CANADA FOUNDATION FOR INNOVATION

Corporate plan 2023–24

January 2023



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Table of contents

The role of the Canada Foundation for Innovation2
Strategic and operational context5
Delivering programs to support Canada's research priorities6
Celebrating our successes and engaging with the community9
Measuring performance to enhance results 11
Maintaining administrative and
operational capacity to support the CFI's delivery to the community 12
operational capacity to support
operational capacity to support the CFI's delivery to the community 12

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About the Canada Foundation for Innovation

Since 1997, the Canada Foundation for Innovation has invested in infrastructure that researchers need to think big, innovate and push the boundaries of knowledge. State-of-the-art research facilities and equipment increase the capability of Canada's universities, colleges, research hospitals and nonprofit research organizations to carry out high-quality research.

This, in turn, helps them to attract and retain the world's top talent, train the next generation of researchers and support world-class research that strengthens the economy and improves the quality of life for all Canadians.

The Canada Foundation for Innovation's main office is located on the unceded Traditional Territory of the Anishinaabe Algonquin Nation.

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. The CFI's mandate is to benefit people in Canada by strengthening the capacity of Canadian universities, colleges, research hospitals and non-profit research institutions to carry out world-class research and develop cutting-edge technologies.

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

Since its creation in 1997, the CFI has committed almost \$10 billion in support of over 12,500 projects at 172 research institutions in 80 municipalities across Canada.

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 of people in Canada. By supporting the country's capacity for world-class research, the CFI plays a vital role in producing social, economic, environmental and health benefits for the country.

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

- Increase Canada's capacity to carry out important world-class scientific research and technology development
- Support economic growth and job creation, as well as health and environmental quality through innovation
- Expand research and job opportunities for the next generation of researchers, technicians and entrepreneurs in Canada
- Promote productive networks and collaboration among Canadian universities, colleges, research hospitals, non-profit research institutions and the private sector.

Through its funding activities, the Government of Canada expects the CFI to enhance the capacity of universities, colleges, research hospitals and non-profit research institutions 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
- Support private-sector innovation and commercialization.



Our commitment to equity, diversity and inclusion

The CFI is committed to the principles of equity, diversity and inclusion (EDI). In all our activities, we recognize that a breadth of perspectives, skills and experiences contributes to excellence in research.

Equity: We aim to ensure all CFI-eligible institutions have the opportunity to access and benefit from our programs and CFI-funded research infrastructure through our well-established, fair and impartial practices.

Diversity: We value attributes that allow institutions and their researchers — from any background and from anywhere — to succeed. These include individual attributes such as gender, language, culture and career stage; institutional attributes such as size, type and location; and attributes that encompass the full spectrum of research, from basic to applied and across all disciplines.

Inclusion: We encourage a culture of collaboration and partnership which includes contributions from and engagement among diverse groups of people, institutions and areas of research to maximize the potential of Canada's research ecosystem.

We believe that nurturing an equitable, diverse and inclusive culture is the responsibility of every member of the research ecosystem, including funders, institutions, researchers, experts and reviewers.

Funding and contribution agreements

The CFI operates under two funding agreements and four contribution agreements with the Government of Canada, under the authority of <u>Innovation, Science and Economic Development</u> <u>Canada (ISED)</u> and the Minister of Innovation, Science and Industry (see Table 1).

Year of signing of the funding or contribution agreement	Agreement details
1997	The CFI's first funding agreement specified the conditions under which all funds allocated to the CFI between 1997 and 2009, totalling \$4.39 billion, were to be distributed to eligible recipients. These sums generated an additional \$1.7 billion in interest income that the CFI directed to project funding and operational expenditures.
2010	In July 2010, the CFI signed a second funding agreement with the Government of Canada. It provided the CFI with \$600 million, which had been allocated in the 2009 federal budget and has now been committed by the CFI.
2014	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. The CFI has committed all the funding available under this agreement.
2015	In September 2015, the CFI signed a contribution agreement with the Government of Canada for \$1.33 billion. The funding competitions flowing from this contribution agreement are completed.

Table 1: Funding and contribution agreements with the Government of Canada

Year of signing of the funding or contribution agreement	Agreement details
	In January 2019, the CFI signed a contribution agreement that represented a fundamental change in the way the Government of Canada invests in research infrastructure. Following the announcement in the 2018 federal budget, the CFI is transitioning to the permanent funding model that will take effect in 2023–24.
2019	Through the 2019 Contribution Agreement and four subsequent amendments signed in 2020–21 and 2021–22, the Government of Canada provided the CFI with \$4.31 billion over 13 years commencing in 2018–19, including permanent funding at an ongoing level of up to \$462 million per year starting in 2023–24. We are currently delivering funding competitions according to this contribution agreement.
2022	In March 2022, the CFI signed a contribution agreement with the Government of Canada for \$495.96 million to deliver the Biosciences Research Infrastructure Fund (BRIF) over seven years ending in fiscal year 2027–28.

See "<u>Appendix 1: Financial charts</u>" for details on how we are implementing the financial aspects of these agreements.

These funding and contribution agreements have enabled the CFI to establish a suite of funding programs (see Table 2) to increase the research capacity of institutions by providing them with the facilities and equipment they need to undertake research across all disciplines, and to work with other research institutions in Canada and internationally.

