced investments in university, college, and hospital research of the past nine years is beginning to emerge, and there are indications of an impressive return on the investment in the years ahead if the course is maintained.

In the case of the Canada Foundation for Innovation, we recently completed an analysis of cumulative data in progress reports for more than 2,800 research infrastructure projects funded by the CFI from 2000–2005. The compelling findings of this five-year analysis are summarized in this report. Perhaps the most important is that despite intense worldwide competition, Canadian institutions have been highly successful in retaining and recruiting outstanding researchers. This success reflects not only the CFI investments in infrastructure, but also the combined impact of government investments in the research enterprise through several funding agencies and programs. Ideas are the most valuable resource in the global knowledge-economy, and Canada's ability to attract and retain the people who generate those ideas will help to ensure the nation's continuing economic and social prosperity in the coming decades.

A closely related finding is that the investments in research infrastructure have substantially enhanced the ability of Canadian institutions to train the knowledge workers and highly skilled technical staff that will be critical to Canada's future R&D-based economy—whether in the private, public, non-profit, or academic sectors. Indeed, many of these trainees have already entered the workforce and are increasing the competitive capacity of R&D-based companies, while bringing new ideas and methodologies to public programs and services.

Despite early indications of the impact of Canada's investments in university and college research, it is important to recognize that investing in knowledge creation and in the production of highly qualified personnel is not a "one-time-only" event, but rather requires ongoing investments to ensure the future prosperity of the country. Furthermore, given the rapidly evolving research landscape in Canada and abroad, we must consider possible new approaches to the allocation of research funding.

For its part, the CFI will address how its future investments in research infrastructure can further enhance Canada's international competitiveness by building on institutional strengths and by facilitating the transfer of knowledge into new products, services, and policies that will enhance our prosperity and quality of life. Achieving these objectives will require close collaboration with other key stakeholders, including institutions, the provinces, other funding agencies, and the private sector. Several such initiatives are already under way, including a CFI-facilitated process to create a national high-performance computing network through our National Platforms Fund.

Canada's research enterprise has made impressive advances in recent years. With the continuing commitment of governments to the research and innovation agenda, and by working together, we can maintain this momentum in the future. As we head into our tenth year, I am confident that the CFI will play an important role in the endeavour, and I look forward to reporting on our progress as we move forward.

Eliot A. Phillipson

SOLID OBJECTIVE 1

Maintaining the momentum and staying at the crest

Around the world, research environments and technologies are changing. To remain at the scientific frontiers, researchers must rely on increasingly sophisticated infrastructure. Facilities and equipment must keep pace with the times to enable research to progress along new lines. New technology makes this possible. Building on the success of the 1997–2005 suite of funding programs, the CFI launched a new program architecture this year, responding to the evolving needs of the research enterprise.

"WE MUST UPHOLD THE VALUE WE PLACE, NOT ONLY ON BASIC DISCOVERY SCIENCE, BUT ON CURIOSITY AND DISCOVERY-BASED RESEARCH, BECAUSE INNOVATION COMES NOT ALWAYS FROM DIRECT PROBLEMS AND SOLUTIONS—SOMETIMES IT'S JUST CURIOSITY AND CHANCE THAT LEAD TO INCREDIBLE DISCOVERIES."

Rick Hansen, President & CEO, Rick Hansen Man In Motion Foundation

Launch of new program architecture

Sustainability, performance, merit, partnerships, benefits, and planning are the pillars of the new funding structure, which targets areas that offer the highest return for Canada and optimizes the use of existing infrastructure.

Leading Edge Fund (LEF) and New Initiatives Fund (NIF)

The LEF enables institutions to strengthen highly competitive research or technology development activities in areas of institutional priority that build on successful and productive initiatives enabled by past CFI investments.

The NIF enhances Canada's capacity in promising areas of research or technology development, and improves competitiveness and international leadership through new infrastructure projects that will lead to breakthroughs and to benefits for Canadians.

The NIF and LEF have a combined budget of no more than $325 million for research infrastructure and $97.5 million for operations and maintenance. The Calls for Proposals for these two funds were launched in July 2005. A total of 90 institutions submitted 556 project proposals, requesting $1.59 billion from the CFI. Final decisions will be made in November 2006.

Leaders Opportunity Fund (LOF)

With its focus on planning, the LOF builds on its predecessors—the New Opportunities Fund, Canada Research Chairs Infrastructure Fund, and the Career Awards. It is designed to assist universities to attract excellent faculty to Canadian universities and retain the very best researchers for Canada. Through the fund, some $19.7 million was invested in 2005–2006, benefitting 145 researchers at 35 institutions from coast to coast. Examples of the projects include: addressing the contamination of our environment by toxic trace metals; finding cures for infectious and inflammatory diseases in children; understanding the socio-emotional development of teenagers; and increasing the performance of microsystems used by the automotive, medical, and telecommunications sectors.

National Platforms Fund

The National Platforms Fund provides research infrastructure, resources, and services that meet the needs of many research areas. Due to the nature of these technologies, they may require periodic reinvestments to stay competitive internationally. Two areas have been identified as meeting the purpose and intent of this funding mechanism: high performance computing (HPC) and knowledge management resources for the Social Sciences and Humanities.

A workshop was held in October 2005 to discuss next steps in planning and supporting HPC capabilities in Canada. The event involved more than 30 key stakeholders from universities, funding agencies, and industry, as well as federal and provincial governments. A significant outcome of the workshop was the agreement to move forward with an integrated, pan-Canadian strategy for HPC over the next three to five years to ensure Canada's international competitiveness in this area. A Call for Proposals for HPC was launched in 2005–2006, with a submission deadline of June 2006.

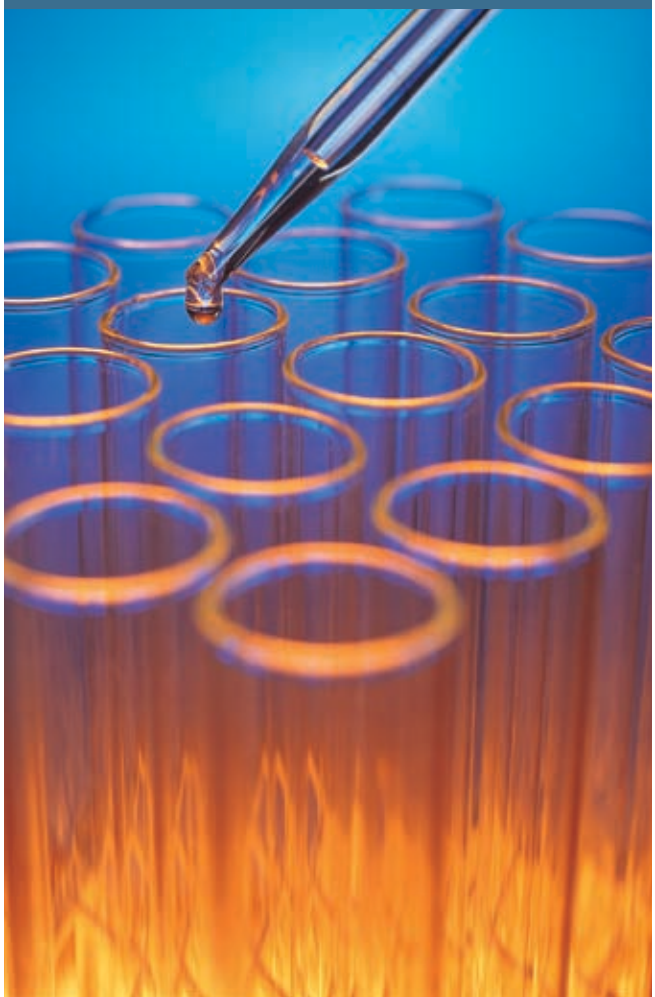
A Call for Proposals for knowledge management resources for the Social Sciences and Humanities was launched in 2005–2006, with a submission deadline of May 2006.

COLLABORATING WITH STAKEHOLDERS

Research infrastructure is a catalyst for new forms of collaboration among researchers, institutions, and funding partners. Ongoing investments in research infrastructure enable and provide the incentive for multidisciplinary and collaborative research. Relationships are being forged in Canada between institutions and their R&D partners, catalyzed by the investments in new, sophisticated facilities and equipment.

Recognizing that investment in R&D is vital to Canada's long-term competitiveness, the CFI continued to work with the provinces on the design of funding programs, selection of projects and priorities, and investments in research and technology development.

With the federal research funding agencies, provincial and municipal governments, and the private and non-profit sectors, we continue to work together to address long-term strategic directions for research funding in Canada. This fosters an environment in which creativity and productivity can flourish, and ensures that the knowledge and ideas generated by research lead to tangible benefits for all Canadians.



