



Treasury Board of Canada
Secrétariat

Secrétariat du Conseil du Trésor
du Canada

Canada

Update on the BIGS Initiative

DATA SCIENCE, RESEARCH AND DEVELOPMENT UNIT

Presentation to the **Strategic Research Network**

October 1st, 2025

BIGS 2022-23





Table of Contents

- 01.** About the BIGS Initiative
- 02.** BIGS 2022-23
- 03.** In Progress Impact Analysis
- 04.** Upcoming Impact Analysis
- 05.** Capacity Building
- 06.** Business Innovation Hub

The BIGS Initiative

TBS has a mandate to analyze the impact of federal **Business Innovation and Growth Support (BIGS)** programs and work collaboratively with StatsCan to share BIGS analytical products.

A program stream is in scope of the BIGS initiative if it satisfies at least one of the inclusion criteria related to:

- Innovation activities of enterprises
- Growth activities of enterprises
- Ecosystem or community activities for business innovation and growth



Mandate

CONNECT

Collecting and connecting program data from departments and agencies

RESEARCH

Undertaking research and horizontal analyses on program outcomes

PARTNER

Partnering with Statistics Canada and BIGS departments and agencies

STRENGTHEN

Building federal capacity for effective impact analysis of programs



Products

CUSTOM TABLES

Custom tables cover a range of socio-economic dimensions

INFOGRAPHICS

BIGS-related infographics and analytical products

RESEARCH PAPERS

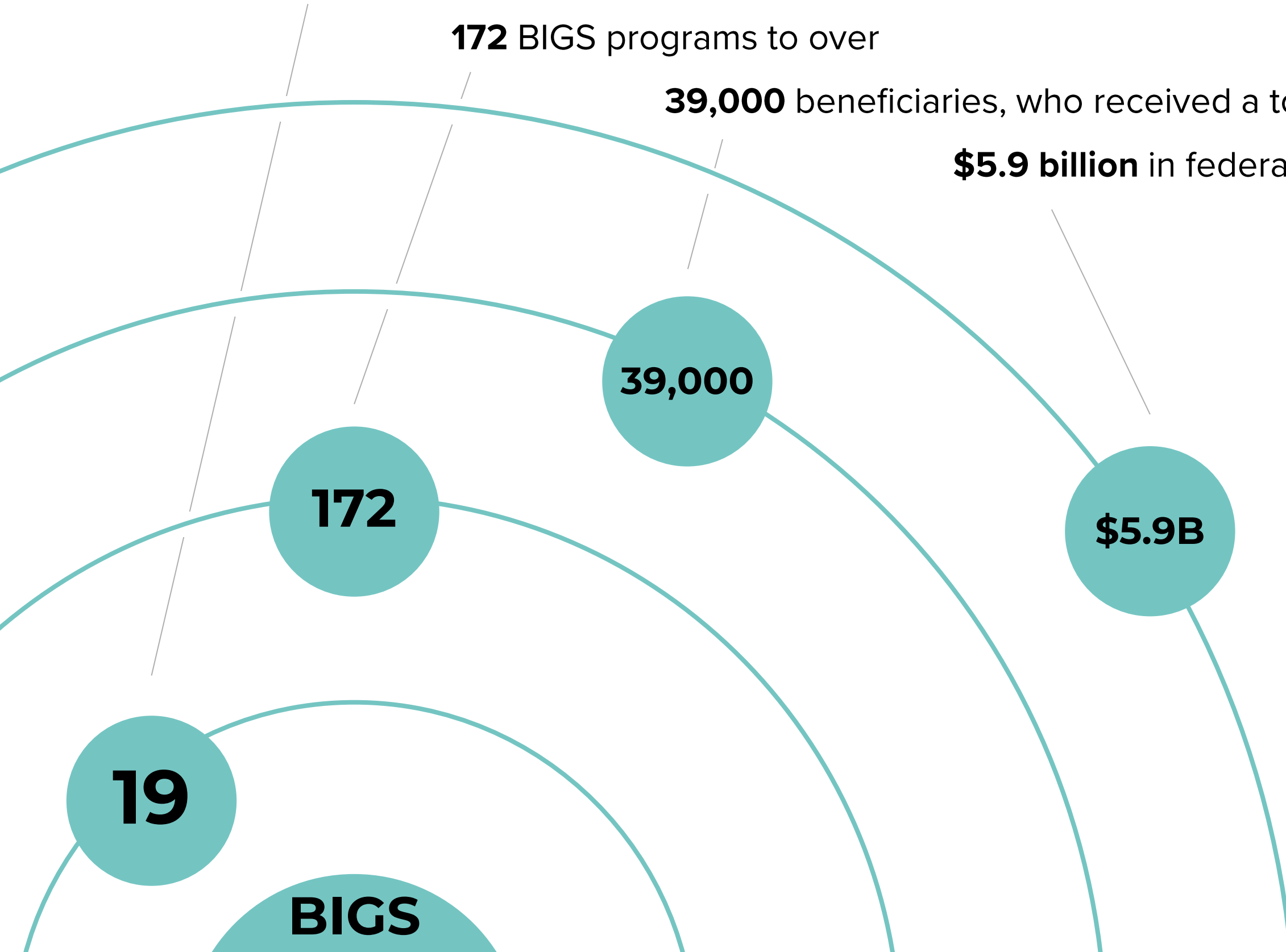
Research papers (univariate and multivariate) provide insights

