

Natural Sciences and Engineering Research Council of Canada

2017–18

Departmental Results Report

The Honorable Kirsty Duncan, P.C., M.P.
Minister of Science and Sport

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Minister's message



**The Honourable
Kirsty Duncan**
Minister of Science and
Sport

I am pleased to present the 2017–18 Departmental Results Report for the Natural Sciences and Engineering Research Council of Canada (NSERC).

Over the past year, through integrated work across the various organizations of the Innovation, Science and Economic Development Portfolio, the Government of Canada worked very hard to improve Canada's global competitiveness while creating jobs, nurturing growth and strengthening our country's middle class.

In 2017-18, the Portfolio continued to implement the Innovation and Skills Plan to promote innovation and science, including support for scientific research and the commercialization of research and ideas. The Plan's overarching aim to position Canada as an innovation leader has been the driving focus of the Portfolio's programs.

NSERC makes critically important contributions to the Government of Canada's Innovation, Science and Economic Development goals through the support for fundamental natural sciences and engineering research. In 2017-18, NSERC supported over 11,700 university professors and 34,000 outstanding students and postdoctoral fellows that fuel a strong, diversified and globally competitive research enterprise in Canada. NSERC's support for research partnerships with over 3,600 Canadian companies annually involves training for nearly 10,000 market ready, highly skilled personnel. In 2017-18, NSERC continued to foster a strong science and engineering culture in Canada through PromoScience, Science Odyssey, Science Literacy Week and the Little Inventors challenge.

Through deep collaborations and inclusive partnerships, the Innovation, Science and Economic Development Portfolio organizations have embarked on a shared journey to stronger, cleaner and more inclusive economic competitiveness that benefits all Canadians. This report documents the contributions that NSERC is making towards this important work.

Results at a glance

For more information on the Natural Sciences and Engineering Research Council of Canada’s plans, priorities and results achieved, see the “Results: what we achieved” section of this report.

What funds were used? (2017–18 Actual Spending)	Who was involved? (2017–18 Actual Full-Time Equivalents [FTEs])
\$1,219,141,888	422

Through its scholarships, fellowships and grant programs, in 2017-18, NSERC supported over 34,000 outstanding students and postdoctoral fellows, of which, nearly 10,000 experienced learning in an industry setting. Through these funding opportunities, NSERC ensures that Canada has a reliable supply of “market-ready”, highly skilled qualified personnel, and that Canada also attracts talented, future researchers.

Through its Discovery and Research Partnerships programs, in 2017-18, NSERC provided the support and flexibility required to more than 11,700 university professors to pursue scholarly, scientific inquiry necessary to fuel a strong, diversified, globally competitive and innovative research enterprise in Canada. In 2017-18, NSERC leveraged more than \$250 million from nearly 3,600 industrial partners participating in its programs. Moreover, NSERC implemented policy changes to its Collaborative Research and Development and Industrial Research Chair sub-programs to provide more opportunities for multinational and foreign companies to partner with Canadian universities. In addition, NSERC continued to implement new measures to support early-career scientists and engineers to launch their independent research careers, and address the inclusion and support of Indigenous researchers in natural sciences and engineering.

In 2017-18, the Natural Sciences and Engineering Research Council of Canada (NSERC) continued to foster a strong science and engineering culture in Canada through [Science Odysseyⁱ](#), [Science Literacy Weekⁱⁱ](#), the [Little Inventorsⁱⁱⁱ](#) challenge and [PromoScience^{iv}](#). The Science Odyssey and Science Literacy Week attracted 711 partners (42% increase from 2016-17) and supported 1,860 events across Canada (35% increase from 2016-17). With the scope of PromoScience expanded to target under-represent groups and engage science teachers, in 2017-18, NSERC granted 55 percent and 39 percent of the 165 PromoScience awards to support these two groups respectively.

In 2017-18, NSERC implemented a number of initiatives to foster awareness and advance equity, diversity and inclusion within Canada’s natural sciences and engineering research ecosystem.

Raison d'être, mandate and role: who we are and what we do

Raison d'être

The Natural Sciences and Engineering Research Council of Canada (NSERC) is a key player in building a culture of scientific discovery and innovation in Canada and in making this country a leader in discovery and innovation. To advance the prosperity and quality of life of all Canadians, NSERC acts as a convener of discovery and innovation partners with a goal of maximizing the value of public investments in science and engineering research.

In today's highly competitive global economy, NSERC plays a central role in supporting Canada's innovation ecosystem. NSERC supports research that benefits all Canadians. By connecting this innovative research to industry through its partnerships initiatives, NSERC also makes it easier for the private sector to collaborate with academia and access the wealth of resources Canada's first-rate academic system has to offer.

Canada's future discoverers and innovators can realize their full potential with the support of NSERC's scholarships and fellowships programs, along with funding provided through discovery and partnerships awards.

NSERC's raison d'être is a strong pillar in supporting the implementation of the Innovation and Skills Plan introduced in the 2017 Federal Budget. In 2017-18, NSERC's scholarships, fellowships and grants programs supported over 34,000 highly qualified students (undergraduate and postgraduate) and fellows in acquiring skill sets necessary to drive the economy; the Discovery and Research Partnerships grants programs supported the scientific research of more than 11,700 of the most creative and productive Canadian university professors, and allowed NSERC to partner with nearly 3,600 Canadian firms to transfer knowledge that creates economic wealth.

NSERC is also actively working to enhance the profile of Canadian research through national and international promotional activities and by connecting with industry.

Mandate and role

NSERC's vision is to help make Canada a country of discoverers and innovators for the benefit of all Canadians. It invests in People, Discovery and Innovation through partnerships and programs that support post-secondary research in the natural sciences and engineering.

NSERC is a departmental corporation of the Government of Canada created in 1978. It is funded directly by Parliament and reports to it through the Minister of Science and Sport. NSERC's Council is composed of a President and up to 18 other distinguished members selected from the private and public sectors. NSERC's President is the Chief Executive Officer. The elected Vice-

President is the Chair of the Council and of its Executive Committee. NSERC’s Council is advised on policy matters by various standing committees. Funding decisions are made by the President, or designate, on the basis of recommendations made by peer review committees. The functions of NSERC, based on the authority and responsibility assigned to it under the Natural Sciences and Engineering Research Council Act (1976-1977, c.24), are to:

- promote and assist research in the natural sciences and engineering, other than the health sciences; and
- advise the Minister in respect of such matters relating to such research as the Minister may refer to the Council for its consideration.

For more general information about the department, see the “Supplementary information” section of this report. For more information on the department’s organizational mandate letter commitments, see the [Minister’s mandate letter](#).^v

NSERC 2020 Strategic Goals

- Foster a science and engineering culture in Canada
- Enable early-career scientists to launch independent research careers
- Build, mobilize, and connect expertise across populations, institutions, disciplines, regions, and sectors
- Strengthen the dynamic between discovery and innovation
- Secure Canada's access to global scientific and engineering knowledge and expertise and increase participation in international research endeavours

Operating context and key risks

Operating context

Information Infrastructure

NSERC offers funding opportunities to support Canadian researchers and students through grants, scholarships and fellowships. On an annual basis, NSERC processes over 18,000 applications, relying on over 10,000 voluntary peer reviewers, to assess funding for researchers, students, and fellows. To ensure the most efficient delivery of its programs, NSERC requires a robust, adaptable information solution that facilitates the process throughout the grant application and award management lifecycle.

Over the past year, NSERC, the Social Sciences and Humanities Research Council (SSHRC) and the Canadian Institutes of Health Research (CIHR) put into place a process to develop a common tri-agency solution to replace their respective grants management systems, including the redesign of the Canadian Common CV. The primary objectives of this collaboration are to: reduce the administrative burden on all users, reduce risks linked to the agencies' respective legacy systems, and improve service delivery and efficiency to the Canadian research community.

Responding to changing priorities

The Government of Canada's response to the recommendations of Canada's Fundamental Science Review and the direction provided in Budget 2017 to implement the Innovation and Skills Plan has led to two new major policy directions.

