

**Mitacs**



**2023** Impact report

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# Introduction

Canada's future prosperity will be built on innovation that is driven by connecting the knowledge and talent in our excellent post-secondary institutions to all sectors of the economy. Mitacs builds cooperative innovation internships that are based on challenges identified by industry and community partners. Mitacs uses its proven strength in cooperative innovation to address some of the key challenges facing Canada:

- » Increasing industrial innovation through **strong academic-industry partnerships** that are based on solving business and societal challenges;
- » Creating **better training** for Canadian students through innovation internships and focused **skills-enhancing** opportunities;
- » Expanding **career opportunities** and **creating jobs** for students through strengthened multi-sector innovation;
- » **Attracting** and **retaining** the best talent from Canada and internationally and creating pathways.

Through thousands of innovation internships every year, Mitacs is equipping the next generation with the professional and entrepreneurial skills— through hands-on industry experiences and training—needed for success in an innovative global knowledge economy.

By strengthening connections among innovators across the country, Mitacs aims to increase their collective ability to generate knowledge, commercialize, and compete. Today, Mitacs's innovation network includes thousands of companies, not-for-profit organizations, researchers, and post-secondary institutions from across Canada and around the world.

This report highlights some key outcomes of Mitacs funded projects and the resulting impact on the talented people and innovative firms that have participated. Mitacs interns develop new skills, expand their professional networks, solve real world challenges, and develop a greater interest in R&D and Canada as a place to work and live - all culminating in success in the Canadian labour market. Mitacs partners tap into new sources of knowledge and expertise to solve their business and/or societal challenges, develop new or enhanced products, processes, or services, and expand their innovation networks - culminating in business success and a strengthened culture of collaboration and innovation.




# Mitacs Highlights (2022-23)

For over 20 years, Mitacs has assisted organizations in reaching their business goals, has funded cutting-edge innovation, and has created job opportunities for students and postdoctoral fellows. We are passionate about developing the next generation of researchers who will work to fuel Canada's knowledge-based economy.

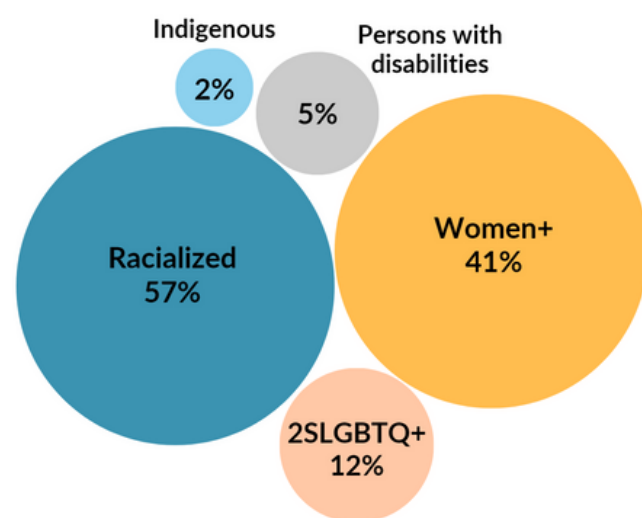
- 21,428** WIL Opportunities delivered for post-secondary students
- 9,880** Interns trained through Mitacs
- 4,785** Partner Organisations (50% new)
- 3,741** Professors (40% new)






## Interns by degree level

-  **37%** College and undergraduate interns
-  **50%** Master's and PhD interns
-  **13%** Postdoctoral interns

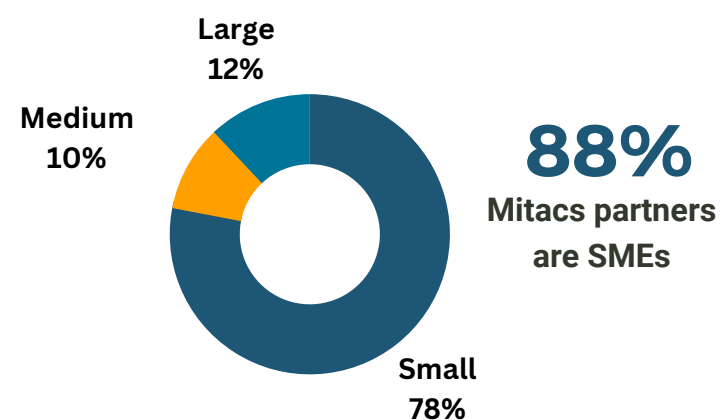
## Diversity of Mitacs interns



## Interns by discipline

-  **78%** Science and engineering
-  **9%** Business
-  **13%** Social sciences, arts, humanities