International Joint Ventures Project 2005

The International Joint Ventures Project 2005 seeks to support a single joint collaborative research venture between one or more leading Canadian institutions, and at least one leading institution located outside Canada. The project represents an important collaboration with the federal funding agencies (CIHR, NSERC, and SSHRC) and Genome Canada, and brings together the very best in Canada and around the world. Further to the Call for Proposals in May 2005, the CFI received 17 project outlines. Following a rigorous international review process, three projects have been invited to submit a full proposal. A final decision will be made by the end of 2006.

Infrastructure Operating Fund (IOF)

Ensuring the sustainability of existing infrastructure is a key objective of the CFI's revamped funding program. The IOF is designed to contribute to the incremental operating and maintenance costs of infrastructure projects funded by the CFI. Each eligible institution receives an IOF allocation representing up to 30 percent of the finalized CFI contribution.

Awards in 2005–2006

New Opportunities Fund

The New Opportunities Fund played a crucial role in keeping the best researchers in Canada, and attracting some of the very best from around the world. Under this fund, the CFI awarded $33.7 million to 218 projects, supporting 294 new researchers at 45 universities.

Career Awards

In partnership with NSERC and CIHR, the CFI recognized the achievements and exceptional contributions of Canada's top researchers. The CFI invested $988,661 to provide six NSERC Steacie Fellows with the infrastructure required to carry out their research. The CFI also provided Career Award support of $807,549 to two recipients of the CIHR Distinguished Investigator Award.

Canada Research Chairs Infrastructure Fund

The CFI partnered with the Canada Research Chairs Program to provide Chairholders with the infrastructure they need to fully develop their research programs. In 2005–2006, $30.8 million was awarded to support 190 projects for 191 Chairholders at 46 institutions.

Infrastructure Operating Fund (IOF)

In 2005–2006, the CFI awarded $14.2 million under the IOF to assist universities with the incremental operating and maintenance costs associated with new infrastructure.

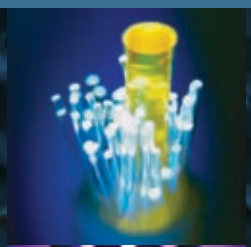
Committed and Projected Amounts 1998–2010 (Figures in millions)

Fund	98-99	99-00	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10	Total
New Opportunities	38	23	37	38	53	75	55	34					353
Canada Research Chairs Infrastructure			5	54	35	43	34	31					201
Leaders Opportunity								20	105	105	105	106	441
Career Awards					2	2	1	2					7
Innovation	143	225	356	590		453	4	–					1,771
University Research Development	19	10	3	2	1			–					35
College Research Development		7	9					–					16
New Initiatives / Leading Edge								–	325				325
International					159			–	41				200
Research Hospital							67	–		433			500
Exceptional Opportunities						7		8					15
National Platforms								–	85				85
Infrastructure Operating				182	16	158	17	14	157	151	21	21	738
Unallocated									163				163
Total ($M)	200	265	410	866	266	738	178	109	1,818				4,850

SOLID OBJECTIVE 2

Demonstrating the value of investments

The CFI is nearly a decade old. It has funded more than 4,600 research projects, with almost $3 billion in infrastructure funding. Assessing the impact of these investments is critical as we continue to evolve our funding programs to meet the needs of the research community. To determine depth of impact, the CFI analyzes information contained in project progress reports, and evaluates its funding programs.



"AS A COUNTRY, WE HAVE REPATRIATED AND ATTRACTED WORLD-RENOWNED SCHOLARS, BUILT LEADING-EDGE RESEARCH INFRASTRUCTURE, INCREASED THE LEVELS OF COLLABORATION AMONG AND BETWEEN UNIVERSITIES AND OTHER SECTORS, ESTABLISHED A REPUTATION WITH OTHER COUNTRIES FOR RESEARCH EXCELLENCE, AND INCREASED OUR INTERNATIONAL PRESENCE AND INFLUENCE."

Association of Universities and Colleges of Canada—2005 Momentum Report

In November 2005, the design phase for the evaluation of the New Opportunities Fund (NOF) was completed, with input from an External Advisory Committee (including the federal funding agencies). The NOF has the largest number of awards of any CFI program to date with more than 2,000 awards at 66 institutions across Canada. Moving forward with the implementation in 2006–2007, the emphasis will be on the impact that the NOF has had on enabling research institutions to hire and support outstanding new researchers.

A final independent evaluation of the Canada Research Chairs Program, including the CFI infrastructure component, was published in April 2005. The evaluation was highly positive overall. Among its top recommendations was the continuation of CFI infrastructure support, judged as highly critical to the success of the program. The CFI responded by including the infrastructure funding for Canada Research Chairs in its new Leaders Opportunity Fund.

In 2005–2006, the CFI analyzed data from more than 2,800 individual progress reports submitted by institutions for CFI-funded projects between 2000 and 2005. The results demonstrate a powerful array of benefits resulting from research infrastructure funding—and a positive sign of developments to come.

Canada has reversed the tide and now has a "brain gain"

State-of-the-art infrastructure has proven to be key in attracting the best researchers from around the world. Since 2000, the availability of state-of-the-art infrastructure has been a major factor in attracting almost 7,200 new faculty members to Canadian universities. Of these, nearly 1,500 came from the U.S., more than 1,200 from other countries, and the remainder from within Canada.

Research infrastructure helps meet Canada's need for knowledge workers

Since 2000:

> more than 34,100 post-doctoral and graduate students have undertaken research projects where the CFI-funded infrastructure was or is a key resource;

> more than 8,900 students with experience on the latest infrastructure have completed their training and joined the private, public, or non-profit sectors in a working capacity in Canada;

> more than 9,600 technical support staff have been trained on the use and maintenance of state-of-the-art research infrastructure.

Canada is regarded as a significant international player

In the last year:

> nearly 5,000 visiting researchers from around the world made use of state-of-the-art infrastructure in Canadian universities, research hospitals, and colleges;

> close to 1,000 of the researchers submitting progress reports attracted international funding. More than half of these stated that infrastructure had a significant impact on their ability to attract this funding.

Collaboration with private-sector partners and service agencies

> In the last year, approximately 3,500 individuals from the private, public, and non-profit sectors used CFI-funded research infrastructure.

> Since 2000, more than 1,600 research collaborations between institutions and the private, public, and non-profit sectors have made use of CFI-funded infrastructure.

> Approximately 38 percent of the researchers reporting to the CFI received funding from industry in the last year. Of these, more than half indicate that the infrastructure had a significant impact in attracting that funding to support their research projects.

Research infrastructure helps to build community-based technology clusters

> CFI-funded infrastructure projects are located in 62 municipalities across Canada. In many cases, this state-of-the-art infrastructure serves as a magnet for the attraction of investment and talent.

> Technology clusters are developing—both large and small—centered on areas such as biotechnology, information and communications technology, fuel cells, pharmaceuticals, and more.

CFI Investments by Municipality

MUNICIPALITY	TOTAL INVESTED	NUMBER OF PROJECTS
Abbottsford	$74,992	1
Antigonish	$1,704,233	14
Athabasca	$741,166	6
Bathurst	$187,338	1
Brandon	$1,489,370	9
Burnaby	$28,943,024	92
Calgary	$85,806,821	168
Cape Breton Regional District	$1,135,590	12
Castlegar	$543,756	1
Charlottetown	$5,739,617	19
Edmonton	$159,205,189	241
Fredericton	$12,241,217	65
Gatineau	$2,416,436	10
Glenhaven	$126,000	1
Guelph	$63,636,644	133
Halifax	$38,903,900	156
Hamilton	$100,610,623	176
Kamloops	$1,058,539	5
Kelowna	$518,988	7
Kingston	$86,484,440	146
La Pocatière	$1,010,060	3

MUNICIPALITY	TOTAL INVESTED	NUMBER OF PROJECTS
Lethbridge	$4,433,001	15
Lévis	$1,017,104	2
London	$116,430,891	179
Moncton	$2,491,709	17
Montréal	$446,728,691	725
Nanaimo	$4,525,744	8
North Bay	$690,000	3
Oakville	$1,584,492	3
Olds	$1,807,727	4
Oshawa	$262,109	3
Ottawa	$163,823,149	224
Peterborough	$10,281,136	31
Pointe-de-L'Église	$72,081	1
Prince George	$4,045,648	20
Québec	$204,523,944	244
Regina	$7,926,466	35
Rimouski	$9,670,967	19
Rouyn-Noranda	$3,531,798	11
Sackville	$1,666,736	8
Saguenay (Includes Chicoutimi-Jonquière)	$6,240,597	21

MUNICIPALITY	TOTAL INVESTED	NUMBER OF PROJECTS
Saint-Jérôme	$2,103,143	1
Sainte-Hyacinthe	$2,165,957	4
Saskatoon	$116,765,594	116
Sault Ste. Marie	$1,657,535	4
Shawinigan	$683,000	2
Sherbrooke	$31,483,450	96
St. John's	$29,062,331	79
St. Catherines	$8,924,123	32
Stephenville	$670,060	1
Sudbury	$4,282,779	32
Thunder Bay	$6,217,804	34
Toronto	$357,419,044	512
Trois-Rivières	$10,138,409	26
Truro	$4,637,151	15
Vancouver	$274,840,381	331
Victoria	$58,994,738	97
Waterloo (Includes Kitchener)	$82,058,241	176
Welland	$797,110	1
Windsor	$9,646,899	56
Winnipeg	$45,206,331	159
Wolfville	$2,208,844	12
62 Municipalities	**$2,634,294,857**	**4,625**

SOCIAL AND ECONOMIC BENEFITS

Since 2000, the availability of infrastructure has helped with the:

> creation of 150 spin-off companies;

> generation of 510 new intellectual property rights;

> development of 564 new or improved public policies and programs;

> development of 748 new or improved products, processes, or services.