First, NSERC, in close collaboration with SSHRC and CIHR as well as with the other members of the [Canada Research Coordinating Committee](#)^{vi} (CRCC), has mobilized teams to address the Committee's five priorities mandated by the Ministers of Science and Health:

- developing innovative programming across the granting agencies that supports international, multidisciplinary, high-risk and rapid-response research;
- building Canadian capacity to identify and respond to emerging areas of research;
- removing barriers faced by under-represented and disadvantaged groups to ensure equitable access across the granting agencies;
- developing an interdisciplinary Indigenous research and research training model that contributes to reconciliation with First Nations, Métis and Inuit; and
- establishing Canada as a world leader in supporting the development of talent throughout the research career life cycle.

Secondly, NSERC participated in the Horizontal Innovation and Clean Technology Review, led by the Treasury Board Secretariat. This effort resulted in the Budget 2018 commitment to consolidate six of its Research Partnerships funding opportunities into a single Collaborative Research and Development Grant program.

Key risks

NSERC’s risk management framework provides a comprehensive view of corporate risks, and assigns responsibility for their management. Risk management has been fully integrated into the Agency’s annual integrated planning cycle. In addition, NSERC’s risk identification, assessment and response strategies are closely coordinated with SSHRC in areas of shared responsibility, most notably with regard to finance, human resources, information management and information technology.

In reviewing the evolving changes of NSERC’s operating environment and the Agency’s Corporate Risk Profile, two strategic areas emerged as priorities for risk mitigation:

- the risk that NSERC may face challenges to adjust in a timely way to Government policy decisions resulting from the fundamental science review and Innovation and Skills Plan; and
- The risk that NSERC, as a small agency, may be limited in its ability to reallocate/utilize resources effectively to meet operational needs and respond to government priorities.

The following table outlines the mitigating strategies undertaken over the past year to address these risks and shows their alignment with the agency’s programs, ministerial mandate letters and government-wide priorities.

In 2017-18, the Agency also responded to the results and recommendations of the Audit of Integrated Planning and Risk Management.

Key risks

Risks	Mitigating strategy and effectiveness	Link to the department's Programs	Link to mandate letter commitments and any government-wide or departmental priorities
<p>The risk that NSERC may face challenges to adjust in a timely way to Government policy decisions resulting from the fundamental science review and Innovation and Skills Plan.</p>	<ul style="list-style-type: none"> • Developed a plan with clear accountability to ensure NSERC preparedness in responding appropriately and managing changes resulting from Budget 2017, Science Review, Horizontal Innovation and Clean Technology Review, and other science policy changes. • NSERC senior management and staff proactively engaged with key external stakeholders and connected with government decision-makers to respond in a timely and coordinated manner to new requirements. • Reinforced internal communications, which provided greater clarity on government policy decisions and their impact on staff. • NSERC senior management provided overall direction and leadership, key messages and ensured a coordinated response to policy changes and consistency in messaging across the organization and externally. 	<p>Strategic Outcome 1.0 Canada is a world leader in advancing, connecting and applying new knowledge in natural sciences and engineering.</p> <ol style="list-style-type: none"> 1. People: Research, Talent 2. Discovery: Advancement of Knowledge 3. Innovation: Research Partnerships 	<p>Minister of Science Mandate Letter^{vii}:</p> <p>Examine options to strengthen recognition of, and support for, fundamental research to support new discoveries.</p> <p>Innovation and Skills Plan^{viii}</p> <p>Support leading-edge research for innovative and job-creating businesses</p> <p>Results and Delivery^{ix}</p> <p>Improving the achievement of results across government and enhancing understanding of the results government seeks to achieve, does achieve, and the resources used</p> <p>Blueprint 2020^x</p> <p>A world-class Public Service equipped to serve Canada and Canadians now and into the future</p> <p>Workplace Health^{xi}:</p> <p>Demonstrate leadership in building a healthy, respectful and supportive work environment with a focus on mental health.</p>

Risks	Mitigating strategy and effectiveness	Link to the department’s Programs	Link to mandate letter commitments and any government-wide or departmental priorities
<p>The risk that NSERC, as a small agency, may be limited in its ability to reallocate/utilize resources effectively to meet operational needs and respond to government priorities.</p>	<ul style="list-style-type: none"> • Developed first phase of a multi-year resource management plan to improve overall organizational effectiveness. • Continued efforts to strengthen the fundamental tools of governance, systems and processes. • Employed sequential approaches to effectively resource and plan for corporate-wide, coordinated activities that address systemic operational challenges. 	<p>Same as above</p>	<p>Same as above</p>

Results: what we achieved

Programs

Program 1.1 – People: Research Talent

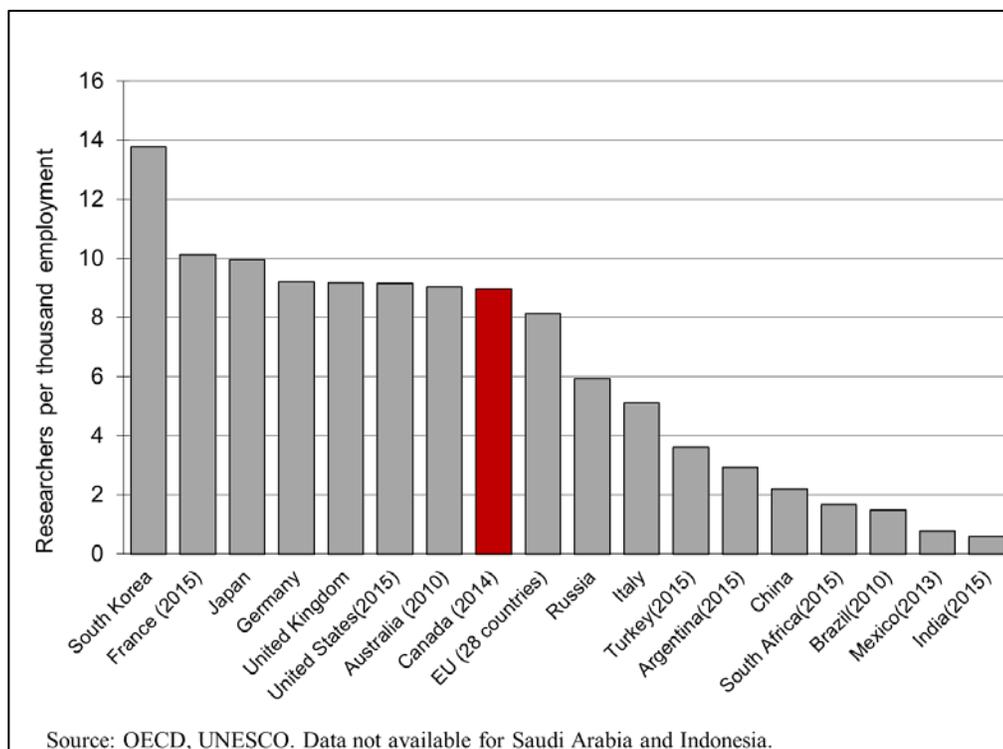
Description

This Program supports the attraction, retention and development of highly qualified people in the natural sciences and engineering (NSE) in Canada through research chairs, fellowships, scholarships and grants to eligible postsecondary research institutions and science promotion organizations. These activities are essential to building the human capital required to enable a strong, globally competitive research and innovation system in Canada. Researchers, students and young people benefit from the grant funding which supports postsecondary university research as well as some outreach activities at universities, museums, science centres, and community-based organizations.

Results

In terms of Canada's national research system (researchers per thousand employment), as shown in Figure 1.1, Canada currently ranks 8th among the G20 countries.

Figure 1.1 Number of researchers per thousand employment, G20 countries, 2016 or most recent year



In 2017, the unemployment rate for occupations in the NSE was 2.7 percent compared to 6.3 percent for the general unemployment rate.

