



# Mitacs and Canada's Colleges

**Driving economic growth through collaboration and preparing career-ready graduates across Canada's colleges, CEGEPs, institutes and polytechnics.**





## MESSAGE FROM OUR CEO

Partnerships are at the heart of the Mitacs success story. On a daily basis, we experience outstanding collaborations with our highly valued partners, including over 100 colleges, CEGEPS, institutes and polytechnics across Canada.

Our first *Mitacs and Canada's Colleges* publication is part of our commitment to keeping this growing community informed, empowered, and connected as we deepen our collaborative work.

Mitacs-supported internships can help amplify colleges' crucial, multi-faceted roles in their communities and surrounding regions. For example, through meaningful internships for Indigenous students and partner organizations, we successfully support the long and proven track record of engagement, collaboration, and innovation between colleges, local communities, and Indigenous peoples.

Working together, we demonstrate the importance of applied research to innovation as the pathway to safer cities, better healthcare, improved products, cleaner environment, sustainable economic growth, and social progress.

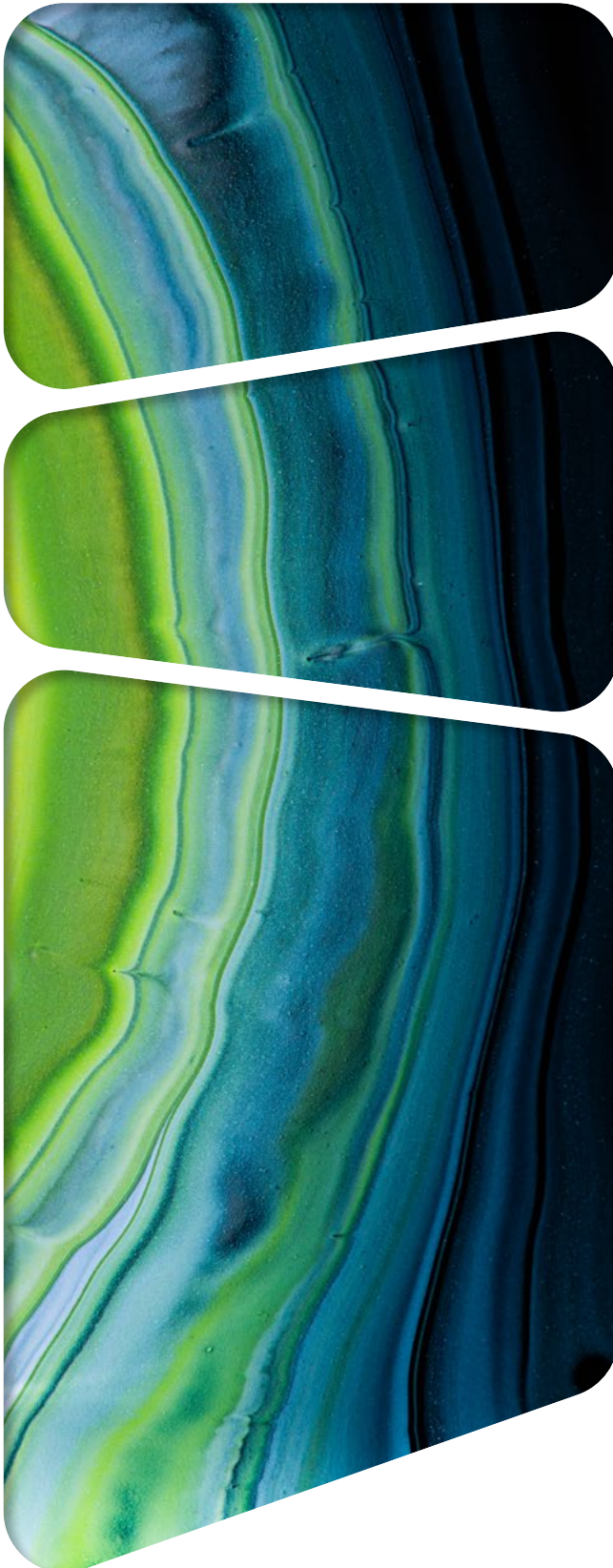
As small- and medium-size businesses navigate technology adoption — a vital component of innovation and contributor to productivity — our programs build upon college expertise in state-of-the-art equipment and applied research. They are also a significant driver of career-readiness, with 97 percent of students feeling their Mitacs internship improved their professional skills.

We are proud to have created more than 1,200 Mitacs internships together since 2018, when Mitacs first began working with colleges, CEGEPs, institutes and polytechnics across Canada. Building on our successful collaborations will enable us to expand the reach of applied research in addressing the most pressing challenges facing our country.

Within the next pages, you'll learn about our college journey, the step-by-step process of a typical Mitacs-college partnership, and the breadth of programs available to this community.

