CANADA FOUNDATION FOR INNOVATION

Corporate plan 2019–20

INNOVATION.CA

TABLE OF CONTENTS

3 The role of the Canada Foundation for Innovation

- 4 Funding and contribution agreements
- 4 Strategic directions
- **5** Strategic directions for 2018–23:
- 8 The CFI suite of funds

9 Short and medium term outputs and outcomes from 2018–19

- 9 Pan-Canadian conversation on the future of research and research infrastructure in Canada and the role of the CFI
- 9 Finalizing the 2017 Innovation Fund competition
- 10 John R. Evans Leaders Fund (JELF)
- 10 Major Science Initiatives (MSI) Fund
- 11 2018 MSI consultation
- 11 Cyberinfrastructure Initiative
- 11 College-Industry Innovation Fund
- **12** Infrastructure Operating Fund
- 12 Governor General's Innovation Awards
- 12 Managing the financial aspects of the CFI's activities
- **13** Communicating the value of CFI funding for Canada
- **14** Analyzing corporate performance, outcomes and impacts

15 Successes and remaining challenges from 2018–19

17 Planned activities and implementation schedule for 2019–20

- 17 Innovation Fund
- 17 John R. Evans Leaders Fund (JELF)
- 17 Major Science Initiatives (MSI) Fund
- 18 College-Industry Innovation Fund
- 18 Managing the financial aspects of CFI's activities
- 19 Communicating the value of CFI funding for Canada
- 19 Analyzing corporate performance, outcomes and impacts

20 Appendix 1: Financial charts

- 20 Table 1: Investment plan (commitments) for the contributions under each agreement
- 22 Table 2: Planned expenditures (disbursements) detailed by fund
- 24 Table 3: Annual cash flow requirements

25 Appendix 2: Key risks and mitigation measures

THE ROLE OF THE CANADA FOUNDATION FOR INNOVATION

The Canada Foundation for Innovation (CFI) is a non-profit corporation created by the Government of Canada through the 1997 Budget Implementation Act. Our core mandate is to benefit Canadians by strengthening the capability of Canadian universities, colleges, research hospitals and non-profit research institutions to carry out world-class research and develop cutting-edge technology.

The CFI invests in the infrastructure that Canada's best researchers require to conduct leading-edge research. The CFI generally funds up to 40 percent of a project's cost. Institutions, in partnership with provincial and other governments, the private sector and other public and non-profit organizations, must secure the remaining 60 percent of the required funding.

Canada's prosperity depends on the ability to generate knowledge and ideas that result in new products and services, create wealth, enhance social foundations, sustain the environment and ultimately improve the health and quality of life for all Canadians. By supporting the country's capacity for world-class research, the CFI plays a vital role in producing social, economic, environment and health benefits for Canadians.

The Government of Canada has charged the CFI to pursue the following objectives:

- 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 by providing support through research infrastructure for the development of highly qualified personnel; and,
- Promote productive networks and collaboration among Canadian universities, colleges, research hospitals, non-profit research institutions and the private sector.

Through its various funding activities, the CFI is expected to enhance the capacity of universities, colleges and research hospitals to:

- Attract and retain the world's top research talent;
- Train the next generation of researchers;
- Enable researchers to undertake world-class research and technology developments that lead to social, economic and environmental benefits for Canada; and,
- Support private sector innovation and commercialization.

Funding and contribution agreements

The CFI currently operates under two funding agreements and three contribution agreements with the Government of Canada as represented by, and under the authority of, the Minister for Innovation, Science and Economic Development. All five agreements are currently active.

- The first funding agreement specifies the conditions under which all funds allocated to the CFI between 1997 and 2009, totaling \$4.39 billion, were distributed to eligible recipients. In addition, these sums generated \$1.6 billion in interest income that has been directed to project funding and operational expenditures.
- The 2009 federal budget allocated \$150 million to the CFI under the first funding agreement and \$600 million to be distributed under a second funding agreement, which was signed in July 2010.
- In March 2014, the CFI signed a contribution agreement with the Government of Canada for \$499.85 million allocated through the Economic Action Plan 2012. We have now delivered funding competitions according to this contribution agreement.
- In September 2015, the CFI signed a contribution agreement with the Government of Canada for \$1.33 billion. We are now completing the funding competitions according to this contribution agreement.
- In January 2019, the CFI signed its most recent contribution agreement, one that represents a fundamental change in the way that the Government of Canada will invest in research infrastructure. Following the announcement in the 2018 federal budget, the CFI will be transitioned to a permanent funding basis. Through the 2019 Contribution Agreement, the Government of Canada has provided the CFI with \$763 million over five years commencing in 2018-19, and permanent funding at an ongoing level of up to \$462 million per year by 2023-24. The 2019 Contribution Agreement covers the first eight years of this transition period.

Please see <u>Appendix 1</u> for full details on the financial aspects on how these agreements are being implemented.

Strategic directions

The CFI is a responsive organization, one that listens to Canada's research community and acts in its best interest. To serve this community, we regularly convene discussions among our stakeholders to advance understanding of their evolving needs. Because of our unique position that reaches across sectors, disciplines, agencies and research institutions, we will continue to bring a broad range of stakeholders to the table to engage them on the most pressing challenges and the most promising opportunities.

Through our interactions with the research community, we are focusing our attention on three major trends that will help inform the way the CFI provides research infrastructure support.¹

The first trend is convergence, where a specific and compelling problem is identified that requires the deep integration of disciplines, knowledge, theories, methods, data and communities. Convergence goes beyond interdisciplinarity by bringing many fields of research together, eliminating silos and creating systematic cohesion and thinking. Convergence can also be demonstrated in an institutional context

¹ For the CFI 2018-23 Strategic Roadmap, please see https://www.innovation.ca/about/governance/annual-corporate-reports

when universities and colleges build core facilities to better manage and maximize the shared use of their infrastructure, combine their strategic research priorities and research facilities to take on specific challenges and develop partnerships around the world. As well, convergence can be understood as the deepening collaboration between researchers and research organizations in academia, the private sector, government and non-governmental organizations that share an interest in addressing social, economic and environmental challenges, fostering innovation, and improving quality of life.

The second trend is a strong and growing emphasis on international collaboration and engagement. Across Canada, we see researchers and their institutions increasingly collaborating with the best in the world and engaging in global research enterprises. This is bringing Canadian research expertise and strengths to the global stage and is attracting international researchers and research organizations to Canadian institutions. Increasingly, research infrastructure is seen as the key enabling factor in developing international collaborations. The sharing of research tools, equipment and facilities draws researchers together to define and tackle a broad range of questions in areas such as astronomy, physics, environmental observation, human health, and many others. International collaboration is also being driven by the development of very large-scale research facilities; those that by the nature of their cost, scope and complexity cannot be built by one nation alone.