Approximately 75 percent of researchers indicate that their research infrastructure has helped in the generation of social and economic benefits in areas such as:

> telematics—for disaster management, public safety, and the protection of critical infrastructure in the event of dramatic weather events;

> the optimization of environmentally sound processes for the benefit of key Canadian industries such as aluminium—securing our country's competitiveness now and in the future;

> advanced surveillance and monitoring techniques to ensure safety of food supplies within, to, and from Canada;

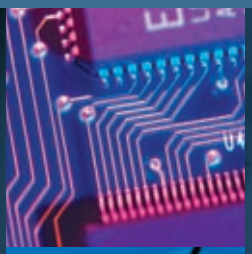
> advanced quantitative methodologies for the identification of emerging social trends and means of positive intervention (e.g., youth in transition, immigration, health care utilization and aging);

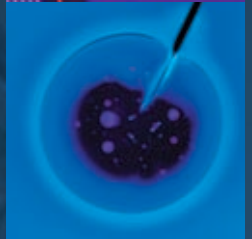
> robotics to assist mobility-impaired people.

SOLID OBJECTIVE 3

Engaging Canadians

The CFI recognizes its responsibility to deliver programs that focus on Canada's needs as it competes in the global, knowledge-based economy, and to demonstrate the success of these programs by showcasing results. In this context, the CFI works with research institutions of all sizes across the country to celebrate the impact of public investments. The more we communicate, the more Canadians want to know about the benefits of research and how science improves their lives.





"SOMETHING BIG IS HAPPENING IN CANADA—A MASSIVE INCREASE IN CANADA'S ABILITY TO DO GOOD SCIENCE. BUT CANADA'S NOT ALONE IN THIS RACE, AND IF WE DROP THE BALL, OTHERS WON'T."

Paul Wells, Senior Political Columnist, Maclean's magazine

Why is communicating results important? Because it draws the attention of key players—both nationally and internationally—to the needs and benefits of research. It attracts the interest of potential partners. It increases the potential for commercialization. It encourages funding and research partnerships. It attracts talent to Canada. And it provides us with an opportunity to thank the Canadian public for entrusting the CFI with this important mandate.

The CFI is passionate about promoting a culture of science by telling stories Canadians want to hear—stories about the promising ways in which innovation will shape our future. And over the last year, the CFI reached millions of Canadians through a wide range of communications activities.

InnovationCanada.ca, the CFI's online magazine, showcases excellence in Canadian research. It continues to expand its readership, reaching hundreds of thousands of Canadians in 2005–2006, with more than 14 million hits registered on the website. *InnovationCanada.ca* features the insights of some of Canada's hottest researchers—such as David Schindler, Frank Plummer, and Kathy Pritchard. It also features prominent guest writers such as David Suzuki, Marc Garneau, Claire Morris, and Rick Hansen, as well as inspiring stories from our country's young innovators. The online magazine was nominated and selected to represent Canada (e-science category) at the World Summit Awards (WSA)—a global contest for selecting and promoting the world's best e-contents and applications, with representatives from 168 countries.

Great science writing benefits all Canadians. Partnering with the Canadian Science Writer's Association, the CFI launched the *Superstars of Innovation Writer's Award*. The annual award recognizes the writer of an outstanding story about a talented person or team pushing the boundaries of knowledge and innovation. The winner—Rose Simone, a 17-year veteran of *The Record*—was honoured for her 11-part series "The Explorers," which profiled leading thinkers at Waterloo's Perimeter Institute for Theoretical Physics. Paul Wells, Senior Political Columnist of Maclean's magazine, chaired the distinguished panel of judges.

The CFI collaborated with research institutions and their partners in *76 events* that were widely attended and disseminated to the Canadian public through the media. The Honourable Maxime Bernier, Minister of Industry, joined us in March to announce the inaugural recipients of the new Leaders Opportunity Fund—a $19.7 million investment that benefits 145 researchers at 35 institutions. More than 250 stories were disseminated through local, national, and specialized print, radio, and television media, reaching millions of Canadians from coast to coast.

Today's youth are tomorrow's innovators. As part of its *youth strategy* to communicate the benefits of research, the CFI worked with several organizations, including Sanofi-Aventis Biotech Challenge, the Youth Science Foundation's Canada-Wide Science Fair, Schad Valley, and ACTUA. The CFI provided support to these pan-Canadian organizations and communicated positive science messaging to thousands of teachers and students.

Almost 15 million hits representing 560,000 visits were logged on the CFI's redesigned *corporate website* last year, affirming the growing interest in the CFI's programs.

Through these many and varied communication vehicles, the CFI was able to touch a record number of Canadians last year, bringing a message of insight, commitment, and promise.

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SOLID OBJECTIVE 4

Remaining innovative and responsible

There is high expectation in Canada for public agencies to carry on their activities in ways that are open, transparent, and accountable. From its origins, the CFI was set up with a financial system and governance structure that assured constant oversight, invited public scrutiny, and relied on the wise governance of expert Canadians who have already demonstrated their public spirit and earned the trust of their colleagues.

Last year, the CFI continued to employ sound financial methods and governance practices, protecting the public interest in every undertaking.

"THE INDEPENDENCE, FINANCIAL STABILITY AND FOCUSED EXPERTISE OF FOUNDATIONS ALLOW THEM TO ADDRESS SPECIFIC CHALLENGES IN A HIGHLY EFFECTIVE MANNER. FOUNDATIONS HAVE BECOME IMPORTANT VEHICLES FOR IMPLEMENTING POLICY, PARTICULARLY IN AREAS SUCH AS RESEARCH AND DEVELOPMENT, WHERE EXPERT KNOWLEDGE, THIRD-PARTY PARTNERSHIPS AND PEER REVIEW ARE ESPECIALLY IMPORTANT."

Extract from Budget Plan 2006

Financial highlights

The CFI maintains proper financial controls and continues to apply sound financial management practices to ensure the best use of public funds. External auditors issued an unqualified audit opinion about the CFI financial statements, which appear in the subsequent pages of this report.

As of March 31, 2006, the CFI had received from the Government of Canada a total of $3.65 billion, as well as $964,384 in accrued interest in 1997. The following are highlights of the CFI's audited financial statements:

> The total funds under management (investments per the balance sheet) as of March 31, 2006, were $2.68 billion.

> CFI investments are subject to strict guidelines. To ensure diversification, the funds have been placed in a variety of secure investment vehicles:

- Money market funds: $140 million
- Mortgage-backed securities: $307 million
- Bonds: $2.114 billion
- Amortizing bonds: $121 million

> Since 1997, the rate of return on the invested amount has averaged 5.67 percent per annum.

As of March 31, 2006, $1.921 billion had been disbursed for infrastructure funding. This reflects the proportional share of the CFI contribution and the level of completion of the project (i.e., most construction projects span many months or years).

Responsible management of investments

Although investment guidelines allow only for liquid low-risk investment instruments, the CFI's investment practices achieve the principal objective of preservation of the capital to meet future disbursement requirements. By 2010, it is estimated that the $3.65 billion received from the Government of Canada will have generated an additional $1.2 billion in interest.

An Investment Committee has been established to oversee all matters related to the investment management of the funds. A strategy of "buy and hold" has been adopted to achieve investment objectives and compliance with the Funding Agreement. The CFI will hold only investments that are permitted under that agreement. The CFI Investment Strategy and the Investment Policy are reviewed annually; the portfolio is reviewed constantly.

BEST SMALL & MEDIUM EMPLOYERS IN CANADA

Once again this year, the CFI was named as one of the best small-to-medium employers by the Queen's School of Business in partnership with Hewitt Associates. More than 120 companies participated in this survey, with the CFI finishing in the top third.

Financial monitoring practices

The CFI conducts monitoring visits at research institutions to ensure that funds are used effectively, economically, and in the best interest of Canada's research enterprise. The objectives of the monitoring visits are to:

> assess the adequacy of policies, controls, and systems in place at the institution to ensure that CFI's policies and guidelines are followed, and that the funds awarded are well managed;

> review a sample of expenditures and awards to ensure that they were made in accordance with the terms and conditions of applicable award agreements, and that they comply with CFI policies and guidelines;

> disseminate information on CFI policies and guidelines, and expectations for financial accountability and integrity.

