

GIVING YOUNG RESEARCHERS THE TOOLS THEY NEED TO IMAGINE AND INNOVATE

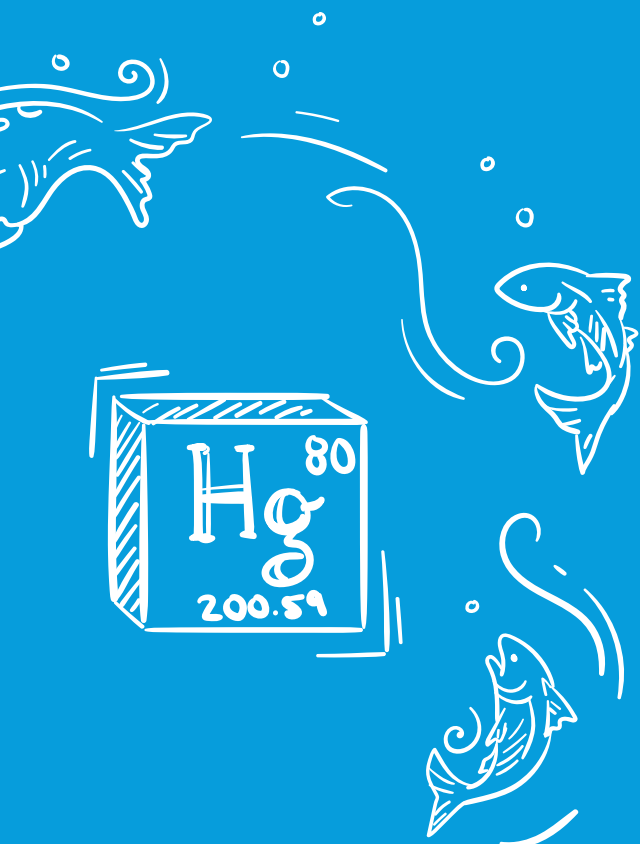
Annual report
2017-18

On the cover:

DEALING WITH MERCURY IN FOOD

PhD student Catherine Girard recalls drinking tea on an iceberg in the middle of the night during a seal hunt. It's one of the life-changing moments she has experienced during her field work in Resolute Bay, Nunavut. She works with Inuit there to analyze how mercury interacts with their traditional foods and the impact that has on their health.

Photo: Christinne Muschi



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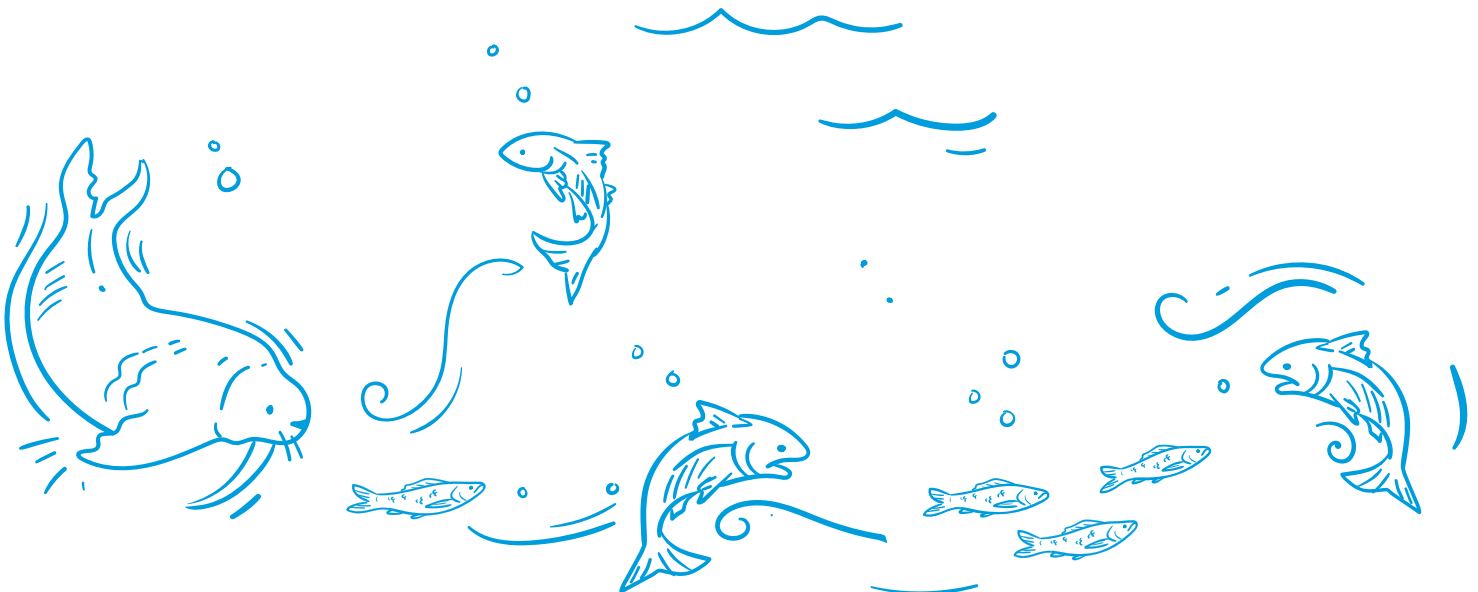
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What we do

Researchers need world-class research infrastructure to compete on the global stage. The Canada Foundation for Innovation (CFI) was created in 1997 to fund the tools essential for conducting leading-edge research in the 21st century. The CFI supports the evolving needs of Canada's universities, colleges and research hospitals across all areas of research — from health and medicine, to the natural sciences and engineering, and to the social sciences and humanities — by funding state-of-the-art equipment, laboratories and facilities.

Our objectives

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

How we do it

The CFI maximizes the funding it receives from the Government of Canada by contributing up to 40 percent of a project's research infrastructure costs. Institutions secure the remaining 60 percent through partnerships with provincial governments and other public, private and non-profit organizations. This means the more than \$7.8 billion invested by the Government of Canada through the CFI has been leveraged into a total investment of more than \$19 billion in research infrastructure in Canadian institutions since the CFI was created.

The CFI has a well-established, rigorous and independent merit-review process that rewards research excellence. We rely on experts from around the world to ensure that the very best projects are funded. CFI funding is awarded to institutions, and all funding proposals must support the institutions' strategic research plans. Proposals from eligible Canadian institutions are assessed on three main criteria: the quality of the research and need for infrastructure; the project's contribution to strengthening the capacity for innovation; and the potential benefits of the research to Canada.

Since its creation in 1997
the CFI has committed
more than

\$7.8 billion

in support of

**10,395
projects**

at

**150
research
institutions**

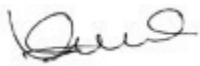
in

**72
municipalities**

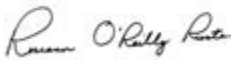
across Canada.*

* As of March 31, 2018

Looking to the new generation



Kevin P. D. Smith
Chair, Board of Directors



Roseann O'Reilly Runte
President and CEO

The past fiscal year was an especially exciting one at the CFI, with many noteworthy and impactful results. After wrapping up our 20th anniversary celebrations, we turned our attention to the future, and what we can do for researchers at every stage of their career, including the new generation just starting out. It is incumbent upon us to make sure that these researchers and innovators — with so much promise, and so much drive — have all the tools they need to seize opportunities and make important differences in the world.

This year, we also navigated an important turning point in Canadian research, had reason to celebrate good news and marked two important milestones.

The springtime release of the Fundamental Science Review, commissioned by the Honourable Kirsty Duncan, Minister of Science, offered many sage recommendations for the Government of Canada. It gave the research community new focus, and a renewed determination to work with partners to optimize public investments in research to make sure all Canadians benefit from the extraordinary research carried out in labs across the country.

In Budget 2018, the Government of Canada responded to the recommendations of the Fundamental Science Review by including the largest amount of funding to research ever in a federal budget. For the CFI, the budget included an investment of \$763 million over five years to support the development of research infrastructure at Canadian universities, colleges and research hospitals, and a commitment from the government to establish permanent funding at an ongoing level of \$462 million per year by 2023–24.

With regularized funding, we will be able to plan competitions into the future, universities and colleges will be able to effectively identify and anticipate their research infrastructure needs, and provincial co-funders will be in a better position to plan their investments in CFI-funded projects.

