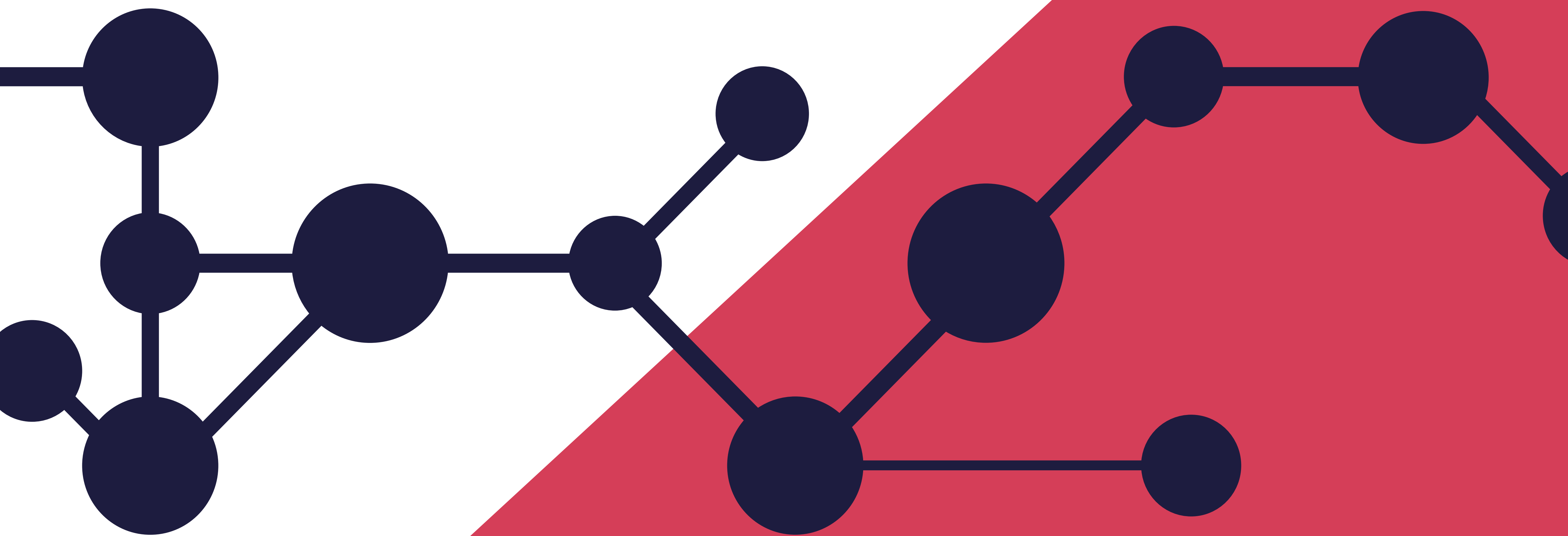


Bolstering Growth The Next Frontier for Canadian Startups



Research by



The Information and Communications
Technology Council

in partnership with



PREFACE

The Information and Communications Technology Council is a not-for-profit, national centre of expertise for strengthening Canada's digital advantage in a global economy. Through trusted research, practical policy advice, and creative capacity-building programs, ICTC fosters globally competitive Canadian industries enabled by innovative and diverse digital talent. In partnership with an expansive network of industry leaders, academic partners, and policy makers from across Canada, ICTC has empowered a robust and inclusive digital economy for over 25 years.

ventureLAB is a leading technology hub located in Markham in York Region, Canada's second largest tech cluster. Through its programs focused on capital, talent, technology, and customers, ventureLAB has supported over 2,000 tech companies and entrepreneurs, including 100 companies that have raised over \$100 million and created close to 4,000 jobs. ventureLAB's innovation hub is a 50,000 square foot facility that is home to over 45 tech companies and partners that employ more than 300 people. At ventureLAB, we grow globally competitive tech titans that build-to-scale in Canada.

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GLOSSARY

Scale-up: A growth-stage company that is adding revenue faster than new costs with annual growth of at least 20% over three consecutive years.

Small to Medium Enterprise (SME): A business with fewer than 500 employees.

Startup: A new business venture in its initial or early stages of development that is working toward innovation, development, deployment, and commercialization of new products, processes, or services driven by technology or intellectual property (IP).

Tangible Economy: An economy (or the share of an economy) that is based on the production, ownership, and sale of tangible assets, such as buildings, property, or machinery.

Intangible Economy: An economy (or the share of an economy) that is based on the production, ownership, and sale of intangible assets, such as data and intellectual property.

Goods-producing sector: The share of an economy that produces tangible goods or products (as opposed to services). This includes manufacturing, agriculture, natural resources, and construction.

Services-producing sector: The share of an economy that produces services (as opposed to goods). Services are broadly defined and diverse. They include both knowledge-intensive jobs (e.g. finance or software development) and labour-intensive jobs (e.g. wholesale and retail trade).

S&P 500: A stock market index that measures the market performance of 500 large enterprises listed on the US stock exchange.[1]

Comprehensive Economic and Trade Agreement (CETA): A free trade agreement between Canada and the European Union that was ratified by Canada in 2017 and is benchmarked as one of Canada's most progressive and beneficial free trade agreements.[2]

Conformity Assessment: The testing, calibration, medical examination, inspection, certification, and verification delivered by an accredited body that is intended to build confidence that goods and services, processes, and management systems comply with national and international standards and regulations.