Finally, the pool of talent within Canada's research community includes a greater diversity of individuals of varied ages, backgrounds, ethnicities and genders. This greater diversity within the research community improves the quality of research by leveraging the talents of a broader range of qualified individuals and incorporating a greater variety of perspectives in the ways that research is conducted. By ensuring that all qualified Canadians have opportunities to build research careers, succeed in generating new knowledge and contribute to quality of life, we ensure Canadian research meets high standards of excellence and has meaningful impact.

These trends represent the overall context in which the CFI established its specific strategic directions for 2018–23.

Strategic directions for 2018–23:

1. Support the full range of research infrastructures required by Canada's research institutions to achieve excellence

The CFI's research infrastructure investments enable Canada's leading researchers to help build communities that are healthy, environmentally friendly, technologically savvy, safe, secure, and culturally rich. In order to achieve these benefits, highly talented researchers must have the tools they need to create new knowledge and develop cutting-edge technologies. In turn, these tools, laboratories and facilities act as powerful magnets that allow research institutions to attract and retain the best researchers from around the world. In addition to offering environments conducive to engagement, collaboration and the convergence of disciplines, CFI-funded facilities allow Canadian researchers to build on each other's achievements and contribute to our global stock of knowledge.

Research infrastructures come in a wide variety of types and scales and provide a broad range of research capabilities — from departmental laboratories used by individuals and small teams to core facilities that bundle together many types of equipment and serve multiple teams across an institution. At a larger scale, research infrastructures include unique national facilities such as those supported through the CFI's Major

Science Initiatives Fund. These unique facilities provide outstanding capabilities for researchers across the country, and are increasingly instrumental in facilitating international collaborations.

At a still larger scale, major research facilities, such as accelerators, telescopes and ice breakers, act as magnets for large, often multinational teams of researchers, and are sites for extensive collaboration. Many of these facilities, including synchrotrons and neutron sources, are used by researchers across a broad spectrum of disciplines, enabling a high degree of convergence. A small number of these facilities are so large that they can only be built through contributions from many countries and require long-term resource commitments.

Because of their very large scope and long lifecycles, major research facilities are generally funded by national governments and often require international partners. Currently, the Government of Canada is considering the development of a framework and assessment process to make evidence-based decisions on these proposals when they do come forward. Given its expertise in funding large-scale research infrastructures, as well as adjudication, oversight and financial monitoring, the CFI is well-positioned to collaborate with the federal government and other key stakeholders, and contribute to the development of a Canadian-made approach to the funding of major research facilities that rests on the sound principles of due diligence, needs assessment, scientific excellence and benefits to Canada.

In certain instances, Canadian researchers require access to unique research facilities outside of Canada. As the CFI transitions to a permanent funding model, it will be possible to investigate new ways of facilitating such access, for example, through memberships in consortia that operate large-scale research facilities.

The CFI's mission is to ensure, as much as possible, that our best researchers have access to the full range of infrastructure, regardless of size, complexity, location or cost. In order to achieve this mission, the CFI will ensure that funding mechanisms are open, flexible and comprehensive, while providing the resources institutions need to attract and retain top research talent.

2. Spark innovation by strengthening linkages and encouraging collaboration among research institutions, the private sector and not-for-profit organizations

In today's globally competitive and interconnected world, increasing productivity through the creation of new products and services, improving public sector performance, and building an inclusive, compassionate society will be critical to Canada's success as a caring, innovative and prosperous nation. As key drivers of prosperity and quality of life, innovation and entrepreneurship are fundamentally important for progress and can have transformative, positive impacts in all sectors of society. With eyes on the future, the CFI will continually engage with early career researchers and entrepreneurs as well as the students who will follow them to be sure we pave the way to help realize their visions and enable them to succeed.

To be successful, meet their mission and sustain vibrant and healthy communities, Canadian organizations in all sectors increasingly rely on collaborations with researchers working in CFI-funded facilities to develop value-added products, processes, services and technologies. Doing so effectively and efficiently allows them to innovate and provide Canadians across the country with the foundation on which to build the economy and society.

To enable Canada's researchers and their institutions to imagine the future and contribute to innovation, the CFI will support the environments that allow them to lead. In doing so, the CFI will help them develop the most advanced technologies, promote the convergence of disciplines to tackle specific and compelling problems facing society and provide access to the tools they need to drive economic growth, fuel the sustainability of communities and improve the wellbeing of Canadians.

3. Support global research to find solutions to Canada's and the world's most pressing challenges

State-of-the-art research infrastructure is essential for world-leading research and technology development, and for engaging effectively in global research endeavours. The 2018 Council of Canadian Academies report on the state of R&D in Canada states that 60 percent of the international researchers surveyed felt Canada boasts world-leading research infrastructure across a broad range of areas. This is a strong basis on which to build international engagement and contribute to addressing global challenges, such as reducing greenhouse gas emissions, building sustainable cities, improving food security as well as water and sanitation systems and addressing human health challenges. In many ways, and in many areas of inquiry, Canadian research is global in scope and impact. By supporting and reinforcing this through the funding of internationally relevant research infrastructures, the CFI can continue to help Canadian researchers have a positive and meaningful impact on the world.

The search for solutions to global challenges often requires large, expensive infrastructure that is beyond the capacity of any single country to support or that, by its very nature, spans a number of national jurisdictions and requires international involvement. This is particularly the case for projects like large-scale observational systems for oceans and the Arctic, massive research facilities for clean energy such as fusion reactors, or multinational collaborations in health genomics. The CFI can play a central role supporting the participation of Canadian researchers in initiatives like these by assessing the excellence of the research enabled, the infrastructure needs of the Canadian research community and the benefits that will result from Canadian involvement.

4. Strengthen Canada's global competitive advantage by meeting the infrastructure needs of researchers throughout their careers

CFI investments create state-of-the-art research environments, where students find rich experiential learning opportunities, new researchers are able to launch successful careers, and established researchers have access to the best technologies to advance their work. Infrastructure support at each stage of a successful research career creates a tremendous competitive advantage for Canada. The Canadian research community is facing a period of intense renewal, creating opportunities for a new generation of students and researchers. At the same time, women and researchers from diverse backgrounds are playing a greater role in Canada's research enterprise. The broader range of perspectives, talents, experiences and insights that result from the mobilization of this talent will strengthen Canada's research enterprise.