Table 2: Current funding programs

Funding program (year launched)	Objective
Biosciences Research Infrastructure Fund (BRIF) (Launched in 2021)	Supports the bioscience research infrastructure needs of postsecondary institutions and research hospitals by providing high-performance tools, innovative research spaces and biocontainment facilities
College Fund (Launched in 2010 as the College-Industry Innovation Fund)	Provides colleges with research infrastructure to foster partnerships with the public, private or not-for-profit sectors that lead to innovation
Major Science Initiatives Fund (MSIF) (Launched in 2010)	Provides national research facilities with the operating and maintenance support necessary to produce excellent research and technology development
John R. Evans Leaders Fund (JELF) (Launched in 2006 as the Leaders Opportunity Fund)	Provides ongoing and consistent support for institutions to secure the research infrastructure necessary to attract and retain top research talent (In addition to matching funds for research infrastructure, JELF funding is coupled with support from partner organizations for direct research costs.)
Exceptional Opportunities Fund (EOF) (Launched in 2005)	Provides institutions the opportunity to seek funding for exceptional and time-sensitive initiatives that would otherwise be missed within regular competition cycles
Infrastructure Operating Fund (IOF) (Launched in 2001)	Provides institutions funding that covers a portion of the operating and maintenance costs of CFI-funded research infrastructure to ensure its optimal use
Innovation Fund (Launched in 1999)	Provides funding for world-class, cutting-edge research infrastructure across all disciplines and areas of research

Strategic and operational context

Operating environment and objectives for 2023–24

The CFI is keenly aware that in 2023–24 the research and postsecondary sector will continue to face challenges stemming from labour market changes, inflation, supply-chain disruptions, the effects of climate change and geopolitical uncertainties. Within our mandate and contribution agreements with the federal government, we will consider how our programs, policies and administration can address these conditions and their impact on research institutions and the entire research ecosystem.

The CFI's operating environment will also be shaped by the priorities of the federal and provincial and territorial governments. The CFI is committed to working with governments and other research funding organizations to:

- Safeguard Canadian postsecondary research
- Promote a more equitable, diverse and inclusive research community
- Foster linkages between Canadian research institutions and the private and not-for-profit sectors, and
- Create opportunities to develop world-leading Canadian science and research.

New strategic directions for 2023–28

The CFI was established to support Canada's research community by responding to its evolving needs. To remain attentive to these needs, the CFI regularly engages with stakeholders across a range of institutions, organizations, disciplines and regions. This approach has always been central to how we meet our mandate. In 2022, the CFI once again engaged with a wide range of stakeholders to develop a new set of strategic directions.

The CFI's 2023–28 Strategic plan outlines new strategic directions the CFI will take to pursue its mandate. The plan aims to support the evolving needs of Canada's universities, colleges, research hospitals and non-profit research institutions across all disciplines through five strategic pillars:

- Fostering the science of tomorrow: Our contribution to building today the research capacity that supports the science of tomorrow
- **Building prosperous and healthy communities:** Our contribution to enhancing the connection between research and communities
- **Contributing to a sustainable world:** Our contribution to environmental, social and economic sustainability
- Inspiring the next generation: Our contribution to promoting equity, diversity, inclusion and community
- **Delivering for the research community:** Our contribution to leveraging institutional partnerships and collaboration

We will implement the plan's strategic directions and associated measures over the next five years and track our progress annually.

Delivering programs to support Canada's research priorities

Our funding supports excellent research that benefits Canadians. In 2022–23, the CFI delivered on its mandate through new and recurring funding programs and will continue to do so in 2023–24.

In 2022–23, the CFI expects to disburse approximately \$410 million to Canadian research institutions through its funding programs. Table 3 provides a summary of awards approved by the CFI's Board under the various funding programs.

Funding program	Number of awards	Number of recipient institutions	Total award (excluding IOF) (\$M)	Infrastructure Operating Fund (\$M)					
BRIF (2022)	8	8	98.44	29.53					
MSIF (2023–29)	19	16	635.43	-					
MSIF (2017–23)	17	12	615.16	_					
Innovation Fund (2020)	102	38	399.83	118.11					
Innovation Fund (2017)	117	40	427.29	123.27					
JELF 2022-23	The awards for 2022–23 will only be known following March 2023 approvals								
JELF 2021-22	425	64	73.50	22.05					
College Fund 2022–23	17	14	11.88	3.56					
College Fund 2021–22	14	12	11.07	3.32					
EOF – COVID-19 (universities)	56	31	26.56	_					
EOF – COVID-19 (colleges, polytechnics and Cégeps)	23	23	1.06	-					
EOF (2021)	1	1	15.00	_					

Table 3: Investments made through the last two cycles of our funding programs*

* Last two fiscal years in the case of JELF.

Significant initiatives completed in 2022–23

In 2022–23, and continuing in 2023–24, the CFI delivered on two critical funding programs that align with federal priorities: the Biosciences Research Infrastructure Fund (BRIF) and the Major Science Initiatives Fund (MSIF).

The first BRIF competition was launched in September 2021 and focused on upgrading laboratory facilities in research hospitals and postsecondary institutions and associated large-animal facilities capable of working with infectious materials. The results of this first BRIF competition were announced in November 2022. This initial investment of \$98.4 million (\$128.0 million including operating support from the Infrastructure Operating Fund (IOF)) will result in increased capacity to conduct biosciences research at eight institutions across Canada. BRIF is a key part of the <u>Government of Canada's Biomanufacturing</u> and Life Sciences Strategy, which includes a federal investment of more than \$2.2 billion over seven years to develop a strong, competitive biomanufacturing and life sciences sector, and to ensure Canada is prepared for future pandemics.