INTRODUCTION

COVID-19 has produced devastating impacts on the Canadian economy and society. Large-scale economic slowdowns are seen across nearly all sectors, record-high unemployment rates likening back to the Great Depression persist, and global supply chains are moving at a grinding pace. These harsh realities have resulted in a forecasted increase of 1000% in the federal deficit (expected to reach \$343 billion), [3] and despite the gain in employment witnessed in June as several provinces entered Stage 3 reopening, nearly 2 million jobs were lost in Canada since February. [4] While government policy responses have mediated some impacts of the pandemic to date, many are short-term solutions with end dates in sight.

Looking forward, Canada must seek to recoup this investment and forge a sustainable path toward economic recovery. Much of this recovery is inherently tied to the success of Canadian-grown small and medium sized businesses (SMEs) and their ability to compete on the global stage.

With no shortage of innovation taking place among Canadian businesses, startups are defined by their core challenge: the transformation of an innovative idea into a scalable and sustainable business model.[5] What Canada needs going forward are sustainable business models and built-to-scale, IP-generating companies—in other words, more *scale-ups*. [6]

This brief discusses the ingredients needed for a strong and resilient scale-up ecosystem in Canada; one that can shape and support globally competitive Canadian anchor companies in a future where the digital economy will lead the way. Specifically, it highlights the following topics and considerations:

- I. **Creating, Protecting, and Incentivizing Canadian IP**
- II. **Building a built-to-scale Canadian business culture**
- III. **Establishing Canadian anchor companies, and leveraging trade**

PART I. SUPPORTING CANADIAN IP DEVELOPMENT

“The IP system is slow, imperfect and, at times, expensive, but it is also the innovation economy’s “central bank.” Business leaders who understand [that] it is a commercial, [and] not just a legal, priority will be active players rather than bystanders in the disruptive markets of the near future.
– Gordon Harris, Gowling WLG

WHY BOTHER WITH IP DEVELOPMENT?

Intangible assets like data and intellectual property (IP) are the standard currency in modern, digital economies, and their importance for businesses—both digital and traditional—is only growing.[7] Such assets are increasingly centre stage in company valuations and survivability assessments of business models.[8] In 2018, intangible assets accounted for 90% of the total value of tech giants like Microsoft and Amazon and 84% of the value of the top five S&P 500 companies.[9]

In Canada, SMEs that are knowledgeable about IP—including methods for securing their IP—progress better than SMEs that are not, while those that report holding formal IP (patents, trademarks, copyrights, and industrial designs) progress better still. [10] In 2017, SMEs holding formal IP were three times more likely to have expanded domestically than SMEs with little or no knowledge of IP. [11] They were also four times more likely to have expanded internationally and nearly two times more likely to have experienced high growth (at least 20% growth per year) in the previous three years. [12] Patents may also increase the likelihood of venture capital (VC) funding by “alleviating concerns regarding a startup’s ability to monetize its invention.”[13]



Figure 1. Intangible assets account for 84% of the value of the top five S&P 500 companies. Visual Capitalist, 2020.

IP and data—protected via patents, trademarks, copyrights, and designs—form the core of this value, and businesses that lead in IP development are increasingly competitive in the global arena.

WHAT IS IPP?

Intellectual Property Protections (IPPs) enable companies to execute temporary monopolies over technologies, processes, inventions, and brands, giving them a competitive advantage over other companies. IPPs ensure that a business' applications cannot be deployed to another infrastructure without consent.[14] This allows IP owners to extract revenue through their exclusive rights to sell or licence certain products or processes, engage in partnerships, or use certain branding.

WHAT IS IP INSURANCE?

IP insurance is a layer of assurance that businesses can purchase in order to be protected, should they need to seek legal action for IP infringement. IP insurance is available in two forms: infringement defence, covering businesses for infringement claims brought against them; and abatement enforcement coverage, providing IP owners the financial resources to pursue infringement claims.[15]

IP PROTECTIONS BY COMPANY TYPE

IP and IP protections remain central to modern successful businesses, although the extent to which specific kinds of IP and IP protections are important to companies varies—particularly depending on industry and technology focus. For companies operating in markets where the technologies in use are widely accessible or easy to replicate—consumer electronics or software tools, for example—traditional IP protections like patents are not as important.[16] Because these companies tend to rely much more on branding, brand engagement, design, and user experience to stand out from their competitors, IP protections like trademarks, copyrights, and designs are centre stage.[17] Conversely, companies that create hardware products or processes based in deep technologies tend to rely more heavily on patents; however, companies whose products are difficult to replicate will have lower infringement risks and therefore may be less inclined to pursue patents at all, perhaps opting for trade secrets instead. Different types of IPPs provide different protections, but also require different types of enforcement, all of which affect the value of the associated IP.