We hope you enjoy this publication. Thank you for your collaboration and continued support of Mitacs.

**Dr. John Hepburn, CEO Mitacs**



## Vision

Canadian innovation will create change that transforms the world.

## Purpose

Empower Canadian innovation through partnerships that deliver solutions to our most pressing problems.  
Drive economic growth, productivity, and meaningful change to improve quality of life for all Canadians.

## Mission

Mitacs is a catalyzing force in the Canadian innovation ecosystem. We will build a world-class diverse community of innovators through our collaborative model, attracting and deploying top talent to industry and social organizations and matching need with expertise to create ambitious solutions to real-world challenges.





# Strategic Plan

In consultation **with our staff and key stakeholders**, we have considered our goals and objectives for future success and explored new possibilities for the role Mitacs will play in driving industrial and social innovation.

The result is a vision of Mitacs **working to build a stronger, more inclusive innovation ecosystem** through student internships, partnerships, and networks.

Our success will be **built by fostering and supporting partnerships** between academic institutions, industry, and social organizations.

**Our strategic plan lays out an ambitious future** for Mitacs with the overarching goal of helping create a better Canada and transform the world. **To learn more**, access [mitacs.ca/about/strategic-plan](https://mitacs.ca/about/strategic-plan).



## Our commitment to innovation

**Strengthening the innovation ecosystem** by mobilizing knowledge and networking globally.

**Fostering talent through innovation partnerships** and increasing opportunities for the next generation.

**Advancing a continuum of innovation** from inception to commercialization to adoption.

**Promoting indigenous innovation and co-creation** by reducing barriers and respecting traditional knowledge.

**Driving inclusive innovation by design** through sustainable pathways for underrepresented groups.

**Empowering organizational innovation** with a values-driven culture that inspires creativity and potential.



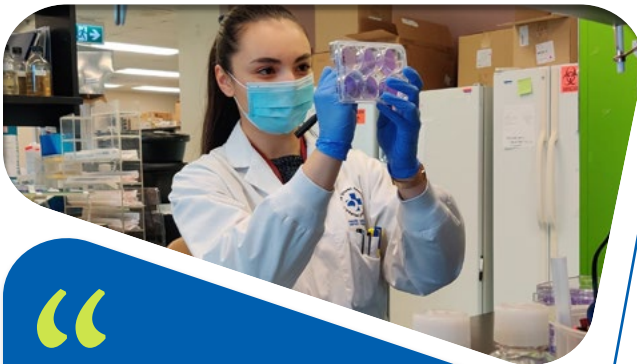


## Mitacs — an evolution to meet the needs of Canada's innovation ecosystem

Founded in 1999, Mitacs has grown far beyond our original focus on applied and industrial research in mathematics. Today, we support a **wide range of disciplines**, from STEM to social innovation.

We have broadened our undertaking to include college and undergraduate students, as well as new graduates and postdocs, and expanded our **network of external partners** to include not only businesses, but also hospitals, municipalities, and not-for-profit organizations of all sizes and in all sectors.

With regional hubs in Vancouver, Montréal, Ottawa, and Toronto, and **over 100 Mitacs advisors** based in more than **45 locations** nationwide — including rural and northern regions — we are an integral part of Canada's innovation ecosystem.



“

The opportunity to contribute to projects and immerse myself in the dynamic environment has not only deepened my understanding but has also significantly enriched my professional growth in the exciting and evolving field of cancer immunotherapy.

— Seda Kilic, Biotechnology student at Algonquin College

### SUCCESS STORY

#### Working with hospital and industry partners to find new cures for cancer

Over 50 Mitacs interns and postdocs from Algonquin College and the University of Ottawa worked with The Ottawa Hospital's Biotherapeutics Manufacturing Centre on vaccines and cures for cancer. Including several industry partners, the collaboration is part of the Canadian Partnership for Research in Immunotherapy Manufacturing Excellence (CanPRIME), which develops highly skilled workers and creates job opportunities, positioning Canada as a leader in drug therapy manufacturing. The program's success prompts a national expansion, adding seven new sites and training another 86 students.

PROGRAM: ACCELERATE



Through partnerships with postsecondary institutions and businesses, Mitacs empowers Canadian innovation and helps solve pressing problems. By driving economic growth and productivity, these collaborations improve quality of life for all Canadians.

## Mitacs engagement—by the numbers:

Mitacs collaborates with 109 college, CEGEP, institute and polytechnic partners (and growing).

We nurture start-ups through partnerships with more than 150 accelerators and incubators.

Over 10,000 small- and mid-sized enterprises partners across Canada since 2008.

Over 100,000 internships since 2008.

We're well connected through MOUs with 70 partners across the innovation ecosystem, including other funding agencies such as NSERC, SSHRC, CIHR, and Genome Canada; and economic development agencies.