## Partner organizations





# Talent Development

Mitacs survey insights from 1000+ former interns report significant innovation experience and success in the labour market.

## Career prospects



**83%**  
improved  
career  
prospects

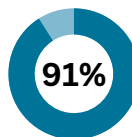


**65%**  
increased  
interest in  
R&D

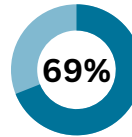


**56%**  
increased  
interest in  
working in  
Canada

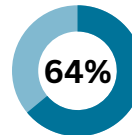
## Working in Canada



**91%** currently working in professional S&T occupations



**69%** of former interns are working in an R&D capacity



**64%** currently working in the private sector

## Knowledge and skills

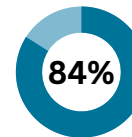


**69%** partners valued the expertise of the intern

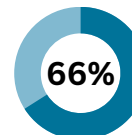


**63%** interns developed enhanced technical skills/professional skills

## Job satisfaction



**84%** satisfied with current position



**66%** job closely related to degree

**Mitacs**



Mitacs internship very important to career

## Career outcomes

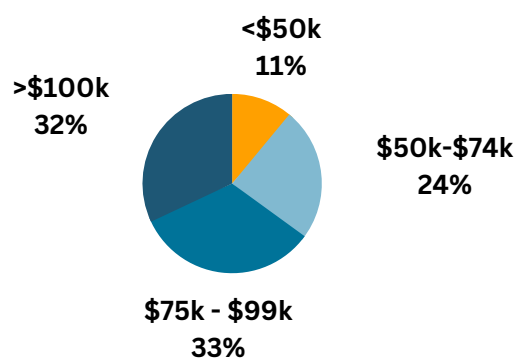


**20%**  
were offered a position by their partner organizations

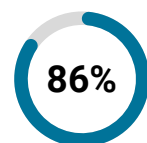


**16%**  
have founded or co-founded a business.

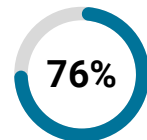
**Former Mitacs interns salaries in Canada**



## Talent retention



**86%** former Canadian Mitacs interns are working in Canada



**76%** former Mitacs international interns working in Canada



**20-30% higher**

Mitacs international student retention compared to the population

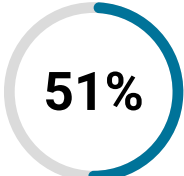
# Advancing Innovation

Mitacs survey insights from 500+ industry partners report significant research, commercialization and societal outcomes.

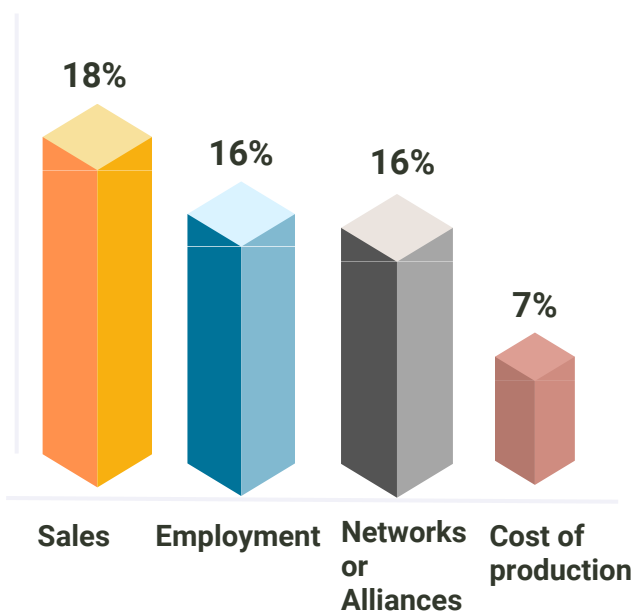
## Research advancements

-  **70%** partners very satisfied with the research conducted
-  **58%** partners report research problem was solved to a great extent
-  **48%** partners reported additional R&D investments post Mitacs project
-  **39%** developed new or enhanced products, processes or services