And most importantly, with this funding, state-of-the-art, CFI-funded infrastructure will continue to support researchers as they push the boundaries of knowledge and

undertake globally competitive research that is essential to the health, prosperity and quality of life of Canadians.

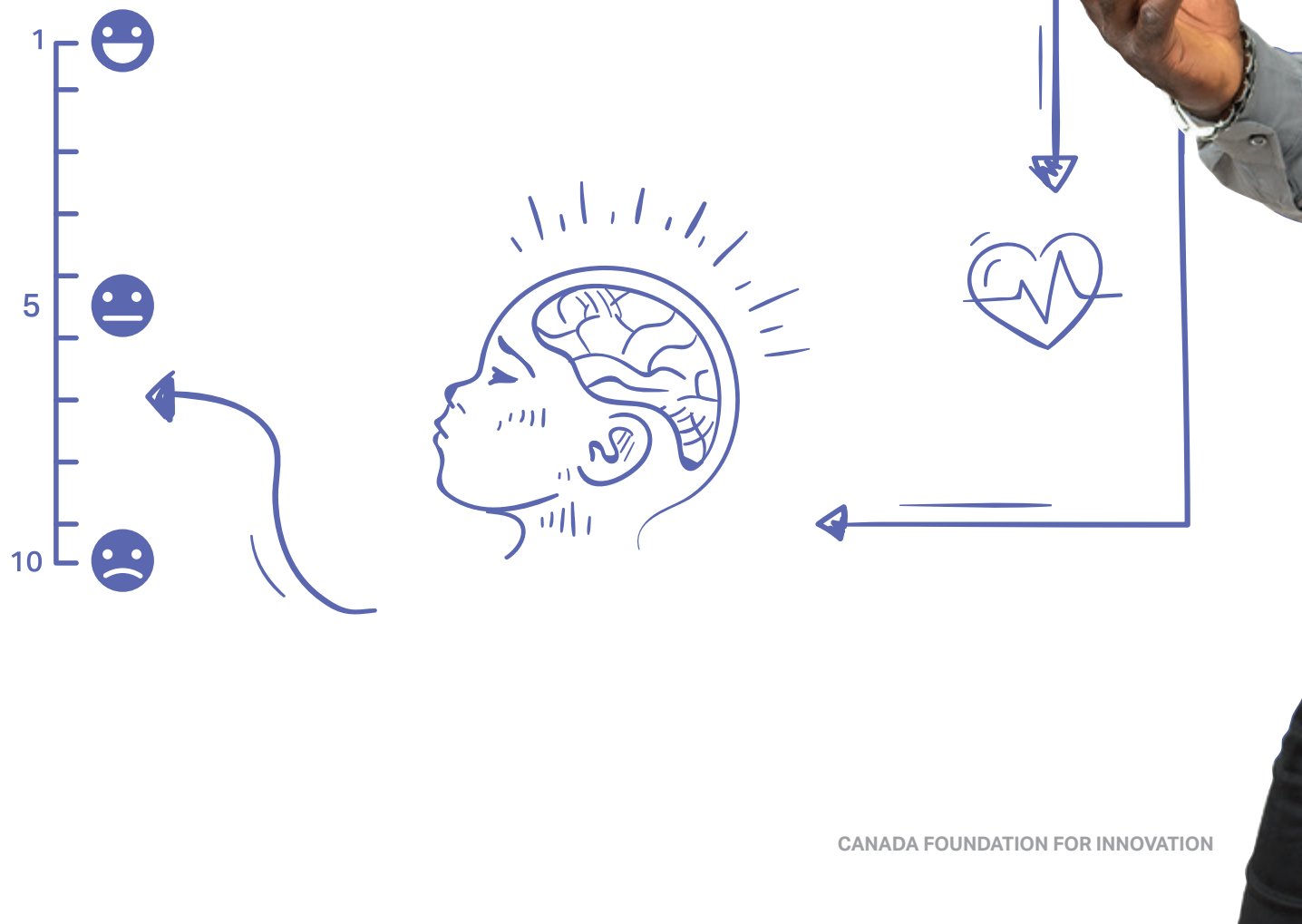
Simultaneously with the release of the Fundamental Science Review, we celebrated the first of our milestones for the year. On April 25, 2017 (shortly after our fiscal year began on April 1), the CFI marked 20 years since we opened for business with a small team of dedicated employees and the lofty goal of reshaping the Canadian research landscape. Six months later, with the October announcement of the results of one of our biggest Innovation Fund competitions yet, we highlighted just how far we've come in meeting that goal, having officially funded more than 10,000 cutting-edge research infrastructure projects. These milestones reflect the significant contribution of the CFI to building Canada's research capacity.

At the end of July, we bade farewell to Gilles Patry, whose insightful and competent leadership as our President and CEO since 2010 was instrumental in these accomplishments and many others.

When we have a year like this, we naturally want to keep the momentum going. This year, we showcased the work of some of the brilliant students and postdoctoral fellows who are the source of energy and enthusiasm, ideas and ambition that fuel so many of the labs we support. You can find their stories throughout this report.

Giving young researchers the tools they need to imagine and innovate

Today, young researchers see a future they want, and they intend to create it. They are curious, ambitious, innovative and collaborative problem solvers. The CFI helps make sure they have what it takes to realize their potential by providing the environments where they find inspiration, highly skilled training, mentors and the tools to chart their future. Throughout this report, meet a few of these remarkable people.





MEASURING PAIN IN CHILDREN

Have you ever gone to the hospital and been asked to rate your pain on a scale of one to 10? It's a highly subjective method and doesn't work for non-communicative people or infants. Through his research at the University of Waterloo, PhD student **Emmanuel Alabi** is looking for a more objective solution. He conducts clinical trials to record the involuntary responses that occur in the eye when a person feels pain. He plans to use what he learns to develop a method of measuring pain that won't leave clinicians guessing.

Photo: John BurrIDGE

Innovation Fund 2017: big ideas, big impact

Canadian researchers lead the world in many fields, from childrens' health to quantum computing. The CFI's Innovation Fund gives the country's outstanding researchers the infrastructure they need to keep pushing boundaries. Under the theme "striving for global leadership and reaping the benefits," it supports promising and innovative research and technology development in areas where Canada currently is, or has the potential to be, competitive on the global stage.

Our 2017 Innovation Fund competition invited institutions to propose transformative infrastructure projects that would underpin cutting-edge research to both position Canada as a leader and build on each institution's individual strengths. In June 2017, the CFI Board of Directors approved \$423.7 million to support 117 projects at 61 institutions. (An additional \$3.6 million was approved to cover the costs of managing and governing projects that involve many institutions.) Many of the projects leverage the power of collaboration, partnering with industry, federal and provincial organizations and investigators from a variety of fields.

THE FINAL TALLY

499 experts

**from Canada and abroad took part
in our merit-review process.**

Nearly 25 percent

**of the 117 projects are located at
18 affiliated research hospitals across
Canada, representing close to \$130 million
invested in leading-edge health research.**

40 projects

**involve a collaboration
between two or more institutions.**

Two of the projects
reside outside Canada.

Nine others
build on major partnerships
with federal government agencies.

Here are two examples of funded projects:

Stronger, lighter, greener

Whether you're hitting the highway or the runway, performance counts. That's why both aerospace and automotive manufacturers are turning to advanced composites — materials that maximize strength and durability while minimizing weight. A research program in Montreal is ensuring they get what they need. By pooling resources and expertise, three universities, three colleges, 30-plus major manufacturers and more than 100 small- and medium-sized businesses are developing the next generation of composites. In addition to being stronger and less prone to fatigue than their predecessors, the new materials are also recyclable. Unlike many current composites, new thermoplastics can be reheated, reshaped and reused for other applications when they reach the end of their life. Meanwhile, their lighter weight means vehicles need less fuel, shrinking costs and environmental impact.