Interns and fellows hosted at over 13,000 private sector and not-for-profit organizations since 2008.

1.3 billion invested in collaborative research since 2010.



# How we work

Mitacs offers a simple and efficient pathway to partnerships. We make it easy and fast to move from idea to application to funding.



**The match:** a student, a college supervisor, and a partner organization develop an applied research or innovation project.



**The proposal:** applicants submit a proposal supported by a Mitacs representative.



**The project:** up to \$15K per 4–6 month internship.

# Timeline







## SUCCESS STORY

### Advancing social, economic wellbeing through community internships

Selkirk College, in southern BC, built a network of Mitacs-funded internships with nine community partners to advance social and economic wellbeing in its rural region. In areas from conservation to culture, Selkirk students undertook research to address pressing local challenges. For example, working with the Kootenay Rockies Tourism Association, one intern identified and explored the drivers and risks, models, and opportunities of cannabis tourism within the Kootenay Rockies Region.

**PROGRAM:** ACCELERATE



“

This project used a content analysis to develop materials for an event to gather feedback from stakeholders. It gave the student an opportunity for work-integrated learning and networking, while creating locally specific knowledge.

– Tracey Harvey, Faculty Researcher, Selkirk College





# Mitacs and the college community

Mitacs understands that **colleges\*** **act as innovation intermediaries** for organizations of all sizes and from all industrial and social sectors. As innovation partners, they provide support in diverse areas, contributing to company growth and helping to solve on-the-ground challenges in their communities.

## Benefits of applied research partnerships to students

A key feature of applied-research partnerships offered through Canadian colleges and polytechnics is **helping students develop the skills they need** to drive innovation throughout their careers. Having worked **hand-in-hand with cutting-edge employers**, these experiences enable students to become the next generation of innovators, while businesses get solutions to their challenges and develop new products.

Whether it is testing out new, more energy efficient technologies, or facilitating the sustainability and expansion of a local business or developing new machinery to improve manufacturing processes, **students gain valuable experience** at the same time that they help **organizations grow and innovate**.

\*'Colleges' refers to all institutions within the college ecosystem in Canada, including CEGEPs, institutes and polytechnics.



## SUCCESS STORY

### Helping airport embrace technological innovations

The Greater Toronto Airports Authority (GTAA) turned to George Brown College (GBC) to implement innovative technological solutions as it copes with growing travel demand. GTAA worked with GBC faculty, students, and graduates to create 3D models of Terminals 1 and 3 interiors using Building Information Models technology tools and processes. A first-of-its-kind in Canada, this project will provide GTAA with more accurate and efficient design studies to support both its future planning and a better experience for air travellers at the country's busiest airport.

**PROGRAM:** BUSINESS STRATEGY INTERNSHIP (BSI)



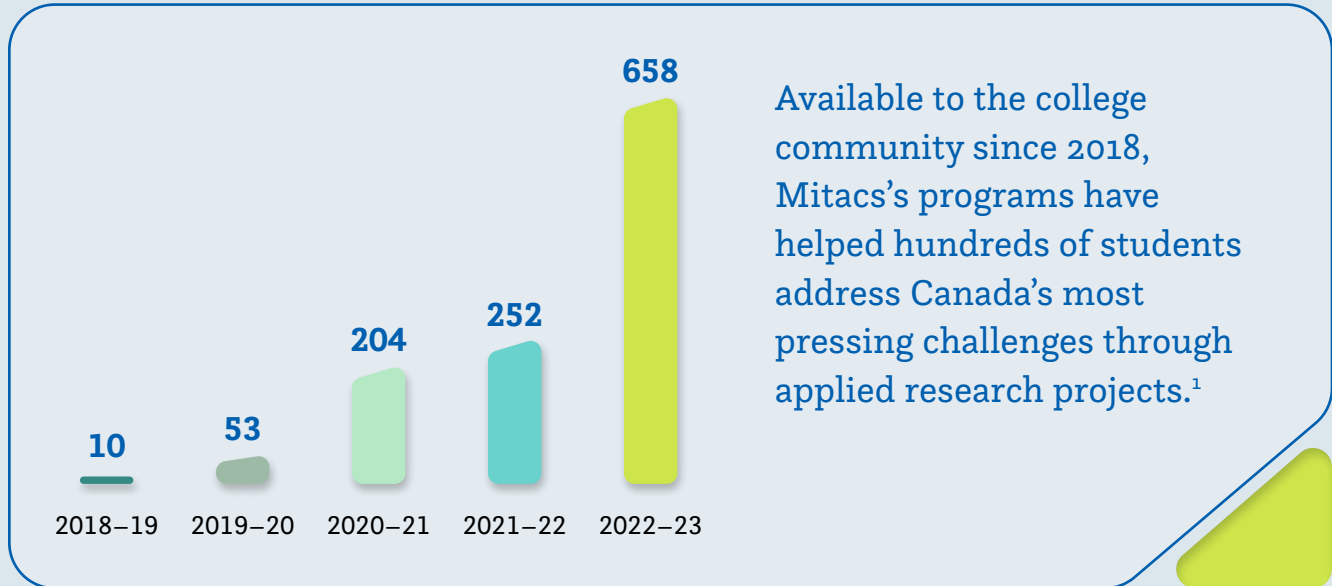
The Mitacs program allowed us to hire students to help GTAA [embrace] technological innovation [and] it was a meaningful working and learning experience for interns.

