



**From:** MaRS Discovery District

**Subject:** Innovation Economy Covid-19 Government Support Recommendations

**Date:** April 8, 2020

**To:** Innovation Economy Stakeholders

The innovation economy is vital to Canada's future. It is where next-generation jobs are created and home-grown global tech leaders are born.

Despite a strong first iteration of support from governments, tech companies are struggling to survive. In a sample survey of high-growth ventures at MaRS, 26% of the company's workforce have already been lost to COVID-19. The numbers cited by CCI in its letter to the federal government estimates that 40% of Canadian tech CEOs surveyed have already laid off employees since the beginning of the pandemic, and 82% of Canadian tech CEOs are planning layoffs for the coming weeks. That's why we are proposing enhancements to COVID-19 business relief programs to protect innovation economy jobs and the companies behind them.

Let's be clear about what is at stake. In recent years, more than 60,000 workers annually have joined Canada's tech sector. Toronto alone created 10,000 new tech jobs last year, fueled by a record \$3.1-billion in venture capital investment. A broad array of sectors driven by advanced industries – energy, services, manufacturing – contribute massively to Canada's GDP, driving 11.6 percent of our country's national output and 10.1 percent of its employment based on recent research conducted by MaRS. Startups are a critical part of this country's economic future. And these jobs are vital building blocks for the Canadian economy in the decades ahead.

Not only are these jobs immediately important to the Canadian economy, innovation companies need to retain talent during the COVID-19 pandemic so they can get back to work once the crisis is over. Once a company loses a skilled employee – one with knowledge and skills that are rare and costly to acquire and retain – it becomes harder to ramp business back up once the pandemic passes. Tech companies need to avoid suspending contracts, releasing staff, or pausing hiring.

As such, we believe governments need to do more to protect jobs in the tech sector.

We propose that measures adopted by government meet the following criteria:

- High-velocity deployment, so that money flows to eligible companies within days, not weeks or months. This may require creative solutions such as immediate deployment of a percentage of funds, followed by a deeper review of recipients to further confirm eligibility.
- Streamlined approval processes, e.g. by leveraging knowledge and diligence already compiled by trusted intermediaries with independent governance such as venture capital firms, accelerators, incubators, Regional Innovation Centres, etc. so as to bypass due diligence and valuation delays.

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Furthermore, we propose the following solutions:

- Broaden eligibility criteria for the Canada Emergency Wage Subsidy program to avoid high potential companies falling through the cracks. In particular:
  - For businesses that have been growing rapidly year-over-year, the 30% impact should be assessed against a reduction in monthly growth rates (either revenue or customers, and inclusive of churn).
  - For seasonal and project-based businesses, the 30% impact should be assessed against annual revenue for year end 2020 against year end 2019 or potentially a trailing 12-month revenue comparison.
- Supplement the capital program being introduced by BDC and EDC to ensure that no high potential tech firms are left behind. This additional program should work through current trusted intermediaries, with access to an independent governance panel for recommended companies that are not pre-existing portfolio companies of BDC, EDC or their trusted intermediaries. A good example of how this can work is the Ontario Scale-Up Voucher Program.
- Accelerate evaluation of already-in-process applications to increase cash flow and support the liquidity of net new active projects in relevant funding programs such as FedDev, SR&ED and IRAP, especially for companies that are already clients of these programs. Emission Reduction Alberta (ERA) and Sustainable Development Technology Canada (SDTC) may be good examples to follow for all programs.

Appended to this letter is a further description of the impacted companies along with a detailed description of how the COVID-19 crisis is affecting various business types.

Thank you for your time and consideration of these important issues.



## APPENDIX

### Category 1: High-Growth Firms

Firms in this category with accelerating sales/client/market momentum and achievement of product/market fit have overcome the 'startup' hurdle and are seeking to reach leadership in their target market/category globally. They represent the Canadian tech companies with the highest probability of developing into the next Shopify, Research In Motion, OpenText, Google, or Facebook. They are companies that can compete on a world stage and create huge value and 'modern economy' jobs for Canadians. They lead by leveraging technologies like ecommerce, artificial intelligence, cloud, collaboration and other rapidly expanding areas.