These demographic changes are taking place in the context of rapid technological development, where new forms of research infrastructure, such as big data, artificial intelligence, robotics and quantum materials are emerging. The CFI's challenge is to ensure that an increasingly diverse cadre of researchers have access to the infrastructure they need to launch and pursue successful careers. In meeting this challenge, we must also ensure that Canada's research institutions take full advantage of the strength that diversity brings, and that both new and established researchers have access to the most advanced technologies. Doing so will help optimize the performance of Canada's research community.

Enabling the success of this diverse group of researchers requires the support of the extraordinary and highly specialized technicians who operate and maintain research infrastructure across the country. They are crucial for the success of the Canadian research enterprise.

The CFI suite of funds

Innovation Fund: This flagship support mechanism makes a broad range of awards available for leading-edge research infrastructure across all disciplines and areas of research.

John R. Evans Leaders Fund: A responsive funding mechanism that supports institutions in securing the infrastructure resources necessary to attract and retain top research talent.

Major Science Initiatives Fund: Provides unique, large-scale national research facilities with the operating support necessary to produce excellent, world-class science and technology development.

College-Industry Innovation Fund: Supports emerging applied research capacity in Canada's colleges and polytechnics, with the goal of assisting business innovation.

Exceptional Opportunities Fund: Gives institutions the opportunity to seek funding for exceptional and time-sensitive initiatives that would be missed within the regular CFI competition cycles.

Infrastructure Operating Fund: Offers a 30 percent supplement to CFI capital awards to cover a portion of the operating and maintenance costs of CFI-funded projects to help ensure their optimal use.

SHORT AND MEDIUM TERM OUTPUTS AND OUTCOMES FROM 2018–19

Pan-Canadian conversation on the future of research and research infrastructure in Canada and the role of the CFI

Following the Budget 2018 allocation of funding from the Government of Canada to the CFI, and the government's announced intention to place CFI on a permanent funding basis, we launched a pan-Canadian conversation with the research community and our stakeholders in the public, private and not-for-profit sectors on the future of research and research infrastructure in Canada, and on CFI's role in supporting institutions in sustaining and enhancing their research capabilities.

In order to help stimulate and guide these discussions, we published a discussion paper entitled *Conversation on the future of research and research infrastructure in Canada: role of the Canada Foundation for Innovation.* The goal was to seek the opinion of the research community on important topics that we gathered from our interactions with key CFI stakeholders. Specifically, we identified five themes that we believe are important to explore:

- 1. Convergence research as a dynamic of research and research management;
- 2. International cooperation and collaboration;
- 3. The role of CFI in supporting smaller institutions;
- 4. Core facilities and regional platforms; and,
- 5. Equity, diversity and inclusion.

The pan-Canadian national conversation started in mid-November 2018 and wrapped up in early February 2019. CFI staff met with as many stakeholders as possible through a series of meetings across the country and through webinars. In addition, we invited institutions and provincial governments to submit written comments. The conversation streams help CFI to identify emerging opportunities and challenges that may help shape or guide future directions.

Finalizing the 2017 Innovation Fund competition

For the 2017 Innovation Fund competition, the CFI challenged institutions to propose transformative infrastructure projects that would underpin cutting-edge, globally competitive research. Institutions were expected to be guided by their strategic research plans and establish priorities that built on their distinct advantages. Through the 2017 Innovation Fund, the CFI supported initiatives that allowed institutions and their researchers to build on established capabilities to accelerate current research and technology development or to enhance emerging strategic priority areas.

The objectives of the 2017 Innovation Fund were to enable institutions and their best researchers to:

- Strive for global leadership by conducting world-class research or technology development activities in areas of strategic institutional priority;
- Enhance research capacity by forging productive partnerships within and among institutions, sectors and disciplines for the effective and sustainable use of the research infrastructure and facilities;
- Generate social, health, environmental and/or economic benefits for Canadians, including better training and improved skills for highly qualified personnel, through appropriate pathways.

Decisions for the 2017 Innovation Fund were made by the CFI Board of Directors in June 2017. All of the award finalization processes, such as securing matching funds, are being, or have been completed, by the ultimate recipients. As of January 2019, over 88 percent of all projects (107 out of a total of 117) have been finalized and are now moving to implementation. It is expected that the remaining projects will complete the finalization process in the first half of 2019.

John R. Evans Leaders Fund (JELF)

The John R. Evans Leaders Fund (JELF) enables a select number of an institution's excellent researchers to undertake leading-edge research by providing them with the foundational research infrastructure required to be or become leaders in their field. In turn, this enables institutions to remain internationally competitive in areas of research and technology development, aligned with their strategic priorities.

This fund also offers institutions the opportunity to create competitive research support packages in the form of infrastructure and a portion of the operating and maintenance costs, coupled with direct research costs from partner organizations. The infrastructure is principally used by individual and small teams of researchers to conduct research across a wide variety of disciplines and areas of inquiry. CFI awards under this fund are capped at \$800,000, which, along with the 60 percent matching amounts, allows institutions to propose projects with a capital cost of up to \$2 million.

To ensure a rapid response to proposals and an equitable distribution of funds, each eligible institution is nominally given a specific allocation of funding, which they can draw down for infrastructure projects three times per year.

During 2018–19, the CFI provided research infrastructure funding through the JELF for 360 individual projects. These projects secured approximately \$58.5 million in capital, plus an additional \$17.7 million through the Infrastructure Operating Fund.

We are at roughly the mid-point of the 2017-20 JELF allocation period. The institutions eligible to receive JELF awards are on track to complete the drawdown of their allocations in the defined three year period.

Major Science Initiatives (MSI) Fund

In 2010, the CFI was mandated by the Government of Canada to design a systematic approach to evaluate and address the operating and maintenance (O&M) funding needs and the scientific performance of national research facilities. The purpose was to ensure that these facilities have sufficient operating support as well as solid management and governance policies and practices. In response, we created the Major Science Initiatives (MSI) Fund.

CFI support through this fund is intended to:

- Secure and strengthen state-of-the-art national research facilities that enable Canadian researchers to undertake world-class research and technology development that leads to social, health, economic, or environmental benefits to Canadians;
- Enable funded facilities to operate at an optimal level and to have their scientific and technical capabilities fully exploited; and,
- Promote the adoption of best practices in governance and management, including long-term strategic and operational planning in keeping with the scale and complexity of the facility.

The Major Science Initiatives Fund is designed to provide operating and maintenance support for unique research facilities that provide crucial infrastructure to a critical mass of researchers across the country. Over 2018–19, the CFI provided approximately \$80 million to 17 research facilities that met the MSI eligibility criteria and that provided shared access to substantial and advanced specialized equipment, services, resources, and scientific and technical personnel.

