Government of Canada | Gouvernement du Canada

Canada

INNOVATIVE SOLUTIONS CANADA

2019-2020 Annual Report

Table of Contents

Executive Summary 3

Program Overview 5

Accomplishments 7

Results 10

Inclusivity Outcomes 14

Outreach 20

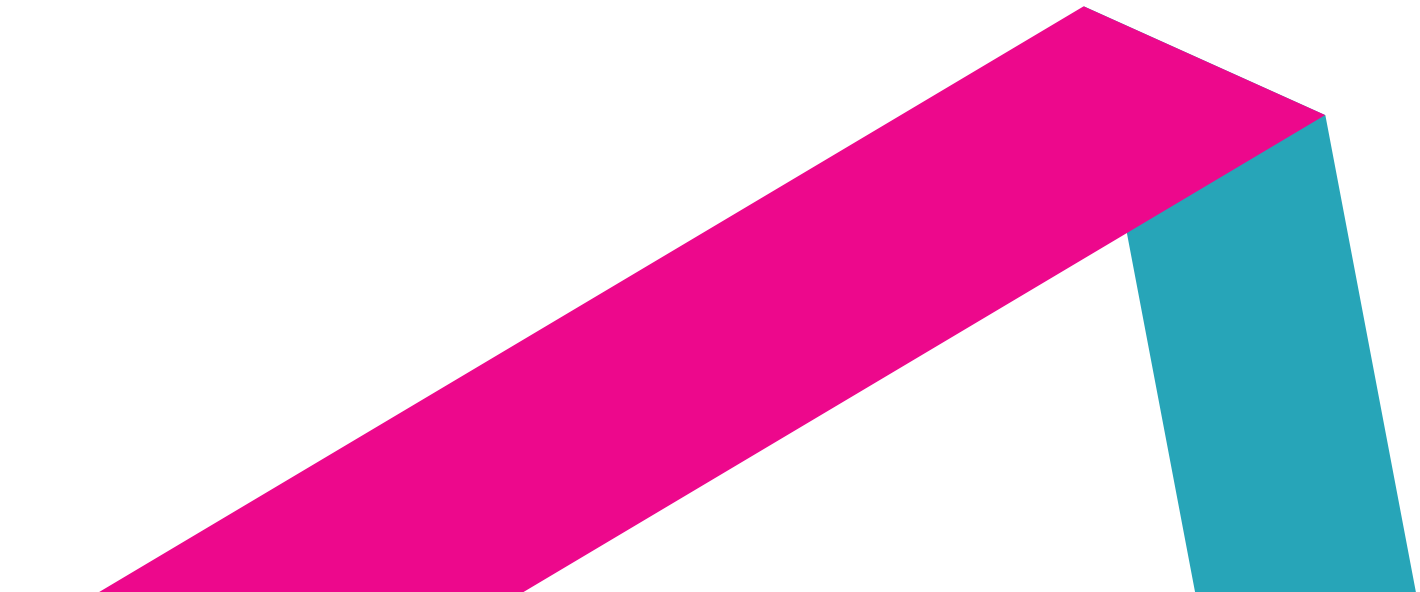
Priorities for 2020-21 21

Annex A: Detailed Results by Challenge 23

Challenges Released from April 1, 2019 to March 31, 2020 23

Challenges Released from December 14, 2017 to March 31, 2019 30

Annex B: ISC Departments - Mandated vs. Projected Spending 41



Executive Summary

Helping Government Make Next Happen

Launched in December 2017, Innovative Solutions Canada (ISC) is the government's response to using procurement to support innovative SMEs, including those owned by underrepresented groups, to grow and scale up. ISC injects new ideas into the federal innovation ecosystem. ISC also assists innovative Canadian SMEs to solve pressing challenges through the creation of new intellectual property, and facilitates testing of their promising pre-commercial late stage R&D by federal departments and agencies.

This report highlights ISC's accomplishments in 2019-20, as well as its current and future priorities. The program's accomplishments include inviting innovative Canadian small and medium size firms to propose early stage solutions to 26 specific challenges issued by departments and agencies mandated to participate in ISC. The program also completed the consolidation into ISC of the popular and long running Build in Canada Innovation Program (BCIP). ISC now supports the full range of R&D activities of innovative Canadian firms through a Challenge stream focused on early stage R&D and a new Testing stream (representing the former BCIP) focused on prototype testing. The year concluded with ISC pivoting to support the government's COVID-19 Response.

Highlights

Challenge stream

In 2019-20, funding provided to innovative Canadian small and medium-sized enterprises (SMEs) through the Challenge stream reached over $19.6M, with associated challenges covering technology areas such as sensors, artificial intelligence, nanotechnology, and biomedicine. During 2019-20, 13 firms successfully demonstrated proof of concept for their proposed solutions under Phase One of ISC's challenge. These firms are now in Phase Two, which focuses on prototype development.

The program launched its first challenges to support innovative Canadian SMEs to develop new solutions to enhance accessibility for individuals with disabilities. ISC also played an important role in supporting the government's efforts to curb plastic waste by releasing seven new challenges. Twenty percent of ISC's challenges to date have a clean technology component.

The program also facilitated collaboration between Dalhousie University's Faculty of Management initiative Management Without Borders (MWB) and Employment and Social Development Canada, Public Services and Procurement Canada, Indigenous Services Canada and Crown-Indigenous Relations and Northern Affairs Canada.

Through this partnership, students participating in the MWB initiative helped identify challenge topics such as integrating environmental and infrastructure data to assist with climate-related risk management and identifying methods and tools to track and manage data on outcomes of underrepresented youth programs.

In the summer of 2019, the program organized a virtual training session on IP for participants in Phase One of its Challenge stream. The Canadian Intellectual Property Office (CIPO) delivered the training, which provided ISC awardees with information on the importance of protecting their IP and of developing a strategy to gain competitive advantage by exploiting the value of their IP. Going forward, ISC will organize further

training in cooperation with CIPO for Phase 2 recipients, focused on more in-depth aspects of IP.

In terms of outreach, the program has established a well-connected network of innovation eco-system stakeholders, and has grown its subscription list to over 12,000 innovators across Canada. The progam has also launched a new LinkedIn showcase page in order to improve its ability to reach women, indigenous, youth, LGBTQ2S+, and other underrepresented groups. The program plans to expand its presence on social media and use direct messaging tools to better support innovators who wish to apply.

Testing Stream

Our focus in 2019-20 was supporting innovative Canadian firms participating in ISC's new Testing stream to advance over 93 prototype-testing projects worth $43M approved under the former BCIP. Thirty-six federal government organizations have participated in the former BCIP.

Supporting COVID-19 Response

In March 2020, ISC was allotted $15M to help support the government's COVID-19 response. Through cooperation with the National Research Council, Health Canada and the Public Health Agency of Canada, ISC supported the development of five challenges under the Challenge stream as part of the government's medical countermeasures. We also completed significant preparatory work to enable the launch of a COVID-19 themed Call for Proposals under our new Testing stream in early 2020-21.

Priorities for 2020-21

In addition to its core work of supporting departments and agencies to identify and issue new challenges to innovative Canadian firms, the program's focus for 2020-21 will be to continue supporting the Government's response to COVID-19 through timely funding of projects under the Challenge stream, and efforts to maximize GC testing of prototypes under ISC's Testing stream.

The program will also engage GC organizations that have yet to participate in ISC, including crown corporations, to inform them of its benefits. The program will also similarly engage provinces/territories, and pursue opportunities to work collaboratively under the program.

Finally, the program will enhance its efforts to increase the participation rates of under-represented groups in ISC, and continue to pursue direct procurement options for participating companies, with a view to better supporting their growth and scale up.

Program Overview

Innovative Solutions Canada (ISC) is a procurement program modelled after the highly successful US Small Business Innovation Research (SBIR) Program. ISC was launched in December 2017, with the objective of leveraging Government of Canada (GC) R&D procurement linked to the operational needs of government and its priorities areas for innovation to assist innovative Canadian firms to grow, scale up, export and create high value jobs for Canadians and wealth for Canada. Innovative firms that have government as a first customer send a strong signal to the market that they have something of value.

On April 1, 2019, the former and highly successful Build in Canada Innovation Program was was officially transferred from Public Services and Procurement Canada to the Department of Innovation, Science and Industry and consolidated within ISC. The BCIP enabled GC organizations to test promising pre-commercial prototypes linked to their operational needs and government priorities and developed by innovative small and medium-size Canadian enterprises (SMEs). The consolidation of BCIP within ISC enables the program to support the full range of R&D activities of innovative Canadian firms and reflects the government's ongoing commitment to better align and streamline its business innovation support programs.