Global business success requires investment and strong execution to scale and to dominate target market categories over US and foreign competitors. Vital to this success (as proven historically) is access to risk capital and the ability to attract and retain world-class talent. Such businesses are typically (but not always) venture backed, have negative EBITDA (as they are investing for growth) and are involved in significant R&D.

Technology firms are considered more valuable than many traditional companies because of their ability to develop and resell their products on a theoretically infinite scale. Their ability to generate value for stakeholders (including employees) is higher, as is their potential contribution to future GDP, which is why big tech drives US markets. Investment focused on supporting these businesses as they scale their products/services is critical to their success.

There are 4 basic business models for most of these high growth firms; Enterprise Business to Business (B2B largely cloud based), Software as a Service (SaaS), Direct to Consumer (B2C) and Project Based.

For B2B or SaaS businesses value creation is built on delivering lifetime value to the customer, often through the term of an enterprise contract or a SaaS subscription, not on a one-time transactional purchase of a good or service. These companies typically operate negative EBITDA to generate customer and revenue growth. Typically a SaaS company will have front-loaded costs of building product and customer acquisition. Additionally, cash flow is typically negative early in the customer cycle, due to the monthly structure of SaaS contracts. This is why although existing contract revenue has not yet declined, these firms are forced to lay off workers now as bookings (new contracts) decline due to COVID-19.

Direct to Consumer (B2C) businesses share many of the same elements as their Enterprise B2B and SaaS counterparts. The important distinction however is in revenue per customer and life-time value, which are much lower per client (over many consumers) yet have a much higher proportional cost of front-loaded customer acquisition because their investment in growth is more heavily weighted to sales and marketing than R&D. Business success hinges on finding a sufficient critical mass of users to achieve scale and market share, along with investments in user engagement to create positive and viral economics for these businesses. They typically have one of three means of generating revenue; pay for use, advertising or insights/business value (including referrals) for business partners.

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**Project Based (including seasonal) Firms:** This category includes companies that are building the infrastructure of the future, primarily in energy, water and agriculture. They have deep technology and intellectual property. Many businesses, especially cleantech, have “lumpy” revenue streams. Others are very seasonal, like agriculture. These are the companies that build/own/operate large infrastructure, generally in the energy and water sectors. Their projects don’t occur consistently, so companies generally have significant revenues at inconsistent times spread throughout the year.

**Impact:**

In all of these cases, company revenues are being impacted negatively. The amount and timing varies depending on the industry the company services.

For those businesses with shorter sales cycles (e.g. SaaS, selling to SMB, D2C), March 2020 revenues could be up 2-7x year over year, but down significantly, 30-70%, month over month compared to February 2020.

For businesses with long sales cycles or long-term contracts, revenue may appear flat or have a modest growth in the short term (based on deals closed a few months ago). The lack of new deals will quickly be seen in decline of activity in their sales pipeline before becoming visible months later on the revenue line.

For B2C firms, business success requires acquiring sufficient critical mass of users ahead of competitive alternatives continuously and many of these have seen a significant slowing of user acquisition due to rapid reprioritization of all consumers during this stressful time. They also have seen a significant reduction in their partnership and advertising revenue.

For project based firms, COVID-19 has fundamentally impacted customers' ability to commit to new projects, and has delayed work on existing projects significantly (3-6 months at a minimum). Companies are being forced to conserve cash to survive, pending unknown, but expected long-term implications of this crisis. Since the majority of these company’s expenditures are people-related, these delays translate into layoffs.

These scenarios are devastating to businesses staffed for growth rather than consistent revenue. All of these companies are being forced into substantial layoffs to preserve a cash runway to allow them to survive through this crisis, but layoffs can cripple their ability to compete in the long term. Many innovative companies are most likely to revitalize the hardest-hit industries – such as travel, hospitality and delivery – are also the most injured, with new revenues down to almost zero immediately.