The BIGS Universe

In 2022-23, **19** departments and agencies delivered

172 BIGS programs to over

39,000 beneficiaries, who received a total of
\$5.9 billion in federal support.



Themes

BIGS programs are highly heterogenous, covering multiple themes, including:

Research and development

Commercialization and market entry

Export development

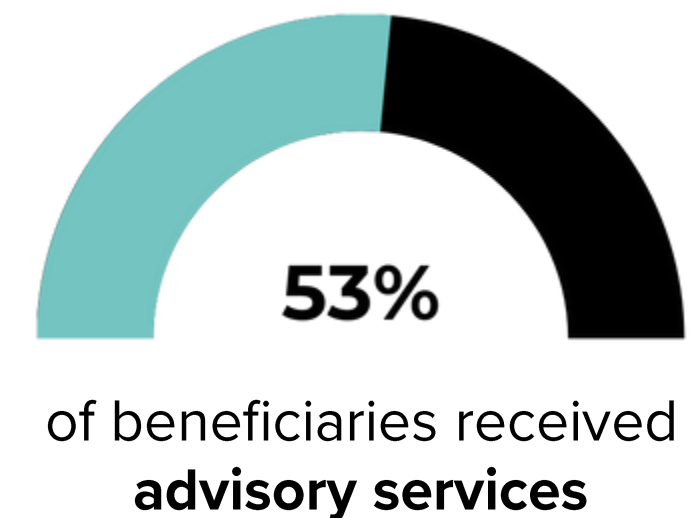
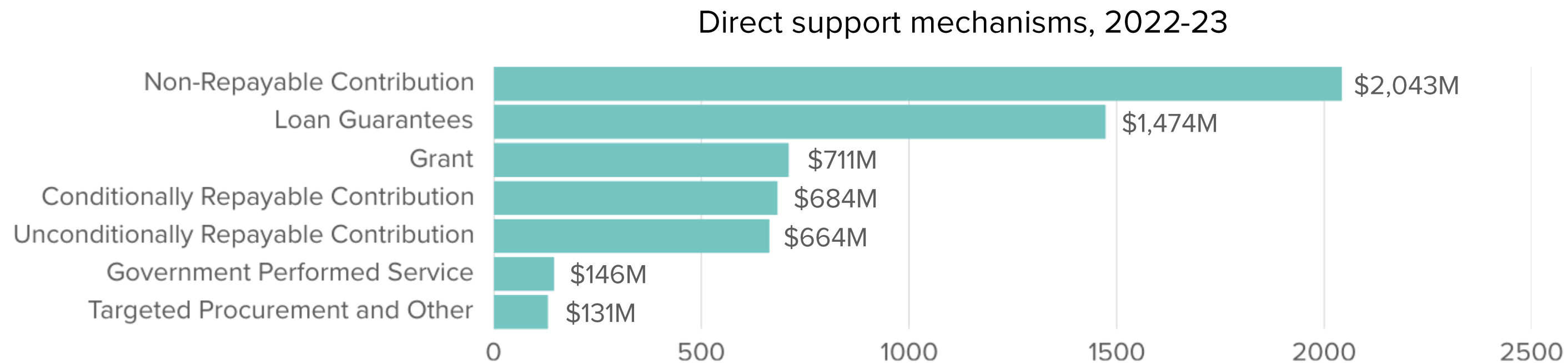
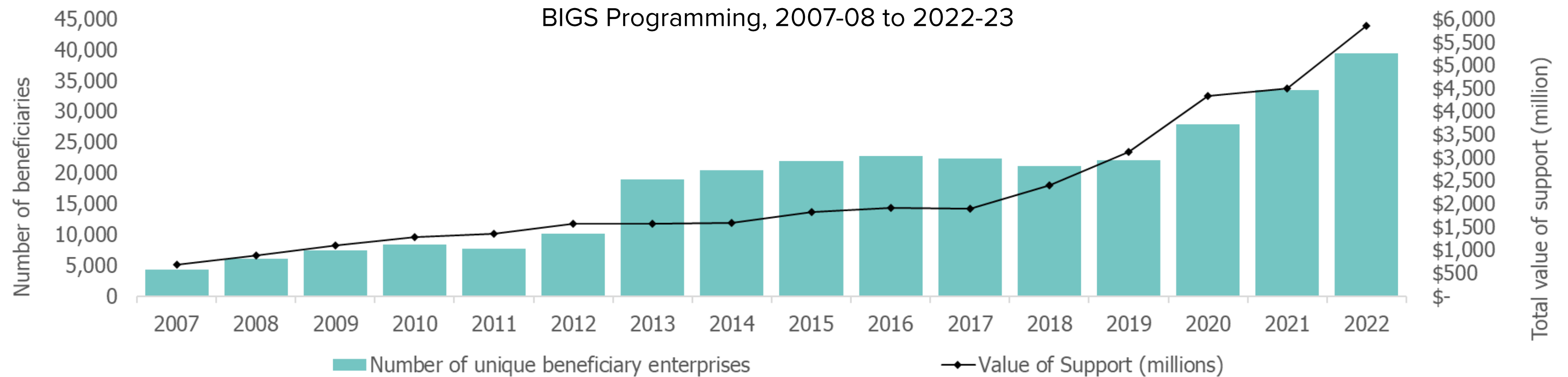
Small and Medium-sized enterprises