ISC consists of a Challenge and a new Testing stream (representing the former BCIP) focused on early and late stage R&D respectively. The program has five core objectives:

1. **Fuel the development and adoption of technological innovation in Canada;**
2. **Grow Canadian companies through direct funding to support early-stage, pre-commercial research and development, late-stage prototypes, and to accelerate commercialization;**
3. **Encourage procurement from companies led by under-represented groups, such as women, Indigenous, youth, disabled individuals, LGBTQ+ and others;**
4. **Foster greater industry-research collaboration through the release of challenges for solutions that address key Government of Canada priorities; and**
5. **Provide federal departments and agencies with opportunities to develop new capabilities to meet their research and development needs and advance government priorities.**

ISC is supported by 20 GC departments and agencies mandated to participate in the program's Challenge stream. However, any GC organization may participate in the program. Each year the 20 departments and agencies are required to set aside a portion of funds equivalent to the value of 1% of their 2015-16 intramural R&D and procurement spending to support innovative Canadian SMEs to develop next generation technologies that have the potential to address their operational requirements and support government priorities. Annex B identifies these organizations and their required annual spending under ISC. Going forward, funds required to be set aside for spending under ISC's Challenge stream will be ring-fenced in Special Purpose Allotments to ensure they are used for their intended purpose.

Beginning in 2019-20, ISC organizations are permitted to direct up to 30% of their required annual contribution to the Challenge stream to fund the purchase and testing of innovative prototypes under the Testing stream. This flexibility is intended to help ISC organizations to more easily meet their annual spending commitment to the program and enable the program to respond to high and growing demand under ISC's Testing stream.

ISC's total budget for innovation spending in 2019-20 was approximately $146.8M. This is comprised of the Challenge stream set asides ($113.8 M) in addition to the Testing stream's core budget of $33.5M.

Challenge stream

Twenty departments and agencies are mandated to participate in ISC each year and to issue challenges based on desired outcomes rather than known product or process specifications. The program's Challenge stream has three phases and is open to Canadian firms with fewer than 500 employees.

In Phase One (Proof of Feasibility), firms may receive up to $150,000 over up to six months to prove the scientific, technical and commercial feasibility of a novel solution to a given challenge. In Phase Two (Prototype Development), firms that successfully complete Phase One may receive up to $1M over up to two years to develop a working prototype for their solution. In Phase Three (Pathway to Commercialization), based on the success of the prototype developed in Phase Two, the federal department or agency that supported the R&D may opt to procure the solution, which would represent the first reference sale of the innovation for the firm.

Testing stream

Under the Testing stream, ISC prequalifies late-stage (pre-commercial) prototypes developed by Canadian companies of all sizes and then matches them with federal government organizations willing to test them and provide feedback to these firms. The program then works with PSPC to procure these prototypes to facilitate the testing/feedback process. Firms can receive a contract valued up to $550,000 for non-military innovations and up to $1.15M for military innovations. The aim of this support is to help these firms to commercialize their innovations faster and more effectively than would otherwise occur. Thirty-six departments and agencies have participated in ISC's Testing stream (the former BCIP) to date.

ISC Secretariat

The ISC secretariat oversees the program's day-to-day operations, a core function of which is to assist ISC organizations to develop and release challenges and test promising prototypes. Officials at the National Research Council's Industrial Research Assistance Program (IRAP) and Public Services and Procurement Canada (PSPC) support ISC's implementation and delivery. Industrial Technology Advisors (ITAs) from NRC's Industrial and Research Assistance Program perform technical evaluations of proposals and review challenges to determine if commercially available solutions are available or if the challenge will result in novel innovations and support the proposal evaluation process. PSPC functions as ISC's procurement authority and assists participating GC organizations to navigate the rules and procedures associated with R&D procurement.

Accomplishments

The program realized the following important accomplishments in 2019-20:

Increased Spending on Prototype Testing

In 2019-20, under its new Testing stream, ISC awarded over $43M through 93 R&D contracts. This level of spending is significantly higher than the program's core budget of $33.5M for the Testing stream. This is an important accomplishment for the program for two reasons. First, R&D contracts are more complex and challenging to complete on time and on budget than most other types of contracts. Secondly, 91 of these 93 projects (98%) are being led by SMEs, most of which have little or no prior experience working with the GC. Indeed, gaining this experience is a key benefit for firms that participate in ISC.

Government as a First Customer: Streamlining Processes

Innovative firms that have government as their customer send a strong signal to the market that they have something of significant value. To support ISC's outcomes, Public Services and Procurement Canada is creating a process under the program's Challenge stream to enable departments and agencies to procure successfully developed solutions under Phase 3 (Pathway to Commercialization). For challenges released after January 2020, the process will involve creating a pool of qualified solutions that emerge from Phase 2 (Prototype development) which are beyond Technology Readiness Level 9 and ready for commercialization. Departments and agencies will have the opportunity to purchase solutions in this pool for up to three years without the need for a new competitive process. This process brings ISC closer in line with the US SBIR model in its efforts to support the growth and scale-up of innovative Canadian SMEs.

PSPC is also creating a process to enable the solutions emerging from the Phase 2 of the Challenge stream (Prototype development) to proceed directly into the program's Testing Stream. Entry into the Testing Stream will solely be limited to small businesses who have demonstrated successful completion of Phase 2 and are within TRL 7-9 (inclusively). This flexibility will enable the testing of prototypes in real-life government settings and provide the innovator with valuable feedback to help advance their solution.

Culture Change

The program witnessed departments working together to improve the innovation ecosystem for small businesses benefiting from ISC funding. One example of this involved cooperation between Environment and Climate Change Canada (ECCC) and Health Canada (HC) as part of the Food Packaging Plastics Innovation challenge. Under this challenge, it is important to ECCC that companies developing Phase 2 prototypes demonstrate that their innovative products are safe. To achieve this goal, ECCC requires Phase 2 funding recipients to undertake a pre-market assessment of their solutions by obtaining a Letter of No Objection (LONO) from HC to confirm that the products have been assessed under section B.23001 of the Food and Drug Regulations and do not contain chemicals of concern to human health. HC has agreed to "fast track" ECCC's Phase 2 funding recipients by including them on their list of priority LONO assessments for 2020.

ISC also supported culture change by strengthening the bonds between government departments and the academic community in an effort to develop new challenge

topics. In 2019-20, the challenge stream leveraged teams of graduate students from Dalhousie University's Faculty of Management initiative called Management Without Borders (MWB) to work with officials from Employment and Social Development Canada, Public Services and Procurement Canada, Indigenous Services Canada and Crown-Indigenous Relations and Northern Affairs Canada. MWB is designed to match students from a diverse set of academic programs (including business administration, information and library studies, public administration, and resource/environmental management) with public or private sector organizations. The end result of the collaboration was a detailed report containing concrete challenges topics for each department. Examples of challenge ideas included integrating environmental and infrastructure data to assist with climate-related risk management; reducing the presence of lead in ammunition in an effort to decrease lead toxicity in wild game; and identifying methods and tools to track and manage data on outcomes of underrepresented youth programs.

Intellectual Property Training

In the summer of 2019, the program organized a virtual training session on IP for participants in Phase 1 of its Challenge stream. The Canadian Intellectual Property Office (CIPO) delivered the training, which provided ISC awardees with information on the importance of protecting their IP and of developing a strategy to gaining competitive advantage by exploiting the value of their IP. Going forward, ISC will organize further training in cooperation with CIPO for Phase 2 recipients, focused on more in-depth aspects of IP.

Increasing GC Participation in ISC

Over the course of 2019-20, 28 challenges were published under ISC's Challenge stream. These challenges covered a wide array of topics ranging from reducing plastic waste, leveraging digital tools to support government operations, machine learning and artificial intelligence, improving accessibility, biomedicine, advanced materials, photonics and nanomaterials. By the end of fiscal year 2019-20, 18 of the 20 departments mandated to participate in ISC had released challenges. Canada Boarder Services Agency (CBSA), HC, Global Affairs Canada (GAC), and Employment and Social Development Canada (ESDC) all issued their first challenge under the program.

In 2019-20, the Challenge stream saw two departments that are not mandated to participate in the program do so for the first time. The Communications Security Establishment (CSE) released a cybersecurity themed challenge while the Treasury Board Secretariat (TBS) partnered with Shared Services Canada to release a challenge on secure digital credentials. In addition, the program is reaching out to other government organizations to build awareness and encourage direct participation. Crown corporations are included in this outreach and Canada Post has indicated interest in potential using the Challenge stream. The Testing Stream has in the past worked with Crown corporations to test prototypes and will continue to do so in the future.

Service Standards

As part of Innovation Canada's commitment to serving clients in a prompt, reliable, professional and fair manner, ISC established two initial service standards – one for notification of receipt of application, and the second for timely processing of payments. ISC will provide an acknowledgement within 1 working day of receiving an application and will process payments for Testing stream participants within 30 calendar days of receipt of their invoice. Retroactive analysis of ISC's 2018-19 performance indicated that the program exceeded targets for both of these standards. ISC plans to establish additional service standards in 2020-21.

ISC and the Government's COVID-19 Response

COVID-19 is having unprecedented social and economic impact around the world at almost every level. Governments at all levels are taking extraordinary steps to mitigate the immediate and long-term negative impacts of this pandemic on their citizens and economies. ISC has been allotted $15M to help enable the program to support the government's COVID-19 Response. Under the Challenge stream, the program began working with the National Research Council, Public Health Agency of Canada and Health Canada and others to develop new COVID-themed challenges. In preparation for COVID challenges, the program raised its funding thresholds for Phase 1 from $150,000 to $300,000 and for Phase 2 from $1M to $2M. Work was also performed to enable the release of a Call for Proposal under the program's Testing stream in early 2020-21. Further details on ISC's support for the COVID-19 Government Response will be provided in the program's annual report for 2020-21.