The aurora borealis barometer

In the magnetosphere that surrounds the Earth, electrically charged solar winds colliding with our planet's magnetic fields can wreak havoc on everything from radio communication to the directional drilling equipment used by oil companies. This interaction also creates the aurora borealis: a phenomenon that could serve as an effective barometer of space weather. With funding from the CFI, a University of Calgary team is developing the first-ever ultraviolet imager capable of capturing 36 hours of consecutive images of the entire aurora, even on the day-lit side of the Earth. They will be the longest sequences of global images of the aurora ever recorded. The sophisticated, Canadian-made camera will take those images aboard a new satellite dubbed SMILE — Solar wind Magnetosphere Ionosphere Link Explorer — which will also collect measurements of the solar wind and Earth's magnetic field that can be correlated with the university's images. Using that rich mine of data, scientists will be able to better understand how watching the aurora can help us predict space weather.



ROLLING OUT THE BIG NEWS

The Honourable Kirsty Duncan, Minister of Science (above, right, observing a robot with artificial intelligence capabilities), was joined by our President and CEO, Roseann O'Reilly Runte (above, left), at the University of Manitoba in Winnipeg on October 12 to announce the results of our Innovation Fund competition. Several other federal Ministers rolled out the announcement across Canada, including the Honourable Amarjeet Sohi at the University of Alberta; the Honourable Scott Brison at Acadia University and Dalhousie University; the Honourable Jody Wilson-Raybould at the University of British Columbia; and the Honourable Catherine McKenna at Carleton University.

Supporting major research facilities

Through our Major Science Initiatives Fund, we help make sure that 17 national research facilities have the support they need to operate optimally. Whether physical spaces or virtual networks, these facilities serve a critical mass of researchers tackling some of the most important issues facing society. They also act as hubs to bring together some of our country's best researchers and for international scientific collaborations. As science becomes more complex, major science initiatives become more crucial for exploring the frontier of research. Having effective governance, management and operating practices is key to making sure these facilities deliver the most value for Canadians.

To that end, we held a workshop in Ottawa in October for 100 representatives from all 17 major science initiatives, and major federal and provincial funding partners. Key topics included the importance of excellent leadership at the Board level to effectively govern a large research facility, best practices for evaluating the performance of these facilities and strategies for managing human resources and reaching out to the public.

The research facilities supported through our Major Science Initiatives Fund are:

André E. Lalonde Accelerator Mass Spectrometry Laboratory
Canada's Genomics Enterprise
Canada's National Design Network
Canadian Cancer Trials Group
Canadian Centre for Electron Microscopy
Canadian Light Source
Canadian Research Data Centre Network
CCGS *Amundsen* research icebreaker
Centre for Phenogenomics
Compute Canada
Érudit
International Vaccine Centre
Metabolomics Innovation Centre
Ocean Networks Canada
Ocean Tracking Network
SNOLAB
Super Dual Auroral Radar Network

INTERNATIONAL VACCINE CENTRE

The International Vaccine Centre (InterVac) at the University of Saskatchewan is a Containment Level 3 infectious disease research facility which includes space for studying the transmission of infectious agents in animal models.



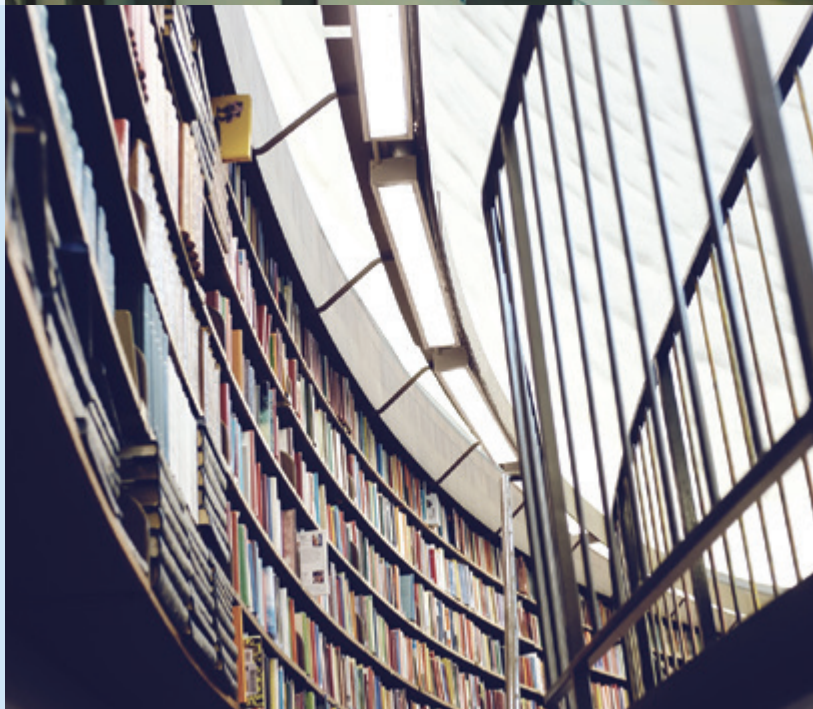
ANDRÉ E. LALONDE ACCELERATOR MASS SPECTROMETRY LABORATORY

The André E. Lalonde Accelerator Mass Spectrometry Laboratory at the University of Ottawa measures trace concentrations of radioisotopes and other rare elements that exist in the environment from natural sources and from human activities. It addresses issues of national interest and economic impact in the earth and environmental sciences, nuclear energy and health sciences.



ÉRUDIT

Érudit is an open access research production and dissemination platform based in Quebec that uses digital technology to make available extensive collections of documents and scientific data, especially in the social sciences and humanities, arts and letters.





GIVING BACK TO HER CREE COMMUNITY

Master's student, **Jaqueline Anaquod**, has made giving back to her Indigenous community a lifelong goal. As a graduate student, she is working to revitalize the Cree language by demonstrating the critical links between language and health for Indigenous Peoples. In the lab where she works in downtown Regina, she finds her inspiration from elders and friends who help guide her on her journey.

Photo: David Stobbe



Demonstrating Canada's global leadership on quantum research

Taking advantage of the unique phenomena of quantum physics to develop new technologies, this emerging field of research holds tremendous potential for disruptive innovation and is an area where Canada is well-positioned to lead. Quantum research spans a growing number of disciplines, from physics to pharmacology, from astronomy to polymer chemistry. A relatively infrastructure-intensive field of inquiry, quantum research is still largely in the discovery phase and international collaboration in the area remains limited. To address some of these challenges and to bolster Canada's position as a global leader in quantum, the CFI organized an international meeting of the world's leading researchers and research administrators in the field.

Chaired by Mona Nemer, Canada's Chief Science Advisor, the roundtable discussion took place concurrently with the American Association for the Advancement of Science's annual meeting in Austin, Texas, in February. It was attended by heads of the National Science Foundation in the United States and the Research Councils in the United Kingdom, the Deputy Director General of the League of European Research Universities, and the Presidents of both the Natural Sciences and Engineering Research Council of Canada (NSERC) and the CFI. It also included leading researchers from the University of British Columbia's Institute for Quantum Materials, the University of Waterloo's Institute for Quantum Computing and Université de Sherbrooke's Institut Quantique.

The discussions addressed challenges related to the interdisciplinarity of quantum research, the need to improve international collaboration and train new researchers in the field, and opportunities for communicating the outcomes of public investments in quantum research. In the end, participants highlighted the need to break down research silos at universities and to create spaces for collaboration within institutions and countries, as well as internationally. Broader and deeper collaboration will also help ensure a more robust training environment and speed the process of discovery to application.



Bringing the world's best researchers to Canada, and keeping them here

The **John R. Evans Leaders Fund** helps institutions attract and retain world-leading researchers. It does so by providing support for institutions to acquire the tools that enable the work of leading research faculty and help the institution create competitive research support packages including both infrastructure and a portion of operating and maintenance costs. This year, a total of \$57.6 million was awarded to 338 projects.

Unleashing the potential of research data

Big data and the supercomputing power required to exploit it have become critical for remaining at the cutting edge in nearly every area of research. In order to support research infrastructure projects that create data resources such as databases and data repositories to enable leading-edge research on important scientific, social and economic questions, the CFI launched a competition under its **Cyberinfrastructure Initiative** in March 2017. Institutions and researchers were invited to come together in consortia to propose research data infrastructure projects that would create tailored, shared and integrated data resources to support a community of researchers from across Canada. In March 2018, the Board approved \$10.2 million for six proposals under this competition. Among the projects supported were: the Cancer Genome Collaboratory, which builds on existing resources to support cancer informatics and is aimed at enhancing precision medicine for better health outcomes; and the Linked Infrastructure for Networked Cultural Scholarship, which will convert, connect and improve access to and use of large cultural datasets to help answer important questions in humanities research.

