

The Mitacs logo features the word "Mitacs" in a bold, white, sans-serif font. The letter "i" is lowercase and has a white dot above it. The letters "M", "t", "a", "c", and "s" are uppercase. The logo is set against a blue background with abstract, overlapping geometric shapes in various shades of blue.

*Inspiring innovation
Inspirer l'innovation*

Mitacs Pre-Budget Submission to the House of Commons Standing Committee on Finance

August 2018



Recommendation 1

Mitacs recommends that the Government of Canada support work-integrated learning opportunities for post-secondary students at all levels, to provide graduates with in-demand skills;

Recommendation 2

Mitacs recommends that the Government of Canada support the development of entrepreneurship, business skills and global competencies in post-secondary students to help new and emerging companies with commercialization and global market access;

Recommendation 3

Mitacs recommends that the Government of Canada support the transition of post-secondary students into the workplace by providing job placements and experiences both in Canada and internationally;

Recommendation 4

Mitacs recommends that the Government of Canada support measures to reduce barriers and ensure participation in research, skills development and experiential learning for underrepresented groups.



Investing in Skills for Success in a Global Economy

Canadian companies recognize that the nature of jobs is changing, and the skills that companies need in new hires must be increasingly adaptable and flexible to jobs that may not yet exist. A recent report by RBC¹ found, after extensive consultations with companies across the country, that 25% of jobs will be disrupted due to technology and half of Canadian jobs will require a significant adjustment in the skills required. Despite this disruption, however, over 2.4 million jobs will likely be added to the Canadian economy over the next four years. These jobs will require new skills and combinations of skills to allow companies to seize opportunities, develop new technologies, and access markets around the world.

With its recent investments in research, along with recent initiatives that further support the Innovation and Skills Plan (e.g. the Innovation Superclusters, the Strategic Innovation Fund, and the investment in Mitacs to deliver 10,000 work-integrated learning opportunities a year), the Government of Canada is positioning Canada for competitiveness in a rapidly changing global economy. The success of these and any future investments in innovation and research will depend on Canada's ability to attract, develop, and deploy qualified and skilled workers across all sectors of the economy.

Fortunately, Canada is home to a highly-educated population and an outstanding post-secondary system, with multiple universities ranking in the global top-fifty, and a robust system of colleges and polytechnics. These institutions represent an essential asset in preparing Canadians for a changing workforce, while ensuring that businesses have access to the talent and ideas they need to innovate and grow.

Canada's post-secondary advantage will help insulate Canadians from projected disruption due to automation. Research shows that the higher one's level of educational attainment, the less likely one is to be negatively impacted by automation and disruptive technology.² Fully utilizing this strength requires ongoing investments to ensure that the talent found at universities, colleges and polytechnics across the country is being supported and deployed to advance Canada's innovation priorities.

To keep up with the ever-changing demands of the global economy, Canada must implement innovative approaches to equip students, including highly qualified personnel in our PSE institutions with work-ready skills and connect them with business. For those with ideas or research discoveries, we must provide them with the resources and experiences they need to become successful entrepreneurs. The pace of technological change and the growth in precarious work means that students today must be equipped with skills that are transferrable across jobs and across sectors, to allow our future workforce to be flexible and responsive to change.

Access to experiential learning opportunities – including work-integrated learning and international experiences – equips students with skills and experience needed to innovate and succeed in the 21st century workplace.³ A 2016 survey released by the Business Council of Canada⁴ asked 90 major Canadian companies about recent and future hiring trends, demographic changes, the job market for young Canadians and top-level skills needs. With respondents representing financial services, manufacturing, ICT/telecom, natural resources and transportation companies, it found that among companies hiring entry-

¹ RBC. (2018). Humans Wanted: How Canadian youth can thrive in the age of disruption.

² Brookfield Institute. (2016). The Talented Mr. Robot: The Impact of Automation on Canada's Workforce.

³ Centre for International Policy Studies (CIPS), University of Ottawa and the Munk School of Global Affairs, University of Toronto. (2018). Global Education for Canadians Equipping Young Canadians to Succeed at Home & Abroad.

⁴ Business Council of Canada and Aon Hewit. (2016). Developing Canada's future workforce: a survey of large private-sector employers.



level candidates, the most in-demand skills and competencies are collaboration and teamwork abilities, communication skills, and functional knowledge (or skills required to fulfill job tasks, duties and responsibilities).

Work-integrated learning opportunities play an essential role in building these sought-after skills and in strengthening Canada's capacity to adapt to changing labour force demands, while providing businesses with the tools and talent they need to innovate, commercialize ideas and succeed on a global stage.