CANADA'S GLOBAL STANDING IN IP DEVELOPMENT

Formal IP is central to a country's innovation output, yet Canada routinely underperforms other countries when it comes to creating and growing domestic formal IP catalogues.[18] Canada ranked 17th (out of 129 countries) on WIPO's 2019 Global Innovation Index overall and 9th in terms of innovation input, yet only 22nd with respect to innovation output.[19] Moreover, the number of patents and industrial designs filed by Canadian companies in Canada and abroad has actually declined over the past decade.[20] Trademarks, on the other hand, have increased by 54% since 2009, which may point to the relatively nascent ecosystem of IP development in Canada; a trademark identifies a company's brand, product, or services,[21] but a patent represents a specific invention. Unlike for patents, trademarks, and designs, there is no formal process for registering trade secrets. Trade secrets are protected through non-disclosure agreements, confidentiality clauses, encryption, and other security measures, which are private and are therefore not tracked. Overall, Canada's challenge of IP commercialization is not new—it is a problem that has plagued us as a nation for years.[22]

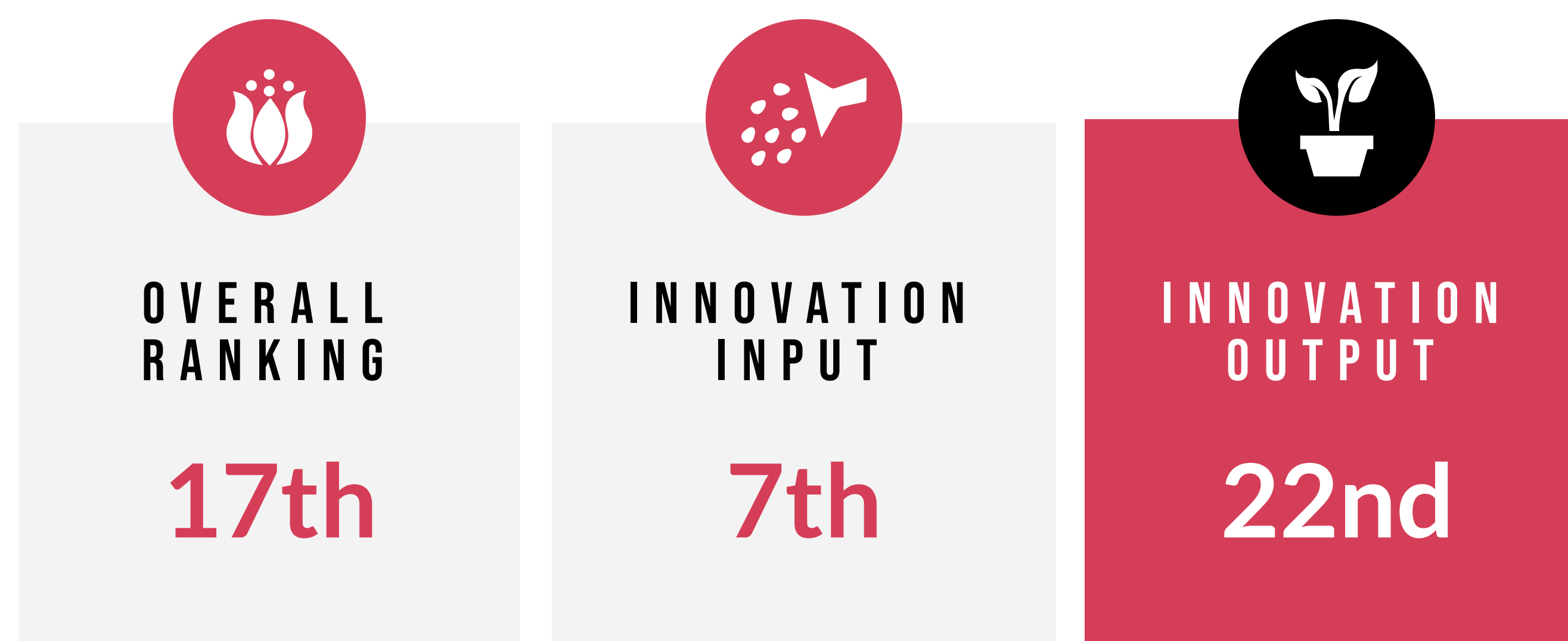


Figure 2. Canada's Rank on the WIPO 2019 Global Innovation Index. World Intellectual Property Organization, 2019.

Further research is required to identify the exact reasons why Canada lags its foreign counterparts in the development of patents and industrial designs—and what the implications of this are—however, there are some possible explanations. First, they are expensive to acquire and enforce (the process can cost millions of dollars and take several years in court), and without enforcement, they are effectively worthless. At the same time, patents have a known expiry date and filing a patent requires making an invention public, whereas some companies prefer trade secrets instead. That said, there is also a routine failure in Canada to recognize the importance of IP in areas like

company valuations and growth projections, research and development ventures, and post-secondary partnerships.[23] This is embodied in public and private funding programs that neglect to understand the importance of intangible assets in financing criteria and funding decisions; it is replicated in government partnerships with foreign companies that fail to prioritize IP rights for Canada.[24] New initiatives, such as the \$160 million set aside by the Business Development Bank of Canada (BDC) to support the growth of IP-rich scale-ups, are a step in the right direction,[25] but a fundamental shift is needed—across various stakeholder groups—to more effectively consider the value of intangible assets in decisions affecting innovation.