Through initiatives related to two key goals of NSERC’s strategic plan: fostering a science and engineering culture in Canada, and launching the new generation of researchers, NSERC helps to ensure that Canada has a diverse pool of citizens trained in the NSE and the talent required to pursue science and innovation. This aligns with Canada’s Innovation and Skills Plan priorities.

Highlights of 2017-18

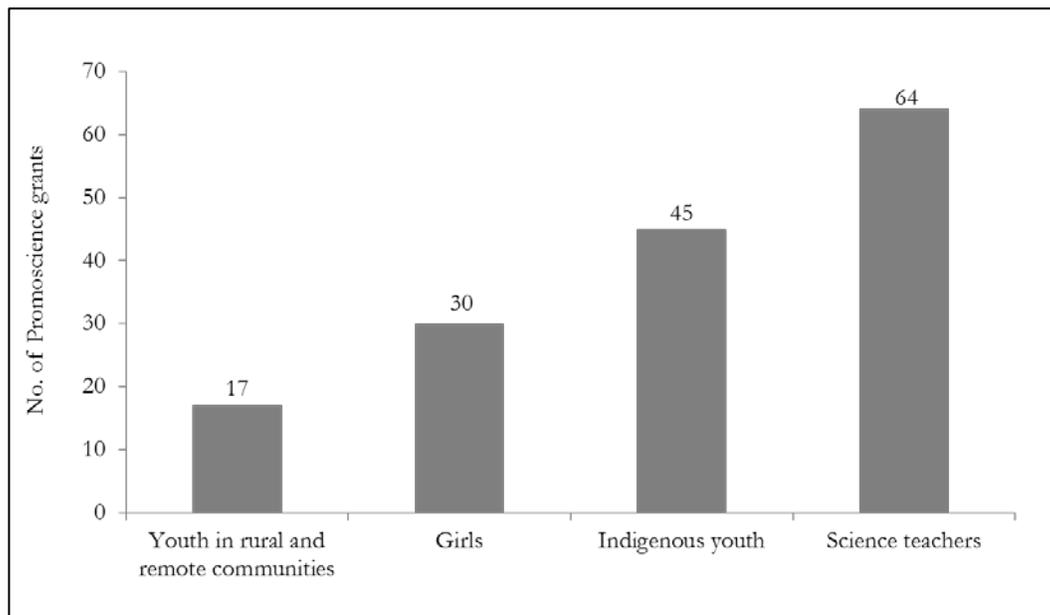
- NSERC increased its leadership of science and engineering promotion in Canada. [Science Odyssey](#) and [Science Literacy Week](#) brought together 711 partners from across the country to host nearly 1,860 events.
- NSERC expanded the reach of its [PromoScience](#) program to focus on engaging science teachers and youth from under-represented groups (girls, Indigenous youth, and youth in rural and remote communities) in science, technology, engineering and mathematics (STEM) fields.
- NSERC experimented with the micro-funding instrument promoted by Treasury Board by launching the [NSERC Student Ambassadors](#)^{xii}; a five-year pilot program funding youth enrolled in the NSE at the level of \$1,000 to deliver an outreach or engagement activity with youth from under-represented groups. Of 14 applications received, 10 were awarded.
- In November 2017, NSERC co-hosted the [Gender Summit 11 North America](#),^{xiii} in Montreal. This event attracted more than 675 attendees. Participants included Canadian and international diverse equity-seeking groups. Outcomes of the summit are published in the report entitled “[Toward a New Normal. Equity, Diversity and Inclusion as Integral to Research and Innovation Excellence: Models for Success](#)”^{xiv}.”
- NSERC undertook steps to address the inclusion and support of Indigenous researchers in the NSE research ecosystem. Ninety-one (91) Indigenous students were supported through the Undergraduate Student Research Awards.
- Over 34,000 outstanding students (undergraduate and postgraduate) and fellows were supported through scholarships, fellowships and grants.

- **Foster a science and engineering culture in Canada**

In 2017-18, NSERC enhanced its partnerships with likeminded organizations to support Science Odyssey and Science Literacy Week, increasing both the number of partnerships (increase of 42% over 2016-17) and the number of events supported (increase of 35% over 2016-17). This included a significant partnership with the Canadian Space Agency to support Little Inventors – a challenge for children to propose ideas for new inventions to facilitate space exploration.

PromoScience remains a main driver for the promotion of science and engineering in Canada. Budget 2017 provided \$10.8 million for PromoScience over the next five years. One hundred and sixty-five (165) PromoScience awards were granted in 2017-18 including grants to support organizations providing outreach programs for under-represented groups shown in Figure 1.2. In order to better recognize and report on science promotion, mentorship and outreach activities, literature changes and enhanced training were introduced to ensure that these contributions are recognized in the peer review process as important and valuable elements of research ecosystems. In addition, streamlined reporting for PromoScience grant recipients was introduced following the evaluation of the program.

Figure 1.2 – No. of PromoScience grants supporting organizations providing outreach programs for under-represented groups and Science teachers (2017-18)



It is imperative that the science and engineering culture in Canada be equitable, diverse and inclusive. A number of initiatives to foster awareness and advance equity, diversity and inclusion (EDI) in the NSE research enterprise were undertaken by NSERC in 2017-18. These included: the introduction of mandatory training on gender-based analysis plus (GBA+) for all staff; encouraging selection committee members to complete the “Bias in Peer Review” online module; updating program literature to encourage applicants to consider EDI in relation to their

research personnel and sex, gender and diversity in relation to their research, as applicable. The design and launch of a thorough GBA+ analysis of all aspects related to program design, literature and processes for NSERC's [EWR Steacie Memorial Prize^{xv}](#) was also undertaken.

- **Launch the new generation of researchers**

Through its Scholarships and Fellowships Programs, NSERC supports a significant number of outstanding students at various stages of their university studies. In doing so, it ensures that Canada has a reliable supply of highly skilled and qualified personnel and attracts talented future researchers. Overall, in 2017-18, NSERC provided direct support to over 8,000 students and postdoctoral fellows through scholarships and fellowships.

Following the evaluation of the Collaborative Research and Training Experience (CREATE) sub-program, NSERC consulted and explored ways: (1) to increase the participation of a more diverse range of postsecondary institutions, (2) to facilitate the integration of trainees in industrial settings and (3) to promote international mobility. NSERC will implement these changes in 2018-19.

Increasing participation of youth in university education, favourable demographics, and NSERC's ongoing leadership role in science and engineering promotion in Canada have all helped to push bachelor's enrolment in the NSE ever higher, creating the next generation of researchers. Compared to the previous year, in 2015 a number of results were noted:

- full-time bachelor enrolment in the NSE increased by 4.6 percent;
- enrolment of male students increased by 4.1 percent to reach nearly 136,000;
- female enrolment increased by 5.4 percent, representing nearly 89,000 female students; and
- NSE doctoral degrees granted in Canada in 2015 rose by 6.8 percent to reach nearly 3,800 graduates, of which 33 percent were female.

Results achieved

Expected results	Performance indicators	Target	Date to achieve target	2017–18 Actual results	2016–17 Actual results	2015–16 Actual results
Canada's workforce has the required talented and skilled researchers in natural sciences and engineering.	Total researchers per thousand employed.	8.3	Ongoing	9.0	8.8	8.8
	Percentage difference in unemployment rate for occupations in the natural sciences and engineering vs. national unemployment rate.	1%		Overall: 3.6% Male: 4.3% Female: 2.8%	Overall: 3.6% Male: 4.4% Female: 2.5%	Overall: 3.7% Male: 4.1% Female: 3.3%
	Ranking of Canada among G20 countries in terms of number of doctoral degrees earned in the natural sciences and engineering per capita.	15 th		6 th	7 th	7 th

Budgetary financial resources (dollars)

2017–18 Main Estimates	2017–18 Planned spending	2017–18 Total authorities available for use	2017–18 Actual spending (authorities used)	2017–18 Difference (Actual spending minus Planned spending)
287,882,897	287,882,897	292,577,504	273,351,265	-14,531,632

The variance is due to funds transferred to Research Tools and Instruments under Program 1.2. Discovery.