Mitacs, as a key partner in the Government of Canada's Innovation and Skills Plan, is moving towards its goal of delivering 10,000 innovation internships annually, through programs designed to strengthen linkages between Canadian businesses and post-secondary institutions, enrich the development of graduate students, and to meet the evolving needs of companies large and small. As we enter our 20th year, Mitacs is now prepared to play a more prominent role in delivering work-integrated learning including and beyond research for PSE students across the country.

Working with a network of over 6,000 companies across the country, Mitacs is in a unique position to understand the needs of companies both large and small, at various stages of growth and across sectors. Our partners recognize the need for graduates from all levels of postsecondary education to fill their evolving needs and help them connect globally. Working closely with Canadian companies to understand their innovation challenges and identify skills needs, Mitacs connects them with the talent available within Canada's PSE institutions.

The current Mitacs platform is unique in their approach to WIL, with each internship focused on research that is of shared value to the company (host organization), the academic institution and the graduate-level student. Mitacs internships are designed to incentivize private sector research and development, support business growth and promote innovation, while simultaneously developing Canadian talent and attracting top minds from around the world. As a business leader with Mercedes-Benz explained following a successful project involving Mitacs interns, "At the end of the day, these students are getting important experience with meeting industrial demands while we are able to tap into their expertise to advance our own objectives."

Mitacs supports the Business Higher Education Roundtable's call for expansion of WIL opportunities to 100% of PSE students. Representing the executive heads of post-secondary institutions as well as CEOs of major corporations across Canada, BHER is advocating for an additional 140,000 WIL opportunities to be created each year. Companies and post-secondary institutions both recognize the need to provide students with opportunities to build in-demand skills that will ease their transition into the workplace.

With its proven delivery platform and extensive network of business partners across the country, Mitacs is uniquely positioned to serve as a primary mechanism to achieve this ambitious WIL goal, by expanding participation to new populations of students in colleges and undergraduate programs and to expand Mitacs offerings beyond research focused internships.

With close to a million students in university undergraduate programs⁵ and over 725,000 in college and polytechnics across the country, PSE institutions and industry leaders are looking for means of providing these students with WIL opportunities. Engaging a broad spectrum of PSE students in relevant work-integrated learning opportunities with industry can equip these students with both work-ready skills, as well as research skills to help them transition either to a career in the private sector, to launch companies of their own, or to continue with their studies at the graduate level.

With expansion to include college and undergraduate students, Mitacs looks forward to strategic "hub and spoke" styled research projects involving students at varying levels of educational attainment. These projects may be led by a PhD student or postdoctoral fellow with support from Master's-level students, while engaging students at the undergraduate and college level in advanced industrial research. If fully implemented, this "hub and spoke" approach would provide greater access to more WIL opportunities for a broader range of postsecondary students, regardless of where they might be live in Canada.

⁵ Statistics Canada. [Table 37-10-0018-01. Postsecondary enrolments, by registration status, institution type, sex and student status](#)



As Canada looks to advance innovation and research while growing its supply of HQP, it cannot afford to exclude the ideas, perspectives and potential of underrepresented groups in the Canadian research and innovation ecosystem. Data shows that proportionately, women are represented in greater numbers at the undergraduate level than at graduate levels, and while data is limited, evidence suggests that this holds true across the four designated groups in the Employment Equity Act. By expanding access to Mitacs internships to include undergraduates and college students, Mitacs programs will be available to a greater proportion of students from underrepresented groups, and will ensure that our high-quality, research-based internships are inclusive of everyone.

Mitacs encourages the Government of Canada to ensure that investments in innovation, skills development and work-integrated learning are structured to reduce barriers and ensure access to and success in programming for members of underrepresented groups. Mitacs is also committed to developing inclusive programs that harness Canada's diversity advantage and respond to the needs of these groups.

Summary

As the economy changes, Canada has a strong foundation of education and research which help ensure competitiveness and resilience amidst a changing economy and the evolving needs of the workforce. Properly supported and deployed, Canadian PSE students can become tomorrow's innovation leaders, while helping Canadian businesses overcome the pressing challenges they face, and to commercialize their ideas.

Specifically, Mitacs recommends that the government support:

1. Work-integrated learning opportunities for PSE students at all levels to provide graduates with skills employers need;
2. The development of entrepreneurship, business skills and global competencies in PSE students to help new and emerging companies with commercialization and global market access;
3. The transition of PSE students into the workplace by providing job placements and experiences both in Canada and internationally;
4. Measures to reduce barriers and ensure participation in research, skills development and experiential learning for underrepresented groups.

Mitacs looks forward to working collaboratively with the federal government and other stakeholders to advance Canadian competitiveness, while equipping the next generation with the skills, talent and experience needed for success amidst an uncertain and changing economy. Building on a successful track record and expansive network across the country, Mitacs can serve as a key player in the delivery of work-integrated learning experiences including and beyond research, to the full spectrum of PSE students.

To further discuss our partnership, or to learn more about how Mitacs programs align with federal priorities, please contact:

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