EXISTING IP STRATEGIES IN CANADA AND THE IMPACT OF COVID-19

In 2018, the Government of Canada formally launched *Canada's Intellectual Property Strategy*, outlining changes in three priority areas: legislation, literacy and advice, and tools.[26] Designed to help Canadian innovators get the most value out of their inventions, the strategy is an important milestone for Canadian innovators. Today, however, COVID-19 is exacerbating the barriers and challenges faced by SMEs seeking to create new IP and obtain formal IP protections. Investing in IP research and obtaining formal IP protections, especially in multiple jurisdictions, is costly, presenting a significant barrier for many SMEs.

COVID-19 has created a situation where SMEs have to refocus their priorities—often toward basic elements of survivability such as maintaining staffing and customer bases. This incurs external costs, such as those associated with IP protections, which may be viewed as superfluous. In March 2020, Statistics Canada reported that 47% of small businesses employing 20 or fewer laid off 80% or more of their workforce.[27] During this same period, 40% of businesses in the same category requested credit from a financial institution[28] in order to sustain existing operations.

The stressors and impacts of COVID-19 have made it clearer than ever that Canadian SMEs need assistance to secure their valuable IP, especially during periods of large-scale economic shock. Without this assistance, SMEs are forced to choose between basic survivability and long-term instruments for competitiveness like IP generation and protection. In June 2020, 75% of Canadian companies surveyed by the Canadian Council of Innovators had either decreased their investment in IP research or patenting during the pandemic or maintained pre-COVID-19 investment levels.[29]

INCENTIVIZING IP AND THE ROLE OF INVESTMENT

Exacerbated by the ongoing economic impacts of COVID-19, the creation and exploitation of formal Canadian IP is constrained by challenges related to commercialization rights and the freedom to operate. Formal IP rights and protections, both in Canada and abroad, are necessary prerequisites to commercializing and exploiting Canadian IP. When companies neglect to register their IP in key markets early on, they may risk losing their freedom to operate in those markets.[30] Similarly, when Canadian actors neglect to prioritize IP rights in their partnerships with foreign investors, companies, and other institutions, they risk losing their rights to file for and exploit IP in foreign markets. [31][32] Foreign entities funded \$3.5 billion in research and development activity in Canada in 2019, including \$122 million in the higher education sector,[33] and US investors remain a primary source of funding for Canadian companies. [34] While the ability to engage in flexible partnerships is important,[35] ad-hoc approaches to IP that differ from one academic institution to the next can also fall short. [36][37] Canadian companies and academic researchers engaging in research and development activities with foreign investors and partners must prioritize IP rights early on to ensure commercialization rights and freedom to operate in key markets in the future.

THE PATENT BOX

The patent box (also referred to as an innovation box or a knowledge development box) is a policy tool that many governments around the world have implemented to incentivize commercialization of regional research and development. At its core, a patent box is essentially a tax policy that allows regional corporations to receive a reduced effective tax rate—often around 10%—on income derived from qualifying IP (often patents and software copyrights).

For countries that implement it, the goal of deploying a patent box policy is to incentivize regional businesses to commercialize their research and development activities, and to attract foreign investment by creating a more competitive tax environment for innovation-focused industries. As of 2019, 14 of the 28 EU member states have implemented a patent box regime. Neither Canada nor the US has implemented any form of the patent box at a national level, although British Columbia implemented it at the province level in 2006 and maintained it until 2017. British Columbia's International Business Activity (IBA) program provided a tax refund to eligible BC businesses for international business expenses related to patents. While not under the overall label of a patent box, a similar undertaking has recently been

piloted by the province of Quebec. On March 10, 2020, Quebec's 2020-21 budget introduced an "incentive deduction for the commercialization of innovations in Quebec" (IDCI). Believed to be one of the most competitive corporate tax regimes in North America, the regime will allow eligible companies (those with "qualified IP assets") to be taxed provincially at 2% (the current Quebec general income tax rate is 11.5%). When added to the federal general rate, it will result in a combined tax rate of 17% for qualifying businesses, one of the lowest rates in Canada and the US. Although the results of this initiative remain to be seen (the regime applies to companies that start their taxation year after December 31, 2020), the competitiveness and innovative nature of this regime is likely to pay strong dividends for Quebec businesses as well as attract savvy foreign innovators to the province.



"As a global leader in AI-powered supply chain solutions, creating an IP-rich company has been central to Nulogy's success from day one. With customers in over 17 countries, IP is imperative to compete globally and sustainably over the long-term for any home-grown Canadian scale-up enabling us to secure value-add investment capital for growth and expand to international markets at an accelerated rate."

— Jason Tham, Co-Founder and CEO, Nulogy

PART II. BUILDING TO SCALE

SMEs represent 99.8%^[38] of all businesses in Canada. In the professional, scientific and technical services sector (where many ICT businesses operate), that figure is even higher, totalling 99.9%. Despite an upward trajectory of startups in Canada (from 2012 to 2016, more than 72,000 businesses were created),^[39] the competitiveness of the Canadian economy rests in startup *survivability*. The majority of SMEs (nearly 88%) survive the first two years of operation, but business survival quickly dwindles after this point. Less than 65% of service-based SMEs survive year five (68% for goods-producing), and less than 44% survive year 10 (48% for goods-producing).^[40]

HELP WANTED: DIVERSE FOUNDING TEAMS

The entrepreneur may be glorified in popular media as a lone technical founder, but in reality the basic foundation for successful startups is rooted in multiple layers of expertise and diversity of experience. Any great technical idea or technological invention requires a strong value proposition and positioning that resonates with paying customers. However, there appears to be a disconnect between this need and the reality of many founding teams, as many founders believe that only they can lead their startups to success.^[41] At the outset this may be true—after all, founders tend to possess the original business “idea”—it can eventually create a “catch 22,” where founders can be both overconfident about their idea and simultaneously naïve about potential roadblocks to commercialization.