– Elmira Nezami Far, Professor,  
George Brown College

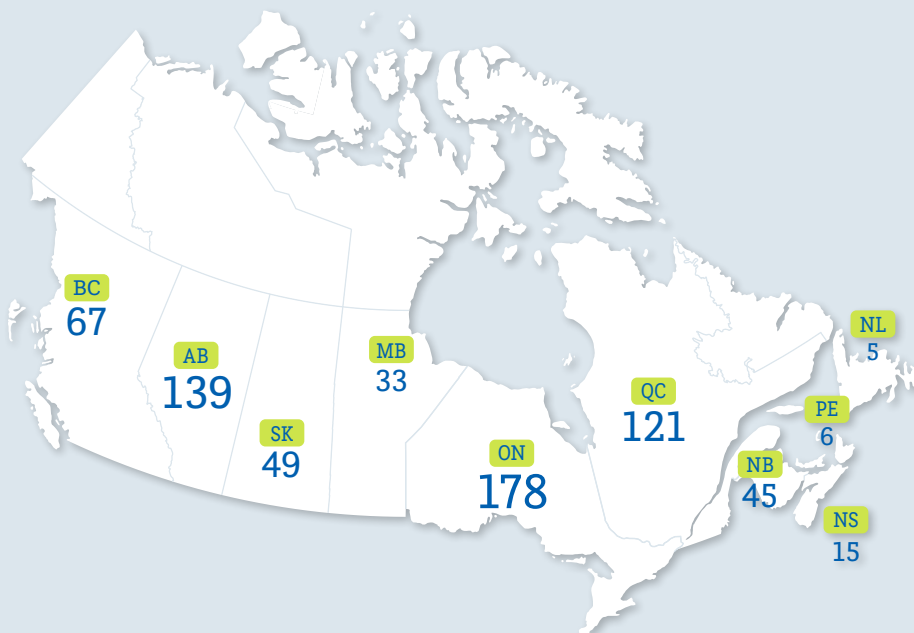


# At a glance—Mitacs college activity

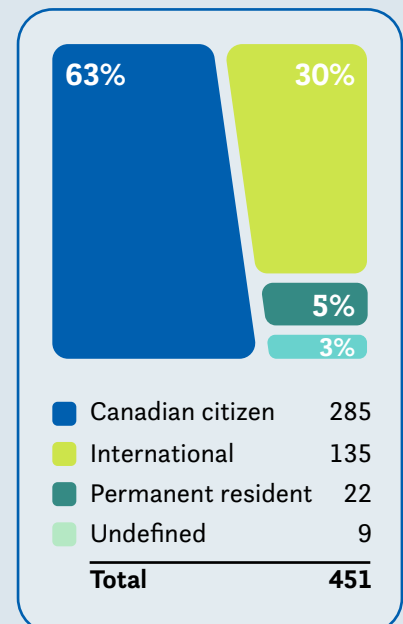
## Delivery of internship units (IUs)



## Delivery of IUs by province (2022-23)



## Status of unique interns (2022-23)<sup>2</sup>



1. One project may be comprised of several internship units and can include either one or multiple unique interns.

2. Refers to the number of unique interns participating. Please note a unique intern may undertake multiple internship units.



## Addressing community, provincial, territorial, and federal priorities

Colleges work across a broad cross-section of areas that are important to the federal, provincial, and territorial governments, as well as the local community.

Mitacs-supported projects impact each of these categories and demonstrate a nimbleness in responding to emerging priorities.

For example, the top five sectors for Mitacs projects taking place in colleges in 2022–23 were:<sup>3</sup>

Sector	IUs
Informational and Communications Technology	253
Technology	236
Sustainability and the Environment	100
Agriculture and Food	99
Artificial Intelligence	94

Additional sectors which have seen high levels of Mitacs–college partnerships include: Education, Forestry, and Health and Related Sciences.

3. Sectors as indicated by applicant(s).



### Advancing 5G innovation and connecting to next-gen talent

A partnership between Dawson College and Ciena Canada has Mitacs interns helping revolutionize network dynamics, showcasing transformative impact on students skills and real-world applications. Relying on ENCQOR — the pioneering 5G network supported by the governments of Quebec, Ontario, and Canada — the collaboration aims to develop a next-generation network for superior quality mobile service. The project holds immense potential to drive innovation and enhance the quality of life for Canadians.