Human resources (full-time equivalents)

2017–18 Planned full-time equivalents	2017–18 Actual full-time equivalents	2017–18 Difference (Actual full-time equivalents minus Planned full-time equivalents)
45	46	1

Program 1.2 – Discovery: Advancement of Knowledge

Description

This Program supports the creation of new knowledge and maintenance of a high quality Canadian broad based research capacity in the natural sciences and engineering through grants to researchers. The advancement of knowledge generated by these grants is necessary to fuel a strong research and innovation system in Canada that is globally competitive. Academic researchers receive funding to carry out research, to support the timely acceleration of research programs, to purchase or develop research equipment, or to facilitate their effective access to major and unique research resources.

Results

Through initiatives related to three NSERC 2020 strategic goals: build a diversified and competitive research base; strengthen the dynamic between discovery and innovation; and go global, NSERC supports the advancement of knowledge necessary to fuel a strong, globally competitive research and innovation system in Canada. The results in this area demonstrate achievements that support the Minister’s mandate to support new discoveries. The results are also consistent with the Government’s commitment to support the development of science-based public policy and the promotion of economic growth, job creation and prosperity for all.

Highlights of 2017-18

- NSERC introduced several new measures to enhance its support to early-career researchers (ECRs) to enable them to launch their independent research career.
- The 2017 competition awarded Discovery Grants to 2,154 researchers (providing opportunities for a broad base of researchers from different institutions and disciplines at various points in their research careers). This included 385 ECRs and 1,769 established researchers. The success rate was 66.5 percent overall (68.5% for ECR).
- NSERC formed part of a consortium of 26 funding organizations from 23 countries participating in the [Belmont-BiodivERsA^{xvi}](#) joint call for proposals in “Scenarios of Biodiversity and Ecosystem Services”. Of 135 proposals received, 21 top projects have been recommended for funding (over 28 million euro), among which, 9 projects involve Canadian researchers.
- NSERC participated in the [GENDER-NET Plus European Research Area Network \(ERA-NET^{xvii}\)](#) Co-fund program along with a consortium of 16 partners from 13 different countries. This opportunity will fund research projects that promote the integration of sex and gender analysis into research at an international level until 2022. A total of 85 projects were received at the pre-proposal stage.
- NSERC supported more than 11,700 professors conducting research in the NSE.

- **Build a competitive and diversified research base and launch the new generation**

Research results are mainly published in peer-reviewed journals, books and conference proceedings. These publications provide one of the measures of discovery and knowledge generation by researchers at the leading edge of their fields. Publication output is one indicator of the immediate outcomes of NSERC research funding, and can be used as one of several indicators of Canada's performance against the rest of the world.

Canadian research publication productivity is very high; the country ranked 2nd in the G20 on the per capita output of peer-reviewed journal publications in the NSE in 2016. Canada occupied the 11th position in terms of overall number of NSE publications produced in 2016 by the G20.

The high quality and impact of Canadian research is evident in its ranking among top countries on the average number of times Canadian peer-reviewed publications are cited by other researchers. Citations are one of the measures of the knowledge flow and influence of a researcher's work. Based on the number of citations received by scientific papers over the three years following the publication year, a standardized measure known as the Average Relative Citation factor is calculated for each country for international comparison purposes. Based on the most current data available (2016), Canada is ranked 8th among the G20 countries.

Canada produces about 4 percent of the world's science and engineering publications. As such, it is important for Canadian researchers to access the latest knowledge and expertise from across Canada and the world. Collaborative research facilitates knowledge transfer and sharing among individuals, institutions, and nations, and is another measure of impact of Canadian research. One indicator of this activity is the number of Canadian publications co-authored with foreign researchers. About 60 percent of Canadian publications in the NSE in 2016 had a foreign collaborator compared to 56 percent in 2015.

Funding through the Discovery Grants Program allows Canada to build a solid capacity for basic research across a broad spectrum of disciplines. NSERC continues to promote and maintain a diversified base of high quality research capacity as well as to support the development of early-career researchers (ECR). Since 2016, several new measures have been introduced to further enhance support for ECR to enable them to launch their independent research:

Extension of the Discovery Grants for an additional year with funds before re-applying:

ECR who are in the final year of their first Discovery Grant were offered an extension of their grants from 5 to 6 years (with funds). The response to this change has been very positive. Of the 285 eligible former ECR who were due to submit their first renewal application in the 2017 competition, 239 took up the extension option (84%).

The ECR eligibility window was extended from 2 to 3 years: For the 2017 competition, ECR were researchers who were within three years of the start date of an NSERC eligible position,

with no academic or non-academic independent research experience prior to the three-year window. Approximately 70 additional applicants were considered ECR as a result of this change in 2017.

Researchers with non-academic research experience may now be considered ECR: As part of NSERC's 2020 goal to strengthen the dynamic between Discovery and Innovation, NSERC has further expanded the ECR definition to include all researchers who are within three years of their first independent academic position. This affects applicants with non-academic research experience (e.g. industry), who would have previously been considered established researchers.

The Discovery Accelerator Supplement continues to provide substantial and timely resources to researchers who have a superior research program that is highly rated in terms of originality and innovation, and who show strong potential to become international leaders within their field. A total of 125 supplements were offered (\$40,000 per year for 3 years) to successful nominees. At 29 percent, the proportion of female awardees was the highest in the history of the program.

NSERC continued to deliver the Discovery Development Grants pilot initiative to provide additional support to researchers at small universities, thus enabling their contributions to a diversified and competitive research base in Canada, and offered 34 awards to applicants from small universities.

A joint initiative between the Department of National Defence and NSERC with the aim to support research dedicated to the development of non-weapon specific technologies was continued for a second year, offering 52 supplements to qualified applicants.

NSERC continued to review its approach to the allocation of funds to ensure that funding remains effective, dynamic and responsive to changes and needs in disciplines in the Canadian and global research landscape.

The university quota system for the Research Tools and Instruments program established in 2013 to manage the number of applications due to reduced availability of funds was eliminated for the 2018 competition. As a result, the number of applications increased to 1,043 compared to 748 in 2017. The proportion of applications submitted by applicants at small and medium-sized institutions increased compared to previous years and their success rates compared to the mean success rate improved, as did the success rate of female principal applicants.

- **Strengthen the dynamic between discovery and innovation**

In order to better recognize and report on the innovation impact of Discovery funding, NSERC completed a pilot Discovery Outcomes project. Researchers who had received a Northern Research Supplement were asked to complete an online survey on the outcomes and impact of their work beyond those disseminated in research publications. Ninety-six percent of the 67

respondents indicated that their Discovery Research had socio-economic impact, such as environmental impacts, benefits for society, and impact on public policy, standards or regulation.

- **Go global**

In 2017-18, NSERC launched a fourth Discovery Frontiers initiative in the area of Biodiversity and Adaptation of Biosystems. A multi-institution team was awarded \$4 million in funding to develop a new remote sensing technology. This new technology will be developed by the Canadian Airborne Biodiversity Observatory (CABO) that is working to establish a unique reference database of spectral barcodes for important Canadian plant species. The award will enhance opportunities for Canadian researchers to participate in the US National Science Foundation's National Ecological Observatory Network ([NEON^{xviii}](#)) open data project.

Also in 2017-18, NSERC, together with SSHRC and CIHR, funded 13 new grants under the Canada First Research Excellence Fund, to support world leading multidisciplinary and multinational research. The awards cover a variety of disciplines and research areas such as: astrophysics, ocean resource development, metal extraction, medical technology, agriculture systems, responsible and sustainable use of energy resources, brain health, water resource management, and quantum technologies.