For investors, the composition of the founding team is often the most important factor in deciding whether or not to invest.^[42] While there is no ideal “mix” of senior leadership needed to run a successful business, startup leaders must be fluid in their ability to source and pivot their leadership team in order to meet new business needs and face challenges. In fact, venture capitalists may replace up to 20-40% of founders with more seasoned managers^[43]—versus pure technical leads—at critical points in a startup’s growth. The most successful founding teams are those built according to profiles that value experience and business acumen, as much as technical know-how.

WHAT DOES IT MEAN TO SCALE?

Defining when a company has successfully achieved scale or is approaching its scaling phase is a highly debated exercise, as scaling has yet to find a universal definition. The terms “scaling” and “growth” are often used interchangeably, but there are critical distinctions between the concepts.

A *growing company* is one that is zeroing out its revenue growth vs. losses. For example, this is a company that gains \$100,000 in new revenue to monitor pest activity on cashew farms across the western United States but has to hire two sales representatives each making \$50,000 to maintain this service.

A *scaling company*, dissimilar to a growth-stage company, is one that adds revenue faster than new costs. Using the example above, the company would be able to add \$100,000 in new revenue but would only require hiring one sales rep at \$50,000 along with the purchase of customer relationship management (CRM) tools at \$5,000 to maintain its new revenue stream. Simply put, a scaling company’s gains will outpace its losses, and a successful scale-up will maintain these gains year-over-year. A successful scale-up, according to the OECD, is one with an average annual growth of at least 20% over three consecutive years.[44]

Scale-ups are most likely to sprout from healthy and vibrant startup ecosystems that provide entrepreneurs with the following ingredients: a conducive culture, enabling policies and leadership, availability of appropriate finance, quality human capital, venture-friendly markets for products, and a range of institutional and infrastructural supports.[45] In an analysis by the European Union of successful startups in the EU, the United States, and South America, two key policy levers were identified as crucial to SME scale-up[46]:

- Betting on the high-fliers: coupling promising startups with business expertise
 - The Netherlands has taken to addressing this specific leverage point in ecosystem development by investing in and launching a program named NLgroelt.[47] This program, run by the country’s chamber of commerce, targets startups that have reached €1 million in sales but have yet to break through the €100 million threshold. NLgroelt stimulates the human capital within the country’s innovation ecosystem by connecting such startups with professionals that have first-hand experience scaling businesses.[48]

- Attracting high-quality foreign direct investment to support local ecosystem growth
 - Through Chile’s Startup Chile Accelerator, the country has established a soft-landing visa that targets entrepreneurial foreign talent. Chile’s startup visa specifically allows qualifying founding teams and their spouses/ children an accelerated path to obtaining a one-year visa if they establish their company in the country.[49] Coupling such activities with clear requirements to ensure that at least a portion of the economic benefits stays in the host country is key.

ATTRACTING HIGH-QUALITY FOREIGN DIRECT INVESTMENT KEY TO LOCAL SCALE-UP

In 2018, just 12% of Canadian startups (out of thousands assessed by the University of Toronto Impact Centre) met the criteria needed to grow to “world-class size” and maintain current growth trajectories.[50] Although funding for startups is available through a variety of government grants, attracting high-quality foreign direct investment to Canada is essential. This investment can grow the pool of financial and technical resources available for local startups with an existing track record of success to become high-performing scale-ups. Beyond financial resources, high-quality FDI can also be a method for Canadian startups to gain knowledge, business expertise, and access to critical distribution networks and international markets.[51]