**PROGRAM: ACCELERATE**



This initiative required a multitude of disciplines, such as AI, networking, and user interface design. It was complex and we needed creative software programmers, so we turned to Mitacs. The students had a catalytic effect on the project.

– Sergio Slobodrian, Senior Director,  
Advanced Architectures, Ciena Canada



## SUCCESS STORY



## Students work to improve public services in Trois-Rivières

The City of Trois-Rivières is working with the Cégep de Trois-Rivières to improve municipal services for its population of over 140,000. With the help of students from the computer science program, the effort focuses on various projects linked to the sustainable development planning, land analysis and information technology departments. This work will result in tools adapted to the city's operations, which address key environmental challenges and have a direct impact on society.

**PROGRAM: BUSINESS  
STRATEGY INTERNSHIP (BSI)**

“

We are working on a number of innovation initiatives that would be impossible without the additional capacity provided by Mitacs interns. The project creates value for city staff and citizens alike.

– Nicolas Fréchette, Information Technology  
Coordinator, City of Trois-Rivières

## Did you know?

1

Since 2018, **over 800 college, CEGEP, institute and polytechnic students** have participated in Mitacs programs.

2

**Joint projects with college and university students** increase system interconnectivity and bring **different perspectives** to tackle challenges.

3

**International students** enrolled at Canadian colleges **are eligible to participate** in Mitacs's internships.

4

An intern's **industry interaction on a project can include** time spent at a Technology Access Centre (TAC) working with company staff.

5

**Recent college, CEGEP, institute and polytechnic graduates**, up to two years out, are eligible to participate in Mitacs programs.

6

Eligible external partners include **municipalities, hospitals, and not-for-profits.**





# Mitacs college projects by the numbers<sup>4</sup>

## College students' perspectives

**89%** were somewhat satisfied or very satisfied with their Mitacs program experience.

**82%** decided to participate in the programs to develop new skills.

**92%** would recommend the program to other students.

**97%** felt that they somewhat improved or significantly improved their professional skills.

## Labour Market

**One in three** students was offered a job by the partner organization and 88% of them accepted the offer.



## Benefits for the partners<sup>5</sup>

**85% of partners** would recommend the Mitacs program to other organizations.

Nearly **two-thirds** of organizations found that results from the Mitacs-supported project would enable the development of a new product, process, or service.

**Over half** of organizations enhanced a product, process, or service as a result of their Mitacs-supported project.

**One-third** of organizations realized cost savings and/or improved productivity for an existing product.

4. Source: applied research projects' exit survey, 2020–23

5. Source: college partners exit survey, 2020–23



## SUCCESS STORY

### Using gaming to change behaviour and make roads safer

Based in St. Albert, Alberta, Medidas Digital developed TrypScore, a mobile app that gathers and analyzes driver risk data and uses challenges, leaderboards and incentives to nudge behavioural improvements. Through Mitacs, the start-up brought on students from the **Northern Alberta Institute of Technology** to help leverage their rich data and create business intelligence dashboards to offer to partners in exchange for advertising spends and user-earned rewards.

**PROGRAM:** BUSINESS  
STRATEGY INTERNSHIP (BSI)



“

Our dashboards are coming to life because of these interns. They're helping us accelerate important projects to move up the timeline for releasing features and products ahead of schedule.

– Bill Bland, CEO and Founder,  
Medidas Digital



## Analyzing watershed health to build a more resilient city

The City of Charlottetown, PEI, has partnered with Holland College to study the water quality and biodiversity of local watersheds. While data has been collected for over five years, analysis of trends over time had never been done — meaning the municipality and its partners were missing key information for critical management and planning. A Mitacs intern has analyzed this information and provided recommendations for the city to enhance the biodiversity and ecological health of the life in its watershed.

“

Without a dedicated person with the right background, this project likely would have not been completed to the same degree. The results will provide valuable insights into the health of Charlottetown's watersheds and the impact of development on them.

— Alistair Ozon, Water Coordinator,  
City of Charlottetown

## Municipalities and hospitals

Mitacs knows how closely connected colleges are to their communities. In 2020, Mitacs expanded research and innovation partnership opportunities to include both municipalities and hospitals in Canada, where technically innovative and socially impactful solutions can be pursued.

Through Mitacs programming, college students and postdocs can apply their training and skills to help municipalities and hospitals address a broad range of challenges. Projects receive a \$10,000 or \$15,000 award, which include a \$5,000 or \$7,500 contribution from the municipal or hospital partner.