Support Canada's vision of a zero plastics waste future

As of March 31, 2020, ISC had launched a total of 15 challenges is support of Canada's vision of a zero plastic waste future. Over the course of 2019-20 five departments launched seven plastics innovation challenges through ISC.

As of March 31, 2020, the 15 challenges attracted 137 proposals from innovative Canadian SMEs. The program has issued 29 funding awards with a total value of approximately $9.5M in association with these 15 challenges.

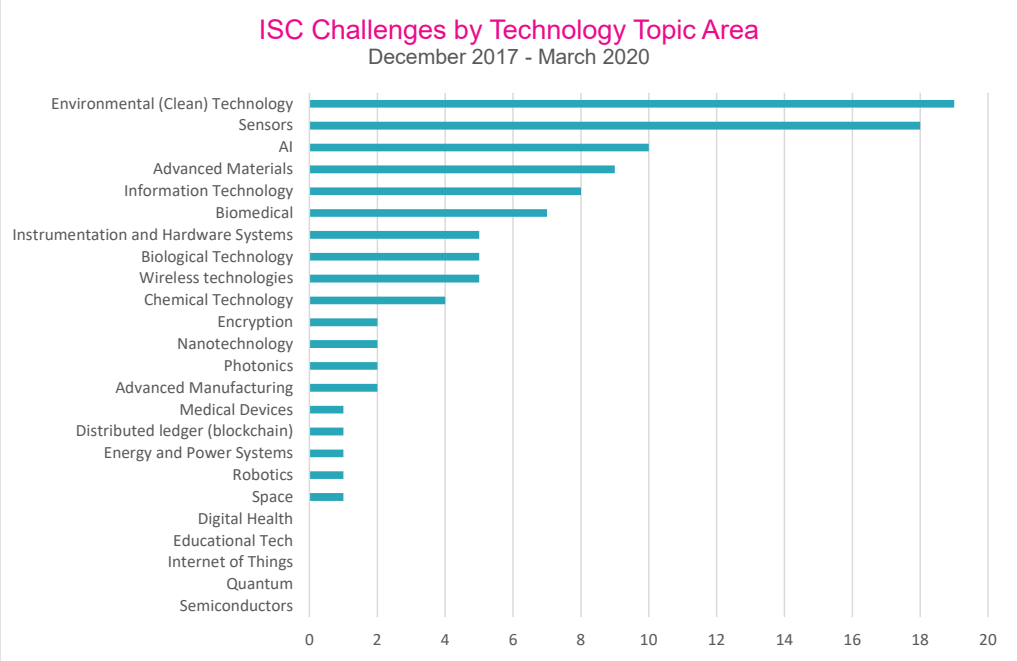
Results

The chart below captures key program results achieved in 2019-20 by funding stream. More detailed results data is provided in the sections that follow.

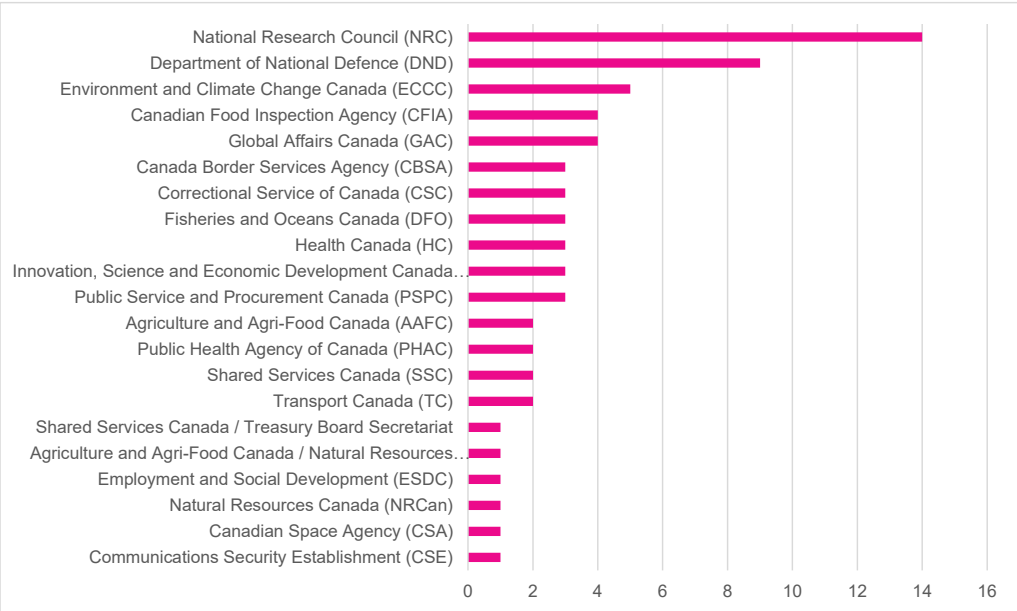
<table>
<tr><th>Challenge stream</th><th>Testing stream</th></tr>
<tr><th colspan="2">2019-20</th></tr>
<tr><td>26 New Challenges Launched</td><td rowspan="3">93 contracts awarded
valued at over $43M</td></tr>
<tr><td>68 awards for projects</td></tr>
<tr><td>Total disbursed funding
valued at over $13.6M</td></tr>
<tr><th colspan="2">From Program Launch in December 2017 to March 31, 2020</th></tr>
<tr><td>70 Challenges Launched</td><td>476 contracts awarded,
valued at over $206M.</td></tr>
<tr><td>98 Awards</td><td rowspan="2">Includes: 101 Clean-Tech,
and 41 A.I. contracts</td></tr>
<tr><td>$55M in committed funding</td></tr>
</table>

Challenge by Technology Area

In 2019-20, ISC began tracking the diversity of technology fields captured by the various challenges released by federal departments and agencies. The program decided to adopt technology topic fields used by the US National Science Foundation's SBIR program. This approach is based on what is written in the challenge notice rather than what is contained in proposals from eligible businesses. Often, multiple technology topic areas are covered by a single challenge. From December 2017 to March 31, 2020, the top five technology topics identified in ISC challenge notices were: environmental (clean) technologies (19), sensors (18), artificial intelligence (10), advanced materials (9) and information technology (8).