Supporting business innovation

The **College-Industry Innovation Fund** helps colleges support business innovation by providing them with industry-relevant research infrastructure to foster partnerships with the private sector in a specific area of strategic priority to the institution.

Stream 1 of this fund supports infrastructure requests aimed at enhancing existing applied research and technology development capacity in colleges. Eleven projects were approved for funding from this stream this year for a total contribution of \$8.2 million.

The funded projects range from developing new products for the beverage industry to mapping the ocean floor.

Stream 2 of this fund supports research infrastructure associated with an application for a five-year grant from the tri-agency's College and Community Innovation-Innovation Enhancements program, which is managed by NSERC. This joint initiative allows colleges to apply for a comprehensive funding package supporting both research activities and research infrastructure costs. This year, \$2.35 million was invested in four projects at four institutions. The Southern Alberta Institute of Technology will use its funding to develop innovative applications of driverless vehicles; the Northern Alberta Institute of Technology will create the Centre for Culinary Innovation, where they will work with the private sector to develop new food products; while the Cégep de Thetford and the Cégep de La Pocatière, both in Quebec, will use their infrastructure to develop, respectively, new mineral extraction processes and new eco-materials from biotechnology that capitalizes on the unique properties of fungi.

Keeping things running

The **Infrastructure Operating Fund** provides funding equivalent to 30 percent of CFI capital awards to assist institutions in the operation and maintenance of CFI-funded infrastructure. We awarded \$150.6 million to institutions across Canada to help operate and maintain the state-of-the-art infrastructure we fund.

Celebrating Canadian innovation

The 2017 recipients of the second annual Governor General's Innovation Awards were announced in May. Among the seven winners was David Brown from Island View, N.B., who developed a way to produce chitosan, an important pharmaceutical ingredient, directly from a fungal fermentation. Patricia Lingley-Pottie and CFI-funded researcher Patrick McGrath from Halifax, N.S., also won for their creation of the Strongest Families Institute, which connects with families by phone or Internet to help address common health and mental health issues from a distance. In 2018, the CFI continued its third year of managing the adjudication process for the awards program by drawing on the best practices of our merit-review process. The 2018 recipients were announced in May 2018.



Measuring how we perform

To assess the research community's perceptions of the CFI and its activities, every two years we survey project leaders of CFI-funded infrastructure, research administrators at institutions eligible for CFI funding and various members of Canada's research ecosystem who do not receive CFI funding. We look at how they view the CFI and its role in the country's research and innovation system. Of the 2,004 people invited to complete our stakeholder satisfaction survey, 869 responded, and what they told us was overwhelmingly positive.

The CFI is considered very effective at meeting its mandate.

94%

said the CFI is valuable to Canadian science, technology and innovation.

85%

were satisfied with the design of the funds, while

92%

were satisfied with the way they are delivered.

How do investments in agricultural research lead to impacts on Canadians?

The agriculture and agri-food sector in Canada accounts for more than 6.5 percent of the country's GDP and is responsible for more than two million jobs. It relies on research to grow and remain globally competitive. To trace how five important areas of agricultural research — greenhouse gas emissions, dairy farming, antimicrobial resistance, resilient crops and grain storage — ultimately impact Canadians, we analyzed CFI contributions in these areas between 1998 and 2016 at 19 institutions.

We found that:

- The uptake of new technology is accelerated when there is active engagement between researchers and farmers.
- Collaboration between researchers, farmers and industry accelerates innovation resulting in benefits, such as more environmentally friendly and productive farming practices.
- Students and postdoctoral fellows working in research labs are essential to the success of these collaborations and they are often involved in creating or strengthening them.

Navigator: new look, new features, and growing interest

In October, the Research Facilities Navigator revealed exciting new features that make it easier for researchers, industry and other partner organizations to search, connect and collaborate. These included a more intuitive web design, improved search functionality and a better mobile experience.

The Navigator is the CFI's online directory showcasing leading-edge Canadian research facilities open to working with industry. With nearly 600 facilities listed, the Navigator helps visitors find the expertise, research services and specialized equipment they need to innovate and succeed. Its innovative approach has garnered international attention, including being highlighted as a case study in a report by the Organisation for Economic Co-operation and Development's Directorate for Science, Technology and Innovation. The policy paper, which looked at digital platforms created to help make it easier to access research infrastructure, noted the Navigator as a successful model.

Particle physics brings people together

The CFI's 20th Annual Public Meeting in Ottawa in November featured guest speaker, Fabiola Gianotti, Director-General of CERN, the European Organization for Nuclear Research (below). Gianotti spoke to more than 100 guests about the groundbreaking research being conducted at CERN, and how its innovative model brings together more than 3,000 scientists from 40 countries to collaborate in the quest to better understand the fundamental structure of the universe.



SCIENCE MACHINES

Girl Guides peer into hand lenses (above) at the University of Victoria as part of an outreach activity called "Science Machines." The pilot program gives Brownies, Girl Guides and Pathfinders hands-on experience with the CFI-funded machines researchers use to explore our world. It aims to get young girls excited about science as they learn more about research equipment and labs — and the people who run them.

More than 10,000 ways to make Canadian research world-class

With the June 2017 approval of 117 projects newly funded under the Innovation Fund, we surpassed the 10,000 mark for world-class research projects supported since the CFI began in 1997. And, oh, what a difference 10,000 projects make when you're positioning Canada at the leading edge! To grasp how these investments have transformed Canadian research, the numbers say it all.*

A major boost for Canadian research

A bold vision and support from the Government of Canada

\$7.7 billion invested, including **\$1.9 billion** to operate and maintain research tools and facilities



A strong commitment from the provinces, private sector and others to collaborate

\$10.7 billion more in matching funds from partners



A never-before-seen capacity for research in Canada

\$18.4 billion in state-of-the-art research tools and spaces since 1997

BRITISH COLUMBIA

1,277 projects
\$1.1 billion

QUEBEC

2,628 projects
\$1.8 billion

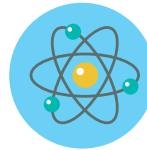


Advancing research in all areas



HEALTH

4,320
projects
\$2.8 billion
invested



SCIENCES

2,080
projects
\$1.7 billion
invested



ENGINEERING

2,063
projects
\$1.2 billion
invested



ENVIRONMENT

952
projects
\$346 million
invested



SOCIAL SCIENCES AND HUMANITIES

666
projects
\$146 million
invested

Investing in every province

ALBERTA

886 projects
\$636 million

SASKATCHEWAN

350 projects
\$351 million

MANITOBA

325 projects
\$126 million

ONTARIO

3,768 projects
\$3.4 billion

NEW BRUNSWICK

193 projects
\$40 million

PRINCE EDWARD ISLAND

33 projects
\$12.3 million

NOVA SCOTIA

463 projects
\$166 million

NEWFOUNDLAND AND LABRADOR

158 projects
\$86 million

* Data reflect funding amounts approved by the CFI Board of Directors up to the June 2017 Board meeting. Values for areas of research do not include infrastructure operating funds but do include funding from the Major Science Initiatives Fund.

Voices of a new generation

In CFI-funded facilities, a new generation of researchers: gains advanced knowledge working with leaders in all fields; develops sought-after skills through hands-on experience; and gets real-life experience that opens up job prospects in all sectors. This year, we set out to both evaluate the importance of our investments for training the next generation, and to communicate their experiences to decision makers and Canadians.

Meeting students and post-docs face-to-face

Over the course of the year, the CFI conducted seven focus groups with participants from 11 institutions across the country where we met with graduate students and postdoctoral fellows who work in CFI-funded facilities to ask questions like: "How did using CFI-funded research infrastructure contribute to the development of your skills and knowledge?" What they said left little doubt: state-of-the-art training environments are critical for young researchers to develop in-demand skills and expertise that provide them a competitive edge when pursuing further education and ultimately their career.