The top 85 to 90 percent of CFI-funded institutions (based on funding received from the CFI) are subject to a monitoring visit, as are institutions which have received a CFI award greater than $4 million. Since 2002, the CFI has conducted 34 monitoring visits at 28 institutions. These visits are performed on average every three years.

All approved projects with a CFI contribution of over $4 million are subject to a contribution audit by an external firm. A sampling of other projects are audited using internal resources, or with the assistance of an external auditor. In 2005–2006, 39 contribution audits were performed, either on an interim or final basis.

Accountability

The CFI's accountability structure includes the government, the public, award recipients, and internal mechanisms. Some of the important measures undertaken by the CFI in the past year include:

> an amended Funding Agreement with the Government of Canada;

> an Annual Report presented to the Minister of Industry in October 2005;

> a Corporate Plan submitted to the Minister of Industry in January 2006;

> a presentation reporting on our activities and investments to the House of Commons Standing Committee on Finance in October 2005.

In 2005–2006, the auditor general began an audit examining federal initiatives and spending in support of research and innovation, which includes the CFI's contribution to the government's research and innovation agenda.

Governance

Over the past few years, the CFI Board has taken significant steps to increase its interaction with a larger and more diverse community in order to expand its understanding of how Canada can better position itself to continue excelling in an increasingly knowledge-based global society. Consultation and communication with researchers, private-sector partners, provincial funding agencies, policymakers, political leaders, and the public have resulted in broader and more strategic thinking by the Board, leading to more informed decisions, better program design and delivery, and more robust communications initiatives with its stakeholders.

The CFI's Annual Public Meeting was held in Guelph, Ontario, in October 2005. The Chair tabled the 2004–2005 Annual Report, and the CFI welcomed special guest Brian Feeney—Head of the da Vinci Project on space tourism—who looked at the project's history and milestones, and shared his views on infrastructure, facilities, and equipment for R&D.

BOARD DIRECTOR STELLA THOMPSON RECEIVES GOVERNANCE AWARD ON BEHALF OF THE CFI FROM MICHEL GUAY, MANAGING DIRECTOR, WATSON WYATT CANADA.

In February 2006, the CFI was proud to receive the prestigious Conference Board of Canada/Spencer Stuart National Award in Governance in the Public Sector category. The award celebrates bold and innovative solutions to governance challenges, and recognizes organizations that have broken the mould in the search for governance excellence.

LA PROTÉINE QUI N'OUBLIE PAS; LE SECRET DE LA MÉMOIRE SE CACHE AU SEIN DE LA CAM KINASE—*Le Soleil*

CANADA'S RESEARCH CAPACITY NEEDS CONTINUED COMMITMENT: KNOWLEDGE GENERATED IN OUR UNIVERSITIES PLAYS A MAJOR ROLE IN DRIVING THE COUNTRY'S ECONOMIC ENGINE—*Victoria Times-Colonist*

PROPOSED TELESCOPE WOULD HAVE 100 TIMES THE POWER OF HUBBLE—*National Post*

CANADA'S BRAIN GAIN—*Globe and Mail*

SOLID RESULTS

Success in Canadian Research

LA MUSIQUE SOUS LA LOUPE DES NEUROLOGUES; MONTRÉAL DEVIENT LA MECQUE DE LA RECHERCHE SCIENTIFIQUE SUR LA MUSIQUE—*Le Devoir*

'IT'S GIVEN MY LIFE BACK': DEVICE DESIGNED AT UNIVERSITY OF ALBERTA HELPS THE DISABLED WALK ON THEIR OWN AGAIN—*Edmonton Journal*

NEW X-RAYS GIVE BETTER PICTURES, LESS RADIATION—*Montreal Gazette*

FUND OR FLIGHT: KEEPING TOP MINDS–NATIONAL GRANTS TO FIGHT OFF COMPETITORS—*The Kingston Whig-Standard*

MONCTON RESEARCHERS PLAY KEY ROLE IN CANCER STUDY—*Times and Transcript (Moncton)*

LE SECTEUR DES TECHNOS SE PORTE BIEN; HAUSSE DE 3% DU NOMBRE D'EMPLOIS ENTRE 2005 ET 2006—*Le Soleil*

'COOL' TECHNOLOGY COULD HELP DISABLED COMMUNICATE—*The Leader Post*

Name of Institution: University of Alberta
Province: Alberta
Project: Project Restore Movement
CFI Investment: $1,765,600

"I can walk further, I can walk better, I can walk with more energy."

WALKING ANEW

WalkAide alleviates the condition known as "foot drop"

For 40 years after a stroke that weakened the left side of Gerald Gordey's body, every single step he took required major effort.

Unable to bend his ankle to lift his left foot, Gordey could only drag it, causing him to limp. Walking was not only tiring, it was painful. Over time, his toes curled under, making even simple tasks like putting on a shoe a struggle.

But in February 2005, Gordey had a life-changing moment. He read about Richard Stein, a professor at the University of Alberta's Centre for Neuroscience. Stein, a physicist and physiologist, had developed a medical device called WalkAide to alleviate the condition, known as "foot drop." With a built-in sensor and electrodes, WalkAide delivers stimulus to the peroneal nerve, which controls the muscle groups that flex the ankle and allow the foot to clear the ground.

Gordey contacted Stein, and was deemed an appropriate candidate for WalkAide. Soon, Stein matched him up with one of the Walkman-sized devices, which run on a single battery.

The results were amazing. Shortly after strapping it on, Gordey felt a tingling in his left leg. The once-atrophied muscle began working—the tightness in his toes relaxed and straightened out. Best of all, he could lift his toes so they didn't drag, reducing stumbling and steadying his stance.

"I can walk further, I can walk better, I can walk with more energy," says Gordey. He's also less tired and sore, and doesn't suffer from spasms anymore.

More thrilling still is the fact that other patients report carry-over effects even when they aren't wearing the device. "In some cases, it actually strengthens any residual connections between the brain and the nerves and muscles of interest," says Stein. "We have evidence in some people that the connections are strengthened to the point where they feel they don't need it anymore, or only occasionally."

WalkAide may improve the walking function of sufferers of stroke, spinal cord injuries, multiple sclerosis or other nervous system problems, potentially benefitting hundreds of thousands of people in North America. Stein, who started a spin-off company called BioMotion Ltd., licenced his device to a large user of ankle foot orthoses.

He and his colleagues have also begun Project Restore Movement. Based on what they learned while building WalkAide, they are developing other devices for people more severely affected than Gordey, with complete spinal cord injuries. Through a combination of devices that stimulate paralyzed muscles and new kinds of braces, the researchers hope to provide people with more stability and the ability to move again.

The research promises to mobilize and enrich the lives of many currently unable to move freely. Just look to Gordey for proof of that. "I can see it has unlimited potential," he affirms.

ALL SHOOK UP

POLARIS seismic data minimizes the impact of earthquakes

"You can get an instant read on whether any action is necessary following an earthquake."

The tremor that rocked the nation's capital at 8:39 p.m. on February 24, 2006, wasn't a rousing political event. It was an earthquake.

Five minutes after the quake struck, all the information that emergency response teams needed to assess the strength of the quake and its potential for damage was posted at www.shakemap.carleton.ca. The site shows a real-time depiction of earthquake activity and ground motion. It recorded the quake at 4.5 on the Richter scale and pinpointed its epicentre just southeast of Gatineau, Quebec, across the river from Ottawa.

Carleton University's POLARIS project (Portable Observatories for Lithospheric Analysis and Research Investigating Seismicity) generates the data that feeds into the Shakemap website. POLARIS consists of a network of 100 observatories across Canada that process information about the ground motion that earthquakes cause. The Shakemap program then analyzes the data and automatically maps significant earthquakes, like the Ottawa quake.

Researchers at Carleton, led by Earth Sciences Professor Gail Atkinson, work closely with the Geological Survey of Canada to monitor seismic activity. POLARIS's data is integrated with the Canadian National Seismograph Network, resulting in a dramatic increase in the number of earthquakes the network locates and reports upon, in areas where few stations exist to generate coverage.

The data helps utility companies, in particular, determine where potential hazards lie after an earthquake occurs. Since more than half the Canadian population lives in active seismic zones, the information is critical to hazard prevention and potential rescue efforts.

"You can get an instant read on whether any action is necessary following an earthquake," says Atkinson. Ontario Power Generation, for instance, needed to know whether they should inspect any of their generating stations or nuclear facilities after the earthquake.

Atkinson and her colleagues' research aims to mitigate seismic hazards by improving building codes and seismic hazard maps. As early as 2010, a new national building code will be upgraded based on POLARIS data. With such research and technology at work, planners and emergency crews will not only be able to respond faster after an earthquake, they'll also be able to minimize the impact.