Regional development

Environment & clean technology

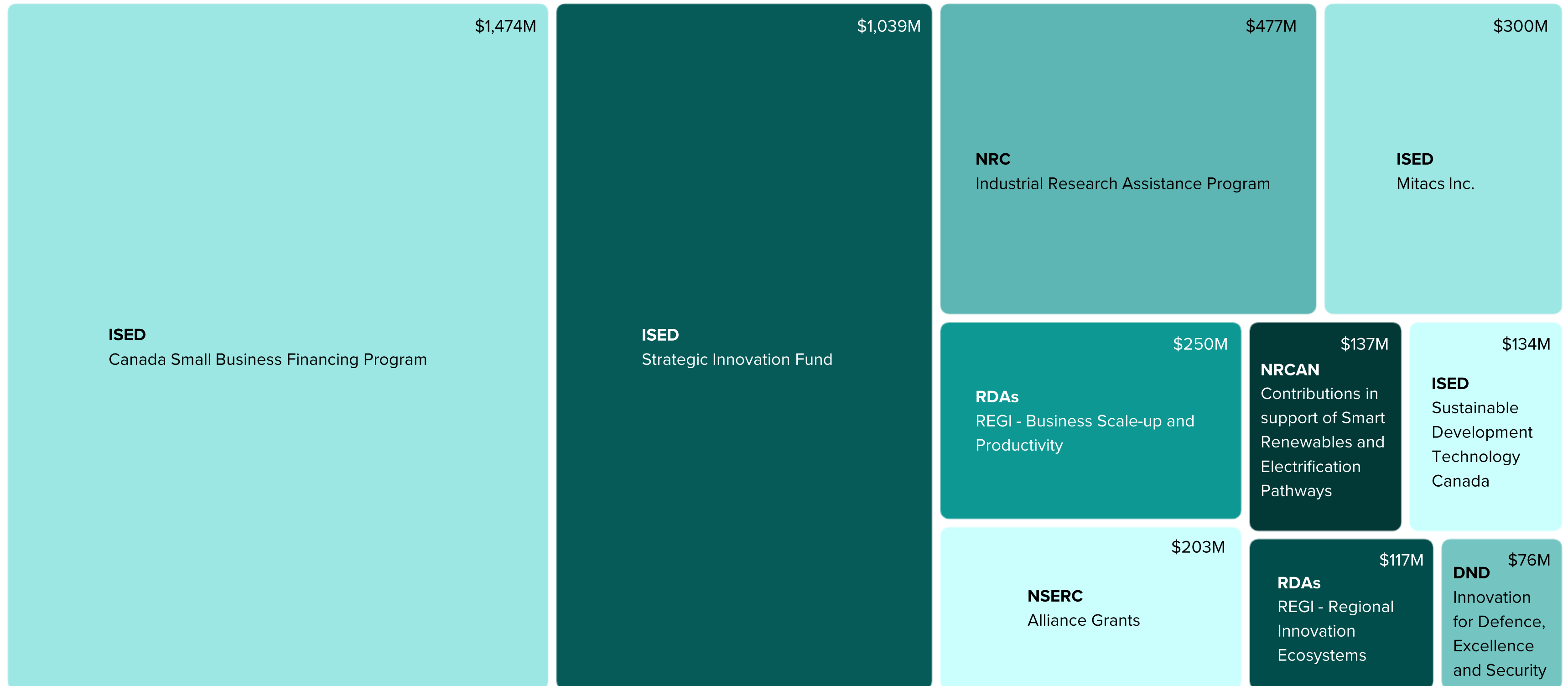
Scope

The **BIGS database** provides valuable **trends** and **insights** about the scope of BIGS programming:



10 Largest BIGS Programs

by Total Value of Subsidies

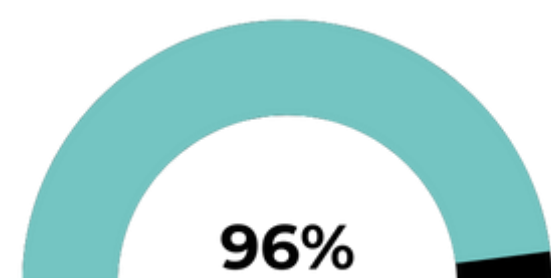


Source: BIGS annual custom tabulations

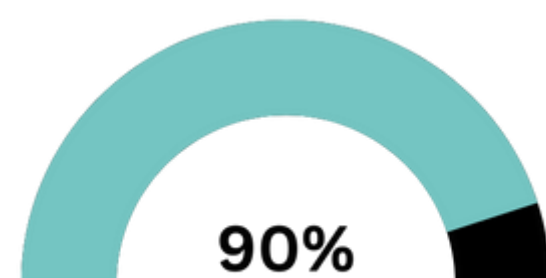
BIGS Beneficiaries

Using the **BIGS database**, we can extrapolate **key measures** of the BIGS program **portfolio** with respect to who received federal funding and services.