Here's what they reported:

- The availability of research infrastructure influenced where many students chose to study.
- Research infrastructure created opportunities to collaborate and interact with researchers in other departments within the institution and at other universities, along with private companies, other students and other users of the research infrastructure.
- Laboratories complete with a wide range of CFI-funded research equipment provide students and post-docs with hands-on experiences that complement classroom learning.
- CFI-funded research infrastructure allows young scholars to pursue their research ideas and gain experience and confidence in operating cutting-edge technical equipment.
- Many trainees believe they are gaining, or have gained, a competitive advantage to pursue further studies or enter the job market as a result of their experiences with CFI-funded research infrastructure.
- While some anticipated career-related challenges, they still tended to have an optimistic outlook for the future.

State-of-the-art training environments are critical for young researchers to develop in-demand skills and expertise that provide them a competitive edge when pursuing further education and ultimately their career.

To highlight the achievements of Canada's new generation of innovators, and to illustrate how access to CFI-funded tools and research spaces has helped advance their research and their careers, we shared stories of a number of students and post-docs, including Carleton University graduate, **Daniella Niyonkuru** (right). Niyonkuru completed her master's in electrical and computer engineering and is now a devoted mentor, showing girls that a career in tech is within reach.



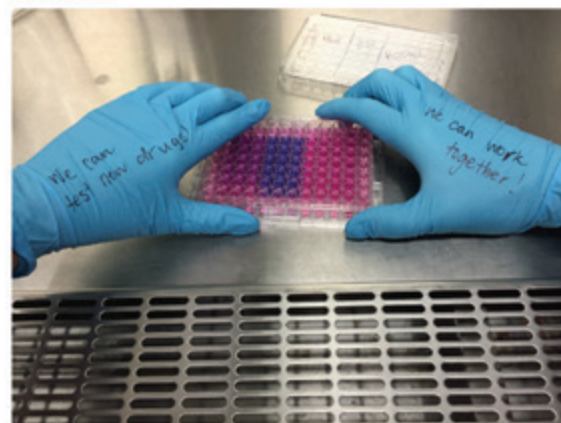
The CFI reached out through social media to find out how students across the country are benefiting from working with state-of-the-art tools. Through the #IAmInnovation Twitter contest, we heard from dozens of young researchers about their enriching CFI experiences, including one of the winning tweets (right) from Dalhousie University PhD student **Krysta Coyle**, who is exploring new drug treatments for cancer. The other two winners were PhD candidate **Arinjay Banerjee** of the Department of Veterinary Microbiology at the University of Saskatchewan in Saskatoon, who is researching the potentially high impact of emerging viruses on humans; and master's student **Connor Stone** of the Department of Physics, Engineering Physics and Astronomy at Queen's University in Kingston, Ont., who is striving to improve our understanding of the universe's dark matter.



Krysta Coyle, PhD
@microbialkrysta

Following

Our @InnovationCA funding lets me hunt for ways to predict how different types of cancer will respond to new drugs. #IAmInnovation #contest



6:03 PM - 1 Dec 2017

In February, Lloyd Longfield, Member of Parliament for Guelph, and the CFI hosted an event on Parliament Hill that highlighted the experiences of students and post-docs, along with their mentors, in CFI-funded labs and facilities. Over 100 people attended, including Celina Caesar-Chavannes, Member of Parliament for Whitby, Ont. (far right, with University of Waterloo PhD student, **Emmanuel Alabi** (see pg. 5), centre, and his supervisor, Trefford Simpson).



Reviewing our investment strategy and policy

The CFI Board's Investment Committee, which oversees the management and investment of CFI funds, reviewed our investment strategy and policy in the fall of 2017. Our portfolio of investments is decreasing and will continue to do so in the coming months as funds transferred to the CFI in the early years are now almost entirely depleted. Since 2008, the CFI has been receiving funds sufficient to cover projected award disbursements to institutions in a given year. As a result, the CFI concentrates on more liquid investments and maintains an appropriate liquidity policy.

are automatically subject to an audit, and the risks associated to a project determine the scope, nature and extent of the audit activities.

Financial reports are submitted by institutions for each CFI-funded project at specific intervals, ranging from quarterly reporting to biennial reporting. The frequency is determined by the complexity and risk of each project. This year we received more than 900 financial reports from recipient institutions. These reports provide information on individual project costs, funding and timelines for the acquisition of the infrastructure. We reviewed each of these financial reports to identify and address any issues.

Remaining accountable for taxpayer dollars

The CFI regularly visits recipient institutions to discuss their policies, practices, processes and controls for grant management over the lifecycle of CFI awards, and assesses how well they are managing CFI-funded projects. The CFI uses a risk-based approach to select institutions for these monitoring visits. This year, we conducted six visits, during which we also shared good practices different institutions use for managing their CFI funds.

The CFI also conducts contribution audits and other cost reviews to ensure the funding received by an institution for a given project has been used in accordance with the terms and conditions of the award agreement, and with applicable policies and guidelines. We performed contribution audits or other cost reviews on 12 projects in 2017-18. All projects with a CFI contribution exceeding \$10 million





SEEKING A TREATMENT FOR ALS

When viruses infected our ancestors millions of years ago, they left behind strands of their DNA embedded in human brain cells. At the University of Manitoba, PhD student **Sheena Gurm** studies these viral sequences as part of a research team seeking to understand the causes of ALS, also known as Lou Gehrig's disease. Her research may lead to new treatments, such as the use of antiretroviral drugs, to combat this debilitating and ultimately deadly affliction.

Photo credit: Thomas Fricke

Governance

Board of Directors

The CFI Board of Directors is composed of a maximum of 13 individuals from a variety of backgrounds, each Director offering a unique perspective and understanding of the research community and bringing expertise from one or more of the private, institutional, academic and research sectors. The Government of Canada appoints six Directors, including the Chair, while the remaining Directors are appointed by CFI Members. Directors are nominated and appointed for three-year terms. Consideration is given to gender balance and geographical representation.

Kevin P. D. Smith*, Chair (Ont.)

Audit and Finance Committee,
Governance and Nominating Committee,
Investment Committee

Margaret Bloodworth, Vice-Chair (Ont.)

Chair, Governance and Nominating Committee

Alain Beaudet* (Ont.)

Micheline Bouchard (Que.)

Chair, Investment Committee

Lynda Brown-Ganzert* (B.C.)

Audit and Finance Committee

William Driedzic (N.L.)

Audit and Finance Committee

(term expired June 2017)

Michel Kelly-Gagnon* (Que.)

Governance and Nominating Committee

Leslie MacLaren (N.S.)

Audit and Finance Committee

Rod McInnes (Que.)

Cecilia Moloney (N.L.)

(appointed June 2017)

Ingrid Pickering (Sask.)

Governance and Nominating Committee

Ian Seymour (Man.)

Audit and Finance Committee

Prem Singhmar* (Alta.)

Governance and Nominating Committee

Gordon F. Stovel* (Ont.)

Investment Committee; Chair, Audit
and Finance Committee

* Governor-in-Council appointment

Members

The Board of Directors reports to a higher governing body made up of our Members, who represent the Canadian public (they are similar to a company's shareholders). Members are nominated and appointed by other Members for a five-year term. They meet in June each year and are responsible for appointing seven of the Board Directors, appointing external auditors, reviewing audited financial statements and approving the annual report before it is released at the annual public meeting.

Linda Humphreys, Co-Chair (Alta.)

Ronald Morrison, Co-Chair (Ont.)

Lorne Babiuk (B.C.)

(appointed June 2017)

Harold Cook (N.S.)

Members Governance
and Nominating Committee

Elizabeth Douville (Que.)

Joanne Gassman (B.C.)

Jack Gauldie (Ont.)

Roland Hosein (Ont.)

(term expired June 2017)

Marilyn Luscombe (N.B.)

Leigh Murphy (Man.)

(term expired June 2017)

Louise Proulx (Que.)

Members Governance
and Nominating Committee

Pierre Richard (Ont.)

(appointed June 2017)

Emőke Szathmáry (Man.)

Chair, Members Governance
and Nominating Committee

Vianne Timmons (Sask.)

Members Governance
and Nominating Committee

Luc Vinet (Que.)