Name of Institution: Carleton University

Province: Ontario

Project: POLARIS—Portable Observatories for Lithospheric Analysis and Research Investigating Seismicity

CFI Investment: $3,862,129

EAT, DRINK, AND BE WARY

Keeping our food supply safe

"We need to protect consumers or do as much as we can to prevent exposure of the population to some of these bugs."

Name of Institution: University of Guelph

Province: Ontario

Project: Canadian Research Institute for Food Safety

CFI Investment: $2,998,242

In the post-9/11 era, security has become a priority of governments and an increasing concern for the general public. One fundamental area of concern is food safety. Not only is food at risk for intentional contamination, it comes with its own inherent dangers simply in the way it's produced, stored, and prepared.

Every year, 1.2 million people suffer from food-borne disease in Canada. An average of 400 of those people die, costing the economy $5 billion per year in healthcare, food recalls, investigations, legal fees, and more. At the University of Guelph's Canadian Research Institute for Food Safety, Mansel Griffiths and a multidisciplinary team dedicate themselves to keeping our food supply safe and to fighting emerging micro-organisms, as well as bio-terrorism.

To safeguard public health and maintain Canada's standing as a reputable food exporter, it's critical that we guard our food supply from contamination. "We need to protect consumers or do as much as we can to prevent exposure of the population to some of these bugs," says Griffiths, Director of the institute and holder of the NSERC/Department of Fisheries and Oceans Chair in Dairy Microbiology. Micro-organisms adapt, always looking for new opportunities to spread infection. As a result, we see new bugs emerge.

In particular, Griffiths points to emerging diseases that have animals as the primary origin. These include SARS, Bovine Spongiform Encephalopathy (BSE or Mad Cow), and avian flu, a potential precursor to a pandemic strain of influenza.

As we age, our immune systems weaken, and we become more vulnerable to food-borne infections. With Canada's aging population, the country as a whole is more susceptible. That's why more than 50 researchers at the institute concentrate on surveillance, particularly of micro-organisms resistant to antibiotics. They also help governments improve public policy by assisting industry to adopt systems to keep the food chain safe.

For example, Griffiths and his colleagues Doug Powell and Scott McEwen advised an inquiry into Ontario's meat regulation and inspection system. The inquiry was prompted in part by charges against provincial meat packers for selling meat from "dead stock"—animals already dead, not certified healthy when they entered the slaughterhouse.

Ultimately, their recommendations helped smaller provincially registered meat plants to adopt a system known as HACCP (Hazard Analysis Critical Control Points). The system identifies weak points in a food processing or production plant, and puts safety controls in place to minimize the contamination of food, keeping our food supply safe.

CREATIVE THINKING FOR DAILY LIVING

Technology addresses human needs

At the University of British Columbia's (UBC) Institute for Computing Information and Cognitive Systems, research projects have one thing in common: the technology addresses human needs.

"Pure technology or pure science is important, but to make life easier for humans is much more important," says Rabab Ward, an engineering professor and Director of the institute. "We don't want humans to adapt to machines—we want it the other way around."

That focus means the institute is the only place in the world where its IT and computing equipment is connected directly to technologies that solve specific human problems.

Researchers at the institute have filed 18 patents and 48 invention disclosures for projects like AIBO, the robotic dog. The technology can be used in robotic vacuum cleaners, lawn mowers, and other such devices. Its purpose is to help elderly people cook, clean, and live more independently.

In another project, six undergraduate students developed a hospital bed monitoring system. Sensors in the bed collect data, and then feed it to a computer program that lets healthcare workers continuously monitor patients' conditions.

Two other UBC researchers have created a prototype for a daily planner program that runs on a hand-held computer. The program use images, sounds, and text to record meetings and appointments for people who have lost their ability to speak or understand speech, because of a stroke or other brain damage.

These and other such projects use a human-centred, multidisciplinary approach. "The whole idea is to serve people, and combine art, cognitive systems, psychology, philosophy, and linguistics with computer science and engineering," says Ward.

Altogether, 153 professors and more than 800 graduate students at the institute create innovative technological solutions to complex human problems.

"We don't want humans to adapt to machines—we want it the other way around."

Name of Institution:
University of British Columbia

Province: British Columbia

Project: Institute for Computing Information and Cognitive Systems

CFI Investment: $8,855,000

MINING THEIR OWN BUSINESS

New tools lead to jobs, spin-off companies, and demand for geology students

"From our small university, our small department, and humble lab, our students do extremely well."

In 1897, when the Yukon Gold Rush began, prospectors and miners braved the Chilkoot Pass armed with little more than a pick-axe and a pan.

Name of Institution: Brandon University

Province: Manitoba

Project: Laboratory for Applied Research in Resource Geology (LARG)

CFI Investment: $127,931

Thanks to the Laboratory for Applied Research in Resource Geology (LARG), Hamid Mumin, Simon Pattison, and their students at Brandon University now have more sophisticated tools to search for metals, minerals, and energy resources.

And their quests have been much more successful than those of most Yukon "stampeders." Not only have Mumin and his colleagues identified prospective oil, gas, and mineral deposits in Canada, the United States, and Peru, they've also opened the door to an entirely new mining sector.

They've discovered a resource not previously mined in Canada: iron oxide copper-gold deposits. These deposits can contain combinations of a range of metals and rare earth elements. In other parts of the globe, iron oxide copper-gold has spawned some of the richest mines in the world, says Mumin, Associate Professor and Chair of the university's Department of Geology. Discovering the resource in Canada could add hundreds of jobs to the $43-billion Canadian mining industry. The researchers have already located deposits in the North-west Territories (NWT) and elsewhere.

In their home province of Manitoba, the researchers have identified a complex of phosphate and rare earth metal-bearing carbonatites. These minerals are used in high-technology, energy-efficient devices.

The success of this research has generated partnerships with the Geological Survey of Canada, the Manitoba Geological Survey, and the NWT Geoscience office, as well as with mining companies.

In fact, three new companies have spun off as a result of the research. Toronto-based Strait Gold Inc. is developing a precious metal project in Peru, where Mumin pinpointed a highly promising site. Former student Eric Ducharme began Crown Geological Consultants, a geology services and consulting company that develops oil wells. And John Camier, another student, set up South Bay Explorations Ltd. He's running a mining project in Manitoba, and supervising diamond drilling on one of the major iron oxide copper-gold projects in the NWT.

The success of the research means high demand for Brandon geology students with the current graduating class fielding two or three job offers each. "From our small university, our small department, and our humble lab, our students do extremely well," Mumin says. "For me, the biggest reward in all of this is when I see my students graduate and be successful."

Looks like Brandon University is mining its own valuable resources.

SHOW ME THE DATA!

Long-term health data makes life-changing differences

For epidemiologists like Elizabeth Badley, access to long-term health data makes life-changing differences.

Badley, a professor at the University of Toronto, specializes in understanding the impact of chronic disabling conditions such as arthritis. Her research shows that arthritis affects about one person in six, or nearly four million Canadians—two-thirds of whom are women. It overturned the conventional belief that arthritis is a disease of the elderly. Instead, Badley revealed that three out of five people who suffer from arthritis are under 65.

"Everybody agreed that in view of the growing demand for policy-relevant research, we should improve access to the data."

But to investigate the scope of arthritis, Badley needed longitudinal studies—data collected from the same set of patients for many years. Lucky for her—and the many Canadians who benefit from her research—she was able to access this data right from her home-town university. Only a few years ago, that wouldn't have been possible.

Statistics Canada used to insist that researchers could only access longitudinal studies in Ottawa, under strict conditions intended to protect privacy. That made it tough for researchers outside the capital to gather the information they needed.

In 2000, a consortium of universities set up a network of Research Data Centres (RDCs). Led by the Université de Montréal, the RDCs transferred copies of Statistics Canada databases containing longitudinal studies to secure centres across the country. There, researchers can more easily access the data they need, while still adhering to strict confidentiality rules. "Everybody agreed that in view of the growing demand for policy-relevant research, we should improve access to the data," says Paul Bernard, a professor at the Université de Montréal and first Chair of the RDC National Coordinating Committee.

The result? Important research findings that have helped inform and shape public policies in areas such as smoking, child-hood obesity, and the marginalization of dependent adults. Badley's research demonstrated the pervasiveness of arthritis and gave policymakers a sound basis to make decisions.

The RDC network also trains specialists, including demographers, sociologists, public health experts, and economists

Name of Institution:
Université de Montréal

Province: Quebec

Project: Research Data Centres

CFI Investment: $5,380,089

to analyze the data sets so they may work together across disciplines. The network has grown from six original sites to 13 centres. Today, more than 1,500 researchers, including 300 graduate students, have used the RDCs, which host about 50 extensive data sets. The peer-review process is about to approve its 1,000th project. Now that's a statistic worth celebrating!

DAHN OF A NEW ENERGY ERA

New combinations of elements lead to better batteries

"The key is to get battery or fuel cell technology to the point where it really is viable."