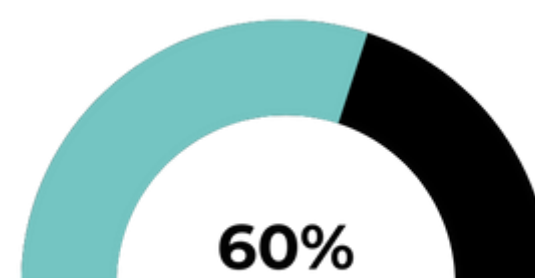
In 2022-23, BIGS ultimate beneficiary enterprises were:



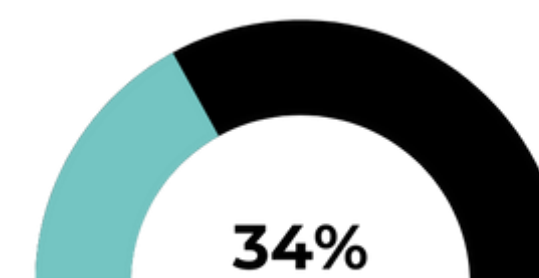
small or medium-sized businesses



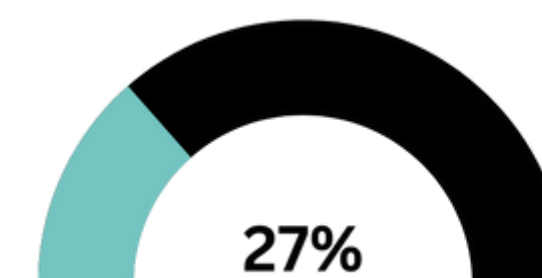
for-profit firms



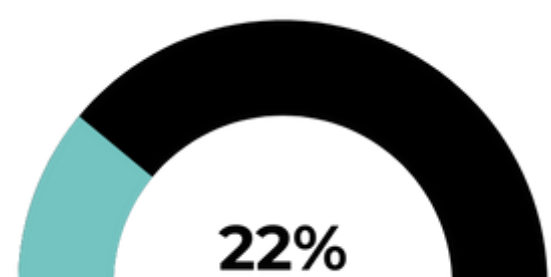
from Quebec and Ontario



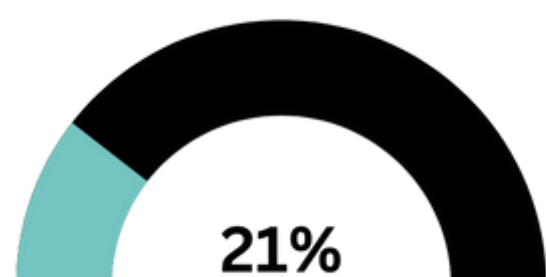
start-ups (five years old or less)



mature firms (more than 20 years old)



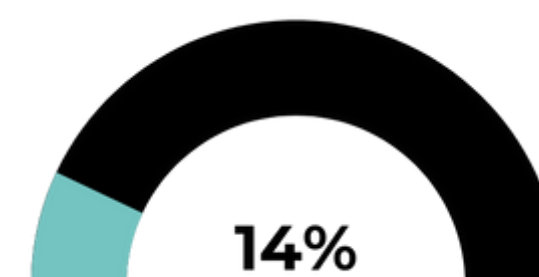
supported by multiple programs



Professional, Scientific & Technical Services



Manufacturing



R&D performers



high-growth (by revenue)

In Progress Impact Analysis

Heterogeneous treatment effect of BIGS programs

This project aims to quantitatively assess the causal impact of BIGS programs on the performance of SMEs to uncover heterogeneous treatment effects that reveal complex relationships between firm characteristics and outcomes.

Causal Forests, Double Machine Learning

2025

2026

Impact of BIGS programs on commercialization and export

This project aims to estimate the impact of BIGS programs on the commercialization and export performances of beneficiary enterprises. It explores which government support mechanisms are most critical for the success of firms involved in commercialization and export.

Propensity Score Matching

Impact of BIGS programs on productivity growth

This project aims to assess whether firms receiving direct innovation support invest more, grow faster, and become more productive than non-recipients. It explores how impacts vary across different programs and support mechanisms.

Propensity Score Matching, Difference-in-differences

Upcoming Impact Analysis

Evaluating the impact of BIGS on enterprise survivability

OBJECTIVE

This research aims to examine the impact of government innovation funding on the survival and success (longevity) of Canadian enterprises. It will compare the probability of survival between firms that receive BIGS support and those that do not, controlling for socio-economic and demographic characteristics.