Roseann O'Reilly Runte joined the CFI in August 2017 as President and CEO. As former President and Vice-Chancellor of Carleton University in Ottawa, she brings a wealth of experience in the university sector both nationally and abroad. With the able assistance of CFI staff, she takes up the challenge of bringing the CFI's achievements and needs to the attention of governments and other key stakeholders.

Ranges of remuneration

Board of Directors and Members

Directors opting to receive remuneration from the CFI are entitled to an annual retainer of \$5,000. Committee Chairs receive \$7,500, and the Board Chair receives \$10,000. Directors 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. Members and Directors may, however, be reimbursed for any reasonable out-of-pocket expenses incurred while performing their duties or attending CFI meetings. In 2017–18, the remuneration of Board Directors ranged from \$0 to \$17,500.

For the fiscal year ending March 31, 2018, compensation for CFI staff whose remuneration exceeded \$100,000 was within the following annual salary ranges*:

CFI Management (Officers)

Roseann O'Reilly Runte

President and CEO
\$213,700 to \$299,200

Manon Harvey, Vice-President
Finance and Corporate Services
\$141,600 to \$196,000

Guy Levesque, Vice-President
Programs and Performance
\$141,600 to \$196,000

Pierre Normand, Vice-President
External Relations and Communications
\$141,600 to \$196,000

Employees

Director, Programs
\$117,300 to \$156,500

Director, Communications
Director, Corporate Services
Director, Finance
Director, Performance, Analytics and Evaluation
\$102,200 to \$136,300

Manager, Finance
Manager, Information Management/ Information Technology
Manager, John R. Evans Leaders Fund
Senior Advisor, Policy and Planning
Senior Programs Officers
Senior Project Manager
\$92,900 to \$123,600

Manager, Administration
Manager, Creative Services
Manager, Human Resources
Senior Financial Monitoring Officer
\$83,500 to \$110,900

* Salary ranges are in line with those of other agencies contracted by the Government of Canada to deliver on specific mandates.



Here's what the CFI is working on for 2018–19:

- Demonstrating how we help to attract early career researchers to Canada and jumpstart their careers with access to the top-notch research tools they use to make their mark
- Developing the Research Facilities Navigator by expanding its content and promotion
- Organizing the fifth annual workshop for facilities funded through the Major Science Initiatives Fund to share experiences and best practices in the operations and governance of national research facilities
- Making recommendations for the next College-Industry Innovation Fund – Stream 1 competition
- Undertaking a project to bring new perspectives to evaluating and measuring the success of CFI investments in research infrastructure
- Undertaking an analysis of the way CFI investments support private-sector innovation and competitiveness
- Organizing a panel at the EuroScience Open Forum in Toulouse, France, to discuss the changing expectations and challenges of large-scale research infrastructures like telescopes, synchrotrons, research vessels and colliders
- Playing a key role in organizing and participating in the sixth annual Impact of Science conference in Ottawa — the first time the international gathering that focuses on finding shared approaches to assess, enable and accelerate the impact of science on society is being held outside Europe



REINVENTING THE GROCERY AISLE

A part-time job in a golf-course kitchen was **Nathan Knapp-Blezius'** introduction to professional cooking. Years later, his love of food and his fascination with the interplay of aromas and textures in great-tasting dishes brought him to the experimental kitchens at the Canadian Food & Wine Institute Innovation Centre at Niagara College. By mixing the culinary arts with a dash of scientific method, he's helping food companies create scrumptious new products. One of his most innovative projects: a cricket pesto.

Photo credit: John BurrIDGE

Financials

Highlights*

Total disbursements to eligible recipients: \$369.7 million, an increase from the previous year's total of \$320.7 million

Operating expenses: \$15.5 million, up from \$14.4 million the previous year, due in part to a one-time early termination fee paid in relation to the lease cancellation for the CFI's current premises and an increase in salary expenses for the hiring of four new employees to fill vacant positions. This was offset by lower competition-related travel expenses.

Ratio of operating expenses as a percentage of annual disbursements to recipient institutions: 4.2 percent

Cumulative ratio of operating expenses since the CFI began: 3.3 percent

Awards approved: a maximum of \$656.3 million

Awards approved since the CFI began: a maximum amount of \$7.8 billion, including \$1.69 billion of investment revenues earned so far

Investment of CFI contributions plus those from institutions and their partners since the CFI began: approximately \$19.1 billion

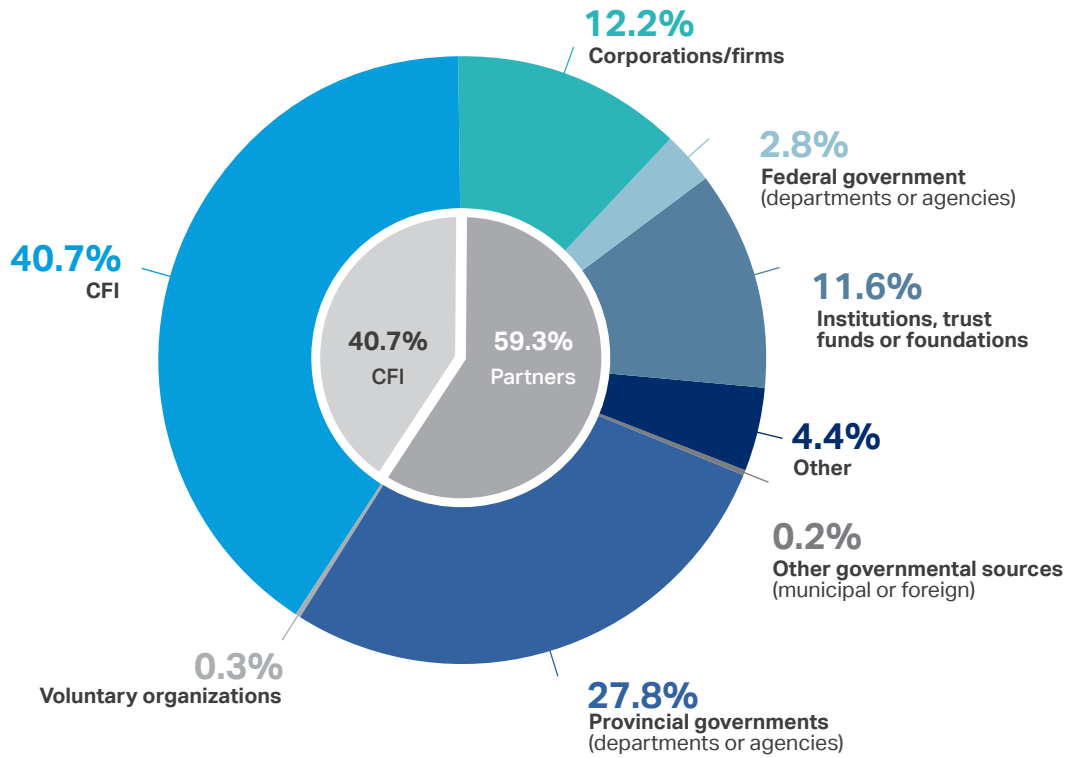
Allocations received from the Government of Canada: \$250.9 million

Amount committed in grants to the CFI by the Government of Canada since the CFI began: \$6.82 billion, of which \$5.39 billion has been received. The balance will be received in future years, based on annual cash requirements.