Jeff Dahn's vision for a greener world revolves around batteries. The Dalhousie University professor believes that developing new sources of energy is critical for the planet's survival. That's why Dahn and his team are devoting their *own* energy to solving that problem by combining periodic table elements to make new materials for fuel cells and lithium-ion batteries.

Their suite of laboratories is among only a few such facilities in the world that allow the rapid characterization of new materials—synthesizing and screening hundreds of chemicals at once.

The Holy Grail in fuel cell development is to combine hydrogen and oxygen in a cell that would generate enough electricity to power a vehicle either directly or by batteries. Dahn and his colleagues have filed a patent, along with collaborators from 3M Canada, to use a combination of iron, cobalt, and nitrogen materials to replace platinum in these fuel cells.

By replacing platinum—a precious metal—fuel cells would be more cost-effective and durable, and therefore require less frequent recharging. "The key is to get battery or fuel cell technology to the point where it really is viable," says Dahn.

The researchers have also filed a patent application based on their addition of rare earth elements (specifically less precious metals) to silicon and tin for lithium-ion batteries. These batteries power our laptops, cell phones, and digital cameras.

The purpose of a new combination of materials? Batteries that run longer, as well as smaller, lighter battery packs that deliver the same charge as larger ones. This is big business, with a market value of $300 million US per year and growing.

And using these fuel cells to power our engines instead of gasoline would go a long way to reducing our reliance on fossil fuels. Transportation alone is responsible for almost 50 percent of fossil fuel consumption in the United States.

"All this work would have been impossible without CFI funding," says Dahn, who holds two research chairs at Dalhousie. "We'd still be in the Stone Age."

Name of Institution: Dalhousie University

Province: Nova Scotia

Project: Centre for Excellence in Materials Discovery

CFI Investment: $239,991

Read more about innovative research at www.innovationcanada.ca

LOOKING AHEAD: 2006-2007

Canada's research enterprise has made impressive advances in recent years. With the continuing commitment of governments and by working together, we can enable research and technology development that leads to prosperity.

Moving forward, the CFI will continue to explore how its investments in research infrastructure can further enhance Canada's international competitiveness. The CFI is committed to bringing its expertise to bear over the coming year, ensuring value for its investments and a direct, positive impact on the quality of life of Canadians.

As per the Corporate Plan submitted to the Minister of Industry in January 2006, the following are the CFI's main objectives in 2006-2007:

1. Invest in state-of-the-art infrastructure

Research infrastructure expenditure at Canadian institutions will remain at roughly the same levels since the CFI's founding. This will be the last year that the CFI's remaining funding will allow investments at these levels. The CFI will undertake merit reviews and make funding decisions on the following funds:

> Leaders Opportunity Fund;
> Leading Edge Fund;
> New Initiatives Fund;
> International Joint Ventures Project;
> National Platforms Fund;
> Infrastructure Operating Fund.

2. Plan and monitor investments

Through the Investment Committee of the Board—in accordance with the Investment Strategy and the Investment Policy—CFI funds will continue to be managed in compliance with the Funding Agreement. It is anticipated that the average return for 2006-2007 will be approximately five percent.

The CFI will conduct monitoring visits and contribution audits at research institutions to ensure that funds are used effectively, economically, and in the best interest of Canada's research enterprise.

3. Maintain strong accountability mechanisms

The CFI operates in an economical, effective, and transparent manner, and will continue to implement measures to ensure its accountability to the Government of Canada and the Canadian public.

The CFI submits an Annual Report to the Government of Canada containing information on financial performance, funded projects, and the achievement of objectives. It will be presented to the Minister of Industry who will table it in Parliament in October 2007. The CFI will also submit a Corporate Plan in January 2007—including planned expenditures, objectives, and performance expectations. The CFI Board will meet three times in 2006-2007 to make funding decisions and provide strategic direction to the organization. Finally, the CFI will appear before Parliamentary Committees to report on our activities and investments.

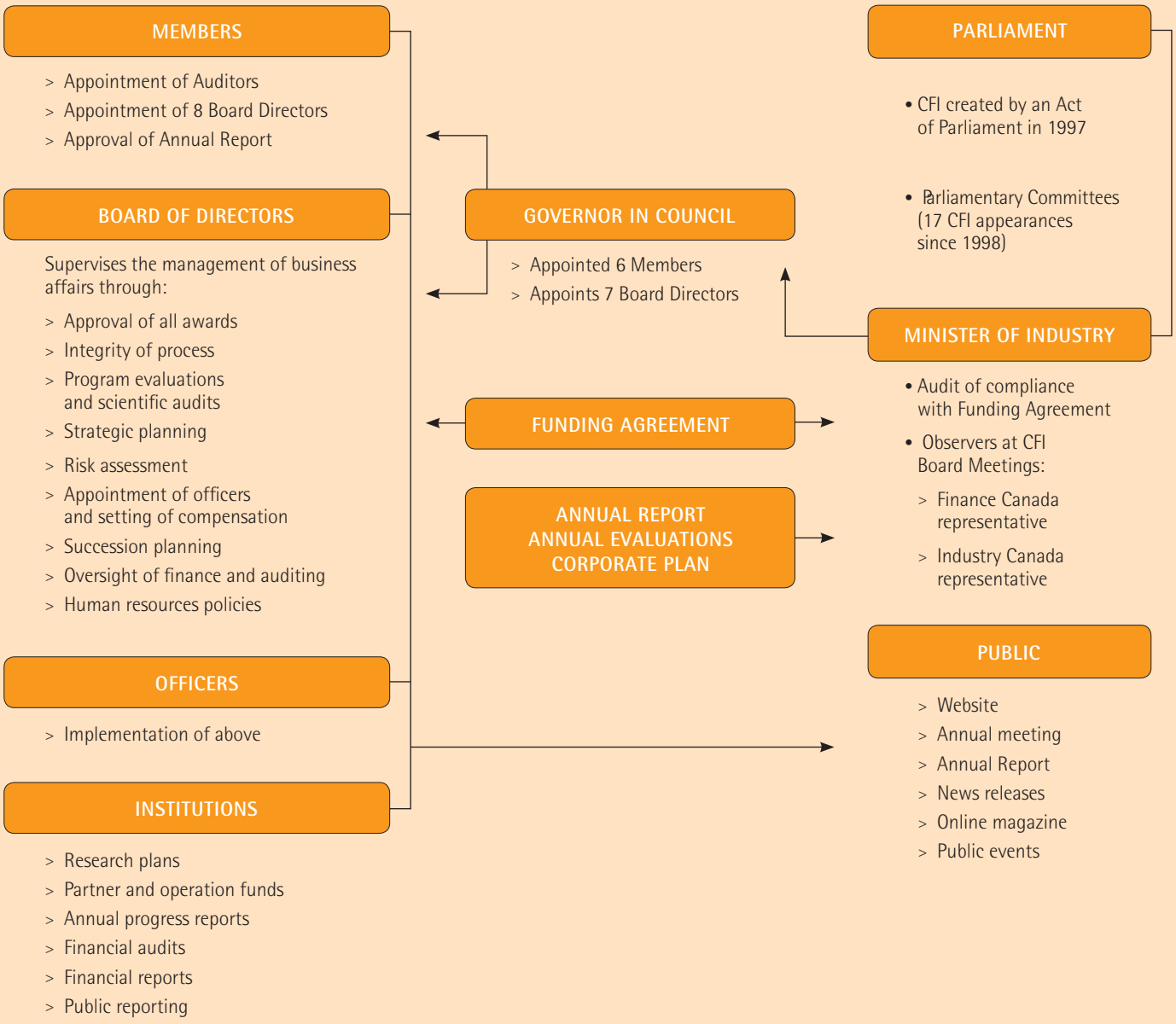
Keeping the Canadian public informed about the impact of investments in research infrastructure is also a top priority. The CFI will use a variety of communication vehicles to achieve this, including the Annual Public Meeting and six issues of our online magazine *InnovationCanada.ca*.

Part of the CFI's accountability mechanism includes the evaluation and outcome assessment activity that provides information on the results of infrastructure investments. In its annual analysis of project progress and institutional reports, more than 3,000 projects will be reviewed. In the evaluation of its funding programs, a final evaluation will be undertaken of the New Opportunities Fund. Finally, outcome assessment visits will take place—a new methodology that will include expert review of a range of developed infrastructure projects, in specific thematic areas.

4. Collaborate with stakeholders

The CFI will continue to work with the research institutions, federal research funding agencies, associations, provincial and municipal governments, and the private and non-profit sectors, to address long-term strategic directions for research funding in Canada.

GOVERNANCE & ACCOUNTABILITY



"THE BOARD HAS DEMONSTRATED IN AN INNOVATIVE WAY ITS COMMITMENT TO MAKING GOVERNANCE A PART OF THE SUCCESS OF THE CFI IN MEETING ITS MISSION, AND BEING TRANSPARENT TO THOSE WHO ENTRUST IT WITH FUNDING."

