

ECONOMIC GROWTH: ENSURING CANADA'S COMPETITIVENESS

2019 Pre-Budget Consultation
Submission to the Standing Committee on Finance

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Ensuring Canada's Competitiveness

Recommendation 1: Introduce 'Build to Scale' incentives for small business owners to encourage growth within Canada.

Recommendation 2: Implement programs and investment related to the development of hardware technology.

Recommendation 3: Incentivize Canadian capacity building for highly specialized engineers and engineering programs to retain and increase Canada's current talent pool.

Recommendation 4: Introduce incentives to attract and promote more women to leadership roles in technology companies, incentivize funding for companies with women founders or co-founders, and continue to support programs and funding related to gender equity, with emphasis on co-gender environments.

Recommendation 5: Continue to prioritize and provide funding for health companies developing innovative solutions for mental health issues, access to home care services, and better health care access for all Canadians.

Executive Summary

ventureLAB is pleased to submit recommendations for the Government of Canada's 2019 Budget. ventureLAB is committed to working with the Government of Canada to stimulate economic growth, create jobs, and support scaling businesses to help them become global market competitors.

ventureLAB is an innovation hub located in York Region, home to over 4,300 tech companies, including over 400 global multinational firms with Canadian headquarters in Markham. ventureLAB works with over 400 small businesses annually, as well as government, industry, and community partners to foster economic growth, create jobs, and build products and services that benefits Canadians and "Made in Canada" solutions.

ventureLAB is uniquely positioned to identify opportunities for Canadian business to seize a place in the ultra-competitive global marketplace. We are the key connection point for a vast network of Canadian companies looking to scale their business across a range of innovation sectors including AI, advanced manufacturing and health tech.

ventureLAB has been working with industry, academic, and government partners to build a strong cluster in York Region, one that complements the work being done in the Toronto-Waterloo corridor.

Recommendations

Recommendation 1: Introduce 'Build to Scale' incentives for small business owners to encourage growth within Canada.

It is no secret that a huge barrier for Canadian entrepreneurs is funding. Anecdotally, Canada is known as "the land of pilots". Many start-ups struggle to obtain adequate funding or support to move their product past prototype, or simply face too many regulatory burdens for their company to be successful in Canada.

Therefore, we recommend that the Government of Canada implement and adopt "Build to Scale" incentives and programs to encourage and help entrepreneurs grow and scale their businesses within Canada, rather than seeking investment from foreign funders, or moving or exiting their companies altogether. Canada's economic prosperity will not be sustainable if start-ups are being forced to move their companies to Silicon Valley or elsewhere to raise funds or ensure their company's success.

Many ventureLAB-supported companies have been recipients of private funding from Canadian investors, thanks to the Industrial Research Assistance Program's investment into ventureLAB's Capital Investment Program (CIP). Through the CIP, ventureLAB has helped 67 Canadian companies raise nearly \$70 million funding, creating hundreds of new jobs for Canadians and contributing to Canada's GDP, while continuing to grow and scale their businesses in Canada. Some "Made in Canada" examples include:

- ATI Technologies, a global semiconductor and graphics processing company founded and retaining headquarters in Markham, employs over 1,600 people at its Markham location (over 3,000 globally), acquired in 2006 by AMD for \$5.4 billion.
- Pond Technologies, a Markham-based company, has raised \$26 million in private capital, 14 employees, and recently closed a \$8.7 million financing, concurrent with its public listing on the TSX Venture Exchange.

- Nulogy, a Toronto-based company, received support from ventureLAB in the company's early days, raising \$25 million in private capital, now operates in 11 countries, and has grown from 2 to 200 employees.
- ACTO, an AI-powered platform, mobile learning solution for life sciences that helps increase sales and gain more market share. In 2017, the company achieved 700% growth, just two years after its inception, and was selected as a finalist for NACO's Most Promising Startup of the Year. ACTO is on a trailblazing path, but without incentives, programs, or investment for scaling companies to stay in Canada, "Made in Canada" stories turn into exits, which do not contribute to Canada's global competitiveness.

Continued support like this will make more Made in Canada stories of success, increased GDP, and more jobs here at home.

Recommendation 2: Implement programs and investment related to the development of hardware technology.

Canada has a strong start-up ecosystem. Globally, it ranks third overall¹. However, in order for start-ups to grow into globally competitive companies in a heavily saturated market, it must recognize that there are more focuses than software apps. Software is one piece of the puzzle: hardware is an often-overlooked component, dominated by few global companies.

Some of the biggest global hardware and microelectronics (chips) companies have Canadian headquarters in York Region, including AMD (ATI Technologies), Celestica, and Qualcomm, yet struggle to keep up with the demands and pace of software development.

Google and Facebook recently announced they would be designing their own chips. Currently, both organizations are software-based companies, relying on other microelectronic developers to design chips on which they can run their products. Due to the surge of software companies like this, there has been a decline in the available pool of deeply skilled talent required for hardware development companies. This has led to the demise and slow-down of chip development, forcing companies like Google and Facebook to develop their own. However, continuing down a focused path of innovation with an emphasis on software and start-up development will only broaden this gap.