## Commercialization

 **51%** of partners have commercialized or anticipate commercializing the results of their Mitacs project.


### Impact on Organizational Outcomes



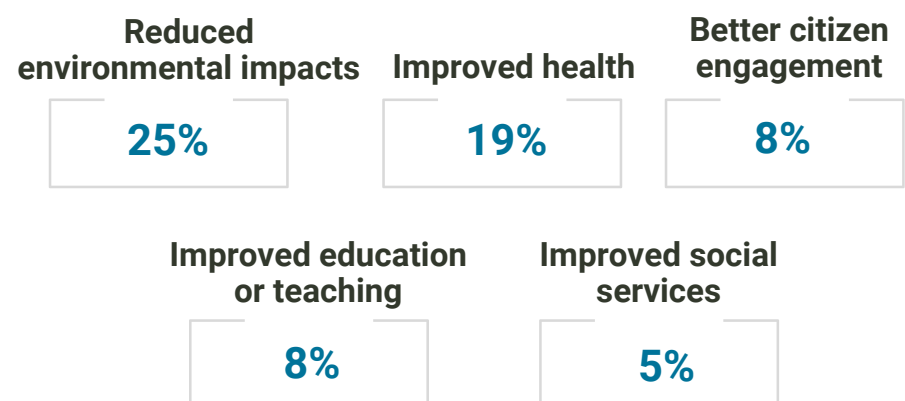
## Continued Collaboration

-  **81%** of professors willing to collaborate with industry in the future
-  **66%** of partners continued to collaborate with the initial professor(s).
-  **75%** of partners collaborated on R&D projects with academia.
-  **68%** partners continued the research after the completion of their project.
-  **48%** partners indicated their research capabilities improved as a result of the collaboration.

## Societal outcomes

 **52%** of partners applied or plan to apply the results of their Mitacs project to address a societal problem

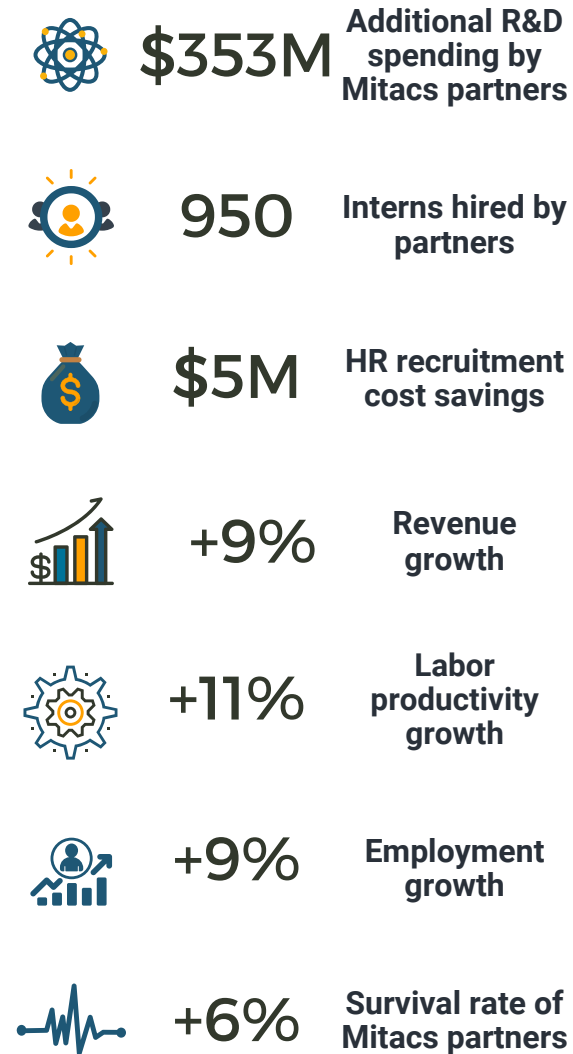
### Types of societal problems addressed



# Mitacs Economic Impact

We estimate that Mitacs generates the following economic impacts based on 2022-23 support.