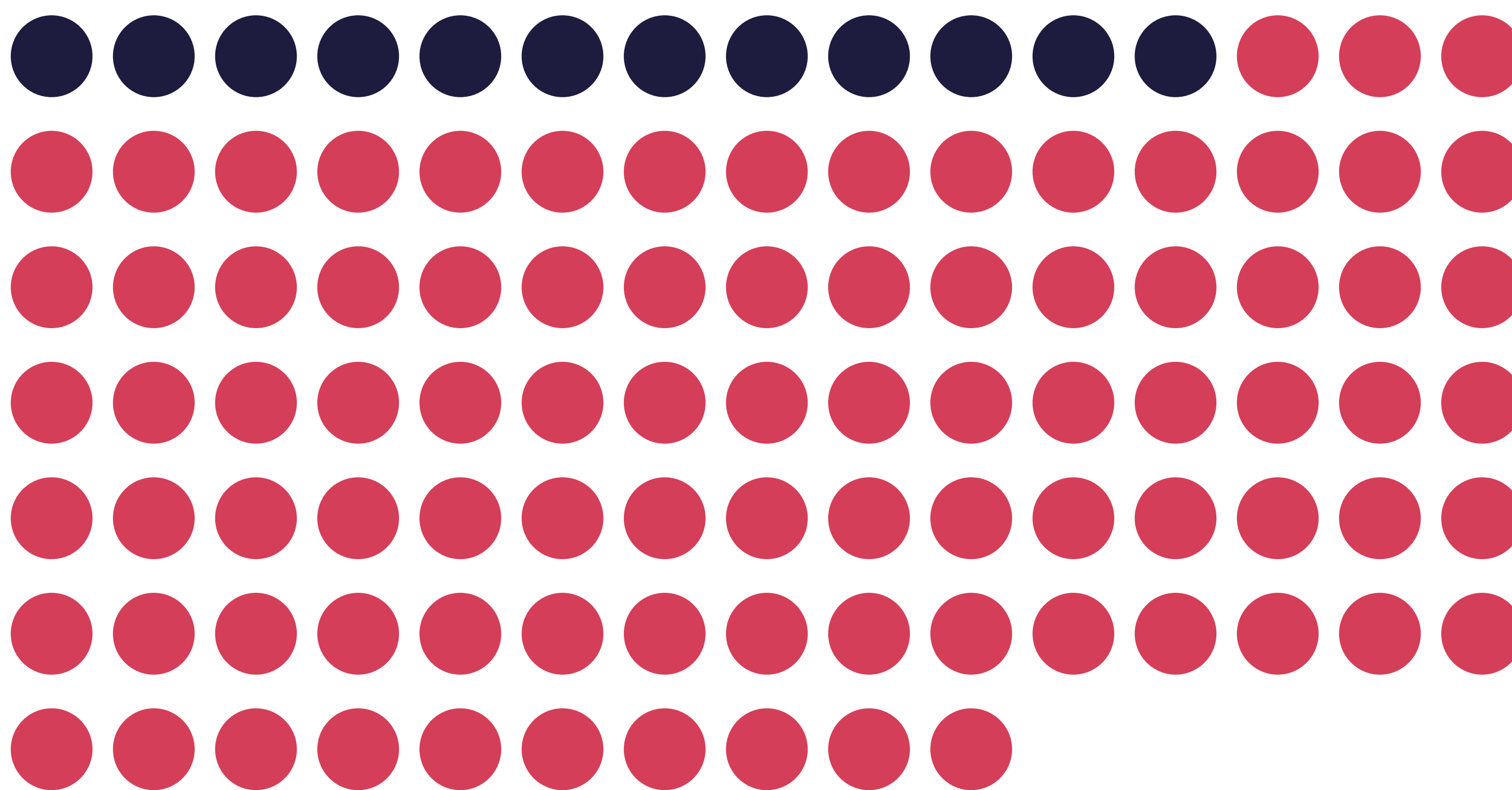


Figure 3. Just 12% of Canadian startups assessed by the University of Toronto Impact Centre met the criteria needed to grow to "world-class size" in 2018. University of Toronto, 2018.

FDI & PERFORMANCE REQUIREMENTS

When seeking to attract high-quality FDI, the conditions of investment are important to consider. That is, ensuring that FDI is coupled with policies and practices that reap the highest benefits of the FDI in the host country. These conditions are most often referred to as “performance requirements.”

Performance requirements (PRs) of FDI are imposed on investors, whereby they have to meet certain conditions or goals in regard to their operations in the host country. [52] Although there is some debate on the impact of performance requirements for FDI (some argue they are counter-productive and can stunt investment[53]), they can be essential to encouraging sustainable and productive FDI. In Canada, investment attraction must be conducted in a way that benefits the Canadian economy, creates employment opportunities for Canadians, and enhances the ability of local SMEs to thrive and reach new markets. The most commonly used performance requirements for FDI, representing the foundation of a strong policy toolbox, include the following:

- Ensuring that a certain portion of local goods and services are used in the project (where quality is equal to foreign goods and services)
- Achieving a certain quota of new jobs in the host country
- Providing knowledge exchange from the investor to local businesses (helping local SMEs build capacity in relation to their goods and services)
- Carrying out a given level of R&D activity in the host country (helping local SMEs develop and/or enhance IP)[54]

There are numerous examples around the globe of FDI failures when implementing PRs, alongside examples of FDI success stories where PRs are not implemented. Such as the case of Mongolia, a country that does not impose any PRs on foreign investors, yet has secured notable volumes of FDI.[55] On the other hand, there also exist clear examples of overarching economic success in nations that have effectively used PRs. In the 1960s, Mexico set its domestic-content requirement for its growing market of foreign automobile plants at 60%, requiring engines and transmissions to be manufactured locally, while body stampings were allowed to be imported. Brazil, with a larger domestic market (and therefore more bargaining power), went even further, setting the requirement at 90-95%, effectively meaning that all major components for foreign automobiles had to be sourced locally.[56] Today, Mexico and Brazil place among the top ten of the world’s 20 largest automobile-producing countries.[57]

When implemented properly, PRs can be essential to the ability of investment-seeking countries to avoid pitfalls that may undermine the investment. They can also open important avenues for the host country to grow their own domestic market and expand internationally.

ARE WE TOO NICE? CANADIAN BUSINESS CULTURE AND LONG-TERM SCALE-UP

“It takes more time than you anticipate expanding [in Canada]. When they get started, lots of entrepreneurs are very enthusiastic. They think they’ll just immediately start selling. It’s not like this. You need to put in time to build relationships and understand the business culture. Business culture in Canada is different from the Netherlands. It’s more difficult at first to sell in Canada. It takes more time. You really need to build a personal connection to do business in Canada. It’s not really like that in the Netherlands, and even less in the US. If you’re trying to sell to Dutch people or Americans, they are very linear, very blunt.