2018 MSI consultation

In May 2018, the CFI consulted with MSI-funded facilities and their affiliate institutions to better understand the main challenges they face and to identify ways that the CFI could, both in the shortand long-term, strengthen and enhance the operations, management, governance and international competitiveness of facilities, taking into consideration all stages of their lifecycle. Feedback was received from all 17 facilities through their administrative institution. Overall, the ideas, suggestions and advice were as diverse as the nature, size and complexity of the facilities. Nevertheless, common challenges and themes were identified. These include:

- The benefits and limitations of the MSI funding model;
- Persistent human resources needs;
- The renewal of research infrastructure;
- The need to develop and service new technologies;
- The burdens created by CFI oversight activities; and,
- The value of promoting and sharing good practices in management and governance.

In response to the consultation, the CFI drafted a summary report and an action plan which addresses each of the above-listed elements. The report was shared with institutions and facilities in August 2018. In 2019, the CFI will act on several suggestions made through this consultation.

Cyberinfrastructure Initiative

Through the 2018 federal budget, the Government of Canada announced the launch of its Digital Research Infrastructure Strategy. Along with dedicated funding, this initiative is intended to support a national system of advanced computing resources and associated data processing, management and curation initiatives. Since the CFI's Cyberinfrastructure Initiative essentially duplicated these support activities, it has been decided to curtail this initiative. CFI staff are currently working with colleagues at the Department of Innovation, Science and Economic Development to design and implement the new strategy and support mechanisms.

College-Industry Innovation Fund

The College-Industry Innovation Fund (CIIF) is intended to support substantial research infrastructure projects that will augment the existing applied research and technology development capacity of colleges, and allow them to respond to important sector industry needs.

There are two competition streams under the College-Industry Innovation Fund. Proposals submitted to both streams are expected to achieve the following objectives:

• Create and enhance college-industry partnerships leading to business innovation using industryrelevant, state-of-the-art research infrastructure;

- Build upon proven applied research capacity and a track record of partnerships with the private sector in an area of strategic priority to the institution; and,
- Generate socioeconomic benefits in the region and nationally including the development of highly skilled personnel.

Up to \$40 million for capital and operating funds have been allocated between 2016 and 2019 for both streams of this fund. As usual, the CFI will fund up to 40 percent of a project's eligible infrastructure costs.

Under the College-Industry Innovation Fund, institutions apply directly to the CFI for Stream 1 awards, and for Stream 2 awards, they submit applications jointly to the CFI and to the related NSERC college program. This approach provides both flexibility and stream-lined convenience for applicants.

2018 CIIF Stream 1: In November 2018, the CFI Board of Directors authorized funding for 13 projects, representing a maximum CFI contribution of \$10,093,556 in capital, plus an additional \$3,028,067 through the Infrastructure Operating Fund.

2019 CIIF Stream 2: The College and Community Innovation Program – Build Innovation Enhancement Grants selection committee took place on January 14-15. NSERC received 12 CCI-IE proposals, 7 of which submitted a CFI proposal as well. These seven proposals requested \$4,610,206 from CFI. These funding recommendations will then be submitted to the CFI Board of Directors in March 2019 for decision.

Infrastructure Operating Fund

In accordance with our contribution agreements, the CFI continues to contribute towards the operating and maintenance costs of CFI-funded research infrastructure through the Infrastructure Operating Fund. This fund helps cover a portion of operating and maintenance costs to ensure optimal use of CFI-funded infrastructure. The funds are committed at a rate of 30 percent of the CFI award under the John R. Evans Leaders Fund, the Innovation Fund, and the College-Industry Innovation Fund.

Governor General's Innovation Awards

In 2018–19, responsibility for the review and adjudication for the fourth round of the Governor General's Innovation Awards was transitioned over to the Rideau Hall Foundation which has adopted the processes used by the CFI. The CFI is proud to have had the opportunity to contribute to this outstanding national initiative.

Managing the financial aspects of the CFI's activities

All of the financial aspects of the organization's activities are under the responsibility of the CFI's finance team. This team is composed of two groups:

- **The corporate finance group** is responsible for the general accounting functions of the CFI, including bookkeeping, payments, budgeting and cash flow management, as well as award finalization processes and payments to institutions that receive CFI awards; and,
- The financial monitoring group ensures that funds forwarded to institutions are spent appropriately and that institutions have appropriate processes and controls in place for the management of CFI funds.

During 2018–19, the CFI finance team undertook the following activities:

The CFI investment portfolio: Following standard practice, the CFI's investment strategy and investment policy was reviewed by senior management and the Board of Directors Investment Committee in early autumn 2018. The results of this review, and any subsequent recommendations, were presented to the Board of Directors in late autumn 2018.

Institutional monitoring visits: Over the course of fiscal year 2018–19, the finance team performed five monitoring visits. The purpose of these monitoring visits is to ensure that institutions receiving funding have proper practices and processes in place to manage CFI awards, and to share good practices noted at the various institutions visited.

Contribution audits: The finance team coordinated seven contribution audits of CFI-funded projects during 2018–19. As usual, these audits included a mix of both low- and high-risk projects, including those where the CFI investment is \$10 million or more.

Financial reports: In addition to its other activities, the finance team reviewed more than 900 financial reports in 2018–19. These included both interim and final financial reports, and annual reports on expenditures claimed under the Infrastructure Operating Fund.

Communicating the value of CFI funding for Canada

The CFI continued to focus its communications on how it supports a new generation of researchers — students, postdoctoral fellows and early career researchers — and how it remains essential to an evolving research community.

In 2018–19, the CFI continued to engage with this new generation of researchers, telling stories of how the CFI supports young researchers with the cutting-edge labs and equipment they need to pursue the compelling research questions that drive them, and how it is often a factor in their decision to stay in Canada or move here to conduct their research and build their careers.

These communication activities helped demonstrate our support for government priorities that resulted from the recommendations of the Fundamental Science Review. In addition, we continued to integrate equity, diversity and inclusion in our communications products and narratives, and developed and posted a statement on our website to reflect our commitment to these principles. Our statement on equity, diversity and inclusion highlights how, in all our activities, we recognize that a breadth of perspectives, skills and experiences contributes to excellence in research.

In 2018–19, we also aimed to optimize the impact of the CFI Research Facilities Navigator by opening the Navigator to other publicly funded facilities within universities that have not received CFI funding. The goal was to make it a more comprehensive resource for Canadian research facilities that are open to working collaboratively with each other and with business. In addition, we began conversations with the Government of Canada which sees value in listing federal labs open to working with all sectors on the Navigator. The Navigator had a strong presence at a number of conferences and we also undertook a targeted social media campaign to promote the online resource to the private sector.