## Industry Impact



## Talent Impact

### Earnings



### Research



### Retention



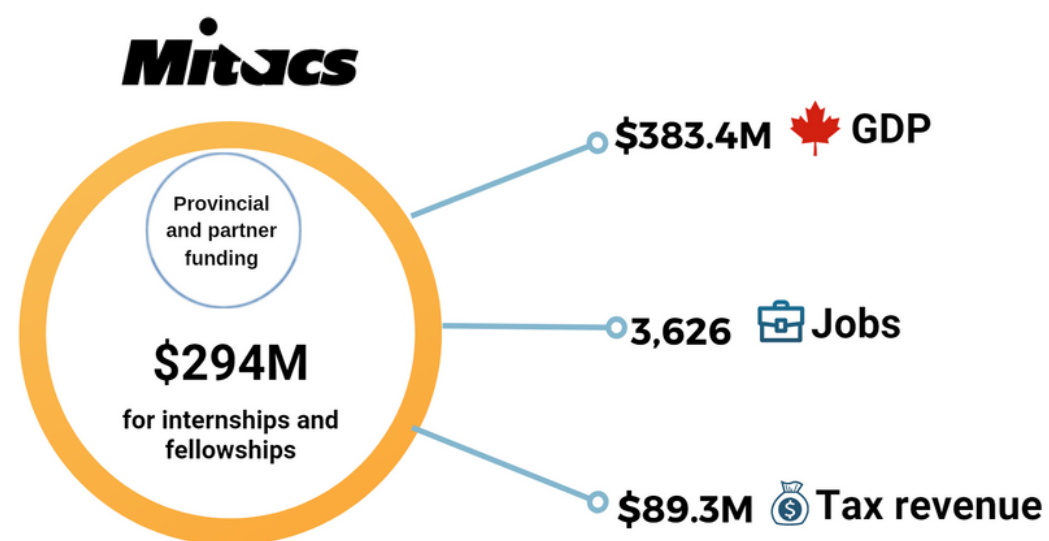
### Entrepreneurship



### Attraction



## Mitacs Spending Impact



# Notes for Economic Impact Estimates

## Talent Impact

**Earnings:** A work integrated learning (WIL) experience benefits the individual in many ways, of which wages is one of the more easily measured and quantifiable. Previous Mitacs work using National Graduate Survey data collected by Statistics Canada concluded that a paid WIL internship resulted in a **9% increase in earnings** compared to students that did not undertake an internship at the master's or doctoral level. Applying this premium to Mitacs student support numbers in 2022-23, the occupation distribution of former interns traced and working in Canada, and data from the 2021 Census (Statistics Canada Table 98-10-0412-01) on average employment income statistics by occupation, major field of study and highest level of education results in an estimate of the additional wages earned resulting from a Mitacs internship.

**Research Employment:** Mitacs internships increase the interest of students in a career in R&D. A significant percentage of Mitacs interns at the master's (38%) and doctoral (36%) levels are employed in R&D in the private sector. After factoring in retention of students in Canada and only including those interns that stated their internship was very important to their career, approximately **11% of Mitacs interns are working in R&D in the private sector in Canada** than otherwise would be expected. Based on 2022-23 levels of Accelerate and Elevate program support, the wages of these additional R&D personnel are calculated.

**Attraction:** Mitacs' Globalink programs help attract new students to Canada. Mitacs' Globalink Graduate Fellowship (GGF) program offers students one year of scholarship support to come to Canada to pursue a postgraduate degree. Once in Canada, these students tend to stay for on average three years and continue spending in Canada. In addition, **a significant proportion (78%) of former GGF fellows stay in Canada to work**. The earnings of these fellows are incremental to the Canadian economy since survey results indicate that very few of these fellows would have found themselves working in Canada without their Mitacs internships.