In July 2021, we launched an MSIF competition. Decisions for that competition were made by the Board of Directors in June 2022, and the results were announced in August 2022. Through that competition, 19 state-of-the-art facilities of national importance (listed below) will share more than \$628.3 million to support their ongoing operating and maintenance needs. In addition, two facilities were awarded transitional funding of \$7.1 million. We collaborated with the Social Sciences and Humanities Research Council (SSHRC) and the Canadian Institutes of Health Research (CIHR) in this competition to jointly fund the Canadian Research Data Centre Network, with SSHRC and CIHR making a joint investment of \$17.4 million.

- Advanced Laser Light Source
- Canadian Cancer Trials Group Operations and Statistics Centre at Queen's University
- Canadian Light Source
- Canadian Research Data Centre Network*
- Canadian Research Icebreaker Amundsen
- Centre for Biodiversity Genomics
- CGEn Canada's national facility for genome sequencing and analysis
- Coalition Publica
- Global Water Futures Observatories
- GlycoNet Integrated Services

- Ocean Networks Canada
- Ocean Tracking Network
- SNOLAB
- SuperDARN Canada: The Canadian Component of the Super Dual Auroral Radar Network, A Global Space Weather Collaboration
- The André E. Lalonde Accelerator Mass Spectrometry Facility for Environmental Radionuclides
- The Metabolomics Innovation Centre
- The World's Freshwater Laboratory
- Vaccine and Infectious Disease Organization
- Wind Engineering, Energy and Environment Research Facility

Following the announcement of the MSIF results, the CFI will finalize agreements with the recipient institutions in order to flow funds beginning in 2023–24.

*Jointly funded with the Canadian Institutes for Health Research and the Social Sciences and Humanities Research Council.

In 2022–23, the CFI continued to run annual funding competitions for Canada's postsecondary institutions through the John R. Evans Leaders Fund (JELF) and the College Fund. As in past years, three rounds of JELF funding were held in 2022–23, with decisions made by our Board of Directors in June 2022, November 2022 and March 2023. We anticipate that up to \$125 million (plus associated support from the IOF) will be awarded through JELF in 2022–23. The College Fund competition was launched in January 2022, and funding decisions were approved in November 2022. Through the College Fund, the CFI invested \$15.4 million to increase applied research capacity in 14 colleges across Canada.

Looking ahead, the CFI will allocate up to \$255 million to JELF that will be distributed to universities between April 2023 and March 2026 in order to attract and retain research talent in Canada.

Finally, we collaborated with Genome Canada on their competition that awarded \$6.12 million in December 2022 for technology development at the four facilities funded through the MSIF in the area of genomics.

Significant initiatives started in 2022–23 and to be completed in 2023–24

Following the successful conclusion of the first BRIF competition, the CFI launched a second BRIF competition in early 2023 in partnership with the Canada Biomedical Research Fund (CBRF), which is administered by the Social Sciences and Humanities Research Council (SSHRC) on behalf of the three federal research funding agencies. This second competition will focus on biomanufacturing and life sciences infrastructure at Canadian institutions to support the research programs and talent development initiatives associated with selected research hubs. Decisions for the second BRIF competition are expected before the end of 2023–24. The CFI will also develop a project progress report that aligns with the performance measurement strategy for the BRIF, which was jointly developed with SSHRC and ISED.

In 2022–23, the CFI began to revamp the MSIF annual performance report to be used for facilities funded under the 2023–29 competition. The aim of this project is to improve the quality and usability of the data the CFI collects on facilities supported through the MSIF.

That same year, the CFI accepted proposals to its 2023 Innovation Fund competition and completed the Expert Committee and Multidisciplinary Assessment Committee reviews. The final stage of review will be completed by June 2023 when final funding decisions will be made by the CFI's Board of Directors.

Also in 2022–23, the CFI completed stakeholder engagement on, and received authority from the Minister of Innovation, Science and Industry to launch a new fund to enhance the capacity of research institutions in Canada's North through investments in facilities and equipment. The Northern Research Infrastructure Fund (NRIF) will inject \$25 million for that purpose, including associated operating costs through the IOF. The CFI will publish a draft call for proposals in 2023 to gather feedback from research institutions and other stakeholders. The formal call for proposals will follow later in 2023.

Significant initiatives to begin in 2023–24

In 2023–24, the CFI will launch three JELF proposal intake rounds beginning in June 2023. We will also launch a new College Fund competition with proposals due in June 2023. The CFI will also begin preparing for the launch of the 2025 competition of its flagship Innovation Fund.

Celebrating our successes and engaging with the community

Strong and effective communications and stakeholder engagement are essential components of the CFI's approach to supporting Canada's research and innovation ecosystem, which includes private, public and not-for-profit organizations.

Significant initiatives completed in 2022–23

In 2022, the CFI continued to celebrate its 25th anniversary. This milestone was marked through a series of events and activities under the theme, "A promising future, now: 25 years of investing in ideas that change the world." This campaign focused on the CFI's contribution to building capacity across the research ecosystem, and the value and impact of CFI funding and the importance of the Government of Canada's ongoing investments in research.

The 25th anniversary also sparked a series of initiatives focused on increasing the interest in STEM education and careers in science among Canadian youth. We organized a national roundtable discussion on science and youth as a follow-up to a survey we conducted in 2021 that looked at youth attitudes toward science. The conversations, involving stakeholders from across the country, focused on the importance of science education, communication and skills development to help youth develop critical thinking, make informed decisions and pursue STEM careers.