The communications team played a strong supporting role in a number of key corporate projects this year, including our new strategic road map, the contribution agreement with the Government of Canada for Budget 2018 and the pan-Canadian conversation on the future of research and research infrastructure in Canada.

We continued to seize opportunities for our new President and CEO, Dr. Roseann O'Reilly Runte, to enhance the visibility of the CFI and to maintain our voice in supporting the research community in Canada. This included participation in international conferences, such as the International Conference for Research Infrastructures 2018 in Vienna, Austria, and the EuroScience Open Forum in Toulouse, France, the Science and Society Conference in Kyoto Japan, along with national events and national funding announcements with the Minister of Science and Sport.

Analyzing corporate performance, outcomes and impacts

The CFI is committed to the principle of public accountability and we place great importance on evaluating the impact of our investments in research infrastructure.

In 2018–19, we continued our ongoing efforts to track performance data as outlined in our 2015 Performance evaluation, risk and audit framework. We published the 2018 Report on results, and a study examining the impact of CFI-funded infrastructure on early career researchers. We conducted the early design work for the 2020 Overall performance evaluation of the CFI and shared with the CFI's Board Directors options for this important undertaking. And, in keeping with established practices, we prepared our annual performance report which provides CFI management and our Board of Directors with evidence to explore areas for improvement and efficiency.

We convened a one-day workshop with a diverse group of individuals to help inform a refreshed research impact assessment plan – one that maximizes our ability to measure the CFI's success. Along with representatives from numerous countries, we also participated in three initiatives aiming to enhance our collective ability to assess and report on the impact of research infrastructure and science in general; an OECD Global Science Forum project aimed at establishing a reference framework for assessing the socio-economic impact of research infrastructures; a European Commission Horizon 2020 funded project, coordinated by the European Future Innovation System (EFIS) Centre – Research Infrastructure impact Assessment paTHwayS (RI-PATHS), that aims to develop a model describing the socio-economic impact of research infrastructures and their related financial investments; and active participation in the planning and execution of the Network for Advancing and Evaluating the Societal Impact of Science (AESIS Network) Impact of Science Conference in Ottawa in June 2018.

Under the CFI corporate information management strategy, we have made improvements to the administrative data collected through the CFI Awards Management System relating to equity and diversity inclusion, career stage and academic ranking and position. We have harmonized some of our data definitions to align with other federal funders and have also developed internal policies regarding data and analytical requests and data sharing with external organizations.

SUCCESSES AND REMAINING CHALLENGES FROM 2018–19

In Budget 2018, the Government of Canada announced an investment of \$763 million over five years for research infrastructure. In addition, it proposed to establish permanent funding for the CFI at an ongoing level of up to \$462 million per year as of 2023–24.

This sustained commitment to the funding of research infrastructure will allow us to better, and more systematically, support institutions in acquiring, operating and maintaining research tools and equipment, as well as developing nationally important research facilities. It will also allow institutions and their funding partners to better plan their infrastructure requirements, be more ambitious in their research trajectories, and produce the knowledge that Canadians need to thrive. Over the next five years, the CFI will transition toward our new funding model to fully capitalize on the predictability and long-term horizon this brings. These changes in the way the Government of Canada invests in research infrastructure through the CFI, as well as increased investment in fundamental research, will provide a significant boost to Canada's research capacity. The measures announced in Budget 2018 will enable Canada to confirm its standing as a leading research and technology development nation.

In order to help us meet the challenge of effectively delivering CFI's mandate, we are convening broad stakeholder discussions to advance our understanding of the evolving needs, most pressing challenges and most promising opportunities facing Canada's research institutions. These discussions are now helping inform program design and delivery and identify emerging opportunities and challenges that may shape or guide future directions for the CFI. This national conversation is helping us to determine:

- How the CFI's existing suite of funds can be tailored to best meet the needs of the full spectrum of institutions across the country;
- If our funding mechanisms allow institutions to capitalize on emerging trends and future opportunities; and,
- Which key strategic issues of importance to the research community and other CFI stakeholders may require new or revised CFI policies and practices.

Following the direction of the Minister of Science and Sport, and the recommendations of the Fundamental Science Review Panel, CFI is engaging with other federal research support agencies to identify areas that stand to benefit from greater coordination and collaboration. Current priority areas include:

- Strengthening Canada's capacity to engage in a rapidly evolving global research landscape;
- Identifying and advancing efforts in key emerging research areas;
- Enhancing equity and diversity in research;
- Improving support for the next generation of researchers.

Given the diverse mandates and individual legislated authorities of the various agencies involved, significant work will be undertaken over the next year to identify common ground and program mechanisms that would benefit from greater coordination, and to harmonize various policies and procedures.

The CFI increasingly supports a considerable number of research infrastructure projects that have international dimensions, including funding partnerships, research collaborations, and involvement in global research undertakings such as the Large Hadron Collider at CERN. Given this well-established trend towards internationalization, the CFI will be assessing the need for a specific, well-defined international strategy. The purpose of this strategy would be to stimulate and support Canadian involvement in important international research projects, help guide our numerous engagements with international organizations and support Canadian institutions in their efforts to work with the best researchers across the globe.

CFI has begun to engage with the Government of Canada's Federal Science and Technology Infrastructure Initiative (FSTII) with a view to assist the government in its efforts to transform the way government science is conducted through systematic and close partnerships with Canada's academic research community. We have identified a number of areas for collaboration, including listing federal laboratories on the CFI Research Facilities Navigator, facilitating opportunities for federal departments and agencies to partner with researchers in universities and research hospitals, federal departments contributing matching funds for CFI awards, and involving key partners inCFI's various international engagement activities.

Finally, CFI has designed and implemented the main substantive elements of its information management initiative. This initiative is centred on improving internal business capability and allowing the CFI to better serve the information needs of external audiences. For example, in 2018–19we implemented the Microsoft Dynamics platform as our customer relationship management tool and have been developing the platform to assist with centralized access, improved tracking, searchability, and support of electronic files. Going forward, the CFI will continue to expand and develop this platform to improve our information management capabilities, streamline business processes and facilitate information flow.

PLANNED ACTIVITIES AND IMPLEMENTATION SCHEDULE FOR 2019–20

Innovation Fund

The 2018 federal budget, with the associated contribution agreement, provides the CFI with funds to sustain investments in the infrastructure that is required for world-class research and technology development. This will enable all institutions to think ambitiously, plan more strategically than they have been able to in the past, and propose transformative infrastructure projects that support cutting-edge, globally competitive research. Enabling our country's best institutions and researchers to work together and collaborate with the world's brightest researchers in areas of established and emerging Canadian strengths is fundamental to Canada's continued success in research and innovation.