– CEO, Tech Startup, Netherlands

In Silicon Valley, many VC’s see growth and market traction as key indicators of a potentially successful scale-up.[58] To deliver on this, startups are loaded up with ample funds once they’ve cleared all scale-up hurdles and are considered “competitive”--the winner-takes-all mentality reigns king.

Across the ocean, many consider the EU to be culturally similar to Canada.[59] One EU country with a strong track record in building successful scale-ups is the Netherlands.[60] Although culturally similar in the grand scheme, the Netherlands has built its startup ecosystem with a keen focus on putting international relationship development first[61]. As the saying goes, “Nobody speaks Dutch except the Dutch.” Small geographically and surrounded by economic powerhouses like Germany and the UK, out of necessity, the Netherlands became one of the most multilingual[62] and internationally connected countries in the world. In 2019, the Netherlands was the world’s fourth largest exporter (Canada was the 13th).[63]

What are Dutch businesses doing that Canadian businesses are not? Ironically, part of it may boil down to culture. Where Canadian business culture is regarded as “polite and reserved” with “values based on respect, peace, and good government,”[64]

Dutch business culture comes with descriptions that make it more culturally similar to the US, despite the long history of Canadian-Dutch relations dating back to the Second World War. Holland Alumni Network, an initiative of the Dutch government aimed at facilitating international relationships between the Netherlands and other countries, simply states, “In the Netherlands, time is money”. [65] This trope encapsulates many of the characteristics of Dutch business culture as a whole: in the Netherlands punctuality is expected, small talk is kept short, directness (or straight-talking) is encouraged, and planning for the long-term is key.[66] By contrast, Canadian business culture is often regarded unassertive, and primarily focused on the Canadian market, with a strong emphasis on relationship-building over longer periods of time.[67]

Undoubtedly, both approaches have benefits and drawbacks. However, when the Netherlands, a country with limited natural resources and a land mass equal to roughly 1% of Canada’s, becomes the world’s fourth largest exporter while Canada is the 13th, perhaps there is something to the notion “time is money.”

PART III. CREATING GLOBALLY COMPETITIVE CANADIAN COMPANIES

EXPANDING BEYOND OUR BORDERS: CANADIAN STARTUPS AND EXPORTS

While the overall digital economy has proven to be somewhat insulated from the worst economic impacts of the COVID-19 pandemic,[68] Canadian SMEs and startups are still vulnerable to contracting cashflows, especially if they lack depth in their customer base. In a recent survey by ICTC that reached 188 Canadian tech companies (largely SMEs and startups), sales, cash flow, and customer engagement were seen to be the areas of most immediate concern. More importantly now than pre-COVID, leveraging and building relationships, including engaging with foreign markets and seizing new business opportunities, is a necessity for the economic success of Canadian SMEs.

Historically, and unsurprisingly, startups are found to be less likely to export their products compared to mature businesses. In 2014, only 8% of Canadian startups exported, compared to 13% of firms that existed for over 10 years.[69] At the same time, startups that did export relied heavily on the US market, with 93% of all exports going to the US.[70] In the following years, the birth of startups in Canada began to accelerate, and more businesses developed intangible assets and services, which currently make up nearly half of all Canadian exports. Yet, while the volume of total exporting startups has increased since 2014, the overall total is still low. As of 2017, only 11.7% of Canadian SMEs reported exporting outside of Canada.[71] By contrast, nearly 80% of Israel's high-tech products are exported, according to the Israeli Ministry of Foreign Affairs.[72] In 2019, with over 10,000 companies with annual revenues of \$100 million or more, 35-40% of Israel's GDP was tied to tech sector exports.[73]

What accounts for Israel's success? According to CEO of Verbit.ai, one of Israel's rising tech startups, a lot of the heavy lifting is done by the government. With more than 4% of the country's GDP going to research and development, Israel spends more on R&D than any other development country.[74] At the same time, the Israel Innovation Authority receives funding every year from the federal government to invest in local startups. In 2019, the Authority spent over \$1.7 billion shekels (more than \$500 million USD) on 1,650 projects in the local startup ecosystem.[75] That same year, Israel broke records for foreign capital raised, exports, and employment in the tech sector. Total capital raised increased by 15% from the previous year, exports increased

by 1.2%, and high tech workers exceeded 9% of the country's total workforce [76] Building resilient and export-ready SMEs is critical to the success of the Canadian economy in a post-COVID world. Investing in the support levers that Canadian SMEs need to scale and export is critical. This will enable them to become more productive, earn higher revenues,[77] and become more resilient to future economic shocks through a diversified set of global customers.

LEVERAGING OUR INTERNATIONAL PARTNERSHIPS: ZOOM IN ON CETA

Trade agreements are intended to reduce the barriers for the exchange of goods and services between countries. This makes it easier to do business internationally and provides rules that govern global trade.