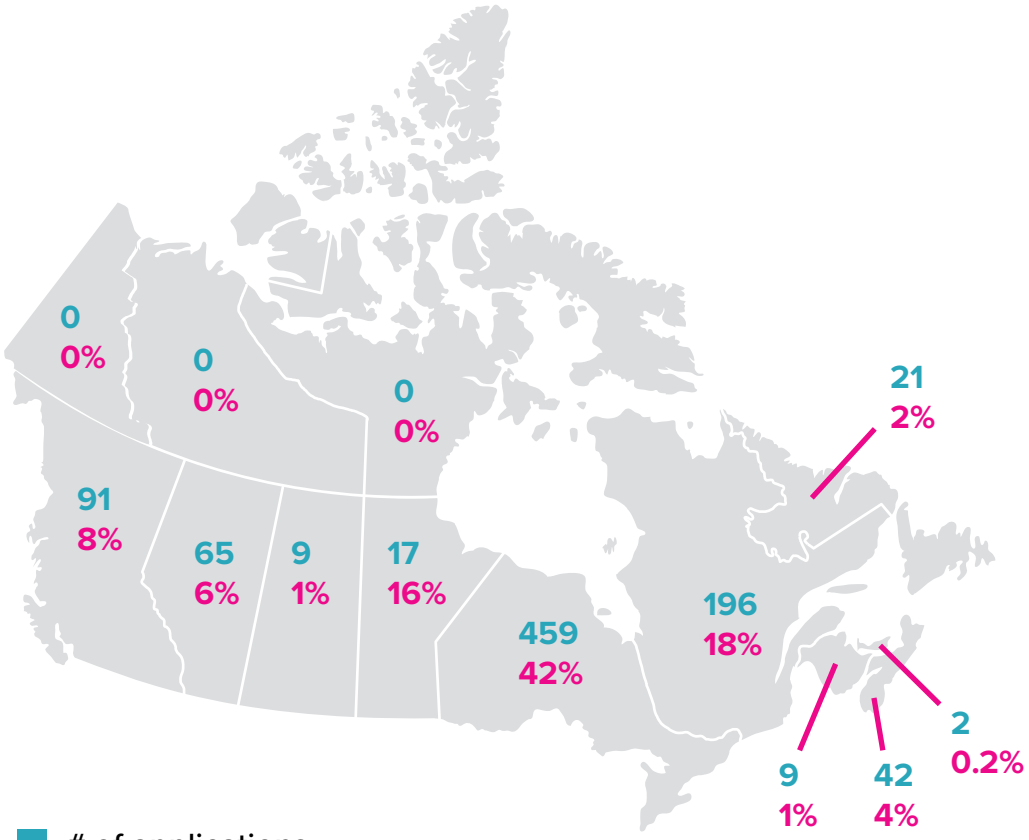


Challenge stream: Challenges Released by Department



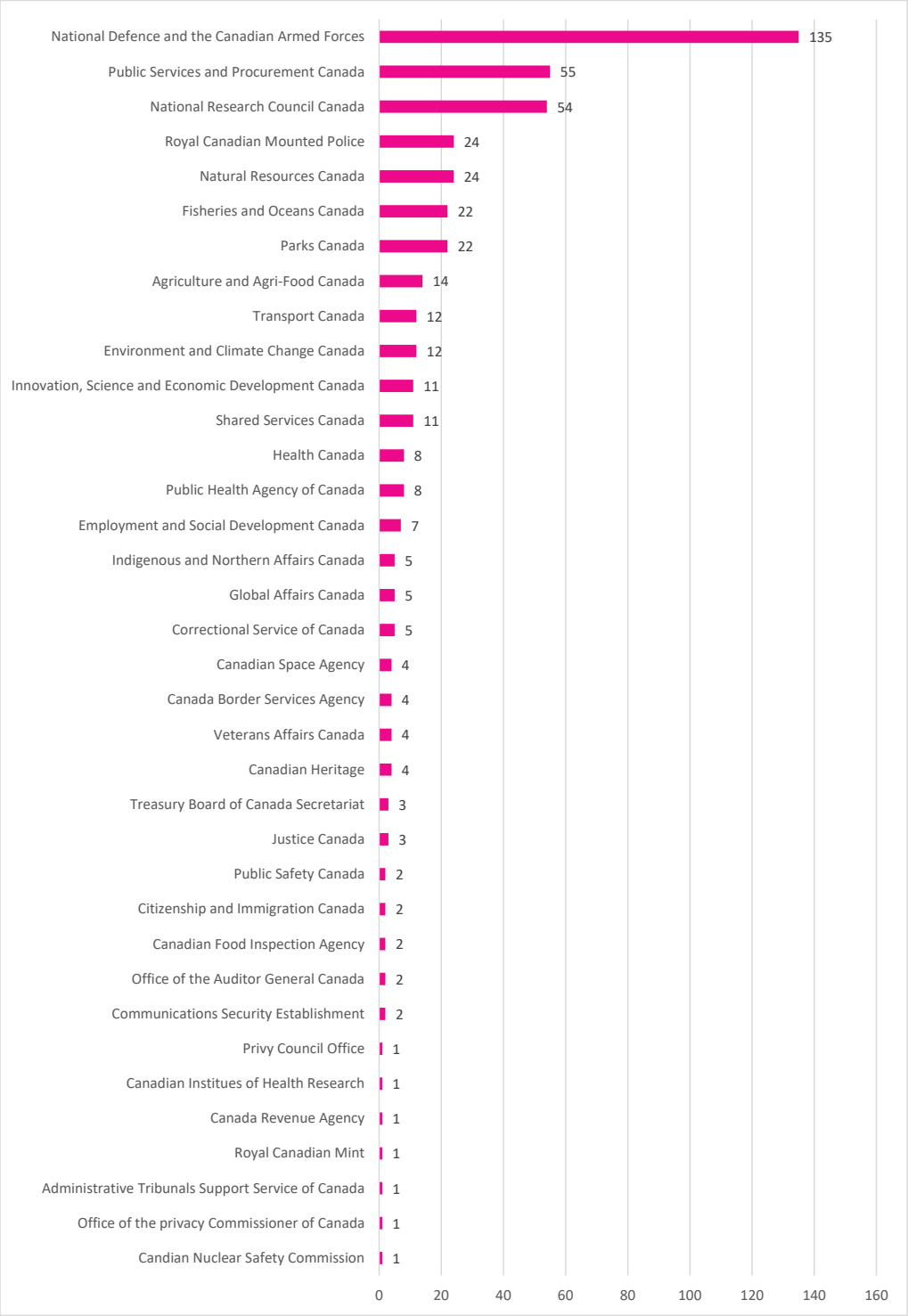
Geographic Distribution of Challenge Applications to Date

Total Applications: 1082



Testing Stream: Innovations Tested by Lead Organization

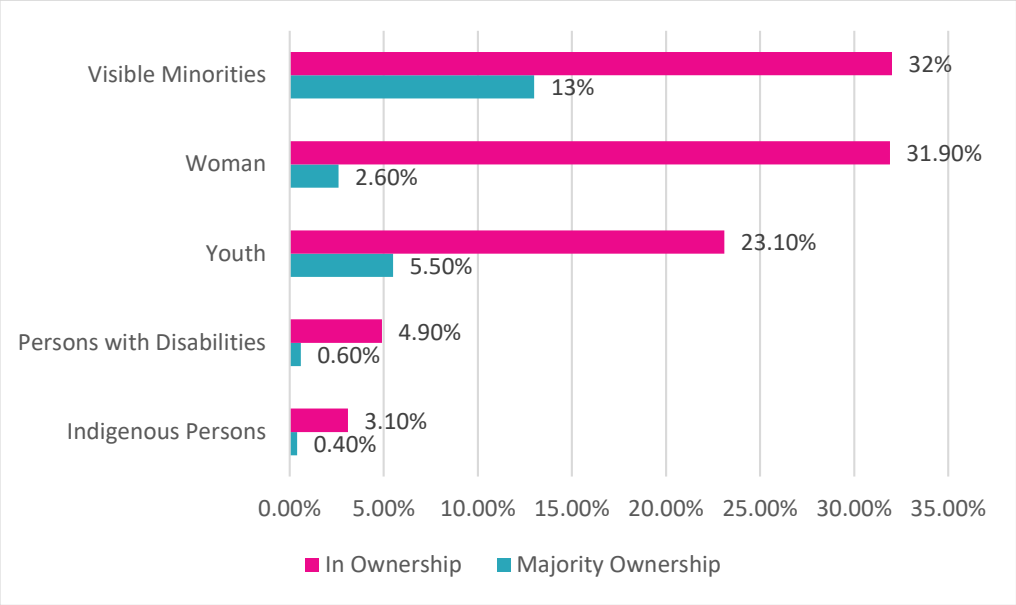
The following 36 departments and agencies have participated in the Testing Stream (including formerBCIP) since its inception in 2011.



Inclusivity Outcomes

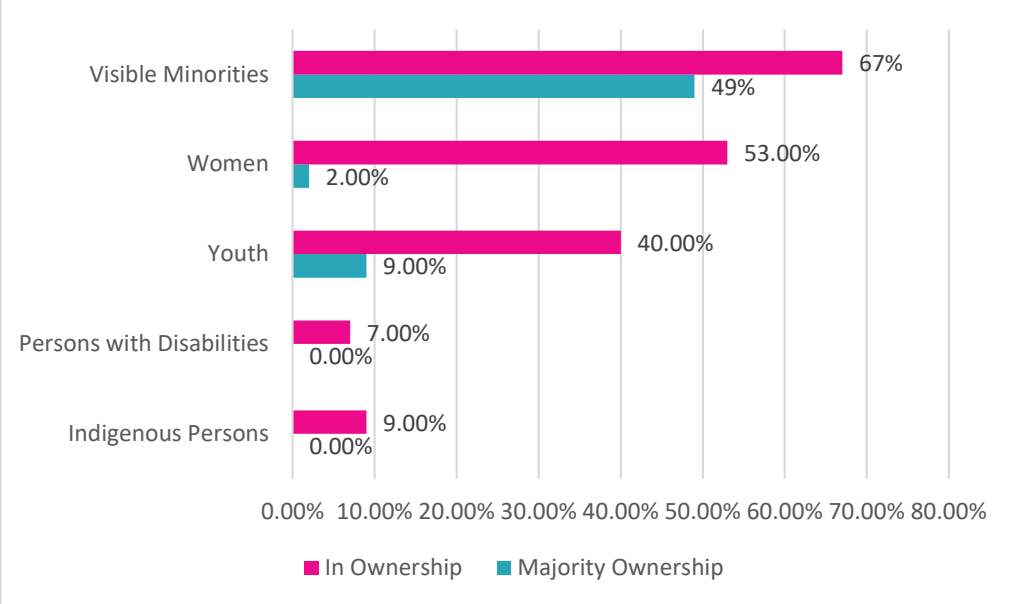
ISC encourages the participation of companies that include some level of ownership by underrepresented groups. These groups include women, youth, Indigenous peoples, and visible minorities and disabled individuals.