Expected results	Performance indicators	Target	Date to achieve target	2017–18 Actual results	2016–17 Actual results	2015–16 Actual results
Researchers at Canadian universities advance knowledge in the natural sciences and engineering	Ranking in the per capita output of peer-reviewed journal publications in the natural sciences and engineering among the G20 countries.	8 th	Ongoing	2 nd	2 nd	2 nd
	Ranking in the number of natural sciences and engineering publications among the G20 countries.	9 th	Ongoing	11 th	11 th	11 th
	Ranking in terms of average relative citation factor of Canadian publications in the natural sciences and engineering among the G20 countries.	15 th	Ongoing	8 th	7 th	6 th

Budgetary financial resources (dollars)

2017–18 Main Estimates	2017–18 Planned spending	2017–18 Total authorities available for use	2017–18 Actual spending (authorities used)	2017–18 Difference (Actual spending minus Planned spending)
522,502,495	522,502,495	526,225,559	546,811,286	24,308,791

The variance is due to unused funds from other NSERC programs transferred to Research Equipment and Resources sub-program.

Human resources (full-time equivalents)

2017–18 Planned full-time equivalents	2017–18 Actual full-time equivalents	2017–18 Difference (Actual full-time equivalents minus Planned full-time equivalents)
89	86	-3

Program 1.3 – Innovation: Research Partnerships

Description

Canada has a global reputation for producing landmark discovery research. With just 0.5 percent of the world's population, Canadian scientists generate over 4 percent of scholarly publications, many of them being of high impact. In contrast, Canada's reputation lags when it comes to innovation. A successful and vibrant research enterprise should succeed at both when there is a dynamic interchange between discovery and innovation, where discovery sets the foundation for innovation, and innovation triggers new questions to be answered. Building on strong discovery investments and a track record of successful academic and industry partnership programs, NSERC will continue to help connect businesses to Canada's world-class research enterprise. These collaborative R&D partnerships help companies grow, enable academic researchers achieve new heights and provide an excellent experiential training environment for students and new researchers.

Results

Through initiatives related to its strategic goals listed below, in 2017-18, NSERC's Research Partnerships Program continued to provide tangible impacts for researchers, company partners as well as trainees.

Highlights of 2017-18

- 6.8 percent growth in industry funding (from over \$235 million in 2016-17) to more than \$250 million in 2017-18.
- Nearly 3,600 industrial partners participated in NSERC's funded research partnerships.
- 77 percent of partner companies reported enhancement of knowledge and skills of personnel.
- 50 percent reported development of an improved product, process or service.
- One-in-three reported that the project provided them a competitive edge.
- Over 437 patents were filed or were "in progress" since 2014.
- Nearly 10,000 students and fellows received training in an industry setting.

Industrial partners contribute financially to postsecondary research projects, scholarships and fellowships. In 2017-18, despite a decline of about 2.0 percent in the number of industry partners collaborating with NSERC, there was a 6.8 percent growth in industry funding (from over \$235 million in 2016-17 to more than \$250 million in 2017-18). This is partly due to a reduction in the shorter term Engage grants to enable full funding of the larger Collaborative Research and Development and Industrial Research Chair grants. The majority of the top 100 R&D firms in Canada are currently partners with NSERC's funded researchers.

The Association of University Technology Managers conducts a survey of intellectual property commercialization in the North American university sector every year. The following table shows that compared to 2015, in 2016, Canadian growth exceeded the 0.5 percent threshold for five of nine indicators.

Canadian University¹ Intellectual Property Commercialization

Commercialization Activity	2008	2009	2010	2011	2012	2013	2014	2015	2016
Invention disclosures	1,620	1,739	1,484	1,591	1,562	1,659	1,572	1,465	1,377
Patent applications filed	850	851	840	822	900	893	898	962	796
U.S. patents issued	103	108	124	157	157	196	236	234	221
Licenses executed	557	629	447	499	465	352	448	365	555
Cumulative active licenses	2,785	2,868	2,972	3,123	3,202	3,121	2,899	2,760	2,772
Royalties from licensing (\$M)	52.4	54.7	51.9	58.7	64.1	49.8	84.4	51.3	62.2
Spin-off companies initiated	38	44	46	66	51	60	75	77	91
Spin-off companies still in business	595	575	608	657	585	579	450	460	505
Business contract R&D revenue (\$M) ²	\$643	\$738	\$657	\$743	\$728	\$694	\$769	\$772	\$892

Sources: Association of University Technology Managers (AUTM), Canadian Association of University Business Officers (CAUBO).

1. Sample of Canadian universities including: Alberta, British Columbia, McMaster, Montreal, New Brunswick, Newfoundland, Ottawa, Queen's, Ryerson, Saskatchewan, Sherbrooke, Simon Fraser, Toronto (excluding affiliated hospitals), Victoria, Waterloo, Western and York
2. Includes all Canadian universities

- **Strengthen the dynamic between discovery and innovation, and go global**

In view of attracting additional partners to university research in Canada and providing more opportunities for multinational and foreign companies to partner with Canadian universities, in 2017-18, NSERC implemented policy changes to its Collaborative Research and Development grants (CRD) and Industrial Research Chairs (IRC). Through these policy changes, NSERC is broadening the impact of its grants by:

1. Allowing Canadian university researchers to partner with multinational companies. Canadian university researchers can now partner with the best industrial researchers wherever they are located across the globe. Multinational companies (MNEs), either headquartered in Canada, or with significant Canadian operations, may partner on an NSERC CRD or IRC grant to create a collaboration that has benefits for Canada and Canadians.
2. Enabling foreign companies to collaborate with Canadian companies on an equal basis. Foreign companies are now fully eligible partners in partnership with at least one Canadian company.

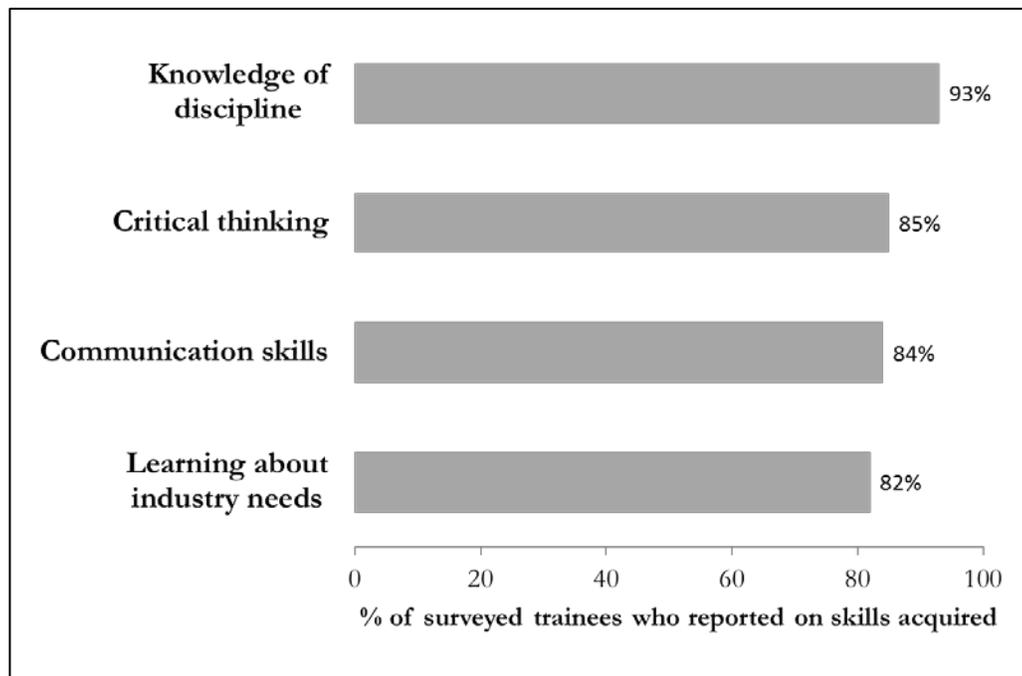
NSERC co-hosted and organised the 2017 meeting of the [Global Research Council^{xix}](#) (GRC) in May, 2017. The GRC is comprised of over 60 heads of science and engineering funding agencies

from more than 40 countries around the world. The GRC holds annual meetings to promote the sharing of data and best practices, and to facilitate strong collaboration between funding bodies. At the meeting, the Council members focused on two themes: capacity building among global science funders and the dynamic interplay between discovery and innovation.