## Opportunities for Indigenous projects

Colleges are the primary access point to postsecondary education for First Nations, Inuit, and Métis learners, with more than 300 credential programs tailored to Indigenous learners and communities. Mitacs has taken meaningful steps to increase Indigenous participation in its programming. Mitacs offers several inclusive innovation initiatives, including **Indigenous Pathways** and **our Inclusive Innovation Action Plan**.



### Growing Indigenous skincare company's sales through online presence

When Indigenous-owned Maskwiomin — a start-up that produces a birch bark extract skincare product based on traditional Mi'kmaq teachings — needed assistance with marketing, it found a solution through Mitacs. They partnered with the Applied Media and Communication Arts program at Nova Scotia Community College's Marconi campus in Cape Breton, NS, to hire an intern, who helped drive product recognition and sales by using skills learned in the classroom to develop creative content for social media and print.



“

The Mitacs project helped us ... to make Maskwiomin not only known in Canada but worldwide and to celebrate the traditional knowledge of the Mi'kmaq people.

— Matthias Bierenstiel, CEO and co-founder of Maskwiomin





# College Program Offerings

Mitacs continually explores ways to further awareness and strategic engagement, and we strive to support postsecondary institutions to maximize the value of their partnerships.

Please find an overview of our programming available to colleges outlined on the following pages:

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## Deepening collaboration with Mitacs

Our Mitacs Advisors work to connect innovative researchers with industry and community partners and help build collaborations to address pressing challenges. In growing your engagement with Mitacs, consider:

- **Liaising with your Mitacs Advisor** to learn more about Mitacs's offerings and consider ways to further engagement on campus
- **Encouraging research centres**, faculty members, and staff to access **Mitacs Open Projects\*** to connect with new industry and community partner
- **Identifying faculty members** with Mitacs experience to act as ambassadors for new faculty
- **Partnering with Mitacs Advisors** and our Academic Partnerships team to address challenges and explore opportunities

## Mitacs programs for colleges, CEGEPs, institutes, and polytechnics

We connect students with the world of innovation. Our post-program data shows that the internships boost students' research and employment skills. Through Mitacs-supported projects in areas across STEM and social science disciplines, students, and postdoctoral fellows help solve real-world challenges.



\* [mitacs.ca/open-projects-projets-ouverts](https://mitacs.ca/open-projects-projets-ouverts)



# Accelerate

Mitacs Accelerate pairs businesses, not-for-profit organizations, hospitals, and municipalities with postsecondary interns to overcome challenges.

These research internships increase the employability of postsecondary students while solving problems.



## ACCELERATE QUICK FACTS

- Applications accepted **year-round**. Available to full-time and part-time students and recent graduates (up to two years out).
- Canadian citizens, permanent residents, and international students are **all eligible**.
- Internships **start at four months and scale up** as needed.
- College students can undertake **up to three 4–6 month internships**.
- Student and their college supervisor **must identify a non-academic partner** organization.
- Intern must spend an **agreed portion of the internship** directly interacting with the non-academic partner.
- Project management expenses can account for **up to 10 percent** of the partner's cash contribution.
- **College supervisors** may be either a faculty member or designated staff.
- Eligible partner organizations' financial contribution **starts at \$7,500** per internship.
- **Colleges receive** a \$15,000 award, of which:
  - **A minimum of \$10,000** must be stipend for the intern.
  - The **remaining portion** can be used to increase the stipend for the intern and/or for research expenses.
- Faculty teaching release is an **eligible research expense** for Mitacs's college partners.



# Business Strategy Internship (BSI)

BSI has the same structure as Accelerate, however these projects are focused on enabling an organization to focus talent on enhancing an existing product or business.

With the guidance of a postsecondary supervisor, interns provide technical expertise on everything from operations and finance to marketing, intellectual property, and more. They help businesses develop and implement their innovation roadmap and, ultimately, thrive.



## BSI QUICK FACTS

- **Partners can be** businesses, not-for-profit organizations, hospitals or municipalities.
- **Funded internships support** partner innovation activities, including improved products, processes or services (e.g., streamlining processes, commercializing technology, developing new business models, improving public services or addressing social or environmental issues).
- **Mitacs funding** is \$10,000 or \$15,000 per student per four-month project; partner contribution is \$5,000 or \$7,500.
- **At the \$15,000 level**, up to \$5,000 can be used to support project costs.
- **Faculty teaching release** is an eligible expense.
- **Program available to:** full-time and part-time students, postdoctoral fellows, as well as recent graduates (up to two years out).





## Elevate

Our Elevate program builds research partnerships through one- or two-year research projects for postdoctoral fellows with industry and community partners.

This includes projects led by a college, CEGEP or polytechnic. Elevate provides access to customized training and competitive funding for talented research leaders.