**Retention:** Former Mitacs interns tend to stay in Canada at very high rates – domestic students (86%) and international students (76%). Special tabulations purchased from Statistics Canada linking their postsecondary student information file with their tax file provided a comparison of the retention rates for all Canadian domestic and international students. **The retention of Mitacs international students was especially significantly greater (20-30%) than that of equivalent non-Mitacs students.** After factoring in the importance of the Mitacs internship in their decision to remain in Canada, the net effect on retention is: international master's students (+16%), international doctoral students (+19%), domestic master's student's (+3%) and domestic doctoral students (+6%). Based on 2022-23 Mitacs student support levels and Statistic's Canada 2021 Census data on income, an estimate of the additional wages earned by those students retained in Canada above expected levels is calculated. Retention for college and undergraduate students is not included in the calculation.

**Entrepreneurship:** After their collaborative innovation projects many former **Mitacs interns become entrepreneurs (16%)**. At the time of a follow-up longitudinal survey a smaller percentage of these entrepreneurs are still operating a business, but with a fairly significant number of employees. Using the percentage of 2022-23 Mitacs interns that will go on to operating a successful business results in higher employment in Canada and the associated wages of those employed (wages estimated to the Canadian average from Statistic Canada Table 14-10-0340-01 Employee wages by occupation).



## Industry Impact

**Additional R&D Spending:** Nearly one-half of partners continue their Mitacs project after the completion of their original Mitacs internship project, spending on average **more than \$300k per year**. In addition, more than one-third of former Mitacs partners also indicate a general increase in R&D spending. The additional spending on research and the research employment wages included under the talent stream can overlap and some amount of unknown double counting can occur.

**Interns hired:** Partners often offer employment to interns at the conclusion of the project. From Mitacs exit survey data and based on 2022-23 support levels it is estimated that nearly **1,000 interns annually** through the Accelerate, Elevate, and Business Strategy Internship programs will secure employment with their partners immediately post award.

**HR Recruitment Cost Savings:** The ability of partners to assess interns during the project allows them to find new employees without going through the traditional hiring process and thereby avoiding the associated costs. The typical HR related costs in hiring a new recruit is estimated to be **\$5,000** (Society for Human Resources).

**Partner growth and survival rates:** Study designed in collaboration with Statistics Canada to assess the performance of businesses that received support from Mitacs (2008-18) and compared their outcomes to a comparable control group of firms. This study analyzed the performances of **SMEs only (employees < 500)**. Analysis performed with a sample size of 3286 firms using Difference in Difference, growth rate and regression analysis between treatment and control group using the Linkable File Environment (LFE) of Statistics Canada with Propensity Score Matching. **Growth rates are calculated as average of three years impact data after Mitacs support and represent the performance of Mitacs partners only.**

The survival rates of Mitacs partners in comparison to Control group of Non-Mitacs enterprises is calculated on the basis of average comparison **seven years after creation.**

## Mitacs Spending Impact

**Deloitte Study:** This study quantifies static economic impacts using data from Mitacs and Statistics Canada. The Mitacs data provided the levels of funding activities that occurred (i.e., paid) in **FY22/23 for Accelerate , Elevate and BSI programs**. These activities generate static economic contributions. The spending directly generates salaries and benefits, business operational expenditures to support student interns, and tax revenues. Indirectly, there are expenditures by an array of firms within the supply chain. There is also a portion of the salaries and benefits paid that cycles back to the economy in the form of household spending.

This footprint of economic activity accounts for the direct, indirect, and induced economic impacts of Mitacs programming (refer to graphic above). Importantly, these contributions are not only reflected as expenditures. This study quantifies the impacts in terms of GDP, labour income, employment, and government tax revenues. Statistics Canada data provided the basis of our input-output model. Input-output modelling is a standard approach in economic impact analysis that can be used to quantify direct, indirect, and induced economic impacts. As a limitation, this methodology estimates the gross impacts of Mitacs programming (i.e., not necessarily net-new).

Thanks to our funding partners..