The CFI developed partnerships to extend its reach across the research ecosystem and increase awareness of the Research Facilities Navigator, the CFI's main tool to foster applied research between research laboratories and industry. This included a new strategic partnership with the Association pour le développement de la recherche et de l'innovation du Québec (ADRIQ) to promote the Navigator and share other information with key stakeholders in Quebec's business and public sectors. In addition, the CFI finalized an agreement with Mitacs on various industry-academia initiatives.

We also engaged actively with the research community and general public about Government of Canada investments made through the CFI. This included communicating funding decisions for BRIF and other programs, as well as the development of an online interactive tool highlighting CFI investments by province or territory, institution and discipline, among other facets.

In October 2022, the CFI led Canada's representation at the 2022 International Conference on Research Infrastructures (ICRI) and acted as co-chair of the OECD Global Science Forum Expert Group on Very Large Research Infrastructures.

Significant initiatives started in 2022–23 and to be completed in 2023–24

The CFI is developing a promotional campaign to highlight how CFI investments that support climate change and environmental sustainability research are having an impact on the everyday lives of Canadians. The campaign, which will run through 2023–24, will illustrate how research made possible with CFI support helps mitigate the impacts of climate change and enables Canadians to embrace a more sustainable lifestyle. The campaign will feature news and information about the CFI's contribution to research including analyses of CFI-funded projects supporting research in these areas and case studies looking at the role of CFI investments in generating social or economic benefits.

In 2022–23, the CFI continued to develop its relationships with international counterparts, including the United Kingdom Research and Innovation (UKRI), the Helmholtz Foundation, and the German Research Foundation on future collaboration in support for research. The CFI will continue to develop these relationships with the goal, amongst other things, of expanding the number of international experts on competition assessment committees.

In 2022–23, the CFI and Laboratories Canada (LabsCanada) signed an MOU to develop their collaboration to establish a new funding program to be managed by LabsCanada. Through this collaboration, LabsCanada will benefit from the CFI's expertise and knowledge in funding academic and non-profit research infrastructure, while the CFI will benefit from LabsCanada's expertise and knowledge of federal procurement and access to federal science-based departments and agencies. In addition, a new initiative with the National Research Council will combine effectively and efficiently the resources of both in service of research.

Significant initiatives to begin in 2023–24

In 2023–24, the CFI will engage with stakeholders in Canada's research and innovation ecosystem to communicate the action plan stemming from the 2023–28 Strategic plan. This includes committing to reconciliation with Indigenous Peoples and increasing attention to EDI in our funding programs and activities.

Along with continuing the promotional campaign that highlights the outcomes of CFI investments in climate change and environmental sustainability, the CFI will also showcase academia/private-sector collaboration and innovation that has been enabled through the Research Facilities Navigator since its launch ten years ago in 2013. We will use this milestone anniversary to draw attention to the CFI's unique role in fostering innovation.

In 2023–24, we will also focus on communications and outreach initiatives that support STEM education and skills development for young Canadians and will work with other like-minded organizations to sustain the conversation on youth and science and work to keep the issue of trust in science on the public agenda.

Measuring performance to enhance results

The CFI's support of the research ecosystem includes a commitment to performance measurement and continuous improvement of its funding programs and activities. Since 2008, the CFI has been guided by its Performance, evaluation, risk and audit framework (PERAF) in regard to managing organizational risks as well as tracking and assessing its performance in relation to its objectives and expected results. The current PERAF was adopted by the Board of Directors in March 2020.

Significant initiatives completed in 2022–23

In 2022–23, the CFI delivered on a number of initiatives to ensure the continued performance of its funding programs and other activities. They included the publication of the annual report on results summarizing the outputs and outcomes achieved through CFI-funded research infrastructure based upon 1,618 institutional project progress reports for fiscal year 2021–22 and the preparation of its annual performance measurement report. In addition, the CFI undertook surveys to gauge the satisfaction of CFI stakeholders and of experts involved in the 2023 Innovation Fund reviews. These surveys will be completed in March 2023.

Significant initiatives started in 2022–23 and to be completed in 2023–24

In 2023–24, the CFI will complete work on the renewal of its Performance, evaluation, risk and audit framework (PERAF). The main purposes of this work are to revamp risk and mitigation measures and reexamine the CFI's performance measurement strategy in order to improve its capacity to measure performance and ensure alignment with new performance and evaluation requirements.

Significant initiatives to begin in 2023–24

Consistent with its established practices, the CFI will prepare its 2023 Performance measurement report and 2023 Report on results. The reports provide information that demonstrates the value and impact of CFI funding on funded institutions and researchers and progress toward our objectives and expected results.

Maintaining administrative and operational capacity to support the CFI's delivery to the community

Significant initiatives completed in 2022–23

In 2022–23, the CFI continued to develop its approach to safeguard Canada's postsecondary research enterprise in line with the federal Guidelines for Research Security. In January 2023, the CFI submitted to ISED its research security plan outlining internal and external security measures. Working with ISED and the Tri-Agency Institutional Programs Secretariat (TIPS), the CFI has instituted measures to address external threats to research consistent with the federal guidelines for the second BRIF competition that is held jointly with the CBRF.

Significant initiatives started in 2022–23 and to be completed in 2023–24

In 2022–23, the CFI launched projects to continuously improve its information technology systems and infrastructure. These projects will come to fruition in 2023–24 with the implementation of new tools to manage expert reviewer recruitment. These new tools will ensure consideration of business practice changes to ensure the diversity of expert reviewers and to reduce administrative burdens for them.