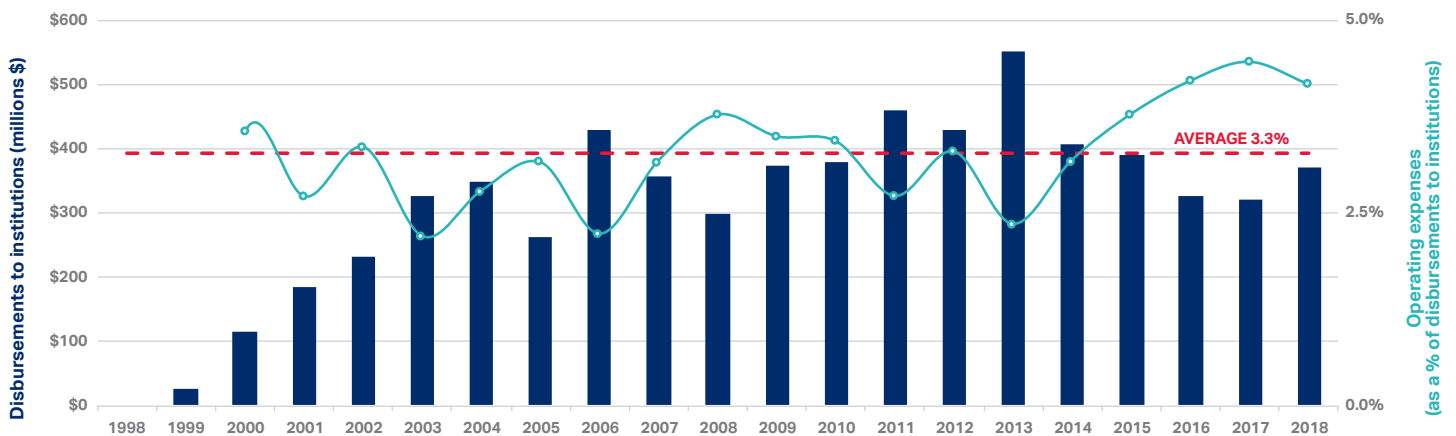
Amount remaining at March 31 as deferred contributions related to expenses of future years (which is used for making disbursements in subsequent years for approved projects and for CFI operations): \$290.5 million

* For the year ending March 31, 2018

**CFI contribution and other funding sources:
Total \$19.1 billion***



**Annual disbursements to institutions and operating expenses
as a percentage of disbursements***



* As of March 31, 2018

Independent auditor's report

To the Members of the
Canada Foundation for Innovation

We have audited the accompanying financial statements of the Canada Foundation for Innovation, which comprise the statement of financial position as at March 31, 2018 and the statements of operations and of cash flows for the year then ended and a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian public sector accounting standards for government not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditors' responsibility

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 comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

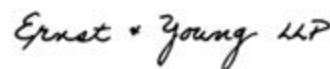
An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Canada Foundation for Innovation as at March 31, 2018 and the results of its operations and its cash flows for the year then ended in accordance with Canadian public sector accounting standards for government not-for-profit organizations.

Ottawa, Canada
June 19, 2018



Chartered Professional Accountants
Licensed Public Accountants

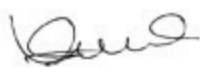
Statement of financial position

As at March 31

	2018 \$	2017 \$
ASSETS		
Cash	19,847,933	21,628,938
Interest and other receivables	2,042,594	2,175,083
Investments (note 5)	269,151,356	394,719,027
Prepaid expenses	300,785	577,894
Capital assets (note 6)	2,197,752	3,069,174
	293,540,420	422,170,116
LIABILITIES AND NET ASSETS		
Accounts payable and accrued liabilities	865,554	895,207
	865,554	895,207
Deferred contributions (note 7)		
Expenses of future years	290,477,114	418,205,735
Capital assets	2,197,752	3,069,174
	293,540,420	422,170,116
Commitments (note 8)		
Net assets (note 9)	—	—
	293,540,420	422,170,116

See accompanying notes

ON BEHALF OF THE BOARD



Director



Director

Statement of operations

Year ended March 31

	2018 \$	2017 \$
REVENUE (note 7)		
Recognition of deferred contributions related to amounts granted to eligible recipients	369,667,306	320,738,683
Recognition of deferred contributions related to current year operations	14,489,938	13,381,897
Amortization of deferred contributions related to capital assets	991,338	976,341
	385,148,582	335,096,921
EXPENSES		
Grants to eligible recipients	369,667,306	320,738,683
General and administration	14,489,938	13,381,897
Amortization of capital assets	991,338	976,341
	385,148,582	335,096,921
EXCESS OF REVENUE OVER EXPENSES	—	—

See accompanying notes

Statement of cash flows

Year ended March 31

	2018 \$	2017 \$
OPERATING ACTIVITIES		
Excess of revenue over expenses	—	—
Add (deduct) items not involving cash		
Amortization of capital assets	991,338	976,341
Amortization of deferred contributions related to capital assets	(991,338)	(976,341)
Net increase (decrease) in amortization of discount/premium on investments	1,281,185	(2,497,917)
Net decrease in deferred contributions related to expenses of future years	(378,628,621)	(327,070,053)
	(377,347,436)	(329,567,970)
Net change in non-cash working capital balances related to operations (note 11)	379,945	(119,521)
	(376,967,491)	(329,687,491)
Capital		
Purchase of capital assets	(119,916)	(165,600)
Increase in deferred contributions related to capital assets	119,916	165,600
	—	—
INVESTING ACTIVITIES		
Purchase of investments	(374,093,048)	(592,978,540)
Proceeds from disposal of investments	498,379,534	730,647,056
	124,286,486	137,668,516
FINANCING ACTIVITIES		
Grants received (note 7)	250,900,000	198,550,000
	250,900,000	198,550,000
Net increase (decrease) in cash during the year	(1,781,005)	6,531,025
Cash, beginning of year	21,628,938	15,097,913
Cash, end of year	19,847,933	21,628,938

See accompanying notes

Notes to Financial Statements

March 31, 2018

1. Description of business

The Canada Foundation for Innovation or (CFI) was incorporated on April 25, 1997, under Part 1 of the Budget Implementation Act, 1997 (Act) for the purpose of making research infrastructure grants to Canadian universities, colleges, hospitals and non-profit research institutions to increase the capability for conducting high-quality research.

Grants received from the Government of Canada and related investment income are administered and invested in accordance with the requirements of the Act and the terms and conditions of the Funding and the Contribution Agreements between the CFI and the Government of Canada.

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

2. Summary of significant accounting policies

The financial statements have been prepared by management in accordance with Canadian public sector accounting standards for government not-for-profit organizations and include the following significant accounting policies:

Revenue recognition

The CFI follows the deferral method of accounting for contributions that include grants from the Government of Canada and potential donations from other sources.

Externally restricted contributions and related investment income are deferred and recognized as revenue in the year in which the underlying expenditures are incurred. A receivable is recognized if the amount to be received can be reasonably estimated and collection is reasonably assured.

Externally restricted 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 disbursements of funds are authorized by management, and all eligibility criteria are met.

Financial instruments

The CFI records interest and other receivables, investments and accounts payable and accrued liabilities at amortized cost using the effective interest method of amortization. Cash is measured at fair value.

Purchases of investments are recorded on the settlement date.

Financial instruments recorded at fair value are grouped into Levels 1 to 3 based on the degree to which fair value is observable:

- **Level 1**—fair value measurements are those derived from quoted prices (unadjusted) in active markets for identical assets or liabilities;
- **Level 2**—fair value measurements are those derived from inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly (i.e., as prices) or indirectly (i.e., derived from prices); and
- **Level 3**—fair value measurements are those derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

The fair value hierarchy requires the use of observable market inputs whenever such inputs exist. A financial instrument is classified to the lowest level of hierarchy for which a significant input has been considered in measuring fair value.

The financial instrument recorded on the statement of financial position at fair value is composed of cash and is listed as Level 1.

Capital assets

Purchased capital assets are recorded at cost while contributed capital assets, if any, are recorded at fair value at the date of contribution. Repairs and maintenance costs are charged to expenses. When a capital asset no longer contributes to the CFI'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 and terms:

Leasehold improvements	Term of the lease
Furniture and other equipment	5 years
Computer and software	3-5 years
Awards management system	Remaining months to March 2021

Development costs for the CFI Awards Management System are capitalized and amortized when the new functionalities become operational. Development costs are comprised mainly of professional services.

Use of estimates

The preparation of these financial statements requires the CFI's management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from these estimates. These estimates are reviewed periodically and, as adjustments become necessary, they are reported in the periods in which they become known. The most significant estimates used in preparing these financial statements include assumptions used in determining the collectability of accounts receivable, the estimated useful lives of capital assets and the amount of accrued liabilities.

3. New accounting standards

The Public Sector Accounting Board issued new accounting standards on related party transactions effective for fiscal years beginning on or after April 1, 2017. The CFI has reviewed these new standards and determined that they do not have a financial statement impact and no additional note disclosures are required related to these standards.