- **Launch the new generation of researchers**

In 2017-18, activities under the Research Partnerships program supported nearly 10,000 trainees (students and fellows) in carrying out R&D in industry. Figure 2.0 depicts the experiential learning gained by some 880 surveyed trainees participating in the [Experience Awards](#)^{xx} undergraduate program.

Figure 2.0 Percentage of surveyed industrial trainees who reported on skills acquired while on training (2017-18)



Expected results	Performance indicators	Target	Date to achieve target	2017–18 Actual results	2016–17 Actual results	2015–16 Actual results
Canada builds more research partnerships between businesses, universities and colleges.	Percentage growth in the number of business partners annually.	5%	Ongoing	-1.94%	3.4%	0.0%
	Minimum percentage growth in most of the indicators of knowledge/technology transfer (new and/or improved products/services, enhanced skills/knowledge of partner personnel, invention disclosures, university spin-offs, university licensing revenue, university R&D contract revenue, university patents).	0.5% growth for a majority of nine indicators	Ongoing	Growth exceeds 0.5% for 5 out of 9 indicators	Growth exceeds 0.5% for 3 out of 8 indicators	Growth exceeds 0.5% for 5 out of 9 indicators

Budgetary financial resources (dollars)

2017–18 Main Estimates	2017–18 Planned spending	2017–18 Total authorities available for use	2017–18 Actual spending (authorities used)	2017–18 Difference (Actual spending minus Planned spending)
378,552,344	378,552,344	382,935,294	378,217,655	-334,689

Human resources (full-time equivalents)

2017–18 Planned full-time equivalents	2017–18 Actual full-time equivalents	2017–18 Difference (Actual full-time equivalents minus Planned full-time equivalents)
150	152	2

Information on the Natural Sciences and Engineering Research Council of Canada's lower-level programs is available in the [GC InfoBase](#).^{xxi}

Internal Services

Description

Internal Services are those groups of related activities and resources that the federal government considers to be services in support of programs and/or required to meet corporate obligations of an organization. Internal Services refers to the activities and resources of the 10 distinct service categories that support Program delivery in the organization, regardless of the Internal Services delivery model in a department. The 10 service categories are: Management and Oversight Services; Communications Services; Legal Services; Human Resources Management Services; Financial Management Services; Information Management Services; Information Technology Services; Real Property Services; Materiel Services; and Acquisition Services.

Results

- **Enhance people management**

In 2017-18, NSERC continued implementing its People Strategy, including actions to promote a healthy and productive workforce and workplace and participation in the Public Service Employee Survey (PSES). NSERC achieved very good overall results in the 2017 PSES, however the results indicated continued areas of concern with regard to harassment and discrimination in the workplace. To increase understanding and awareness, NSERC held information/discussion sessions on the current protocol and formal and informal recourses in place to deal with workplace issues and conflicts. It also implemented mandatory and optional training and awareness activities for all managers and employees to develop an enhanced understanding of mental health and well-being. A consultation session was held with senior management and the Employee Relations Group to determine an approach to governance for the Workplace Mental Health and Well-Being and a system to prevent workplace risk to psychological health in response to the Third Joint Taskforce Report on Mental Health.

- **Establish alignment to, and compliance with government priorities, policy requirements and transformative initiatives**

In 2017-18, the published guidelines related to the Financial Policy Suite were implemented including the Policy on Financial Management and the associated Directive on Travel, Hospitality, Conference and Event Expenditures. NSERC worked closely with TBS to ensure proper interpretation and to meet established deadlines. NSERC engaged with ISED to support the portfolio-wide implementation of TBS Financial Management policies, directives and guidelines.

- **Modernize information management and information technology**

In 2017-18, NSERC, in partnership with SSHRC, approved and implemented a new Information Management Strategy. It has also implemented a formal Enterprise Architecture Review Board, which it is leveraging for current needs and is working on finalizing the entire Enterprise

Architecture program in 2018-19. In 2017-18, an agile methodology for better understanding requirements and the development of a strong software development methodology to track, manage and develop user and technical requirements was implemented for a flagship project.

Budgetary financial resources (dollars)

2017-18 Main Estimates	2017-18 Planned spending	2017-18 Total authorities available for use	2017-18 Actual spending (authorities used)	2017-18 Difference (Actual spending minus Planned spending)
18,092,409	18,092,409	21,705,276	20,761,682	2,669,273

The variance is due to the retroactive pay and increase in salary according to the newly signed terms and conditions of employment.

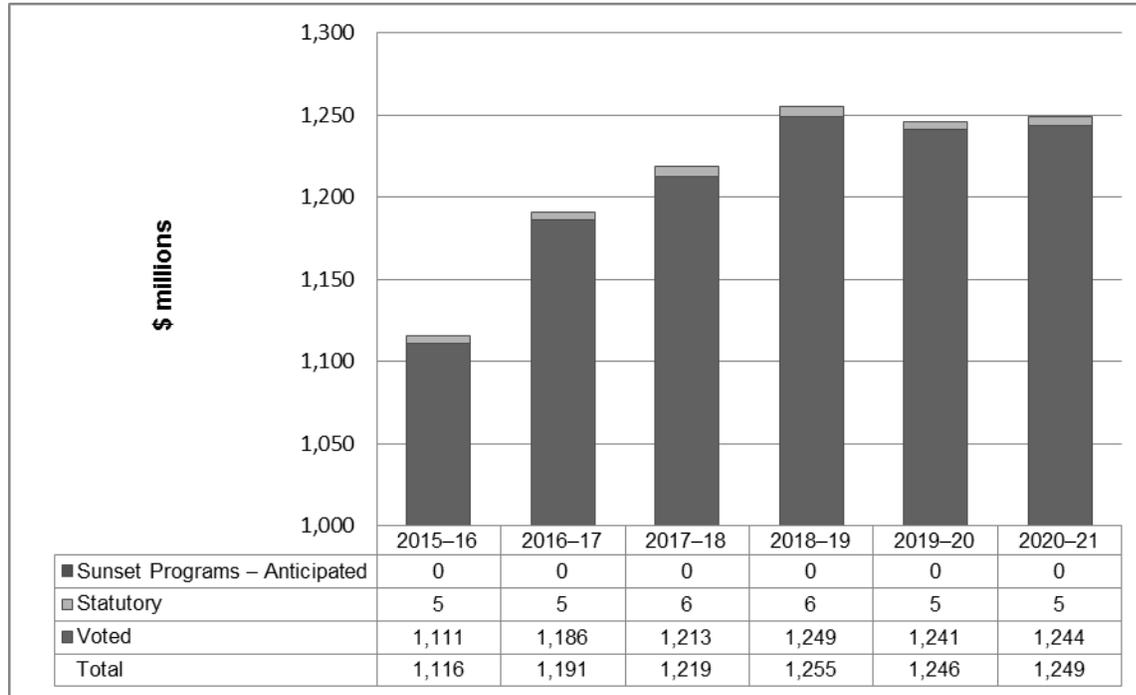
Human resources (full-time equivalents)

2017-18 Planned full-time equivalents	2017-18 Actual full-time equivalents	2017-18 Difference (Actual full-time equivalents minus Planned full-time equivalents)
133	138	5

Analysis of trends in spending and human resources

Actual expenditures

Departmental spending trend graph



Budgetary performance summary for Programs and Internal Services (dollars)

Programs and Internal Services	2017–18 Main Estimates	2017–18 Planned spending	2018–19 Planned spending	2019–20 Planned spending	2017–18 Total authorities available for use	2017–18 Actual spending (authorities used)	2016–17 Actual spending (authorities used)	2015–16 Actual spending (authorities used)
1.1 People: Research Talent	287,882,897	287,882,897	165,108,935	161,737,373	292,577,504	273,351,265	274,215,021	273,271,214
1.2 Discovery: Advancement of Knowledge	522,502,495	522,502,495	694,718,502	696,312,633	526,225,559	546,811,286	504,451,902	454,997,430
1.3 Innovation: Research Partnerships	378,552,344	378,552,344	375,676,387	369,538,160	382,935,294	378,217,655	393,056,929	369,402,138
Subtotal	1,188,937,736	1,188,937,736	1,235,503,824	1,227,588,166	1,201,738,357	1,198,380,206	1,171,723,852	1,097,670,782
Internal Services	18,092,409	18,092,409	18,976,393	18,510,721	21,705,276	20,761,682	19,537,041	17,982,412
Total	1,207,030,145	1,207,030,145	1,254,480,217	1,246,098,887	1,223,443,633	1,219,141,888	1,191,260,893	1,115,653,194

The variance is explained by the increase in program funding announced in Federal Budget 2017 (PromoScience and Canada 150 Research Chairs), the launch of the 2018 competition for Centres of Excellence for Commercialization and Research, and increased funding in joint research grant projects with the Department of National Defence. In addition, operating expenses increased due to the newly signed terms and conditions of employment.

