Mississauga Entrepreneurship and Innovation Study

Final Report July 2019

Prepared by the Canadian Urban Institute | 30 St. Patrick St, Toronto, ON M5T 3A3 | www.canurb.org

Acknowledgements

This report was prepared by the Canadian Urban Institute (CUI), Impact Centre at the University of Toronto, and Cash & Associates Inc. for the Economic Development Office (EDO) of the City of Mississauga.

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Introduction

Purpose and Objectives

The purpose of the Mississauga Entrepreneurship and Innovation Study is "to conduct research and an assessment of role of the City of Mississauga Economic Development Office (EDO) in the entrepreneurship and innovation ecosystem in Mississauga".[1]

An **entrepreneurship and innovation ecosystem** refers to the diversity of actors, roles, and environmental factors that combine or interact to support **entrepreneurship** (new firm formation) and **innovation** in a locale or region; it is a commonly used metaphor for fostering entrepreneurship and innovation as an economic development strategy (Isenberg, 2014; Malecki, 2017; Spilling, 1996). Accordingly, the motivation for this study is to identify the appropriate role and opportunities for EDO to support entrepreneurship and innovation in Mississauga for the purposes of promoting local economic development. The key objectives of the study are to:

- Identify areas of focus for EDO in the entrepreneurship and innovation ecosystem;
- Understand the current state of local entrepreneurship and innovation assets (e.g. services/programming), stakeholders, and service gaps;
- Assess the impact of the small business and entrepreneur community in Mississauga;
- Engage key stakeholders for input into key challenges and opportunities for entrepreneurship and innovation in Mississauga; and

KEY TERM

Entrepreneurship is the establishment of any business to improve the status quo or to tackle a challenge, whether standalone (venture creation) or within a corporation ('intrapreneuership').

KEY TERM

Innovation is a process through which economic or social value is extracted by creating, diffusing and transforming ideas into a new piece of knowledge, an enhancement to a process, a new product/service, or a solution to an existing problem.

KEY TERM

Entrepreneurship and Innovation Ecosystem refers to the diversity of actors, roles, and environmental factors that combine or interact to support entrepreneurship and innovation in a locale or region.

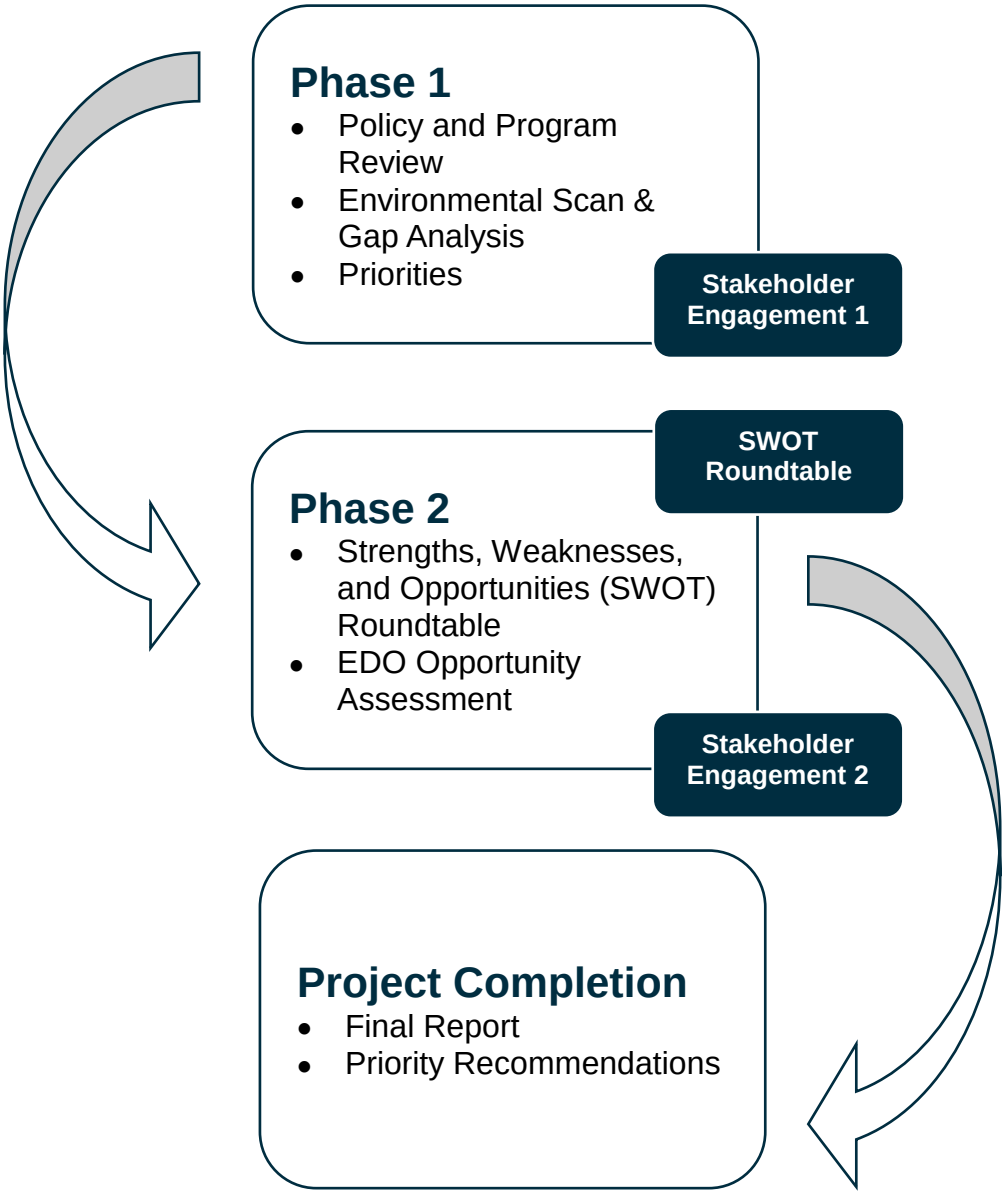
[1] The Corporation of the City of Mississauga Procurement No.: PRC001071 Request for Proposal for: Mississauga Entrepreneurship and Innovation, July 2018, page 10