Challenge stream: Program Applicants



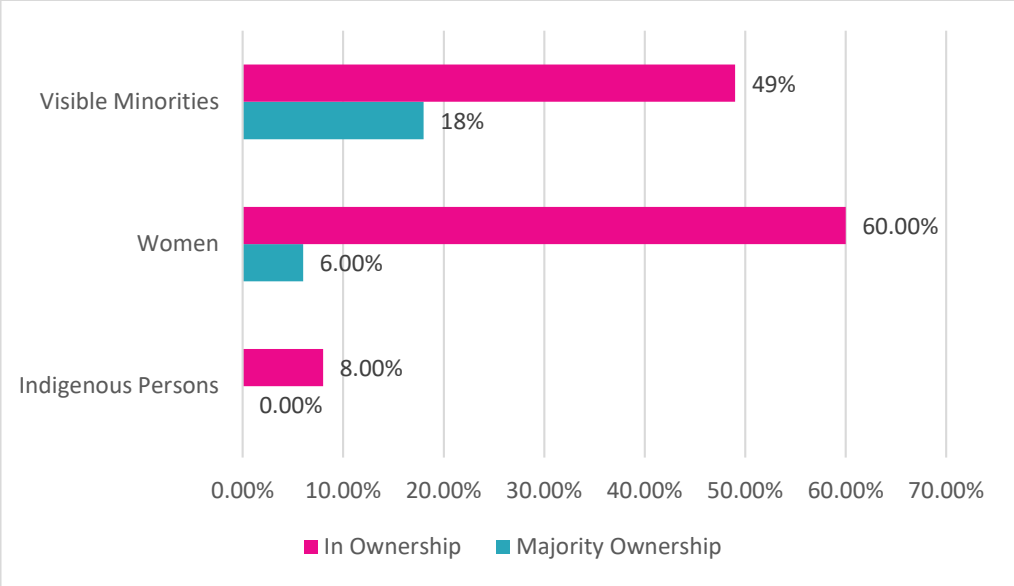
Note: Information is based on voluntary self-identification by firms.

Challenge stream: Funding Recipients



Note: Information is based on voluntary self-identification by firms.

Testing Stream: Funding Recipients



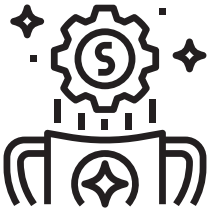
Note: Information based on voluntary self-identification by firms.

Business Size of Applicants and Awardees to Date

Challenge applicants

Average of 19.5 Employees

Challenge funding recipients



Average of 36 Employees

Testing stream contracts

97% awarded to SME's

Service Standards

Service Standard	Description	Performance Indicator	Target	ISC 2018–2019 Results
Notification of receipt of application	For applications received by ISC (challenge and testing streams), an acknowledgement will be provided within 1 working day of receiving the application	% of applications acknowledged within the service standard	95%	**100%**
Processing Payments	Pay Testing stream supplier invoices received, within 30 calendar days	% of payments made within the service standard	90%	**94%**

Success Stories

Challenge stream - Clean Tech:

Company Name	Ashored Inc.
Location	Debert, NS
Challenge Name	Sustainable Fishing and Aquaculture Gear
Challenge Department	Department of Fisheries and Oceans (DFO)
Notes on Successes	As part of the suite of Plastics challenges launched by ISC, DFO's Sustainable Fishing and Aquaculture Gear challenge sought proposals for economically and technically viable innovations in fishing and aquaculture gear and gear-related technologies to reduce or eliminate ghost fishing and aquatic plastic pollution caused by Canadian fisheries and aquaculture industries. Nova Scotia-based Ashford Inc's Phase 1 proposal was selected by DFO to receive a grant valued at $102K for the development of a proof of feasibility. Based on these results Ashford Inc's Phase 2 proposal was then selected for the development of a prototype solution, an award valued at $702K. Total awards to this company were $804K.

Company Name	Axipolymer
Location	Saint Leonard, QC
Challenge Name	Food Packaging
Challenge Department	Environment and Climate Change Canada (ECCC)
Notes on Successes	ECCC's Food Packaging challenges sough to improve the design of film food packaging to reduce the generation and disposal of plastic waste. Québec -based Axipolymer's Phase 1 proposal was selected by ECCC to receive a grant valued at $150K for the development of a proof of feasibility. Based on these results Axipolymer's Phase 2 proposal was then selected for the development of a prototype solution, an award valued at $1M. Total awards to this company were $1.15M. The announcement of this Phase 2 award was made by ECCC Minister at GLOBE 2020.

Testing stream - Clean Tech:

Company Name	The Growcer
Innovation	Arctic Growing System-V
Testing Department	Agriculture and Agri-food Canada
Location	Ottawa, ON
Notes on Successes	Awarded an ISC contract to test with AAFC in early 2019. Since participation in BCIP, the company appeared on Dragon's Den where it received an investment offer of $330K, and has secured a $5M contract with Chartwells Catering.
Company Name	Fraser Instruments Ltd.
Innovation(s)	Handheld Avalanche Tool
Testing Department(s)	Parks Canada, BC Ministry of Transportation, Canadian Avalanche Association, and Avalanche Canada
Location	Ottawa, ON
Notes on Successes	One of the commercial challenges that many innovations face is user adoption. The company indicated that the ISC program allowed the innovation to penetrate the market by de-risking the investment made by early adopters.

Testing stream - Artificial Intelligence

Company Name	Amika Mobile Corp.
Innovation	Amika Mobility Server™Emergency Alerting, Amika®Panic and Amika®I-am-Ok Mobile Apps integrated with Amika Mobile Safety & Security System (AMSS), Amika® Analytics Commander & Mapper for IoT Security, Amika® Connected Vehicle Guardian for Safety & Security
Testing Department	Innovation, Science and Economic Development Canada, Canada Border Services Agency, Royal Canadian Mounted Police, Public Services and Procurement Canada
Location	Ottawa, ON
Notes on Successes	In 2018, Amika completed a $479,161 contract to test their technology with the RCMP's Information Management & Technology Branch in British Columbia. Following this test, the company reported follow-on contracts with the Canada School of Public Service, and US-based costumers totaling $200K. As a result of program participation, Amika reported the creation of an additional 5 full-time jobs, including 4 in STEM-related fields. Testimonial from Dr. Sue Abu-Hakima, Co-Founder to OGGO Standing Committee: "...BCIP in 2011 gave us our first substantial sale. Then the U.S. government looked at what I did in Canada, so now I have U.S. government customers because of the BCIP program. Then when I closed, the second BCIP was with CBSA. I now have border security in the U.S. and in other countries looking at us because Canadian border security services are using this. Now I run a profitable business, several years later. I have to say that they gave us the first substantial opportunity in terms of a sale. I think that's pretty major.".

Company Name	Sametrica Inc. (Formerly Social Asset Measurements Inc.)
Innovation	Social Return Intelligence Suite
Testing Department	Employment and Social Development Canada
Location	Toronto, ON
Notes on Successes	Attracted venture capital, women-led, recent award recipient, testimonial available, 8 jobs created, follow on sales to 4 federal GC departments, (Treasury Board Secretariat, Employment and Social Development Canada, Status of Women Canada, Public Services and Procurement Canada) the Workplace Safety and Insurance Board and Ministry of Labour, for Ontario.

Outreach

In 2019-20 ISC conducted 63 outreach activities across Canada, although the COVID-19 pandemic significantly reduced the number of these activities. These activities included:

2 focused on women-owned businesses;
2 focused on Indigenous-owned businesses; and
9 targeted youth in business.

Outreach efforts have been critical to raising awareness about both the program and specific challenges. The program realized an increase of 5,448 subscribers to its mailing list, for a total of 9,207 subscribers as of March 31, 2020, which include umbrella organizations that results in further distribution to their members.

The ISC website has received over 207,000 unique visits to date, with an average of over 1,600 visits per challenge. Through the ISC website, any individual or organization can submit ideas for challenges. To date, the program has received over 500 ideas for challenges, which represents an approximate 100% increase over 2018-19 – an encouraging indication of ISC's increasing brand recognition.

Priorities for 2020-21

COVID-19 Response

The program will focus on evaluating the high volume of proposals it anticipates receiving in response to planned Calls for Proposals under both the Challenge and the Testing streams. The program will then focus on issuing funding awards as expeditiously as possible to firms whose proposals are successful in the evaluation stage and are subsequently selected to receive funding.

Challenge stream

The program will continue to support federal departments and agencies to release new challenges throughout FY 2020-21.

Testing stream

The program expects to issue a number of Calls for Proposals (CFPs) under its new Testing stream, including to support the Government Response to COVID-19.

Streamlining Procurement

The program will continue to work with PSPC to identify and pursue opportunities to streamline procurement from firms that successfully develop their R&D. These efforts recently resulted in PSPC creating a process that enables departments and agencies to procure successfully developed solutions under ISC's Challenge stream without needing to re-compete this business. In 2020-21, the program will work to secure PSPC's support to pilot a similar mechanism that would apply to ISC's Testing stream, which would greatly increase the program's ability to support the growth and scale up goals of innovative Canadian SMEs.

Outreach and Engagement

Due to the ongoing impact of the COVID-19 pandemic, the program will adjust its outreach strategy to increase its focus on and participation in virtual events. The program will also continue to develop its email marketing capabilities and explore using new tools to engage our audience, such as social media channels and video meeting applications. As new funding opportunities are launched ISC will use targeted communication to help drive applications. The program will also continue to improve its online presence in order to efficiently and effectively inform Canadian innovators and provide a more user-friendly experience.

Services to Business

The program will also begin to implement an approach to assist firms with their growth and scale-up objectives following the completion of their participation in the program. Supporting activities will include showcasing successfully tested innovations to drive sales to these firms from within the GC, supporting additional testing opportunities, and offering all participants in ISC an initial meeting with an Innovation Advisor to help support their growth and scale up objectives.

Surveying Firms

As more companies began the transition from Phase 1 to Phase 2 in 2019-20, understanding the impact of Challenge stream funding on recipients will be an important priority. In 2020-21, the program will conduct its first annual survey of firms that have completed their participation in the program's Challenge stream, whether at the end of Phase I or Phase II. These firms will be survived annually for five years and seek information on company growth in terms of revenues and employees, sales of their solution, and efforts to protect their intellectual property.