### ELEVATE QUICK FACTS

- **Fellows can access our professional skills curriculum** to augment their research training and prepare for careers outside academia.
- **Fellows divide their time between** their partner organization's project and postsecondary institution-based research.
- **Mitacs provides an award valued** at \$60,000 per year with a minimum stipend of \$55,000.
- **Partner organization contributes** \$30,000 per year towards the award.



## Training

Mitacs provides a range of training courses at no charge for students and postdoctoral fellows to complement their education and research experience with the competencies needed for career success. Courses run year-round with a fully updated curriculum available online.



### TRAINING QUICK FACTS

- **Training courses surround eight unique bundles**, each consisting of an online, self-paced course and its corresponding instructor-led sessions.
- **Course bundle themes include:** networking skills; project and time management; reconciliation; equity, diversity, and inclusion; communication skills; career planning; R&D management; leadership skills; and writing and presentation skills.



# Indigenous Pathways

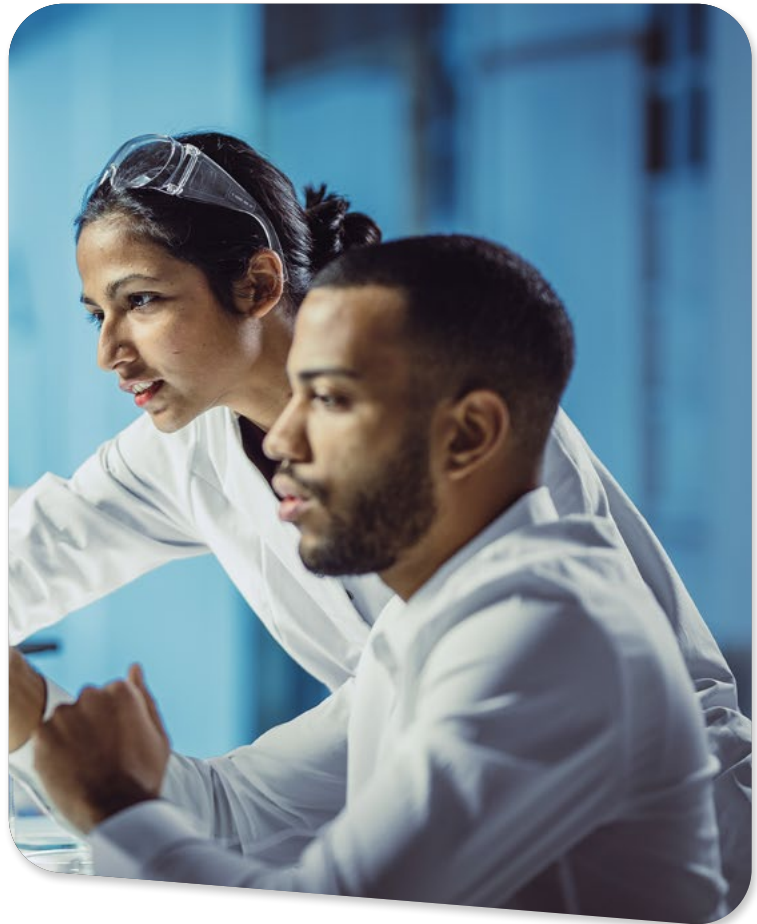
With at least one college campus located within 50 kilometres of most Indigenous communities in Canada, we encourage college partners to explore Mitacs's Indigenous Pathways offering.

The initiative is **dedicated to fostering Indigenous innovation and mobilizing Indigenous knowledge** to create transformational impact as part of our commitment to reconciliation. Mitacs will **fund 75 percent of project costs** for Accelerate and BSI internships with partner organizations that are at least **50 percent Indigenous-owned** or where the project is **carried out by Indigenous intern(s)**:

- **Professors** build research partnerships while funding students
- **Students** gain hands-on professional training while creating meaningful impact
- **Indigenous partners** find the right academic talent to achieve their innovation goals

Applied research projects at Mitacs involving Indigenous communities are guided by the principle of '**Nothing about us without us**,' meaning projects must have the full and direct participation of members of the community impacted by the work.





## NSERC-ARD grants

The Mitacs NSERC-ARD collaboration supports research projects that seek to respond to a diverse range of research challenges across all disciplines and sectors.

When applying to NSERC-CCI's Applied Research and Development (ARD) grant and the NSERC College and Community Social Innovation Fund (CCSIF), applicants can apply for additional support through Accelerate internships as a component of the training for highly qualified personnel through a single application submission and review process.