RATIONALE

This project addresses a critical gap in our understanding of BIGS programs, by examining how they influence the long-term viability of firms: particularly during periods of economic stress. Understanding this relationship is crucial for refining public investment strategies.

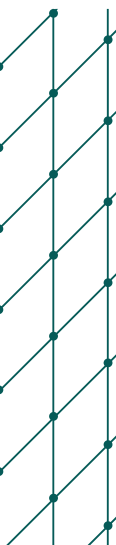
Clustering and ranking Canada's federal innovation support programs

OBJECTIVE

This research aims to develop an evidence-based approach to evaluate BIGS programs. It will cluster BIGS programs into groups with similar goals and delivery models, and then assess the relative performance of the programs within each cluster.

RATIONALE

This project addresses another significant gap in the analysis of BIGS programs: the ability to conduct comparative assessments. It will provide information on the relative effectiveness of similar programs, which can be valuable for horizontal expenditure reviews.





Capacity Building

TBS, in collaboration with key BIGS partners, is developing the fourth iteration of the **Quantitative Impact Assessment (QIA) Workshop**. This event is designed to empower Canadian public servants to leverage quantitative methods for research and analysis.

01. Fundamentals

This session aims to introduce participants to the fundamental concepts of quantitative impact assessment.

02. Cost-Benefit Analysis

This session serves as an introduction to cost-benefit analysis including how to apply it to program evaluation.

03. QIA Methods

This session expands in more detail on quasi-experimental methods such as difference-in-differences and propensity score matching.

04. Selection Models

This session introduces participants to Heckman Selection Models and the Generalized Synthetic Control Method

05. Machine Learning

This session introduces participants to Heterogenous Treatment Effects and explains how to leverage Machine Learning Methods



**January to
February 2026**


Business Innovation Hub

TBS is launching the new **Business Innovation Hub** on GCXchange.


This new hub will serve as a central source of information related to the BIGS initiative. Please note that DSRD has recently published **three (3) impact analyses** which can be found in the *Research and Analysis* section.


To stay up to date on all things BIGS, please join the [Business Innovation Hub \(GCXchange\)](#)


[Home](#) [Communities](#) [Diversity & Inclusion](#) [Support](#) [Accessibility](#) [MSTeams](#)


 **Business Innovation Hub - Hub d'innovation en entreprise** [Access MS Teams](#) UNCLASSIFIED


[Home | Accueil](#) [Join the conversation | Pa...](#) [Contact us | Contactez-n...](#) [Documents](#) [Recycle bin](#) [Edit](#)

 New

 Translation

 Page details

 Preview

 Analytics

Business Innovation Hub

Welcome to the **Business Innovation Hub**, your central source for accurate and relevant information related to federal business innovation and growth support (BIGS) programming. The Business Innovation Hub connects the BIGS community to foster collaboration and knowledge sharing. Here, you'll find policy-relevant articles, reports, datasets, learning opportunities, and more.

[About the BIGS Initiative](#)

Learn about the BIGS initiative, a unique partnership established between TBS and Statistics Canada.


[Explore BIGS Impacts](#)


Discover insights and resources to understand the federal government's efforts in fostering business innovation and growth.

[Access BIGS Data](#)

Examine aggregate statistical tables that capture key characteristics of BIGS programs and beneficiaries.


Research and Analysis

 Add




The Differential Impact of BIGS Programs on Beneficiary Enterprises' R&D Spending


July 29





The Impact of BIGS on Innovation and Intellectual Property Outcomes of Small and Medium-sized Enterprises

Key Resources

 ***COMING SOON*** Business Innovation Hub (open.canada.ca)

 BIGS Inclusion Criteria

 Business Benefits Finder (ISED)

 BIGS Statistical Program (StatCan)

Thank You



dsrd-sdrd@tbs-sct.gc.ca

Data Science, Research and Development Unit