Improving ISC's Digital Portal

The program will also continue to make ongoing improvements to its digital platform, this will include moving to cloud-based infrastructure for a more robust and responsive technical environment.

Internal Review of ISC

Part of the government's approval of ISC includes a requirement to conduct an internal review of the program three years following its launch (December 2017 to March 31, 2020). While the former BCIP was officially transferred to the Department and consolidated within ISC on April 1, 2019, it remained closed to new business during FY 2019-20 and will therefore not be included in this review. The objective of the review is to understand where the program can make improvements to enhance the user experience for small businesses and challenge sponsoring departments.

Annex A: Detailed Results by Challenge

Challenges Released from April 1, 2019 to March 31, 2020

The following section outlines results for each of the challenges that were released from April 1, 2019 to March 31, 2020. The "compliance rate" is defined as the percentage of proposals that passed evaluations, while the "success rate" is defined as the percentage of proposals selected for funding. A list of recipients can be found on our website.

Canada Boarder Services Agency (CBSA)

Automated redaction of video recordings for the purposes of Access to Information requests

The CBSA is seeking a solution that will allow video and audio recordings to be automatically processed to ensure that people and objects other than the requestor of the audio or video files are not identifiable.

Applications: 58
Compliance: Evaluations underway
Success Rate: TBD

Postal Small Packet and Package Inspection

The Canada Border Services Agency (CBSA) is seeking a radiation shielding solution that will enable the continuous flow and processing of small packets and packages in/out of an x-ray systems without being impeded (i.e., stopped, slowed, or redirected) on a conveyor belt.

Applications: 11
Compliance: 18% (2/11)
Success Rate: 9% (1/11)

Portable Package Auto Sampler

The Canada Border Services Agency is seeking a technological solution to handle and extract samples of potentially highly toxic substances safely at the border in a timely manner.

Applications: 11
Compliance: 18% (2/11)
Success Rate: 9% (1/11)

Canadian Food Inspection Agency (CFIA)

Foot-and-mouth disease vaccine matching

The CFIA is seeking a solution that will use predictive computer models for Foot-and-Mouth disease vaccine matching.

Applications: 8
Compliance: Evaluations underway
Success Rate: TBD

Communications Security Establishment (CSE)

Secure and confidential rule matching

The Communications Security Establishment (CSE) is seeking a system that would evaluate the pattern matching signatures in insecure environments without revealing either the signatures themselves or the portions of the corpus matched by those signatures.

Applications: 21
Compliance: Evaluations underway
Success Rate: TBD

Environment and Climate Change Canada (ECCC)

The Alternate Format Business Technology Challenge

Employment and Social Development Canada (ESDC) is seeking a solution that will result in innovation and efficiency in the production of, and access to, a wide variety of physical and digital alternate format materials for Canadians with print disabilities.

Applications: 15
Compliance: Evaluations underway
Success Rate: TBD

Plastics challenge - Sustainable alternatives to plastic packaging

Environment and Climate Change Canada (ECCC) is seeking the development of innovative alternative reusable or recyclable products and/or product systems that can replace one or more “challenging” plastic packaging product(s) that contribute to plastic waste and pollution.

Applications: 48
Compliance: Evaluations underway
Success Rate: TBD

Plastics challenge – Textiles and microfibers

Environment and Climate Change Canada (ECCC) is seeking an innovative solution to the challenge of plastic waste from textiles and microfibers in Canada.

Applications: 28
Compliance: Evaluations underway
Success Rate: TBD

Global Affairs Canada (GAC)

Eco-friendly Waste Converter

Global Affairs Canada (GAC) is seeking a simple and eco-friendly way to lower emissions and reduce impact on the environment while managing refuse at GAC sites in Canada and abroad. Solutions currently exist for recyclables and compostable, but GAC is seeking a solution for the waste that is going to landfill.

Applications: 14
Compliance: Evaluations underway
Success Rate: TBD

Energy Producing Window Coverings

Global Affairs Canada (GAC) is seeking a window covering that, as well as reducing glare, will contribute to greater energy efficiency and convert solar energy to usable electrical energy.

Applications: 14
Compliance: Evaluations underway
Success Rate: TBD

Outdoor Air Purifier

Global Affairs Canada is seeking a solution that will aid in the purification of air in areas around GAC buildings where there is excessive smoke and exhaust exposure.

Applications: 25
Compliance: Evaluations underway
Success Rate: TBD

Plastics challenge - Recycled plastic ceiling tiles

Global Affairs Canada is seeking a solution that will contribute to the circular economy by recycling plastic into ceiling tiles and that meet a high safety standard with no chemical emissions. The existing ceiling tiles are drop ceiling mineral acoustical tiles. We need something comparable in acoustical, insulating and fire retardant performance, but made with 100% recycled plastic.

Applications: 22
Compliance: Evaluations underway
Success Rate: TBD

Health Canada (HC)

Identification of Microbial Mixtures

Health Canada (HC) is seeking a method to accurately identify and characterize micro-organisms found in microbial mixtures, and predict their interactions that could mask or enhance adverse effects with a view to determining risks to the environment and human health

Applications: 5
Compliance: Evaluations underway
Success Rate: TBD

Machine learning to improve organ donation rates and make better matches

Health Canada seeks technological approaches in Deep Learning and Artificial Intelligence to predict the success of possible donor-recipient matches and transplant outcomes to support evidence-based decision-making about organ donation and transplantation.

Applications: 29
Compliance: 28% (8/29)
Success Rate: 14% (4/29)

Point of Care Diagnostics to combat Antimicrobial resistance

Health Canada is seeking novel, easy to use and cost-effective rapid point-of-care diagnostic and detection tool(s) that identifies and characterizes antibiotic resistant bacteria and/or distinguishes between viral and bacterial infections to address the rise of antimicrobial resistant (AMR) infections.

Applications: 21
Compliance: Evaluations underway
Success Rate: TBD

National Research Council (NRC)

Stable Liposomes as Drug Carriers

NRC is seeking a solution to develop stable liposome formulations, with narrow size distributions at nanoscale and sub-micron scales, to support the development of drug product submissions, streamline the regulatory approval process and improve the manufacturability of drug delivery formulations.

Applications: 7
Compliance: Evaluations underway
Success Rate: TBD

Hybrid Ceramic Powder Processing System

NRC is seeking a ceramic powder processing solution that will upgrade raw ceramic powder into a uniformly coated, sinterable, hybrid carbon nanotube ceramic powder with > 1 kg / h production rates, in order for NRC to do further research into possible applications for this new stronger composite material such as light-weight armor.

Applications: 4
Compliance: Evaluations underway
Success Rate: TBD

AI Software for Photonics Semiconductor Fabrication

NRC is seeking a software solution that will, through the use of models and data analysis, predict and control the wavelength of a grown semiconductor structure during its fabrication.

Applications: 30
Compliance: Evaluations underway
Success Rate: TBD

Surveying objects across an air-water interface

NRC is seeking a non-intrusive surveying technology that can accurately measure the surface and profile objects in a laboratory setting that are partially or fully submerged under water.

Applications: 11
Compliance: Evaluations underway
Success Rate: TBD

Nanocomposite Fabrics Production System

The National Research Council is seeking a manufacturing process solution that will produce nanocomposite sheets/fabrics comprised of carbon nanotubes and polymer by the roll in order to make the next generation of high-performance multifunctional fabric for fire protection, energy absorption, electromagnetic shielding, etc.

Applications: 16
Compliance: Evaluations underway
Success Rate: TBD

Plastics challenge - In-situ sensing technology for monitoring microplastics in the marine environment

The National Research Council of Canada (NRC) is seeking an innovative in situ (on site) sensing technology for identification and quantification of microplastics in water, which will enable the development of new techniques for monitoring microplastics in Canadian waters.

Applications: 18
Compliance: Evaluations underway
Success Rate: TBD

Plastics challenge - Diverting end of life vehicle plastics from landfills

The National Research Council of Canada (NRC) and Environment and Climate Change Canada (ECCC) are seeking environmentally acceptable and cost-effective technologies that will enable the diversion of End of Life Vehicles (ELVs) plastics from landfills and their conversion into valuable materials and/or molecules.

Applications: 4
Compliance: Evaluations underway
Success Rate: TBD

Natural Resources Canada (NRCan)

Plastics Challenge – Development of Next Generation Bio-Based Foam Insulation

Natural Resources Canada (NRCan) is seeking the development of novel foam insulation products (spray foam and rigid foam board) that are bio-based (predominantly derived from domestic forest residue), and offer similar insulation values as petroleum-based products and cost comparable.

Applications: 11
Compliance: 18% (2/11)
Success Rate: 18% (2/11)

Public Services and Procurement Canada (PSPC)

Turning pixels into data: Imaging for accessibility

Public Service and Procurement Canada's (PSPC) Document Imaging Solutions Centre (DISC) is seeking to develop innovative capture solutions to improve accessibility of digitized documents and increase production capabilities, thus providing citizens and government organizations with more cost-effective, accessible and adapted digital information.