### **Category 2: Heavy research and development-oriented firms:**

These generate value through innovation and intellectual property creation, primarily from multi-year research and development efforts. This includes some of Canada's most promising startups working in national-innovation-priority areas like health/biosciences, artificial intelligence, quantum computing, advanced manufacturing, and clean technology. This work requires a sustained level of R&D investment over multiple years to develop the organizational capital and teams to create intellectual property that generates long-term sustainable value for Canada. Most of these firms are supported and financed through grants, venture capital and/or corporate partnerships. In Canada, government organizations such as IRAP, SDTC, SIF, BDC Capital, and MaRS IAF have been key players in this value creation journey for Canada.

### **Significant Impacts:**

R&D delays have significant runway implications for meeting milestones typically tied to the receipt of grant payments and earning income.

For many clean technology and healthcare companies, operations have human resources costs similar to their revenue-generating counterparts. However, resources are focused on R&D and regulatory approval, which in the current climate, are compromised by raw-material supply chain slowdowns and suspension of outsourced services. For healthcare, most importantly, there is an inability to access patients and medical practitioners to support clinical efforts. Delays in clinical trials necessary for authorizations from regulatory agencies prevent these companies from reaching revenue status and positive cash flow.

Hardware-focused R&D companies are also experiencing supply chain interruptions. Border closures, flight restrictions, and growing local severity levels have caused component delays. Local manufacturing options are increasingly unavailable. This blocks product development, customer trials and demonstrations, sales revenue, and opportunities for further financing. Companies reliant on laboratories to commercialize research have, with few exceptions, lost lab access.

Talent risk is also significant for R&D firms. This is particularly the case in fields such as artificial intelligence and quantum computing, where qualified talent is already scarce. Multinational companies with significant balance are hiring, happy to take on recently laid-off specialists.

Companies are scaling back or shutting down operations in accordance with government and public health recommendations. Programs such as work sharing are not viable for knowledge-centric jobs, since the work is generally not divisible.

In the absence of government support, the critical Canadian ecosystems that they have created over several years could be lost; rebuilding could take years.

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### **Category 3: Pre- and early revenue firms:**

These “green shoots” of the innovation economy represent a huge proportion of startups. More than half (798/1,360) of all MaRS portfolio companies have revenues of less than \$1 million. Many had zero or very little revenue last March, and so will not show the required 30 percent drop in revenue required to qualify for the wage subsidy. And by definition, any company founded within the last year does not currently qualify for the wage subsidy or the lines of credit and reduction in interest rates being offered by BDC, EDC and the banks. They are effectively shut out.

Such businesses are typically (but not always) seed-funded or bootstrapped by founders, burning through cash, doing significant development and market discovery. The rise of the capital-efficient, software-based startup has contributed to many of Canada’s recent success stories, some of which are now major employers contributing significantly to our GDP, such as Shopify, Touch Bistro, Lightspeed and Verafin, to name a few.

### **Significant impacts:**

The current crisis has hampered progress by lengthening the time needed to complete tasks, thus increasing costs and reducing ability to begin generating significant revenue. The COVID-19 crisis delays the conversion of sales-pipeline prospects by 6-9 months, in turn delaying the commercialization of product development work. This can represent millions of dollars of lost revenue. Year-over-year modest revenue changes may not reflect the substantial impact of the delay in revenue growth during this vital product-market-fit stage. This will lead to headcount reductions or complete business shutdowns. The COVID-19 crisis has also significantly reduced the ability of these companies to raise early-stage capital to fund employees. Capital markets have significantly contracted, reducing the ability to raise venture capital. Companies are searching for ways to survive longer with existing cash on hand. Those firms with significant funding from their founders are seeing the founders seriously compromised in their ability to continue supporting their businesses.