In 2022, the CFI undertook an audit of its talent management. As a result of the audit, the CFI will adopt a new human resources information system. A public tender for the purchase of the system will launch in 2023, with planned implementation in early 2024. The CFI is also adapting to new legislative requirements impacting its workforce as well as reviewing options to transition its workforce into a hybrid model.

In 2023–24, the CFI will also publish an updated edition of our Policy and program guide (PPG). The PPG is the CFI's main tool used by institutions to apply for and manage their CFI awards. In 2023–24, the CFI will also take steps focused on threats to its operations and administration through measures to assess, review and improve cybersecurity. These measures will be outlined in our first security plan, which was submitted to the Minister of Innovation, Science and Industry in 2023. The plan builds upon the research security considerations included in the BRIF and 2023 Innovation Fund competitions and will outline how the CFI goes forward to address the Government of Canada's National Security Guidelines for Research Partnerships.

Ongoing oversight activities

The CFI performs oversight activities on an ongoing basis to ensure that institutions spend CFI funds as intended and have appropriate processes and controls in place to manage CFI awards. These include:

- Contribution audits on a mix of low- to high-risk projects, including all projects where the CFI investment is \$10 million or more
- Review of financial reports to allow us to monitor institutional spending for each project we fund
- Monitoring visits to ensure that institutions that receive funding have proper practices and processes in place to manage awards. The visits also allow us to identify good practices used by institutions.

Starting in 2022–23, we now perform an annual financial risk assessment for all institutions with active CFI projects. This is in response to the increased risk to institutional financial viability posed by the pandemic and other global economic factors.

INNOVATION

Closing word

The CFI's founding mission is to be an enabler of research excellence and scientific progress. This mission is central to our corporate planning and how we plan to deliver on the initiatives we have outlined. In the coming year, we will serve Canada's research community with programs that enhance their capacity to carry out research.

Our actions will be guided by the priorities outlined in our new strategic plan. The coming year will focus on continued delivery of funding programs in priority areas for Canada, such as BRIF, and enhancing the capacity of small and emerging research institutions to carry out research, such as those we will support through the Northern Research Infrastructure Fund. We will continue to develop partnerships with actors across the research ecosystem, including with partners in industry and the not-for-profit sector. Working together we will ensure that we build the future of research in Canada.

Appendix 1: Financial charts

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

	Cumulative March 31, 2022 (\$M)	2022–23 (\$M)	2023–24 (\$M)	2024–25 (\$M)	2025 and later (\$M)	To be determined (\$M)	Total (\$M)
Funding program	Commitments** (Actual)	Commitments (Projected)	Commitments (Projected)	Commitments (Projected)	Commitments (Projected)	Commitments (Projected)	
Automotive Partnership Canada	9						9
Canada Research Chairs Program	194						194
Career Awards	6						6
College Research Development Fund	16						16
Cyberinfrastructure Initiative	70						70
Digging into Data/ Discovery Frontiers	1						1
Exceptional Opportunities Fund and other	23						23
Exceptional Opportunities Fund – COVID-19 (universities)	27						27
Exceptional Opportunities Fund – COVID-19 (colleges, polytechnics and Cégeps)	1						1
Exceptional Opportunities Fund 2021	15						15
Infrastructure Operating Fund	1,038		1	1	3		1,043
Innovation Fund (1998–2005)	1,758						1,758
Innovation Fund 2015	54						54
Innovation Fund 2017	2						2
International funds	202						202
John R. Evans Leaders Fund (and Leaders Opportunity/New Opportunity funds)	886						886
Leading Edge/New Initiatives funds	831						831
Major Science Initiatives Fund 2014 special competition	24						24
National Platforms Fund	84						84
Northern Research Infrastructure Fund			4	4	12		20
Research Development Fund	35						35
Research Hospital Fund	488						488
Thirty Meter Telescope	25						25
Operating expenditures	262	2					264
Contingency for wind-down expenses						10	10
To be determined/unallocated						6	6
Total	6,051	2	5	5	15	16	6,094

	Cumulative March 31, 2022 (\$M)	2022–23 (\$M)	2023–24 (\$M)	2024–25 (\$M)	2025 and later (\$M)	To be determined (\$M)	Total (\$M)
Funding program	Commitments** (Actual)	Commitments (Projected)	Commitments (Projected)	Commitments (Projected)	Commitments (Projected)	Commitments (Projected)	(φ11)
	2010 F	unding Agr	eement (\$	600M)*			
College-Industry Innovation Fund	25						25
Infrastructure Operating Fund	97						97
John R. Evans Leaders Fund	139						139
Leading Edge/New Initiatives funds	158						158
Major Science Initiatives Fund	183						183
To be determined/unallocated						1	1
Total	602	0	0	0	0	1	603
	2014 Cont	ribution Ag	reement (\$	\$499.85M)*			
College-Industry Innovation Fund	39						39
Infrastructure Operating Fund	116						116
Innovation Fund 2015	206						206
John R. Evans Leaders Fund	140						140
Total	501	0	0	0	0	0	501
	2015 Con	tribution Ag	areement (\$1.330M)*			
College-Industry Innovation Fund	38	9	5.000				47
Infrastructure Operating Fund	208	3					211
Innovation Fund 2017	426						426
John R. Evans Leaders Fund	248						248
Major Science Initiatives Fund	398						398
To be determined/unallocated						2	2
Total	1,318	12	0	0	0	2	1,332
	2019 Contr	ibution Aar	eement (\$4	4.314.37M) [;]	*		
College Fund (2022–23 to 2024–25)		3	15	15			33
College Fund (2025–26 and onwards) ***					45		45
Infrastructure Operating Fund	149	37	150	30	384		750
Innovation Fund 2020	400						400
Innovation Fund 2023			400				400
Innovation Fund 2025 ***					425		425
Innovation Fund 2027 ***					425		425
John R. Evans Leaders Fund (2020–23)	101	121					222
John R. Evans Leaders Fund (2023–26)			85	85	85		255
John R. Evans Leaders Fund (2023–26) – top-up ***					12		12
John R. Evans Leaders Fund (2026–29) ***					285		285