Applications: 6
Compliance: Evaluations underway
Success Rate: TBD

Shared Services Canada (SSC)

Data Centre Discovery Tool with Options Analysis

Shared Services Canada is seeking an innovative solution that will collect and analyze information from multiple data centres in order to provide options for reducing/consolidating infrastructure and strategies/plans for data centre migrations.

Applications: 6
Compliance: Evaluations underway
Success Rate: TBD

Plastics challenge – E-waste

Shared Services Canada (SSC) and Environment and Climate Change Canada (ECCC) are seeking a solution that will enable recycling of e-waste plastics and metals in Canada while respecting domestic and international requirements and obligations

Applications: 20
Compliance: Evaluations underway
Success Rate: TBD

Treasury Board Secretariat of Canada (TBS)

User-Centric Verifiable Digital Credentials

The Treasury Board Secretariat of Canada (TBS) and Shared Services Canada (SSC) are seeking a standardized method to issue and rapidly verify portable digital credentials across many different contexts, thereby reducing human judgement error, increasing efficiency and ensuring digital credential veracity using cryptography.

Applications: 43
Compliance: Evaluations underway
Success Rate: TBD

Challenges Released from December 14, 2017 to March 31, 2019

The following section outlines results for each of the challenges that were released from December 14, 2017 to March 31, 2019. The "compliance rate" is defined as the percentage of proposals that passed evaluations, while the "success rate" is defined as the percentage of proposals selected for funding. A list of recipients can be found on our website.

Agriculture and Agri-Food Canada (AAFC)

Efficient Soil Sampling Techniques

Agriculture and Agri-food Canada (AAFC) is seeking a solution that allows for greater homogeneity of soil samples through their efficient and consistent collection, leading to greater reliability and accuracy of test results.

Number of applications: 6
Compliance rate: 33% (2/6)
Success rate: 33% (2/6)

Scaling Down Precision Agriculture

Precision agriculture technology is tailored to farms above 500 acres in size, so with farms below that acreage, or with an annual income below $75,000, the rate of adoption of these technologies declines significantly.

Number of applications: 28
Compliance rate: 43% (12/28)
Success rate: 7% (2/28)

Improving Composability of Bioplastics (joint AAFC and NRCan challenge)

There is a need for greater compatibility of bioplastics (i.e. plastics derived from agricultural OR wood-based biomass) with home and municipal composting.

Number of applications: 20
Compliance rate: 35% (7/20)
Success rate: 10% (2/20)

Canadian Food Inspection Agency (CFIA)

Innovative Attractants to Wood Boring Insects

The Canadian Food Inspection Agency (CFIA) is seeking the development of a chemical compound that would attract a wide variety of wood boring insects attacking standing hardwood tree species.

Number of applications: 0
Compliance rate: N/A
Success rate: N/A

Innovative Device for Plant Pest Surveillance

The Canadian Food Inspection Agency (CFIA) is seeking an innovative device that could be used to detect volatile organic compounds associated with the presence of targeted invasive alien plant pests across Canada.

Number of applications: 3
Compliance rate: 0%
Success rate: N/A

Marine Biotoxin Detection Devices for Shellfish

The Canadian Food Inspection Agency (CFIA) is seeking to develop innovative devices for detecting marine biotoxins encountered in Canadian waters with increasing frequency.

Number of applications: 8
Compliance rate: 25% (2/8)
Success rate: 25% (2/8)

Canadian Space Agency (CSA)

Artificial Intelligence and Big Data Analytics for Advanced Autonomous Space Systems

The challenge is to apply artificial intelligence and big data analytics to bring tangible advancements in the operation and utilization of space assets in support of government operations, public safety, public health and discovery.

Number of applications: 51
Compliance rate: 63% (32/51)
Success rate: 10% (5/51)

Correctional Services Canada (CSC)

Life Sign Monitoring System

Correctional Services Canada (CSC) is seeking a solution to monitor the life signs of inmates and identify critical conditions that would typically lead to death in custody and provide prompt notification of such situation thereby reducing the time for staff to respond to the situation.

Number of applications: 23
Compliance rate: 35% (8/23)
Success rate: 9% (2/23)

Detection System for Wireless Communication

Correctional Services Canada (CSC) is seeking a technological solution to manage/prevent unauthorized use of wireless communication devices thereby preventing inmates from conducting illegal activities using such devices.

Number of applications: 13
Compliance rate: 31% (4/13)
Success rate: 15% (2/13)

Preventing Contraband Delivery via Air and Ground

Correctional Services Canada (CSC) is seeking an innovative and cost-effective technology solution to detect, track and prevent contraband items from entering the perimeter via Unmanned Aerial Vehicle (UAV), commonly known as drones, and fence throw-over.

Number of applications: 29
Compliance rate: 10% (3/29)
Success 7% (2/29)

Department of National Defence (DND)

Robust "Beyond Line of Sight" (BLOS) Communications in Satellite-Denied Environments

To provide robust approaches to over-the-horizon/BLOS communications in satellite-denied environments.

Number of applications: 14
Compliance rate: 50% (7/14)
Success rate: 21% (3/14)

Advanced Coatings and Materials for Personal Protective Ensembles

To identify and develop innovative solutions and technologies for materials and coatings to enhance Individual Protective Ensembles to counter Chemical/Biological/Radiological threats.

Number of applications: 12
Compliance rate: 67% (8/12)
Success rate: 46% (5/12)

Additive Manufacturing for High Performance Systems

The Department of National Defence (DND) is seeking new solutions to advance the field of additive manufacturing technologies for the fields of defense and security.

Number of applications: 17
Compliance rate: 65% (11/17)
Success rate: TBD - 3 awarded and 1 under negotiation as of July 15, 2020

Night Vision Ergonomics Enhancement

The Department of National Defence (DND) is seeking an innovative solution for enabling enhancement of Canadian Armed Forces (CAF) operators' vision such as night vision goggles (NVGs) and counterbalance.

Number of applications: 18
Compliance rate: 61% (11/18)
Success rate: TBD - 3 awarded and 1 under negotiation as of July 15, 2020

High Energy Lasers

The Department of National Defence (DND) requires the capability to detect and defeat non-cooperative objects by means of compact, efficient and robust laser sources.

Number of applications: 6
Compliance rate: 33% (2/6)
Success rate: 0%

Platform Corrosion Detection and Prevention

The Department of National Defence (DND) requires new methods/processes to identify/detect corrosion and the development of proactive corrosion control measures.

Number of applications: 25
Compliance rate: 76% (19/25)
Success rate: 8% (2/25)

Head Up Hands Free Fire Fighting

The Department of National Defense (DND) is seeking a solution that will provide innovative devices, applications, personal protective equipment technology supports to help position Canadian firefighters to work in a more Head Up Hands Free (HF/HF) mode of operation on the fire ground.

Number of applications: 16
Compliance rate: 50% (8/16)
Success rate: 25% (4/16)

Logistics and Resource Management of Emergency Response Assets

The Department of National Defense (DND) is seeking a solution that will provide innovative, advanced real-time decision support solutions for civilian, municipal, provincial, and federal (Royal Canadian Mounted Police and DND) first responder command personnel (police, fire and paramedic) during critical incidents, where multiple jurisdictions and agencies work together. Although there may be a number of components involved in critical incidents, the focus for this challenge is on the creation of new tools and technologies to identify, acquire, track and distribute available resources (defined as equipment, supplies and personnel).

Number of applications: 25
Compliance rate: 52% (13/25)
Success rate: 16% (4/25)

Advanced Decision Support for First Responder Command and Control

The Department of National Defense (DND) is seeking a solution that will provide innovative, advanced real-time decision support solutions for civilian municipal, provincial, and federal (Royal Canadian Mounted Police and DND) first responder command personnel (police, fire and paramedic) during critical incidents such as: active shooters, rural-urban wildfires, infrastructure collapse, natural disasters and large public order events where multiple jurisdictions and agencies work together. While there are many components and sub-occupational groups involved in critical incidents, the emphasis for this challenge is on developing promising tools related to the cognitive-behavioral aspects of the command function. The solutions should improve the probability of making good decisions during high risk events, while reducing the cognitive load of incident command personnel.

Number of applications: 40
Compliance rate: 40% (16/40)
Success rate: 5% (2/40)

Environment and Climate Change Canada (ECCC)

Food Packaging

Improve the design of film food packaging to reduce the generation and disposal of plastic waste.

Number of applications: 16
Compliance rate: 25% (4/16)
Phase I Success rate: 13% (2/16)
Phase II Success rate: 6% (1/16)

Separation of Mixed Plastics

Effective solutions are needed to improve the separation, sorting, and processing of mixed plastics to produce high-quality recycled feedstocks and create opportunities for new markets.

Number of applications: 26
Compliance rate: 54% (14/26)
Success rate: 8% (2/26)

Construction Waste

Innovative solutions are needed to increase the recovery, reuse and recycle of plastic wastes generated from construction activities.

Number of applications: 21
Compliance rate: 48% (10/21)
Phase I Success rate: 10% (2/21)
Phase II Success rate: 10% (2/21)

Fisheries and Oceans Canada (DFO)

Remove and Manage Ghost Fishing Gear and Marine Debris

Seeking a viable and economically feasible solution to remove plastic ghost fishing gear and other marine litter from aquatic environments through a technological innovation that can be deployed on existing vessels and infrastructure.