—Conference Board of Canada

The CFI was created by an Act of Parliament in 1997 as an independent, non-governmental organization. The Funding Agreement between the CFI and the Government of Canada, approved by Treasury Board, sets out the terms and conditions under which the CFI must operate.

Placing paramount importance on operating in an economical, effective, and transparent manner, the CFI uses a stringent accountability structure that includes annual reporting to Parliament, accountability to the Minister of Industry, internal accountability mechanisms, accountability of award recipients, and accountability to the public.

A key feature of the CFI model is its built-in mechanism to ensure that funds are spent wisely and on projects that offer the highest potential for benefits to Canadians. As an independent organization, the CFI relies on experts in various fields to guide the funding process. Its independent merit review process, which involves world-class researchers, research administrators, and users of research results from Canada and abroad, ensures that only the very best projects get funded.

Members

The Board of Directors reports to Members —a higher governing body similar to a company's shareholders, but representing the Canadian public. Members are responsible for the appointment of eight of the 15 Board Directors. They receive audited financial statements, appoint auditors, and approve the Annual Report at the annual meeting. Members are nominated, and then appointed for a five-year term.

Angus A. Bruneau
Chairman, Fortis Inc.; Chairman, Air Nova

Jim Friesen
Professor, Banting and Best Chair, Department of Medical Research, University of Toronto

Gail Gabel
President and CEO, Chair, E.S.I. Environmental Sensors Inc.

Robert J. Giroux
Past President and CEO, Association of Universities and Colleges of Canada

Jean-Paul Gourdeau
Past Chairman, École Polytechnique de Montréal

Arthur Hanson
Distinguished Fellow and Senior Scientist, International Institute for Sustainable Development

Monique Lefebvre
Corporate Director and Private Consultant

Judith Maxwell
President, Canadian Policy Research Networks

Michel Nadeau
Corporate Director and Strategic Management Consultant

Dee Parkinson-Marcoux
Consultant and Strategic Advisor, Ensyn Petroleum Inc.

Martha Piper
President and Vice-Chancellor, University of British Columbia

Donald J. Savoie
Clément-Cormier Chair in Economic Development, Université de Moncton

Matt Spence
Past President and CEO, Alberta Heritage Foundation for Medical Research

Ron Steer
Professor and Head of Chemistry, Department of Chemistry, University of Saskatchewan

William G. Tholl
Secretary General and CEO, Canadian Medical Association

Board of Directors

The Board of Directors meets up to four times per year and is made up of 15 individuals from a variety of backgrounds. Seven Directors are appointed by the Government of Canada. Each Director has a unique perspective and understanding of the research world, and brings expertise from the private, institutional, academic, research, and government sectors. One Director is a representative from one of the federal funding agencies, on a rotational basis. Directors are nominated, and then appointed for a three-year term.

John R. Evans, Chair
Chair, MaRS Discovery District

Michel Gervais, Vice-Chair
Director General, Centre Hospitalier Robert-Giffard

Lorne A. Babiuk
Director, Vaccine and Infectious Disease Organization, University of Saskatchewan

Claude Benoît
President and Chief Executive Officer, Old Port of Montreal; Director, Montreal Science Centre

Alan Bernstein
President, Canadian Institutes of Health Research

Aldée Cabana
Corporate Board Director; Former Rector, Université de Sherbrooke

Elizabeth Cannon
Dean of Geomatics Engineering, University of Calgary

David Dolphin
CEO, British Columbia Innovation Council

Kevin O'Brien Fehr
Director, R&D Alliances, GlaxoSmithKline Inc.

Gary Glavin
Professor, Faculty of Medicine, Departments of Pharmacology and Therapeutics, and Community Health Sciences, University of Manitoba

Ross McCurdy
Executive Vice President and Chief Operating Officer, Ocean Nutrition Canada

Robert A. Phillips
President and CEO, Ontario Institute for Cancer Research

Gerri Sinclair
Executive Director, World Center for Digital Media

Stella Thompson
Principal, Governance West Inc.

Ronald Whelan
Chairman, Archive Committee, Canadian Medical Association

Audit and Finance Committee

Robert A. Phillips, Chair
Lorne A. Babiuk
Aldée Cabana
John R. Evans
Kevin O'Brien Fehr
Ronald Whelan

Investment Committee

Robert A. Phillips, Chair
Lorne A. Babiuk
Aldée Cabana

Governance and Nominating Committee

Michel Gervais, Chair
David Dolphin
John R. Evans
Gerri Sinclair
Stella Thompson

Ranges of Remuneration

For the fiscal year ending March 31, 2006, compensation was within the following annual salary ranges.

CFI Management (Officers)

Eliot A. Phillipson, President and CEO
$185,000 to $230,000

Carmen Charette, Senior Vice-President
$136,500 to $182,000

Suzanne Corbeil, Vice-President, External Relations
$113,300 to $151,100

Manon Harvey, Vice-President, Corporate Services
$113,300 to $151,100

Employees (whose remuneration exceeds $100,000, including any fee, allowance, or other benefit paid in year)

Director, Programs and Operations
$96,500 to $128,700

Director, Public Affairs
$74,900 to $99,800

Coordinators, Institutional Relations
$74,900 to $99,800

Board Directors and Members

To determine remuneration, the Board uses the guidelines established by the Government of Canada entitled *Remuneration Guidelines for Part-Time Governor in Council Appointees in Crown Corporations*. Directors who opt to receive remuneration from the CFI are entitled to an annual retainer of $5,000, while committee chairs receive $7,500. They are also entitled to receive a per-diem fee of $750 for attending Board or committee meetings, and a $500 fee for attending a committee meeting associated with a Board meeting. Members are not entitled to any remuneration; however, they may be reimbursed for any reasonable out-of-pocket expenses they incur while performing their duties or attending CFI meetings. The remuneration of Board Directors was in the range of $0 to $11,800.

FINANCIAL STATEMENTS

Auditor's Report

To the Members of the Canada Foundation for Innovation:

We have audited the balance sheet of the **Canada Foundation for Innovation** as at March 31, 2006, and the statements of operations and cash flows for the year then ended. These financial statements are the responsibility of the Foundation's management. Our responsibility is to express an opinion on these financial statements based on our audit.

We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In our opinion, these financial statements present fairly, in all material respects, the financial position of the Foundation as at March 31, 2006, and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

Ernst & Young LLP

Ernst & Young LLP
Chartered Accountants
Ottawa, Canada
May 19, 2006

RESPONSIBILITY FOR FINANCIAL REPORTING

The financial statements of the CFI were prepared by CFI management, which is responsible for the integrity and fairness of the data presented. In certain cases, the data may include amounts that are based on best estimates and judgement. The financial statements were prepared in accordance with generally accepted accounting principles, including the accounting recommendations for non-profit organizations in Canada. Financial information appearing throughout this Annual Report is consistent with the financial statements.

In discharging its responsibility for the integrity and fairness of the financial statements, and for the accounting systems from which they are derived, management maintains the necessary system of internal controls. This system is designed to provide assurance that transactions are authorized, assets are safeguarded, and proper records are maintained. The CFI's external auditors, who periodically review and evaluate the accounting records and related internal controls, and who report any findings to management, further validate the system. The external auditors' findings and recommendations are reported to the CFI's Audit and Finance Committee and the Board of Directors.

The Board of Directors oversees management's responsibilities for financial reporting through the Audit and Finance Committee. The committee reviews the financial statements and recommends them to the Board for approval and submission to the Members. The committee's other key responsibilities include reviewing the budgets, internal control procedures, and advising the Directors on auditing matters and financial reporting issues. A new Investment Committee was established to oversee and monitor all matters related to the investment management of the funds.

Ernst & Young LLP, independent auditors appointed by the CFI Members on the recommendation of the Audit and Finance Committee, have examined the financial statements and their report follows. The independent auditors have full and unrestricted access to both the Audit and Finance Committee and the Board of Directors to discuss their audit and the related findings about the integrity of the financial reporting, and the adequacy of the system of internal controls.