- Identify the resources required to support EDO's role and areas of focus and align it with those of the greater EDO Division, other City departments, and the broader entrepreneurship and innovation ecosystem in Mississauga.

The Entrepreneurship and Innovation Study was carried out in two phases (see figure 1). Phase 1 involved an environmental scan and gap analysis. The project team conducted a comprehensive analysis of existing conditions and emerging trends in entrepreneurship and innovation in Mississauga, other Canadian urban centres, and at the provincial and federal levels of government. The team also reviewed EDO's existing definitions of key entrepreneurship and innovation terms and added or modified terms, where appropriate.

Phase 2 built on the work completed in Phase 1 and engaged key stakeholders to identify strengths, weaknesses (gaps), opportunities and constraints for entrepreneurship and innovation to develop priority recommendations for EDO. The findings from both phases of the study will inform new and ongoing economic development initiatives at EDO, as well as the development of the City of Mississauga's new Economic Development Strategy.

Figure 1. Phases of the Mississauga Entrepreneurship & Innovation Study



1 Policy Context for Innovation and Entrepreneurship in Mississauga

In Mississauga, several existing plans and strategies provide insight into EDO's current role in the entrepreneurship and innovation ecosystem and the role of the EDO. The City of Mississauga's strategic plan, *Our Future Mississauga* (2009), sets out a vision to "inspire the world as a dynamic global city for creativity and innovation" (p.). Underlying this vision is the understanding that Mississauga "will become a city that values innovative and creative industries, invests in small-scale entrepreneurialism, and places an emphasis on education, arts and culture" (p. 29). Under the plan's strategic pillar, 'Prosper', the City is currently involved in Cultivating Creative and Innovative Businesses by pursuing five strategic goals:

- **Develop Talent** – to be an international destination rich in global and local talent, including post-secondary education, creative enterprise and foreign-trained professionals who can realize their potential.
- **Attract Innovative Business** – to be a dynamic, urban environment that is the preferred location for innovative, creative and knowledge-based businesses and emerging industries;
- **Meet Employment Needs** – to provide the infrastructure and network of services and opportunities that business requires to thrive;
- **Strengthen Arts and Culture** – to foster arts and culture as a key contributor to attracting talent, providing quality of life and supporting creative businesses;
- **Create Partnership for Innovation** – to leverage opportunities with colleges, universities, centres of excellence, research institutions and cultural institutions to foster innovation;