To meet the expressed needs of our community, the CFI intends to announce two consecutive competitions that will see proposals being submitted to CFI in late 2019 and again in late 2021, with funding recommendations presented to our Board of Directors in mid- to late fiscal 2020–21 and fiscal 2022–23 respectively.

John R. Evans Leaders Fund (JELF)

The current JELF allocation covers the period April 2017 to March 2020. A total of \$198 million was provided to institutions, either as individual allocations to the 29 largest universities or in a pooled allocation to the smallest 45 universities, through the Small Institution Fund. The CFI is closely monitoring the 2017–20 institutional allocations to ensure they are being used in a strategic and optimal manner. After six out of nine cycles of the unaffiliated stream of JELF and four out of six JELF-Canada Research Chairs cycles, 61 percent of available allocations have been committed. This indicates that institutions are making timely use of their allocation. The institutional allocation must be fully committed (i.e. approved CFI funding decisions) by March 31, 2020. Consequently, October 2019 will be the last deadline for which proposals can be submitted to fully access the 2017–20 allocation. At this point, we estimate that in 2019–20, institutions will commit up to \$77 million under the John R. Evans Leaders Fund.

Major Science Initiatives (MSI) Fund

Mid-term review

Over the summer of 2018, the MSI team established processes and guidelines for the review of the facilities currently supported by the MSI Fund. The comments from the MSI targeted consultation, the analysis of the 2012–2017 performance reports, and the post-mortem comments from the 2017-2022 competition have informed this development. Facilities funded for five years will undergo a different process than facilities funded for only three years (i.e., SNOLAB, the Canadian Light Source and Canada' National Design Network). Hence, separate guidelines were developed for the three- and five-year cohorts.

The timeline for the midterm review is as follows:

June 15, 2019	Submission deadline for midterm review documentation
July to September 2019	Expert Committee meetings
October 2019	Advisory Committee meeting (if required)
November 2019	Funding decisions (CFI Board of Directors)
Early December 2019	Communication of results to administrative institutions

Throughout 2019–20, the CFI will:

- Undertake a high-level analysis of the final performance and financial reports submitted by the twelve facilities funded through the 2012 and 2014 MSI funding competitions. This retrospective report will analyze and review the advancement and evolution of MSI facilities funded between 2012 and 2017 and will be released in the spring 2019;
- Work closely with those facilities that may require additional support to overcome challenges; and,
- Organize the sixth annual Major Science Initiatives workshop and webinar series to share experiences and best practices in the operations and governance of major science facilities.

College-Industry Innovation Fund

Proposals for the next College-Industry Innovation Fund Stream 1 competition are expected in May 2019. The Board of Directors will make final funding decisions on this stream in November 2019. We will also participate in the seventeenth College and Community Innovation Program – Build Innovation Enhancement Grants competition managed by the Natural Sciences and Engineering Research Council of Canada (NSERC). For this competition, the deadline to submit Letters of Intent to NSERC is May 25, 2019. The CFI Board of Directors will make funding decisions in March 2020.

Managing the financial aspects of CFI's activities

During 2019–20, the CFI finance team will undertake the following activities:

The CFI investment portfolio: Following standard practice, the CFI's investment strategy and investment policy will be reviewed by senior management and the Board of Directors Investment Committee in autumn 2019. The results of this review, and any subsequent recommendations, will be presented to the Board of Directors in autumn 2019.

Institutional monitoring visits: Over the course of fiscal year 2019–20, the finance team is planning to perform between six and eight monitoring visits. The purpose of these monitoring visits is to ensure that institutions receiving funding have proper practices and processes in place to manage CFI awards, and to share good practices noted at the various institutions visited.

Contribution audits: The finance team is planning to conduct between six and 10 contribution audits of CFI-funded projects during 2019–20. As usual, these audits will include a mix of both low- and high-risk projects, including those where the CFI investment is \$10 million or more.

Financial reports: In addition to its other activities, the finance team expects to review approximately 900 financial reports in 2019–20. These include both interim and final financial reports, and annual reports on expenditures claimed under the Infrastructure Operating Fund.

Communicating the value of CFI funding for Canada

The CFI's communications and external relations goals for 2019-20 include:

- Focusing our communications on how investments in facilities are putting people to work, forming productive collaborations, creating jobs and building skills that support a prosperous Canadian economy.
- Attracting new audiences, including students, early career researchers and the private sector.
- Growing the Navigator into a more comprehensive database of publicly funded facilities in Canada by onboarding federal labs open to working with all sectors. We will work with these partners to leverage our communications and explore new opportunities for promoting the Navigator nationally and internationally as Canada's resource for forming research collaborations.
- Working with partners in the federal granting agencies and other federal departments to plan ICRI 2020; the biannual International Conference on Research Infrastructures which is scheduled to be held in Ottawa in the fall of 2020. The CFI will lead the organization of this unique, large-scale international gathering.
- We will continue to grow our social media presence across all of our platforms in helping to promote the value of CFI investments and the Research Facilities Navigator.

Analyzing corporate performance, outcomes and impacts

In order to further our commitment to the principle of public accountability, in 2019-20 we will review the 2015 Performance evaluation, risk and audit framework and make any revisions necessary to ensure it remains aligned with our 2019 Contribution Agreement with the Government of Canada. We will also take the opportunity to include any new ideas or approaches identified through our "measures of success" advisory committee workshop held in late 2018–19. We will then continue to track performance data and examine the socioeconomic impacts of our funding.

In 2019–20, we will undertake the third quinquennial overall performance evaluation (OPE) of the CFI. The exercise will include input and oversight from the CFI Board of Directors' Governance and Nominating Committee.

As an input into the OPE, the CFI will undertake its third survey of CFI stakeholders. Through this survey we seek the views of our various stakeholders, including eligible institutions and researchers, federal and provincial governments, other funders and partners in the Canadian science and technology ecosystem. The survey includes questions about the effectiveness and efficiency of our activities as well as eliciting views on progress towards our mandate. We launch a similar survey every other year.

We will also continue to refine and improve on data, data quality and data management practices through our various information management initiatives.