Robert A. Phillips
Chair, Audit and Finance Committee

Manon Harvey, CA
Vice-President, Corporate Services

Balance Sheet [As at March 31]

	2006 $	2005 $
Assets		
Cash	**7,959,296**	2,295,385
Interest and other receivables	**25,869,552**	31,514,400
Investments *[Note 3]*	**2,681,097,962**	2,969,686,756
Prepaid expenses	**250,161**	181,980
Capital assets *[Note 4]*	**1,556,415**	1,821,543
	2,716,733,386	3,005,500,064
Liabilities and Net Assets		
Accounts payable and accrued charges	**794,199**	503,593
ERA-Can project deposits	**287,139**	–
	1,081,338	503,593
Deferred contributions: *[Note 5]*		
Expenses of future periods	**2,714,095,633**	3,003,174,928
Capital assets	**1,556,415**	1,821,543
	2,715,652,048	3,004,996,471
Commitments *[Note 7]*		
Net assets *[Note 6]*	–	–
	2,716,733,386	3,005,500,064

See accompanying notes

Statement of Operations [Year ended March 31]

	2006 $	2005 $
Revenues		
Recognition of deferred contributions relating to amounts granted to eligible recipients	**427,425,936**	262,967,601
Recognition of deferred contributions relating to current year operations	**9,085,628**	7,947,013
Amortization of deferred contributions relating to capital assets	**430,810**	362,268
	436,942,374	271,276,882
Expenses		
Grants to eligible recipients	**427,425,936**	262,967,601
General and administration	**9,085,628**	7,947,013
Amortization of capital assets	**430,810**	362,268
	436,942,374	271,276,882
Excess of revenues over expenses	**–**	–

See accompanying notes

Statement of Cash Flows [Year ended March 31]

	2006 $	2005 $
Operating Activities		
Excess of revenues over expenses	**–**	–
Items not involving cash:		
Amortization of capital assets	**430,810**	362,268
Amortization of deferred contributions related to capital assets	**(430,810)**	(362,268)
Loss on equipment disposals and write-offs	**3,118**	–
Decrease of deferred contributions related to equipment disposal	**(3,118)**	–
Net decrease in deferred contributions related to expenses of future periods	**(289,079,295)**	(117,526,470)
Change in non-cash operating working capital	**6,154,412**	9,034,542
Cash used in operating activities	**(282,924,883)**	(108,491,928)
Financing and Investing Activities		
Purchase of capital assets	**(170,250)**	(717,351)
Increase in deferred contributions related to capital assets	**170,250**	717,351
Proceeds on equipment disposals	**1,450**	–
Decrease in deferred contributions related to capital assets	**(1,450)**	–
Net sale of investments	**288,588,794**	105,031,726
Cash provided by financing and investing activities	**288,588,794**	105,031,726
Net increase (decrease) in cash	**5,663,911**	(3,460,202)
Cash, beginning of year	**2,295,385**	5,755,587
Cash, end of year	**7,959,296**	2,295,385

See accompanying notes

Notes to Financial Statements [March 31, 2006]

1. GENERAL

The Canada Foundation for Innovation ["the Foundation"] was incorporated under Part 1 of the Budget Implementation Act, 1997, on April 25, 1997, for the purpose of making research infrastructure grants to Canadian universities, colleges, hospitals, and other not-for-profit research institutions to increase the capability of carrying on high quality research.

2. SIGNIFICANT ACCOUNTING POLICIES

The financial statements have been prepared by management in accordance with Canadian generally accepted accounting principles. The following are the significant accounting policies:

Revenue recognition

The Foundation follows the deferral method of accounting for contributions which include government grants and, potentially, donations from other sources.

Under the Budget Implementation Act, 1997 ["the Act"], the Foundation has, since inception, received grants from the Government of Canada totalling $3.65 billion plus accrued interest of $964,384 on the initial contribution to be held, invested, administered and disbursed in accordance with the Act and the related Funding Agreement between the Foundation and the Government of Canada. All grants and related interest have been received and recorded in prior fiscal years.

Grants received, together with future investment revenue, are directed to the granting of amounts to eligible recipients and the payment of the Foundation's operating expenses and acquisition of capital assets in accordance with the requirements of the Act and the terms of the Funding Agreement. Grants received and future restricted interest earned on the invested amounts will be deferred and recognized as income as expenditures are incurred by the Foundation.

Contributions applied toward the purchase of capital assets are deferred and amortized to revenue on a straight-line basis, at a rate corresponding with the amortization rate for the related capital assets.

Grants to eligible recipients

Grants to eligible recipients are recognized as expenses as the awarded funds are disbursed.

Investments

Investments are recorded at cost. Premiums or discounts are amortized over the remaining term of the investments. If the market value of investments becomes lower than cost and this decline in value is considered to be other than temporary, the investments are written down to market value.

Capital assets

Purchased capital assets are recorded at cost. Contributed capital assets, if any, are recorded at fair value at the date of contribution. Repairs and maintenance costs are charged to expense. When a capital asset no longer contributes to the Foundation's ability to provide services, its carrying amount is written down to its residual value.

Capital assets are amortized on a straight-line basis using the following annual rates:

Leasehold improvements	term of the lease
Furniture and other equipment	20%
Computers and software	3–5 years

Use of estimates

The preparation of financial statements requires management to make estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities in the financial statements and accompanying notes. These have been made using careful judgement.

3. INVESTMENTS

Investments comprise the following financial instruments:

	2006 $		2005 $	
	Cost $	**Market Value $**	Cost $	Market Value $
Money-market funds	**139,786,414**	**139,775,468**	168,119,240	168,113,943
Bonds	**2,113,517,733**	**2,154,510,075**	2,211,431,885	2,310,767,339
NHA Mortgage backed securities	**306,554,995**	**304,615,665**	451,267,273	455,066,040
Amortizing bonds	**121,238,820**	**118,239,658**	138,868,358	137,021,787
	2,681,097,962	**2,717,140,866**	2,969,686,756	3,070,969,109

4. CAPITAL ASSETS

Capital assets consist of the following:

	2006 $		2005 $	
	Cost $	**Accumulated Amortization $**	Cost $	Accumulated Amortization $
Leasehold improvements	**1,991,708**	**740,105**	1,845,825	508,360
Furniture and other equipment	**1,328,412**	**1,023,600**	1,387,756	903,678
	3,320,120	**1,763,705**	3,233,581	1,412,038
Accumulated amortization	**(1,763,705)**		(1,412,038)	
Net book value	**1,556,415**		1,821,543	

5. DEFERRED CONTRIBUTIONS

Expenses of future periods

Deferred contributions related to expenses of future periods represent unspent externally restricted grants, together with investment revenue earned, for the purpose of providing grants to eligible recipients and the payment of operating and capital expenditures in future periods.

	2006 $	2005 $
Balance, beginning of year	**3,003,174,928**	3,120,701,398
Add grants received *[Note 2]*	**–**	–
Add restricted investment revenue earned	**147,597,951**	154,105,495
Less amount recognized as revenue	**(436,511,564)**	(270,914,614)
Less amount applied toward capital assets acquired	**(170,250)**	(717,351)
Loss (gain) on equipment disposals	**3,118**	–
Proceeds on equipment disposals	**1,450**	–
Balance, end of year	**2,714,095,633**	3,003,174,928

Capital assets

Deferred contributions related to capital assets represent the unamortized amount of restricted grants received and applied toward the purchase of capital assets. The amortization of capital contributions is recorded as revenue in the statement of operations on the same basis as the amortization of the related capital assets.

	2006 $	2005 $
Balance, beginning of year	**1,821,543**	1,466,460
Restricted grants applied toward the purchase of capital assets	**170,250**	717,351
Loss on equipment disposals and write-offs	**(3,118)**	–
Proceeds on equipment disposals	**(1,450)**	–
Less amount amortized to revenue	**(430,810)**	(362,268)
Balance, end of year	**1,556,415**	1,821,543

6. RESTRICTED CONTRIBUTIONS AND NET ASSETS

All of the net assets of the Foundation are subject to externally imposed restrictions as per the requirements of the Budget Implementation Act, 1997, which governs the Foundation and the terms of the related Funding Agreement between the Foundation and the Government of Canada. Investment revenue to be earned on the grants received from the Government of Canada is also restricted. Accordingly, the entire net assets of the Foundation are deferred and taken into revenue as expenditures are made with no net asset balance outstanding at any time. A statement of changes in net assets has therefore not been prepared since it would not provide additional useful information.

7. COMMITMENTS

During the year, the Foundation awarded grants for a maximum amount of $100.5 million [2005—$179.7 million]. Total disbursements to eligible recipients during the fiscal year were $427.4 million [2005—$263.0 million]. To date, the Foundation has awarded grants for a maximum amount of $3,023.5 million, of which $1,920.8 million had been disbursed as of the end of the fiscal year. The balance of the awarded grants will be recorded as expenses in subsequent years as funds are disbursed.

The Foundation entered into a lease agreement in 2001 for its premises at 230 Queen Street [Ottawa, Ontario] for a ten-year period starting August 2001. The minimum annual lease payments related to these premises are approximately $1,095,120. The Foundation sublets part of its current premises for an annual amount of approximately $234,000. The sub-lease agreement expires October 31, 2006.

8. PENSION PLAN

The employees of the Foundation may elect to become members of the Association of Universities and Colleges of Canada [AUCC] Pension Plan, a defined contribution plan managed by Sun Life Financial Inc. The employer contributions made to the Plan during the year ended March 31, 2006, amounted to $289,095 [2005—$246,949].

9. FAIR VALUE OF FINANCIAL INSTRUMENTS

The carrying value of amounts receivable and payable approximate their fair value given the relatively short period to maturity of the instruments. The fair values of the investments, which are based on the year-end quoted market prices, are disclosed in [note 3].

10. TAX STATUS

The Foundation is a non-taxable entity under paragraph 149(1)(1) of the Income Tax Act.