Actual human resources

Human resources summary for Programs and Internal Services
(full-time equivalents)

Programs and Internal Services	2015–16 Actual full-time equivalents	2016–17 Actual full-time equivalents	2017–18 Planned full-time equivalents	2017–18 Actual full-time equivalents	2018–19 Planned full-time equivalents	2019–20 Planned full-time equivalents
1.1 People: Research Talent	43	44	45	46	47	47
1.2 Discovery: Advancement of Knowledge	82	85	89	86	85	85
1.3 Innovation: Research Partnerships	147	146	150	152	150	150
Subtotal	272	275	284	284	282	282
Internal Services	131	137	133	138	132	132
Total	403	412	417	422	414	414

The variance in FTEs is explained by the increase of support services in delivering of funds due to a lower level of vacancy.

The variance of actuals from 2015-16 and subsequent years is due to the implementation and delivery of the initiatives announced in Federal Budget 2015 (Research Partnerships program and College and Community Innovation) and Federal Budget 2016 (Discovery Research).

Expenditures by vote

For information on the Natural Sciences and Engineering Research Council of Canada's organizational voted and statutory expenditures, consult the [Public Accounts of Canada 2017–2018](#).^{xxii}

Government of Canada spending and activities

Information on the alignment of the Natural Sciences and Engineering Research Council of Canada's spending with the Government of Canada's spending and activities is available in the [GC InfoBase](#).^{xxi}

Financial statements and financial statements highlights

Financial statements

The Natural Sciences and Engineering Research Council of Canada's audited financial statements for the year ended March 31, 2018 are available on the [departmental website](#).

Financial statements highlights

Condensed Statement of Operations (unaudited) for the year ended March 31, 2018 (dollars)

Financial information	2017–18 Planned results	2017–18 Actual results	2016–17 Actual results	Difference (2017–18 Actual results minus 2017–18 Planned results)	Difference (2017–18 Actual results minus 2016–17 Actual results)
Total expenses	1,218,356,991	1,224,417,677	1,196,000,945	6,060,686	28,416,732
Total revenues	578,779	424,918	172,472	(153,861)	252,446
Net cost of operations before government funding and transfers	1,217,778,212	1,223,992,759	1,195,828,473	6,214,547	28,164,286

The increase in total expenses over previous year is mainly due to variances in transfer payments in the following initiatives:

- an increase of \$35.3 million in the Canada First Research Excellence Fund due to the second round of competition held in 2016-17;
- an increase of \$13.1 million to fund discovery research (Budget 2016);
- a decrease of \$7.0 million for the Climate Change and Atmospheric Research due to sunset of the program; and
- a decrease of \$10.6 million in the Canada Excellence Research Chairs Program due to the ending of the first award cycle.

Condensed Statement of Financial Position (unaudited) as of March 31, 2018
(dollars)

Financial information	2017–18	2016–17	Difference (2017–18 minus 2016–17)
Total net liabilities	40,285,700	8,257,369	32,028,331
Total net financial assets	37,576,749	5,918,474	31,658,275
Departmental net debt	2,708,951	2,338,895	370,056
Total non-financial assets	3,824,369	5,217,925	(1,393,556)
Departmental net financial position	1,115,418	2,879,030	(1,763,612)

The increase in net liabilities and net financial assets is mainly due to grants & subsidies recognized at the end of 2017-18 that were paid in the following fiscal year.

The decrease in non-financial assets is mainly due to the annual depreciation of the Agency's tangible capital assets, which surpassed the additions made during the year.

Supplementary information

Corporate information

Organizational profile

- Appropriate minister:** **Minister of Science and Sport:**
The Honourable Kirsty Duncan, P.C., M.P.
- Institutional head:** Dr. B. Mario Pinto (President)
- Ministerial portfolio:** Innovation, Science and Economic Development
- Enabling instrument:** [Natural Sciences and Engineering Research Council Act^{xxiii}](#)
- Year of incorporation / commencement:** May 1, 1978

Reporting framework

The Natural Sciences and Engineering Research Council of Canada’s Strategic Outcome and Program Alignment Architecture of record for 2017–18 are shown below.

1. Strategic Outcome:

Canada is a world leader in advancing, connecting and applying new knowledge in natural sciences and engineering.

1.1 People: Research, Talent

- 1.1.1 Science and Engineering Promotion
- 1.1.2 Scholarships and Fellowships
- 1.1.3 Alexander Graham Bell Canada Graduate Scholarships*
- 1.1.4 Vanier Canada Graduate Scholarships*
- 1.1.5 Banting Postdoctoral Fellowships*
- 1.1.6 Canada Research Chairs*
- 1.1.7 Canada Excellence Research Chairs*

1.2 Discovery: Advancement of Knowledge

- 1.2.1 Discovery Research
- 1.2.2 Research Equipment and Resources
- 1.2.3 Canada First Research Excellence Fund*

1.3 Innovation: Research Partnerships

- 1.3.1 Research in Strategic Areas
- 1.3.2 Industry-driven Collaborative Research and Development
- 1.3.3 Networks of Centres of Excellence*
- 1.3.4 Training in Industry*
- 1.3.5 Commercialization of Research*
- 1.3.6 College and Community Innovation

1.4 Internal Services

*Programs involving more than one granting agency

Supporting information on lower-level programs

Supporting information on lower-level programs is available on the [GC InfoBase](#).^{xxi}

Supplementary information tables

The following supplementary information tables are available on the [Natural Sciences and Engineering Research Council of Canada's website](#)^{xxiv}:

- ▶ Departmental Sustainable Development Strategy
- ▶ Details on transfer payment programs of \$5 million or more
- ▶ Evaluations
- ▶ Internal audits

Federal tax expenditures

The tax system can be used to achieve public policy objectives through the application of special measures such as low tax rates, exemptions, deductions, deferrals and credits. The Department of Finance Canada publishes cost estimates and projections for these measures each year in the [Report on Federal Tax Expenditures](#).^{xxv} This report also provides detailed background information on tax expenditures, including descriptions, objectives, historical information and references to related federal spending programs. The tax measures presented in this report are the responsibility of the Minister of Finance.

Organizational contact information

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Natural Sciences and Engineering Research Council of Canada

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Appendix: definitions

appropriation (crédit)

Any authority of Parliament to pay money out of the Consolidated Revenue Fund.

budgetary expenditures (dépenses budgétaires)

Operating and capital expenditures; transfer payments to other levels of government, organizations or individuals; and payments to Crown corporations.

Departmental Plan (plan ministériel)

A report on the plans and expected performance of an appropriated department over a three-year period. Departmental Plans are tabled in Parliament each spring.