There are several funding and support opportunities for Canadian SMEs who wish to export, including The Trade Commissioner Service (TCS), Export Development Canada (EDC), and the Business Development Bank of Canada. However, these and other services—such as informal services like the development of detailed and timely market research on global target markets—need to be leveraged by SMEs in order to help them take advantage of existing trade relationships. While Canada is privy to numerous beneficial trade relationships with countries around the world, the Comprehensive and Economic Trade Agreement (CETA) will be discussed for the purposes of this brief.

In 2017, the Comprehensive Economic and Trade Agreement opened new global opportunities for Canadian businesses interested in the EU market. CETA affords Canada enhanced market access to the EU and for service providers, it eliminates 98% of tariffs on goods and services. By the end of 2018, the new agreement was already beginning to show promise. At that time, roughly 78% of tech products manufactured in Canada were exported around the world, and Canadian exports of goods and services to the EU increased by 4%.

Considering the sheer size of its marketplace, the EU is a major trade partner for Canada. CETA is one of Canada's most progressive and fruitful trade initiatives since NAFTA. In addition to areas such as tariffs and duties, the agreement addresses questions related to investment and even worker mobility. The following is a non-extensive list of the ways in which CETA impacts trade with Canada, particularly for Canadian information and communications technology (ICT) businesses.

- Duties on approximately 98% of goods traded between Canada and the EU are eliminated. Prior to the signing of CETA, only one in four Canadian products exported to the EU were duty-free. All pre-existing EU tariffs on Canadian ICT goods are eliminated.
- Canadian ICT service providers compete on equal footing with EU firms.
- Canadian ICT businesses have access to EU government procurement markets. These markets are estimated to collectively generate more than \$3 trillion annually, a figure that is greater than the entire Canadian economy (\$2.3 trillion). CETA's government procurement provisions cover a range of ICT services including data processing, software implementation, and hardware installation.
- Canadian ICT companies benefit from improved worker mobility provisions, such as entry without the requirement of a work permit for 90 days. These provisions make it easier for skilled professionals and businesspeople (including short-term business visitors, intra-company transferees, investors, and contract service suppliers) to conduct business in the EU.
- According to the Protocol on the Mutual Acceptance of the Results of Conformity Assessment, Canadian ICT businesses are eligible to test products for conformity (to EU standards) while still in Canada. This provision may reduce costs and delays for Canadian producers.

With agreements like CETA in place, Canada is presented with opportunities to create, innovate, and expand its digital economic footprint to new corners of the world.



"The SmartONE team is extremely diverse, with people from all parts of the world and varied backgrounds, with global, technical, and business expertise. These are all important aspects in building a successful team – and this mix of expertise brings character and strength to our business. Beyond work ethic and education levels, there is a diversity in experiences and that is what drives innovation. Different regions of the world have different constraints and environments, and diverse teams offer a broader perspective, enabling us to have a global mindset."

– Ted Maulucci, President, SmartONE Solutions Inc.

CONCLUSION

Canada's path to economic recovery will undoubtedly be tied to the competitiveness of Canadian-grown SMEs in the ever-expanding and increasingly borderless digital economy. The COVID-19 pandemic and the global response to it are likely to register as one of the most memorable moments of the 21st century, COVID-19 will have lasting effects on the Canadian and world economy. A joint health and economic crisis left governments around the world having to respond immediately, and with much-needed emergency measures for both businesses and individuals. Months later, as emergency measures are beginning to be rolled back, the importance of unlocking innovation and competitiveness is clear. Creating IP-backed, built-to-scale, globally competitive Canadian companies is now, more than ever, a central pillar of sustainable long-term growth for Canada.

Canadian businesses must ramp up their pursuit of formal IP development, commercialization, and expansion to international markets. With evidence suggesting that businesses who hold formal IP are four times more likely to expand internationally than those that do not, Canada cannot afford to focus only on the downstream revenue seeking activities and needs to cultivate internally competitive scale-ups, and boost innovation output.

Innovative and timely incentives for IP development, a business culture that keenly and rapidly responds to opportunities, and a tailored investment-attraction strategy will all play critical roles in a competitive Canadian economy post-COVID. By carefully attracting high-quality investment, in a matter of a few decades, Mexico's once unknown automobile industry became one of the largest automobile powerhouses in the world.

Building resilient and export-ready SMEs is critical to the success of the Canadian economy, now more than ever. Investing in the levers for SMEs scaling, export, and global resilience is paramount. To this end, the following policy measures (successfully utilized in the past in Canada and internationally) warrant further evaluation.

- Revisiting the role of IP and standard IP clauses in international partnerships.
- Incentivizing the creation and commercialization of IP through constructs like an IP Box.

- Scaling startups through the attraction of quality FDI and the creation of safeguards to nurture the domestic market. For example:
 - Ensuring that a certain portion of local goods and services are used in FDI projects (where quality is equal to foreign goods and services), and
 - Ensuring that a certain quota of new jobs are created in the host country through FDI projects.
 - Enabling knowledge exchange from the investor to local businesses (to help domestic SMEs build capacity in relation to their goods and services).
 - Ensuring that a certain level of R&D activity in the host country (to help domestic SMEs develop and/or enhance their IP)
- Promoting a culture of globally competitive industries through strong outward policies.
- Prioritizing trade relations with strong markets and establishing IP protection measures for Canadian companies that can bolster rapid scale-up of Canadian startups.

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