Number of applications: 12
Compliance rate: 50% (6/12)
Success rate: 8% (1/12)

Sustainable Fishing and Aquaculture Gear

This challenge seeks economically and technically viable innovations in fishing and aquaculture gear or gear-related technologies to reduce or eliminate ghost fishing and aquatic plastic pollution caused by Canadian fisheries and aquaculture industries.

Number of applications: 11
Compliance rate: 55% (6/11)
Phase I Success rate: 36% (4/11)
Phase II Success rate: 36% (4/11)

Kinetic Energy Harvesting on Marine Vessels

Coast Guard seeks solutions for harnessing kinetic energy from the roll, pitch and yaw of marine vessels with the goal of reducing energy consumption and reliance on externally-sourced and stored energy.

Number of applications: 41
Compliance rate: 46% (19/41)
Success rate: 10% (4/41)

Innovation, Science and Economic Development (ISED)

Engineered Surfaces Challenge

This challenge seeks novel solutions that incorporate the use of Frequency Selective Engineered Surfaces (FSES) in the research and development of new building materials, construction products and design tools using FSES tuned to operate in the below 6GHz (potentially addressing the WiFi interference issue) and above 24GHz range (potentially addressing the issues of radio frequency propagation).

Number of applications: 5
Compliance rate: 100% (5/5)
Success rate: 20% (2/5)

Connected Vehicle and Engineered Surfaces Challenge

This challenge seeks novel solutions that incorporate Frequency Selected Engineered Surfaces (FSES) technology into connected vehicle designs as a means to move towards wireless connectivity within vehicles, and as a tool to manage interference emanating from vehicles into other vehicles, and into the overall urban environment.

Number of applications: 5
Compliance rate: 40% (2/5)
Success rate (Phase One): 20% (2/5)
Success rate (Phase Two): 10% (1/5)

Tracing the Steel Industry Supply Chain

The challenge seeks to create a novel application of a digital tracing system enabled by blockchain and artificial intelligence for the Canadian and possibly North American steel supply chain for business users and government.

Number of applications: 39
Compliance rate: 56% (22/39)
Success rate: 5% (2/39)

National Research Council (NRC)

3D Printing and Additive Manufacturing: Metal Powder Bed Density Test Equipment

Seeks new solutions to enable the testing of metal powder bed density in additive manufacturing processes.

Number of applications: 6
Compliance rate: 100% (6/6)
Success rate: 50% (3/6)

Measurement of Cold Spray

This challenge seeks to measure in-flight metal particle temperature in a coldspray process.

Number of applications: 1
Compliance rate: 100% (1/1)
Success rate: 100% (1/1)

Electroencephalography (EEG) and Vital Signs Integrated Existing Virtual and Augmented Reality (VR/AR) sets

This challenge seeks the development of a user-friendly and robust device for monitoring electroencephalography (EEG) and multiple vital signs integrated into existing extended reality sets.

Number of applications: 23
Compliance rate: 43% (10/23)
Success rate: 9% (2/23)

Haptic System

This challenge is seeking an affordable, robust and good resolution bimanual haptic feedback stylus system that interacts, via Wi-Fi/ Bluetooth mode, with mobile platforms.

Number of applications: 11
Compliance rate: 45% (5/11)
Success rate: 27% (3/11)

Composite Material Manufacturing Simulation Software

This challenge is seeking an advanced simulation tool, capable of accurately predicting the ply by ply movement, deformation and defect generation/distribution in a composite laminate undergoing forming process at any stage in the process.

Number of applications: 4
Compliance rate: 50% (2/4)
Success rate: 25% (1/4)

Moulding of High Performance Composites Materials

The aim of the challenge is to develop a technology for moulding Ultra-high molecular weight polyethylene (UHMWPE) composite materials into complex geometry parts featuring double curvatures.

Number of applications: 4
Compliance rate: 25% (1/4)
Success rate: 25% (1/4)

Improving Robot-Environment Interaction

This challenge seeks innovations that will improve robot interactions with either humans or changing environments.

Number of applications: 8
Compliance rate: 38% (3/8)
Success rate: 13% (1/8)

Natural Resources Canada (NRCan)

Improving Compostability of Bioplastics (joint AAFC and NRCan challenge)

There is a need for greater compatibility of bioplastics (i.e. plastics derived from agricultural OR wood-based biomass) with home and municipal composting.

Number of applications: 20
Compliance rate: 35% (7/20)
Success rate: NRCan 10% (2/20)

Public Health Agency of Canada (PHAC)

Innovative Platform to Facilitate Evidence-Informed Decision-Making

The Public Health Agency of Canada (PHAC) is seeking an innovative platform/platforms that will provide Canadians with immediate access to relevant, trustworthy, public health information adapted to their specific questions and needs, based on core content from PHAC in areas such as but not limited to immunization and travel health.

Number of applications: 44
Compliance rate: 52% (23/44)
Success rate: 9% (4/44)

Earth Observation Images Processing and Management System

The Public Health Agency of Canada (PHAC) is seeking an automated system outside of PHAC infrastructure that would enable the pre-processing of large sets of Earth Observation (EO) data and the storage and overlaying of user defined ground truth data (GT) on pre-processed EO images to help address a wide range of public health needs.

Number of applications: 22
Compliance rate: 41% (9/22)
Success rate: 9% (2/22)

Public Services and Procurement Canada (PSPC)

Audio Quality Enhancements for Remote Interpretation Services

This challenge is seeking innovative solutions to provide superior sound quality for remote interpretation (RI) as current devices do not provide sufficient voice frequency (VF) range for interpretation and can cause workplace injuries and interruptions of service. The Bureau is seeking a solution that meets ISO standards.

Number of applications: 8
Compliance rate: 0% (0/8)
Success rate: 0% (0/8)

Coal Mine Tailings Pond

The challenge is to develop a cost effective & innovative method of stabilizing the coal mine tailings currently under sub-aqueous containment behind the Victoria Junction Tailings Dam so that the Dam can be decommissioned.

Number of applications: 16
Compliance rate: 19% (3/16)
Success rate: 19% (3/16)

Shared Services Canada (SSC)

Improving the Internet Connectivity of Users in Remote Locations

Shared Services Canada is seeking solutions that would enable low-cost high-speed Internet access to Government of Canada employees and Canadian citizens who work or live in remote areas around the world.

Number of applications: 11
Compliance rate: 45% (5/11)
Success rate: 27% (3/11)

Transport Canada (TC)

Plastics Challenge – Recycling of Glass Fiber-Reinforced Plastic

This challenge seeks novel, economically viable, and ecologically sustainable solutions for recycling or reusing glass fiber-reinforced plastic in a manner that is energy efficient and recovers as much material as possible (diverting from landfill).

Number of applications: 11
Compliance rate: 55% (6/11)
Phase I Success rate: 27% (3/11)
Phase II Success rate: 18% (2/11)

Enhancing Pedestrian and Cyclist Road Safety

Save lives — and reduce injuries — by accelerating the adoption of effective, low-cost technologies that improve pedestrian and bicyclists' safety around commercial vehicles.

Number of applications: 29
Compliance rate: 34% (10/29)
Phase I Success rate: 7% (2/29)
Phase I Success rate: 3% (1/29)

Annex B: ISC Departments - Mandated vs. Projected Spending

Department	Departmental Challenge stream Set Aside for 2019/20 and ongoing 1 % of 2015/16 procurement + intramural R&D	Projected Spending		
		Year		
		2019/20		
		Challenge stream	Transfer to Testing stream (up to 30%)	2019/20 Total
DND	$65,000,000	$2,975,196	$406,389	$3,381,585
PSPC	$8,800,000	$450,000	$1,000,000	$1,450,000
SSC	$7,600,000	$89,908	$550,000	$639,908
NRC	$5,500,000	$989,074	$1,650,000	$2,639,074
AAFC	$3,900,000	$600,000	$443,471	$1,043,471
NRCan	$2,600,000	$700,000	$25,000	$725,000
ESDC	$2,200,000	$0	$207,829	$207,829
RCMP	$1,800,000	$0	$70,000	$70,000
ECCC	$1,600,000	$1,462,300	$0	$1,462,300
DFO/CCG	$1,500,000	$1,212,000	$445,672	$1,657,672
HC	$1,400,000	$1,150,930	$0	$1,150,930
CSC	$1,400,000	$498,180	$0	$498,180
CBSA	$1,400,000	$86,861	$420,000	$506,861
CSA	$1,300,000	$651,606	$0	$651,606
PHAC	$1,300,000	$687,777	$390,000	$1,077,777
ISC (former INAC)	$1,300,000	$0	$0	$0
CIRNA (former INAC)		$0	$0	$0
GAC	$1,300,000	$0	$0	$0
TC	$1,300,000	$850,000	$88,276	$938,276
ISED	$1,300,000	$1,293,315	$69,403	$1,362,718
CFIA	$1,300,000	$0	$0	$0
Sub-Total (20 departments)	$113,800,000	$13,697,147	$5,766,040	$19,463,187