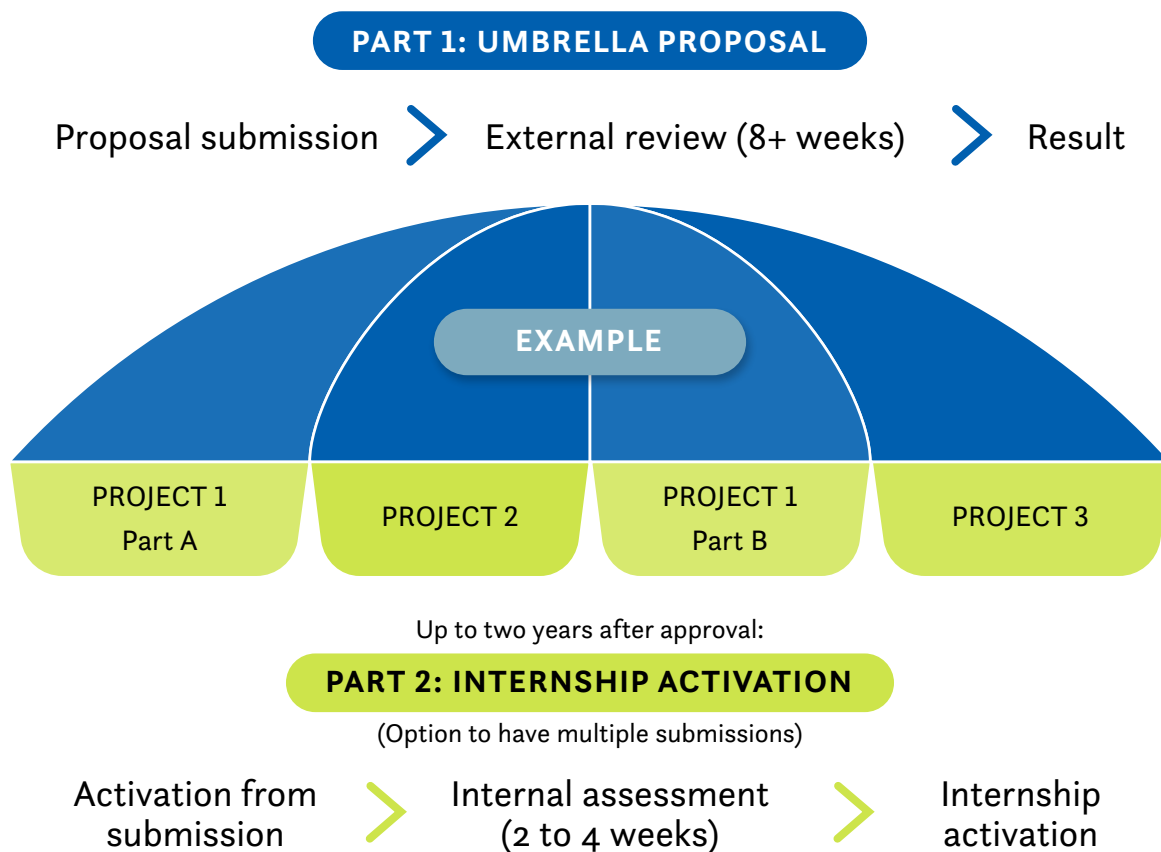
# Umbrella approach

Mitacs offers an alternative approach for applying to the Accelerate program.

Designed to foster greater opportunities for collaboration, increased flexibility, and improved planning capabilities, the Umbrella approach provides an option for representatives at postsecondary institutions to put forward a proposal for consideration ahead of formally securing partners or interns.

The Umbrella option is also available for postsecondary partners who would like to bundle a series of smaller projects under an overarching theme or within a program of study that requires cohorts of students to complete research internships.

## Proposal for program of activities





## UMBRELLA APPROACH QUICK FACTS

- **Part 1 — Umbrella proposal:** submitted to Mitacs and then sent for external review. No project-level details are required. This part should provide an overview of the internships that a group intends to pursue within the Accelerate program, including potential for impact, feasibility, and highly qualified personnel training. Names of program participants — e.g., supervisors, interns, or partners — are not required at this stage.
- **Part 2 — Internship activation:** forms may be submitted up to two years after part 1 was approved, when all project-level details are known and the participants are ready to start the project. An Umbrella is expected to support multiple projects, each potentially including several intern start dates. Individual internships may also span longer than the two-year timeline. For example, an intern activation form may be submitted for a two-year internship in the second year of the Umbrella.
- **Internship activation** will be assessed for eligibility under the Accelerate program and alignment to the scope of the approved Umbrella. If acceptable, the internships will be approved and the project will be sent to external reviewers as part of a quality assurance audit process.

## Umbrella advantages



- **Ability to bundle** a series of smaller related projects to support planning or collaboration
- **Convenience of advancing** a proposal ahead of formally securing academic supervisors, interns, or partners
- **Opportunity to support** embedded internship programs in which cohorts of students are required to complete research internships

# Get in Touch

-  [partnerships@mitacs.ca](mailto:partnerships@mitacs.ca)
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Thanks to our funding partners.

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