Departmental Results Report (rapport sur les résultats ministériels)

A report on an appropriated department's actual accomplishments against the plans, priorities and expected results set out in the corresponding Departmental Plan.

evaluation (évaluation)

In the Government of Canada, the systematic and neutral collection and analysis of evidence to judge merit, worth or value. Evaluation informs decision making, improvements, innovation and accountability. Evaluations typically focus on programs, policies and priorities and examine questions related to relevance, effectiveness and efficiency. Depending on user needs, however, evaluations can also examine other units, themes and issues, including alternatives to existing interventions. Evaluations generally employ social science research methods.

experimentation (expérimentation)

Activities that seek to explore, test and compare the effects and impacts of policies, interventions and approaches, to inform evidence-based decision-making, by learning what works and what does not.

full-time equivalent (équivalent temps plein)

A measure of the extent to which an employee represents a full person-year charge against a departmental budget. Full-time equivalents are calculated as a ratio of assigned hours of work to scheduled hours of work. Scheduled hours of work are set out in collective agreements.

gender-based analysis plus (GBA+) (analyse comparative entre les sexes plus [ACS+])

An analytical approach used to assess how diverse groups of women, men and gender-diverse people may experience policies, programs and initiatives. The “plus” in GBA+ acknowledges that the gender-based analysis goes beyond biological (sex) and socio-cultural (gender) differences. We all have multiple identity factors that intersect to make us who we are; GBA+ considers many other identity factors, such as race, ethnicity, religion, age, and mental or

physical disability. Examples of GBA+ processes include using data disaggregated by sex, gender and other intersecting identity factors in performance analysis, and identifying any impacts of the program on diverse groups of people, with a view to adjusting these initiatives to make them more inclusive.

government-wide priorities (priorités pangouvernementales)

For the purpose of the 2017–18 Departmental Results Report, those high-level themes outlining the government’s agenda in the 2015 Speech from the Throne, namely: Growth for the Middle Class; Open and Transparent Government; A Clean Environment and a Strong Economy; Diversity is Canada’s Strength; and Security and Opportunity.

horizontal initiative (initiative horizontale)

An initiative where two or more departments are given funding to pursue a shared outcome, often linked to a government priority.

Management, Resources and Results Structure (structure de gestion, des ressources et des résultats)

A comprehensive framework that consists of an organization’s inventory of programs, resources, results, performance indicators and governance information. Programs and results are depicted in their hierarchical relationship to each other and to the Strategic Outcome(s) to which they contribute. The Management, Resources and Results Structure is developed from the Program Alignment Architecture.

non-budgetary expenditures (dépenses non budgétaires)

Net outlays and receipts related to loans, investments and advances, which change the composition of the financial assets of the Government of Canada.

performance (rendement)

What an organization did with its resources to achieve its results, how well those results compare to what the organization intended to achieve, and how well lessons learned have been identified.

performance indicator (indicateur de rendement)

A qualitative or quantitative means of measuring an output or outcome, with the intention of gauging the performance of an organization, program, policy or initiative respecting expected results.

performance reporting (production de rapports sur le rendement)

The process of communicating evidence-based performance information. Performance reporting supports decision making, accountability and transparency.

plan (plan)

The articulation of strategic choices, which provides information on how an organization intends to achieve its priorities and associated results. Generally a plan will explain the logic behind the strategies chosen and tend to focus on actions that lead up to the expected result.

planned spending (dépenses prévues)

For Departmental Plans and Departmental Results Reports, planned spending refers to those amounts that receive Treasury Board approval by February 1. Therefore, planned spending may include amounts incremental to planned expenditures presented in the Main Estimates.

A department is expected to be aware of the authorities that it has sought and received. The determination of planned spending is a departmental responsibility, and departments must be able to defend the expenditure and accrual numbers presented in their Departmental Plans and Departmental Results Reports.

priority (priorité)

A plan or project that an organization has chosen to focus and report on during the planning period. Priorities represent the things that are most important or what must be done first to support the achievement of the desired Strategic Outcome(s) or Departmental Results.

program (programme)

A group of related resource inputs and activities that are managed to meet specific needs and to achieve intended results and that are treated as a budgetary unit.

Program Alignment Architecture (architecture d'alignement des programmes)

A structured inventory of an organization's programs depicting the hierarchical relationship between programs and the Strategic Outcome(s) to which they contribute.

result (résultat)

An external consequence attributed, in part, to an organization, policy, program or initiative. Results are not within the control of a single organization, policy, program or initiative; instead they are within the area of the organization's influence.

statutory expenditures (dépenses législatives)

Expenditures that Parliament has approved through legislation other than appropriation acts. The legislation sets out the purpose of the expenditures and the terms and conditions under which they may be made.

Strategic Outcome (résultat stratégique)

A long-term and enduring benefit to Canadians that is linked to the organization's mandate, vision and core functions.

sunset program (programme temporisé)

A time-limited program that does not have an ongoing funding and policy authority. When the program is set to expire, a decision must be made whether to continue the program. In the case of a renewal, the decision specifies the scope, funding level and duration.

target (cible)

A measurable performance or success level that an organization, program or initiative plans to achieve within a specified time period. Targets can be either quantitative or qualitative.

voted expenditures (dépenses votées)

Expenditures that Parliament approves annually through an Appropriation Act. The Vote wording becomes the governing conditions under which these expenditures may be made.

Endnotes

- i Science Odyssey <http://www.sciod.ca/>
- ii Science Literacy Week <http://www.scienceliteracy.ca/>
- iii Little Inventors <https://nserc.littleinventors.org/>
- iv PromoScience http://www.nserc-crsng.gc.ca/Promoter-Promotion/PromoScience-PromoScience/Index_eng.asp
- v. The Minister's mandate letter, <https://pm.gc.ca/eng/mandate-letters>
- vi Canada Research Coordinating Committee <http://www.ic.gc.ca/eic/site/icgc.nsf/eng/07620.html>
- vii Mandate Letter <http://pm.gc.ca/eng/minister-science-mandate-letter>
- viii Innovation Agenda <https://www.ic.gc.ca/eic/site/062.nsf/eng/home>
- ix Policy on Results <https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=31300§ion=context>
- x Blueprint 2020 <http://www.clerk.gc.ca/eng/index.asp>
- xi Workplace Health <http://www.tbs-sct.gc.ca/psm-fpfm/healthy-sain/wwb-memt/mhw-mmt/strategy-strategie-eng.asp>
- xii NSERC Student Ambassadors http://www.nserc-crsng.gc.ca/Students-Etudiants/UG-PC/Ambassadors-Ambassadeurs_eng.asp
- xiii Gender Summit 11 North America <https://gender-summit.com/gsl11-about>
- xiv Toward a New Normal https://www.gender-summit.com/portia_web/assets/GS11NA_REPORT_EN.pdf
- xv E.W.R Steacie Memorial Fellowship http://www.nserc-crsng.gc.ca/Prizes-Prix/Steacie-Steacie/Index-Index_eng.asp
- xvi Belmont-BiodivERsA <http://www.belmontforum.org/news/results-of-the-joint-belmont-forum-biodiversa-cra-scenarios-of-biodiversity-and-ecosystem-services-ii/>
- xvii Gender Net Plus <http://gender-net-plus.eu/joint-call/cofunded-call/>
- xviii NEON. <https://www.neonscience.org/>
- xix 2017 Global Research Council meeting <http://www.scientia.global/wp-content/uploads/2017/08/NSERC.pdf>
- xx Experience Awards, http://www.nserc-crsng.gc.ca/Students-Etudiants/UG-PC/Experience-Experience_eng.asp
- xxi. GC InfoBase, <https://www.tbs-sct.gc.ca/ems-sgd/edb-bdd/index-eng.html>
- xxii. Public Accounts of Canada 2017–2018, <http://www.tpsgc-pwgsc.gc.ca/recgen/cpc-pac/index-eng.html>
- xxiii. Natural Sciences and Engineering Research Act <http://laws.justice.gc.ca/eng/acts/N-21/page-1.html#docCont>
- xxiv Natural Sciences and Engineering Research Council of Canada http://www.nserc-crsng.gc.ca/NSERC-CRSNG/Reports-Rapports/plans-plans_eng.asp
- xxv. Report on Federal Tax Expenditures, <http://www.fin.gc.ca/purl/taxexp-eng.asp>