INNOVATION

	Cumulative March 31, 2022 (\$M)	2022–23 (\$M)	2023–24 (\$M)	2024–25 (\$M)	2025 and later (\$M)	To be determined (\$M)	Total (\$M)
Funding program	Commitments** (Actual)	Commitments (Projected)	Commitments (Projected)	Commitments (Projected)	Commitments (Projected)	Commitments (Projected)	
Major Science Initiatives Fund – top-up	157						157
Major Science Initiatives Fund (2017–23)	54						54
Major Science Initiatives Fund (2023–29)		635			25		660
Exceptional Opportunities Fund (contingency)			25				25
Operating expenditures	11	12	16	16	108		163
To be determined/unallocated						4	4
Total	872	808	691	146	1,794	4	4,315
	2022 Cont	ribution Ag	reement (\$	495.96M)*			
Biosciences Research Infrastructure Fund – Biocontainment and Iarge-animal facilities		98					98
Biosciences Research Infrastructure Fund – Partnership with Stage 2 of the Canada Biomedical Research Fund			277				277
Infrastructure Operating Fund		30	83				113
Operating expenditures	1	2	2	2	1		8
Total	1	130	362	2	1	0	496

Interest income generated from funding provided through each of the contribution and funding agreements and directed to project funding is as follows: \$1.7 billion from the first funding agreement; \$3.1 million from the 2010 Funding Agreement; \$1.5 million from the 2014 Contribution Agreement; \$1.8 million from the 2015 Contribution Agreement; \$0.6 million from the 2019 Contribution Agreement; and \$0.2 million from the 2022 Contribution Agreement. There are no revenues anticipated in future years from sources 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 research infrastructure projects submitted as of September 30, 2022.

*** Tentative allocation subject to change by the CFI, endorsement by the CFI Board of Directors and approval by the Minister of Innovation, Science and Industry.

Table 2: Projected expenditures (disbursements) detailed by fund

	Cumulative	2022–23 (\$M)	2023–24 (\$M)		2025 and	To be	T
	March 31, 2022 (\$M)			2024–25 (\$M)	later (\$M)	determined (\$M)	Total (\$M)
Funding program	Expenditures (Actual)	Expenditures (Projected)	Expenditures (Projected)	Expenditures (Projected)	Expenditures (Projected)	Expenditures (Projected)	
Automotive Partnership Canada Fund	9						9
Canada Research Chairs Program	194						194
Career Awards	6						6
College Research Development Fund	16						16
Cyberinfrastructure Initiative	67	1	2				70
Digging into Data/ Discovery Frontiers	1						1
Exceptional Opportunities Fund and other	23						23
Exceptional Opportunities Fund – COVID-19 (universities)	26	1					27
Exceptional Opportunities Fund – COVID-19 (colleges, polytechnics and Cégeps)	1						1
Exceptional Opportunities Fund 2021	1	3	3	5	3		15
Infrastructure Operating Fund	1,019	19			5		1,043
Innovation Fund (1998–2005)	1,758						1,758
Innovation Fund 2015	52	1	1				54
Innovation Fund 2017	2						2
nternational funds	202						202
John R. Evans Leaders Fund (and Leaders Opportunity/ New Opportunity funds)	883	1	2				886
Leading Edge/ New Initiatives funds	830	1					831
Major Science Initiatives Fund 2014 special competition	24						24
National Platforms Fund	84						84
Northern Research Infrastructure Fund				4	16		20
Research Development Fund	35						35
Research Hospital Fund	488						488
Thirty Meter Telescope	25						25
Operating expenditures	262	2					264
Contingency for wind-down expenses						10	10
To be determined/unallocated						6	6
Total	6,008	29	8	9	24	16	6,094