The first accounting standard (PS 3420) deals with interentity transactions. This new Section establishes standards on how to account for and report transactions between public sector entities that comprise a government's reporting entity from both a provider and recipient perspective.

Other new accounting standards include Related party disclosures (PS 2200), Contingent assets (PS 3320) and Contractual rights (PS 3380). These new accounting standards only impact note disclosures.

4. Capital management

In managing capital, the CFI focuses on liquid resources available for operations and to be disbursed to eligible recipients. The CFI's objective is to have sufficient liquid resources to continue operating in accordance with the Funding and the Contribution Agreements between the CFI and the Government of Canada, despite adverse events with financial consequences, and to provide it with the flexibility to take advantage of opportunities that will advance its purposes. The need for sufficient liquid resources is considered in the preparation of an annual corporate plan, including long-term cash flow projections and budget. Disbursements to eligible recipients and actual operating results are monitored and compared to the cash flow projections to ensure availability of sufficient liquid resources. As at March 31, 2018, the CFI has met its objective of having sufficient liquid resources to meet its current obligations.

5. Investments

Investments comprise the following financial instruments:

	2018		2017	
	Fair value \$	Carrying value \$	Fair value \$	Carrying value \$
Money market funds	4,981,056	4,981,150	27,957,647	27,957,577
Bonds	88,029,299	88,079,116	138,072,806	137,154,318
NHA mortgage-backed securities	26,295,189	26,394,085	80,082,398	80,147,304
High interest savings account	149,697,005	149,697,005	149,459,828	149,459,828
	269,002,549	269,151,356	395,572,679	394,719,027

Market risk

Interest rate risk

Interest rate risk arises when the value of an investment fluctuates due to changes in market interest rates. For the year ended March 31, 2018, if the interest rates on bonds had a 1% increase or decrease with all other variables held constant, the increase or decrease in the interest earned for the year would have been approximately \$1.1 million [2017 – \$1.9 million]. The increase or decrease in the interest rate was not calculated for NHA mortgage-backed securities.

Price risk

Price risk is the risk that the fair value of a financial instrument will fluctuate because of changes in market prices (other than those arising from interest rate risk), whether those changes are caused by factors specific to an individual financial instrument or its issuer, or factors affecting all similar securities traded in the market.

As at March 31, 2018, a 1% increase in market price would result in an increase of the fair value for investments of approximately \$2.7 million [2017 – \$4 million].

The CFI's grant commitments do not exceed the total of its investments, related investment income, and grants committed from the government that will be received in future years. The timing of investment maturities is matched to projected cash outflows. The degree of volatility is mitigated by the CFI's policy that it will not invest in shares, warrants or other equities, convertible debt securities, derivatives, swaps, options or futures. As such, management believes that interest rate and price risks are appropriately managed.

Coupon rates for bonds held to maturity range from 1.95% to 5.50% [2017 – 1.11% to 5.50%]. The rates for mortgage-backed securities range from 1.82% to 2.27% [2017 – 1.24% to 2.27%].

The high interest savings accounts are tiered-rate interest accounts that combine high interest, liquidity and security of a simple deposit account, established for the purpose of investment. The interest rates for these accounts range from 1.032% to 1.85% [2017 – 1.072% to 1.15%].

Currency risk

Currency risk is the risk that the fair value of a financial instrument will fluctuate because of changes in foreign exchange rates. The CFI is not exposed to currency fluctuations.

Liquidity risk

Liquidity risk is the risk of not being able to meet cash requirements in a timely and cost effective manner.

The CFI matches the timing of investment maturities to projected cash outflows and, as such, liquidity does not present a significant financial risk to the CFI.

The maturity of money market funds is in April 2018 [2017 – between April 2017 and May 2017]. Bond maturities range between June 2018 and June 2019 [2017 – between April 2017 and June 2019].

The maturities of mortgage-backed securities range between July 2018 and December 2018 [2017 – between May 2017 and December 2018].

Credit risk

Credit risk arises from the potential that the issuer of an investment will fail to perform its obligations.

Concentrations of credit risk exist when a significant proportion of investments are invested in securities with similar characteristics or subject to similar economic, political or other conditions.

It is the CFI's policy to invest only in securities with at least AA investment ratings, or the equivalent. As well, the CFI's investment policy restricts the single largest issuer, in the case of all but AAA Government, to a maximum of 1% to 20% [2017 – 1% to 20%] of the total investment portfolio depending on the investment category. As such, management believes that credit risk is appropriately managed.

6. Capital assets

Capital assets consist of the following:

	2018			2017
	Cost \$	Accumulated amortization \$	Net book value \$	Net book value \$
Leasehold improvements	2,657,056	2,638,825	18,231	8,811
Furniture and other equipment	902,468	895,448	7,020	10,745
Computers and software	995,666	898,354	97,312	83,380
Awards management system	6,629,688	4,554,499	2,075,189	2,966,238
	11,184,878	8,987,126	2,197,752	3,069,174

Total cost and accumulated amortization related to capital assets held at March 31, 2017 were \$11,064,962 and \$7,995,788 respectively.

7. Deferred contributions

The CFI operates under two active Funding Agreements and two Contribution Agreements with the Government of Canada. As at March 31, 2018, the Government of Canada had committed \$6.82 billion in grants to the CFI under these agreements, of which \$5.39 billion had been received. The terms and conditions of these agreements call for remaining grants to be paid to the CFI annually, subject to sufficient appropriation by Parliament, based on the estimated cash requirements for the year. During the fiscal year, the CFI received \$250.9 million [March 31, 2017 – \$198.6 million] related to these agreements.

Expenses of future years

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

	2018 \$	2017 \$
Balance, beginning of year	418,205,735	546,725,788
Add grants received	250,900,000	198,550,000
Add restricted investment revenue earned	5,648,539	7,216,127
Less amount recognized as revenue	(384,157,244)	(334,120,580)
Less amount applied toward capital assets acquired	(119,916)	(165,600)
Balance, end of year	290,477,114	418,205,735

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.

	2018 \$	2017 \$
Balance, beginning of year	3,069,174	3,879,915
Restricted grants applied towards the purchase of capital assets	119,916	165,600
Less amount amortized to revenue	(991,338)	(976,341)
Balance, end of year	2,197,752	3,069,174

8. Commitments

During the year, the CFI approved grants for a maximum amount of \$656.3 million [2017 – \$470.6 million]. Total disbursements to eligible recipients during the fiscal year were \$369.7 million [2017 – \$320.7 million]. As at March 31, 2018, the CFI has approved grants for a maximum amount of \$7,784.4 million, of which \$6,576.6 million had been disbursed. To date, the CFI has award agreements in place related to these approved grants in the amount of \$7,229.3 million and, therefore, has outstanding contractual obligations of \$652.7 million at March 31, 2018.

The CFI estimates these obligations to be disbursed as follows:

	in millions of \$
2019	189.3
2020	150.1
2021	111.0
2022	97.9
2023 onwards	104.4
Total estimated disbursements	652.7

In August 2011, the CFI renewed the lease agreement for its premises at 230 Queen Street, Ottawa, Ontario, for a 10-year period ending July 31, 2021, with option to terminate after five years. The minimum annual lease payment related to these premises is approximately \$1.3 million.

The CFI has opted to terminate the lease at these premises and will vacate prior to August 1, 2018. In August 2017, a new lease agreement for premises at 55 Metcalfe Street, Ottawa, Ontario, was signed for a 10-year period ending February 28, 2029. The minimum annual lease payment related to the new premises is approximately \$1.0 million.

9. Restricted contributions and net assets

The requirements of the Act, which governs the CFI and the terms of its Funding and Contribution Agreements with the Government of Canada, externally imposes restrictions on all of the CFI's net assets. Investment revenue to be earned on the grants received from the Government of Canada is also restricted. Accordingly, the entire net assets of the CFI 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 not been prepared since it would not provide additional useful information.

10. Pension plan

The employees of the CFI may elect to become members of the Universities Canada 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, 2018 amounted to \$768,935 [2017 – \$716,581].

11. Changes in non-cash operating working capital items

	2018 \$	2017 \$
Interest and other receivables	132,489	461,209
Prepaid expenses	277,109	(470,676)
Accounts payable and accrued liabilities	(29,653)	(110,054)
	379,945	(119,521)