This is an huge opportunity for Canada to become a global competitor. Investing in the development of hardware will:

- Create hundreds of new skilled, meaningful jobs for Canadians
- Contribute to the Canadian economy, in a global market valued at \$400 billion
- Attract and retain skilled talent to Canada, and repatriate Canadians that have pursued work in Silicon Valley and other countries in the deep technology sector
- Allow Canada to compete globally as a technology leader through the development Made in Canada IP, products, and companies, by leveraging Canada's largest cluster of global ICT companies in York Region

Recommendation 3: Incentivize Canadian capacity building for highly specialized engineers and engineering programs to retain and increase Canada's current talent pool.

Engineering is the backbone of innovation; the path to ensuring Canada's global competitiveness. Highly specialized talent like analog and mixed-signal engineers are critical to industries like advanced manufacturing, health care, and autonomous vehicles, to name a few. Though the average Canadian

¹ <https://www.startupblink.com/blog/startup-ecosystem-rankings-startupblink/>

might not recognize it, the need for highly specialized engineers is warranted for most anything one touches these days: iPhones, vehicles, solar-powered lights, and pioneering products like NASA's Mars Rover. Canada simply cannot continue to produce start-ups and software without investing in the skills and talent required to develop the foundational hardware of these products and services.

Tech companies in Canada have been facing a growing skills shortage over the recent years, due to a decline in the talent pool of specialized engineers and post-secondary enrolment in highly specialized engineering programs, as well as the booming demand for software engineers and app developers.

Canada has an opportunity to build a new generation of talent by:

- Incentivizing enrolment at post-secondary institutions for highly specialized engineers
- Introduce incentives to Canadian tech companies to retain and attract skilled engineers
- Introduce incentives to recent engineering graduates to stay in Canada

York University's new Markham campus will open in 2021. ventureLAB and York University have been working together to develop programming suited to our deep tech community, but also one that fills a talent gap Canada currently faces.

Recommendation 4: Introduce incentives to attract and promote more women to leadership roles in technology companies, incentivize funding for companies with women founders or co-founders, and continue to support programs and funding related to gender equity, with emphasis on co-gender environments.

While the Government of Canada's gender equity priority in Budget 2018 was a great start, there is always room to do more.

Technology is one of the key drivers of social and economic change and gender parity is fundamental to how economies and societies thrive – diverse perspectives spark innovation and drive competitive advantage.

While there are women across the country making a significant impact in our sector (many of whom we are proud to work with at ventureLAB) there remains a significant underrepresentation of women in tech, especially in key leadership roles.

A recent study released entitled "Where's the Dial now", co-authored by #movethedial, PWC Canada and MaRS revealed that 29.6% of employees in STEM-intensive occupations were women. Only 5 per cent of Canadian tech company CEOs are women, and only 8 per cent of their board seats are held by female directors. More than half (53 per cent) of Canadian tech companies have no female executives and 73 per cent have no female board directors².

We know the skill and talent are out there, however we need to create the opportunities, incentives and policy initiatives to transform Canada into a champion for women leaders in tech.

Canada's opportunity is to be a pioneer in championing women leaders. Canada has an opportunity to lead the way and set a global example in this, through:

- Incentives for organizations meeting gender-balanced senior leadership teams, Boards, and workforces
- Broader distribution of funding to organizations with women leaders/founders

² https://docs.wixstatic.com/ugd/55c9d2_efb58fc4258b40978b5d2bc3a9d2a577.pdf
<https://movethedial.com>

- Requirement of gender balance in any federal funding disbursement
- Support educational programs specific to the challenges women face – to all genders.

If diversity is truly our country's strength, we must leverage this and wholly lead the way in gender equity and implement new, bold practices and incentives.

Recommendation 5: Continue to prioritize and provide funding for health companies developing innovative solutions for mental health issues, access to home care services, and better health care access for all Canadians.

The Government of Canada's commitment in 2017 to more innovation within Canada's health care system should continue and be expanded upon, and regulatory issues be reassessed in order to better serve Canadians. Programs like the Strategic Innovation Fund and upcoming renewals for FedDev funding will enable health innovators to continue commercialization of health technology that will create meaningful solutions and impacts for Canadians, as well as delivering health care services more efficiently.

Prior FedDev Ontario commitments have allowed ventureLAB to partner with Southlake Regional Health Centre, York University, and UHN to enable the development of 15 new health technologies in Southern Ontario, as part of the Health Ecosphere: Innovation Pipeline project. This commitment has enabled companies to:

- Reduce hospital Emergency Room readmissions, thus reducing hospital resources, wait times, and budget;
- Empower patients being discharged from hospitals by providing them with tools and resources needed to manage their care, thus reducing administrative burden on hospitals;
- Reduce patient wait times by 28%;
- Provide better and easier access to physicians for Canadians through the development of a virtual clinic, allowing patients who cannot or are not comfortable leaving home.

While these solutions and outcomes are truly Made in Canada success stories, more needs to be done following pilot projects such as these to allow health innovators to grow and scale their businesses across Canada.

Conclusion

By adopting ventureLAB's recommendations, the federal government will secure Canada's spot as a global competitor while creating new jobs for Canadians, creating new Canadian-made, Canadian-built success stories, and bridging gender gaps.

The state of Canada's competitiveness is something that demands constant attention in a highly-competitive and interconnected global economy. As a nation, we have a huge opportunity to truly lead the way in innovation: for small businesses, for women, and in health care. We must continue to adapt Canada's innovation strategies to ensure that Canadian jobs and investment continue to grow.

Contact

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