APPENDIX 1: FINANCIAL CHARTS

Table 1: Investment plan (commitments) for the contributions under each agreement

	Cumulative March 31, 2018 (\$M)	2018-19 (\$M)	2019-20 (\$M)	2020-21 (\$M)	2021 and later (\$M)	Total (\$M)
Fund	Commitments** (Actual)	Commitments (Projected)	Commitments (Projected)	Commitments (Projected)	Commitments (Projected)	
Automotive Partnerships Canada	9					9
Canada Research Chairs	194					194
Career Awards	6					6
College Research Development	16					16
Cyberinfrastructure initiative	70					70
Digging into Data / Discovery Frontiers	1					1
Exceptional Opportunities and other	23		8	8	8	47
Infrastructure Operating	1,036		3			1,039
Innovation (1998-2005)	1,758					1,758
Innovation Fund 2015	54					54
Innovation Fund 2017	3					3
International	202					202
John R. Evans Leaders (and Leaders Opportunity/New Opportunity)	878		9			887
Leading Edge/New Initiatives	833					833
Major Science Initiatives 2014 Special Competition	24					24
National Platforms	84					84
Research Development	35					35
Research Hospital	488					488
Thirty Meter Telescope	25					25
High-Luminosity Large Hadron Collider	0		1	2	7	10
Total	5,739	0	21	10	15	5,785

	Cumulative March 31, 2018 (\$M)	2018-19 (\$M)	2019-20 (\$M)	2020-21 (\$M)	2021 and later (\$M)	Total (\$M)
Fund	Commitments** (Actual)	Commitments (Projected)	Commitments (Projected)	Commitments (Projected)	Commitments (Projected)	
College-Industry Innovation	25					25
Infrastructure Operating	97					97
John R. Evans Leaders	140					140
Leading Edge/New Initiatives	158					158
Major Science Initiatives	183					183
Total	603	0	0	0	0	603
	2014 Contrib	ution Agree	ment (\$499.	85M)*		
College-Industry Innovation	27	12				39
Infrastructure Operating	112	3				115
Innovation Fund 2015	207					207
John R. Evans Leaders	140					140
Total	486	15	0	0	0	501
	2015 Contrib	oution Agree	ement (\$1,3	30M)		
College-Industry Innovation		3	15	17		35
Available for reallocation (Cyberinfrastructure initiative)		9	27	39		75
Infrastructure Operating	144	23	24	5		196
Innovation Fund 2017	425					425
John R. Evans Leaders Fund	57	76	66			199
Major Science Initiatives	329		71			400
Total	955	111	203	61	0	1,330

* The first Funding Agreement has \$1.395 billion of generated interest income, the 2010 Funding Agreement has \$3 million, and the 2014 Contribution Agreement has \$0.8 million directed to project funding. There are no anticipated revenues from other sources expected in future years other than interest income.

** Actual committed amounts are net of amounts that will be unused by eligible recipients, as confirmed through final financial reports for infrastructure projects submitted as of September 30, 2018.

First Funding Agreement (\$4,390M)*							
	Cumulative March 31, 2018 (\$M)	2018-19 (\$M)	2019-20 (\$M)	2020-21 (\$M)	2021 and later (\$M)	Total (\$M)	
Fund	Expenditures (Actual)	Expenditures (Projected)	Expenditures (Projected)	Expenditures (Projected)	Expenditures (Projected)		
Automotive Partnerships Canada	9					9	
Canada Research Chairs	194					194	
Career Awards	6					6	
College Research Development	16					16	
Cyberinfrastructure initiative	39	14	8	6	3	70	
Digging into Data / Discovery Frontiers	1					1	
Exceptional Opportunities and other	22		6	6	13	47	
Infrastructure Operating	944	24	21	21	29	1,039	
Innovation (1998-2005)	1,758					1,758	
Innovation Fund 2015	31	5	5	5	8	54	
Innovation Fund 2017		1	1	1		3	
International	202					202	
John R. Evans Leaders (and Leaders Opportunity/New Opportunity)	869	4	10	4		887	
Leading Edge/New Initiatives	822	4	5	2		833	
Major Science Initiatives 2014 Special Competition	24					24	
National Platforms	84					84	
Research Development	35					35	
Research Hospital	488					488	
Thirty Meter Telescope	25					25	
High-Luminosity Large Hadron Collider			1	2	7	10	
Total	5,569	52	57	47	60	5,785	

Table 2: Planned expenditures (disbursements) detailed by fund

	Cumulative	2018-19	2019-20	2020-21	2021 and later	Total
	March 31, 2018 (\$M)	(\$M)	(\$M)	(\$M)	(\$M)	(\$M)
Fund	Expenditures (Actual)	Expenditures (Projected)	Expenditures (Projected)	Expenditures (Projected)	Expenditures (Projected)	
College-Industry Innovation	24		1			25
Infrastructure Operating	65	19	13			97
John R. Evans Leaders	138	1	1			140
Leading Edge/New Initiatives	149	5	4			158
Major Science Initiatives	181	2				183
Total	557	27	19	0	0	603
	2014 Contrib	ution Agree	ment (\$499.	.85M)		
College-Industry Innovation	11	11	12	2	3	39
Infrastructure Operating	15	19	22	22	37	115
Innovation Fund 2015	166	11	23	4	3	207
John R. Evans Leaders	130	4	2	2	2	140
Total	322	45	59	30	45	501
	2015 Contrib	oution Agree	ement (\$1,3	30M)		
College-Industry Innovation			5	14	16	35
Available for reallocation (Cyberinfrastructure initiative)			12	22	41	75
Infrastructure Operating				5	191	196
Innovation Fund 2017	37	140	89	78	81	425
John R. Evans Leaders Fund	19	44	73	43	20	199
Major Science Initiatives	73	66	72	93	96	400
Total	129	250	251	255	445	1,330

* In addition to disbursements to eligible recipients, a total of \$216.3 million had been disbursed as of March 31, 2018 for operating expenses of the Foundation. These expenses are forecasted to be approximately \$16 million per year in the next two years.

Table 3: Annual cash flow requirements

Requirements*						
	Cumulative March 31, 2018 (\$M)	2018-19 (\$M)	2019-20 (\$M)	2020-21 (\$M)	2021 and later (\$M)	Total (\$M)
Disbursements	Actual	Projected	Projected	Projected	Projected	
2010 Funding Agreement	557	27	19	0	0	603
2014 Contribution Agreement	322	45	59	30	45	501
2015 Contribution Agreement	129	250	251	255	445	1,330
Total disbursements	1,008	322	329	285	490	2,434
Received from the Government	1,002	331				1,333
Generated interest income	4					4
Future government payments necessary to meet cashflow needs **			322	285	490	1,097
Difference for the period	-2	9	-7	0	0	0
Cumulative Difference	-2	7	0	0	0	0
Expected Government payments as per combined funding agreements (authorities) ***			327	283	487	1,097
Difference for the period			5	-2	-3	0
Cumulative Difference			5	3	0	0

* Funds for the first Funding Agreement have all been received from the Government of Canada. Therefore, there are no future cashflow requirements for this agreement.

** Of the amount of \$322 million for 2019-20, \$162.7 million is needed in early April 2019 to cover expenses of April 2019 to September 2019. The balance of \$159.3 million can be paid during summer 2019. Of the amount of \$285 million for 2020-21, \$146.8 million is needed in early April 2020 to cover expenses of April 2020 to September 2020. The balance of \$138.2 million can be paid during summer 2020.