	Cumulative March 31, 2022 (\$M)	2022–23 (\$M)	2023–24 (\$M)	2024–25 (\$M)	2025 and later (\$M)	To be determined (\$M)	Total (\$M)
Funding program	Expenditures (Actual)	Expenditures (Projected)	Expenditures (Projected)	Expenditures (Projected)	Expenditures (Projected)	Expenditures (Projected)	
	2010 F	unding Ag	reement (\$	600M)			
College-Industry Innovation Fund	25						25
Infrastructure Operating Fund	97						97
John R. Evans Leaders Fund	139						139
Leading Edge/ New Initiatives funds	157		1				158
Major Science Initiatives Fund	183						183
To be determined/unallocated						1	1
Total	601	0	1	0	0	1	603
	2014 Cont	ribution Ac	greement (S	(499.85M)			
College-Industry Innovation Fund	37	2					39
Infrastructure Operating Fund	108	8					116
Innovation Fund 2015	199	2	5				206
John R. Evans Leaders Fund	139	1	-				140
Total	483	13	5	0	0	0	501
	2015 Con	tribution A	greement (¢1 220M)			
College-Industry Innovation Fund	20 15 COI	11	10	3 3	3		47
Infrastructure Operating Fund	56	44	81		2		211
Innovation Fund 2017	330	23	19	19	35		426
John R. Evans Leaders Fund	228	8	6	4	2		248
Major Science Initiatives Fund	397	1	0	4	2		398
To be determined/unallocated	337	1				2	2
Total	1,031	87	116	54	42	2	1,33
		-	-	-		-	1,00
	2019 Contr	ibution Ag	reement (\$	4,314.37M)			
College Fund (2022–23 to 2024–25)			4	13	16		33
College Fund (2025–26 and onwards)					45		45
Infrastructure Operating Fund				56	694		750
Innovation Fund 2020	58	110	92	72	68		400
Innovation Fund 2023			36	120	244		400
Innovation Fund 2025					425		425
Innovation Fund 2027					425		425
John R. Evans Leaders Fund (2020–23)	41	83	76	9	13		222
John R. Evans Leaders Fund (2023–26)			25	74	156		255
John R. Evans Leaders Fund (2023–26) – top-up					12		12

	Cumulative March 31, 2022 (\$M)	2022–23 (\$M)	2023–24 (\$M)	2024–25 (\$M)	2025 and later (\$M)	To be determined (\$M)	Total (\$M)
Funding program	Expenditures (Actual)	Expenditures (Projected)	Expenditures (Projected)	Expenditures (Projected)	Expenditures (Projected)	Expenditures (Projected)	
John R. Evans Leaders Fund (2026–29)					285		285
Major Science Initiatives Fund – top-up	101	56					157
Major Science Initiatives Fund (2017–23)		34	20				54
Major Science Initiatives Fund (2023–29)			102	100	458		660
Exceptional Opportunities Fund (contingency)			12	13			25
Operating expenditures	11	12	16	16	108		163
To be determined/unallocated						4	4
Total	211	295	383	473	2,949	4	4,315
	2022 Cont	ribution Ag	greement (S	\$495.96M)			
Biosciences Research Infrastructure Fund – Biocontainment and Iarge-animal facilities			34	29	35		98
Biosciences Research Infrastructure Fund – Partnership with Stage 2 of the Canada Biomedical Research Fund				28	249		277
Infrastructure Operating Fund					113		113
Operating expenditures	1	2	2	2	1		8
Total	1	2	36	59	398	0	496

Table 3: Annual cash flow requirements

Cash flow requirements*									
	Cumulative March 31, 2022 (\$M)	2022–23 (\$M)	2023–24 (\$M)	2024–25 (\$M)	2025 and later (\$M)	To be determined (\$M)	Total (\$M)		
Disbursements	Actual	Projected	Projected	Projected	Projected	Projected			
2010 Funding Agreement	601	0	1	0	0	1	603		
2014 Contribution Agreement	483	13	5	0	0	0	501		
2015 Contribution Agreement	1,031	87	116	54	42	2	1,332		
2019 Contribution Agreement	211	295	383	473	2,949	4	4,315		
2022 Contribution Agreement	1	2	36	59	398	0	496		
Total disbursements	2,327	397	541	586	3,389	7	7,247		
Received from the Government	2,387	444					2,831		
Generated interest income	7						7		
Expected Government payments as per cash flow requirements**			427	586	3,396		4,409		
Total funding available***	2,394	444	427	586	3,396	0	7,247		
Difference for the period	67	47	-114	0	7	-7	0		
Cumulative difference	67	114	0	0	7	0	0		

* All funds for the first, 2010, 2014 and 2015 agreements were received from the Government of Canada. Therefore, there are no future cash flow requirements for these agreements.

** This reflects the cash flow requirements.

*** Of the amount of \$427 million for 2023–24, \$214 million is needed in early April 2023 to cover expenses of April 2023 to September 2023. The balance of \$213 million can be paid during summer 2023. Of the amount of \$586 million for 2024–25, \$293 million is needed in early April 2024 to cover expenses of April 2024 to September 2024. The balance of \$293 million can be paid during summer 2024.

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

Appendix 2: Key risks and mitigation measures

In 2021, we engaged KPMG LLP to assist with the update of key risks facing the organization. As a result of this exercise, we identified eight primary risks and related mitigation measures. These are summarized in this appendix. CFI management reviews and updates key risks and mitigation measures annually.

Strategic risks

Alignment with stakeholder expectations: Risk that the CFI is not agile enough to align its activities with the evolving needs and expectations of its stakeholders on issues such as biomanufacturing, post-pandemic needs, equity, diversity, and inclusion, and research security, among others

Mitigation measures:

- We periodically assess funding mechanisms for how they are addressing stakeholder needs and, when necessary, we make appropriate adjustments to the program architecture and fund delivery mechanisms.
- We undertake regular, ongoing discussions with Government of Canada (Innovation, Science and Economic Development (ISED) Canada) officials on the requirements for research infrastructure, the leveraging of benefits and impacts of CFI investments.
- We lead and participate in outreach and communications activities specifically with parliamentarians and provide them with evidence on the ways that research infrastructure assists in attracting and retaining top research talent, enables world-class research and supports innovation.
- We issue material to demonstrate how infrastructure funding has been and continues to be responsive to government priorities and research community requirements.
- We disseminate success stories and results of performance and evaluation assessments to demonstrate the outcomes and impacts of investments.
- Responsibilities for conducting engagement activities have been defined within the management team.
- We provide funders opportunities to provide input on activities, processes and funding mechanisms.