*** This reflects the combined Contribution payments as per government authorities established in the funding/contribution agreements.

There are currently no amounts owing by the CFI to the Government of Canada.

APPENDIX 2: KEY RISKS AND MITIGATION MEASURES

In 2014, the CFI engaged KPMG LLP to assist with the update of the key risks facing the organization. As a result of this exercise, we have identified seven primary risks and related mitigation measures. These are summarized in the table below. Information on secondary risks is available upon request. We anticipate that a full review will be undertaken in early 2019. We expect that the risks will remain fairly constant and continue to be addressed by current mitigation measures.

The risks identified below are ordered according to their potential impact on the CFI.

STRATEGIC RISKS

1. Risk that the CFI is unable to maintain and/or secure ongoing political support at the federal level

Mitigation measures:

- The CFI undertakes regular ongoing discussions with Government of Canada officials in ministerial offices and senior department managers on the requirements for research infrastructure, the leveraging of benefits, the multidisciplinary reach and impacts of CFI investments and ideas for the future of the CFI and the research and innovation ecosystem.
- The CFI regularly provides parliamentarians with evidence on the ways that infrastructure assists in attracting and retaining top research talent, enables world-class research and supports innovation.
- The CFI leads and participates in outreach and communications activities specifically targeted to parliamentarians.
- The CFI consistently demonstrates value-for-money and how infrastructure funding has been and continues to be responsive to government priorities and research community requirements.
- The CFI disseminates success stories and evaluation assessments to demonstrate the results of CFI investments.
- The CFI seeks to capitalize on the strength of its solid reputation as a world-class funding agency.
- The CFI includes elected officials and media in celebrations and public events.
- 2. Risk that the fiscal realities of the provinces will result in reduced and/or delayed support for CFI projects (e.g. via matching funds, S&T funding in the province)

Mitigation measures:

- Provincial partners are given opportunities to provide input on activities, processes and funding mechanisms.
- The priorities of provincial partners are taken into consideration in the application review process.
- The CFI conducts ongoing monitoring of provincial research and innovation activities.

- The CFI communicates the value of the 40 percent funding provided by the CFI.
- The CFI communicates with provinces on funding parameters and competition schedules to assist them in their planning.
- While the CFI endeavours to accommodate provinces with cash flow challenges, CFI funding is provided only when partner funding has been secured.

3. Risk that key stakeholders, including federal funders at both the administrative and political levels, do not understand the activities, outcomes and impacts associated with CFI funding

Mitigation measures:

- The CFI consistently sends the message that world-class research requires state-of-the-art infrastructure.
- The CFI reports on and communicates to all stakeholders the outputs, outcomes and impacts of the research enabled by infrastructure.
- The CFI maintains a dialogue with the Government of Canada and with other funding agencies on its role and programs and on the level of funding provided.
- The CFI's communications strategy focuses on highlighting the key results and social and economic outcomes of the research enabled by CFI investments.
- The CFI Research Facilities Navigator fosters and enables communication and linkages between CFI-funded institutions and external stakeholders in the private and public sectors.
- The CFI encourages the research community to communicate with government about the value of CFI funding.
- The CFI continues to explore new ways of telling the stories of the impacts of research enabled by CFI-funded infrastructure.

4. Risk that overall funding cannot be balanced to support different stakeholder needs (e.g. between capital and operating and maintenance investments)

Mitigation measures:

- The CFI conducts ongoing consultations with the research community and government to determine the balance of funding types for major science initiatives and multi-institutional facilities.
- The CFI undertakes discussions with government and other funding organizations on funding pressures and how best to optimize the overall funding system.
- Latest Innovation Fund competition provides additional operating and maintenance funding for projects with greater needs for operational support.
- The Infrastructure Operating Fund provides institutions with flexibility to address projects with varying needs.
- The CFI continues to advocate for a national strategy to best address the requirements for large-scale research infrastructures.

5. Risk that contribution agreement requirements impair the ability of the CFI to be responsive to stakeholder needs in a timely and flexible manner (e.g. through new programs)

Mitigation measures:

- The CFI regularly consults with institutions to understand their needs and explain the specifics of federal funding programs and opportunities.
- The CFI briefs parliamentarians and senior government officials on the value of a flexible model, alignment of funding mechanisms with the federal Science, Technology and Innovation Strategy and the granting agencies and on the needs of institutions.
- Communication and outreach activities underscore the need for flexibility as a means to enable the CFI to achieve the expected results specified in its contribution agreements.
- The CFI encourages the research community to work with the CFI to communicate its needs to key decision-makers.
- The CFI periodically assesses whether funding mechanisms are addressing stakeholder needs and, when necessary, makes appropriate adjustments in the program architecture and fund delivery mechanisms.

HUMAN RESOURCES RISKS

6. Risk of turnover and/or loss of corporate memory among critical leadership positions

Mitigation measures:

- The horizontal structure of the CFI facilitates the effective transfer of corporate knowledge throughout the organization and in periods of leadership turnover.
- The CFI maintains a competitive compensation structure and a balanced work environment that help attract and retain top talent.
- The CFI succession plan is reviewed and updated every two years.

INFORMATION TECHNOLOGY/INFORMATION MANAGEMENT RISKS

7. Risk that information is not managed and/or accessible in a manner to support and enable effective and timely decision making

Mitigation measures:

- The CFI's business units consistently review and update the information captured for both structured data (i.e. corporate database systems) and unstructured data (i.e. business unit specific activity) to support their operational and strategic business decisions.
- The Performance, evaluation, risk and audit framework exercise periodically reviews and updates information requirements needed to inform strategic business decisions and directions.
- Information access follows a decentralized approach. Business units have staff with advancedlevel expertise using the CFI business information tools to effectively support decision making. All users are supported by the information management team. Training is available on an ongoing basis, and specialized training sessions are provided as needed.

- All information captured at the CFI occurs within a secure and protected environment using upto-date, industry-standard technology and infrastructure and software supported by contracted experts. Regular data backup schedules and maintenance operations are in place.
- The information management initiative undertaken in 2015 will optimize the value of data within the organization, produce repeatable results, enrich analytical capabilities and provide tools for the CFI to be a trusted voice.

Research builds communities La recherche au service des collectivités

 1100-55 Metcalfe Street
 1100-55 rue Metcalfe

 Ottawa ON K1P 6L5
 Ottawa ON K1P 6L5

 Tel 613.947.6496
 Tél 613.947.9496

 Fax 613.943.0227
 Téléc 613.943.0227