Institutional/operational risks

Matching funding: Risk that provincial or territorial funding is not secured or sustained in a timely manner due to changes in provincial or territorial government mandates, priorities and/or funding challenges

- Provincial and territorial partners have opportunities to provide input on activities, processes and funding mechanisms.
- The priorities of provincial and territorial partners are taken into consideration in the proposal review process.
- We communicate the value of the 40 percent funding the CFI provides.
- We communicate with the provinces and territories on funding parameters and competition schedules to assist them in their planning.

Institutional capacity and financial health: Risk that institutions cannot implement or sustain current and/or future CFI-funded research infrastructure projects due to institutional financial challenges, including cost escalations and COVID-19-related expenses, or the institution being financially overextended (This includes the CFI's risk of not being able to recover funds that were inappropriately spent by an institution.)

Mitigation measures:

- We assess the capacity of institutions to manage CFI funds when determining the institution's eligibility to apply for CFI funds.
- The likelihood of obtaining matching funds and the plans for sustainability of the research infrastructure are assessed through the review process.
- We make payments to institutions based on forecasted project disbursements, and payments are re-profiled when there are significant spending delays.
- We monitor spending for every project through review of financial reports.
- We conduct risk-based monitoring of institutions and projects in accordance with the Tool for Risk Assessment and Management (TRAAM).
- We conduct monitoring visits and follow-up activities at institutions identified through a risk-based approach.
- We provide funding competitions at regular intervals through the Innovation Fund, which gives institutions the opportunity to choose optimal timing to submit proposals.

Reviewer engagement: Risk of expert reviewer fatigue, impacting the quality of the review process and our ability to deliver funding programs on a timely basis

- We review documents for competitions for clarity and conciseness to help reduce the burden on reviewers.
- Where appropriate, we hold committee meetings via tele- and videoconference, which lessens the burden of travel for reviewers.
- For major competitions, similar projects are grouped for joint review to minimize the total number of reviewers required.
- Our review process is tailored to the risk and complexity of the projects received.
- We coordinate with funding partners (e.g., provinces and territories, funding agencies and organizations) to reduce duplication of review efforts.
- We do not solicit reviews from individuals that have recently reviewed for us.
- We communicate the value of taking part in our review process.

Information technology/information management risks

Security: Risk of security breach and loss of, or inappropriate access to, personal or confidential data (e.g., researcher data, banking, human resources or travel information)

Mitigation measures:

- We conducted cybersecurity event response exercises in 2021–22 and 2022–23. We are developing a formal cybersecurity incident response plan and have updated our corporate crisis communications plan.
- We conduct annual security reviews on the CFI Awards Management System (CAMS).
- We perform vulnerability assessments of CFI websites.
- We do quarterly vulnerability scans for internal IT and CAMS.
- We work with the Canadian Centre for Cyber Security to monitor the threat landscape and keep abreast of security best practices.
- We track vendor and Canadian Centre for Cyber Security advisories to prioritize urgent security patching to systems and infrastructure, over and above regular software upgrade and patch requirements.
- Multi-layered filtering and protection are in place to screen incoming email communications.
- We maintain a cybersecurity awareness program for staff, which includes regular simulated phishing tests. To raise awareness of cybersecurity and IT risks, staff are required to complete mandatory, ongoing training sessions.
- We implement multifactor authentication for staff and partners wherever appropriate.

Human resources risks

Wellbeing and engagement of employees: Risk that new ways of working (remote working, home spaces for work, coping with the pandemic, competing family demands) may have adverse effects on employee health, wellbeing, motivation, innovation and availability, impacting operations and/or productivity

- Employee satisfaction surveys will be conducted regularly. Furthermore, supervisors check with staff to ensure they are aware of concerns and can adjust accordingly.
- The CFI allows staff to choose whether they work from the CFI offices or remotely while we assess options for a return-to-work policy, which will be established in 2023. Employees are provided a special allowance to set up an appropriate workspace in their homes.
- Employees have flexible hours when needed because of family obligations.
- Employees have unlimited access to an employee assistance program 24 hours a day, seven days a week.
- An operations committee (senior management, directors, human resources and IT) meets weekly to stay up to date on organizational priorities.
- Management and human resources continue to participate in webinars and monitor best practices to promote employee wellbeing.

Attraction and retention of talent: Risk that the CFI's culture and internal processes are not sufficiently flexible and adaptable to attract and retain talented employees in a highly competitive job market

Mitigation measures:

- We monitor the employment landscape and good practices adopted by other organizations (news articles, webinars and updates from human resources consultants).
- We will implement a human resources information system and hire an additional resource to help address increasing human resources demands.
- The CFI offers competitive salaries and benefits (pension plan, wellness fund, vacation days, medical and dental insurance).
- We promote work-life balance, including the ability to work flexible hours.
- We will review and update human resources policies and put new ones in place, including a remote work policy.
- We will review the current performance management and evaluation process to ensure that formal rating metrics are included.

Leadership continuity: Risk of losing corporate memory or disrupting activities and operations due to unanticipated turnover in key positions

- Several key positions have built-in redundancy (i.e., task sharing).
- All positions are documented with a profile.
- We will conduct a succession planning exercise within the coming year.