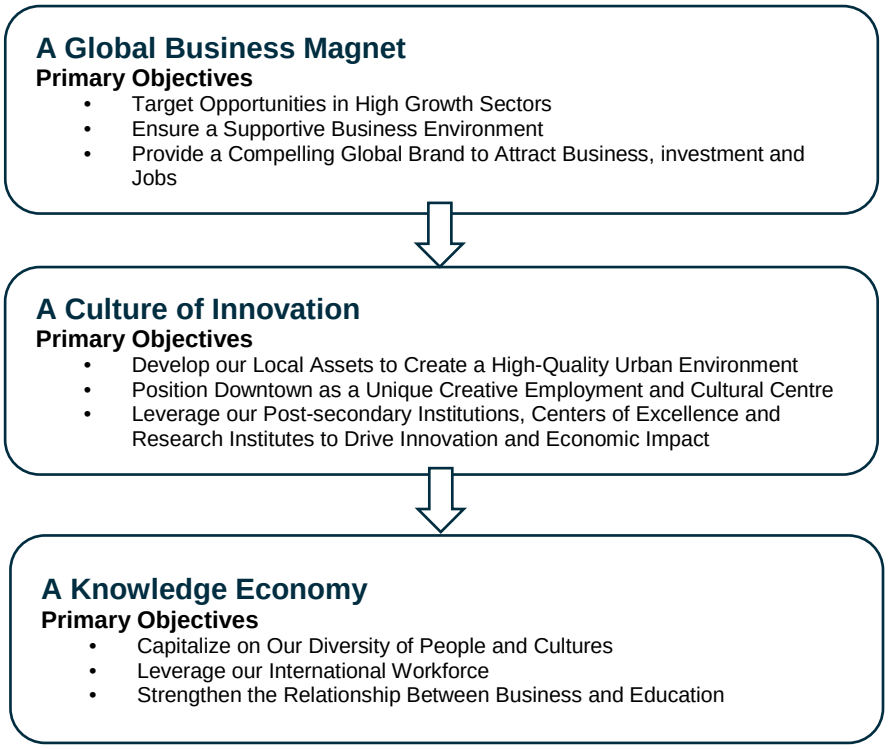
Another strategic pillar of Our *Future Mississauga* is 'Belong', which involves Ensuring Youth, Older Adults, and New Immigrants Thrive. Two important strategic goals undergirding this pillar are focused on opportunities for youth and immigrant entrepreneurship:

- **Attract and Retain Youth** – to create opportunities for enterprise, cultural and artistic destinations and expression; and
- **Nurture Diverse Cultures** – to provide more cultural exchange, understanding and opportunity for small-scale entrepreneurialism.

The overall direction of *Our Future Mississauga* provided a framework for the development of *Building on Success* (2010), the City of Mississauga's current 10-year

Economic Development Strategy. *Building on Success* is structured around three high-level goals (each consisting of three primary objectives) that are designed to support the 'Prosper' pillar in the City's strategic plan and guide strategic economic development initiatives:

Figure 2. Goals and Objectives of Mississauga's Current Economic Development Strategy



Building on Success also acknowledges the importance of four growing and emerging sectors in Mississauga: Life Sciences, Information Communications and Technologies (ICT), Advanced Manufacturing, and Financial Services. The strategy states that these sectors will continue to be a major focus for economic development and will be significant in achieving the City's goals and objectives. Targeting opportunities in these high growth sectors is the first objective in *Building on Success* and intended to help Mississauga realize its goal of becoming a global business magnet.

After *Building on Success*, the City of Mississauga, in partnership with RIC Centre, retained a consultant to assess the need for an Innovation Centre in Mississauga. The consultant found that the innovation support system in Mississauga was already delivering on several services and supports that would otherwise be offered through a new Innovation Centre and set out *An Action Plan for Innovation in Mississauga* (2011) to address impediments to innovation in Mississauga as a whole. The consultant's

central finding was that Mississauga "requires a much stronger civic leadership capacity that can be engaged to deliver on the kinds of initiatives that have been identified as being important for innovation by the community"

In an effort to build capacity for entrepreneurship and innovation, EDO and the Mississauga Economic Development Advisory Board held the *Dialogue on Talent* (2013) event, which brought together senior executives representing local industry, education, and government to engage in a discussion on enhancing the retention of talent in Mississauga and empowering businesses to endorse the City as a location of choice for investment. Based on input captured at the event, four recommendations for action were developed and validated to form the basis of an action plan:

- **Engaging with young people:** Create a climate that empowers young people to actively participate in career awareness and experiential learning opportunities, supported by the business community
- **Connecting younger workers with mature/experienced workers:** Create opportunities to bring together business and education that fosters dialogue to strengthen alignment between business needs and education programming and curriculum;
- **Aligning business needs with education curriculum:** Promote knowledge transfer within a multi-generational workplace; and
- **Strengthening Mississauga's innovative economy.**

Overall, EDO's stance on entrepreneurship and innovation over the past decade has been guided by major themes and objectives outlined in the City's economic development strategy, such as key sector development, international marketing, business attraction, university-business partnerships and entrepreneurship. Through the City's strategic plan and *Dialogue on Talent*, EDO's activities have been further guided by a shared understanding of Mississauga's need to attract and retain youth, maximize the integration and productivity of the City's immigrant workforce, and provide opportunities for small-scale entrepreneurialism. As the City updates the Strategic Plan's goals and nears the end of its (current) 10-year economic development strategy, EDO is looking to revisit and revamp its innovation and entrepreneurship priorities to prepare for the next era of economic development and growth.

2 Mississauga's Entrepreneurship & Innovation Ecosystem

2.1 Entrepreneurship & Innovation Assets

2.1.1 EDO and the Mississauga Business Enterprise Centre

Within the City of Mississauga, a primary entrepreneurship and innovation asset is EDO. Located within the City Manager's Office, EDO is composed of 15-20 staff resources. EDO is home to the City's core economic development staff and functions; it consists of senior and administrative staff, business and marketing consultants, account managers, and a research analyst. Its service areas include global business investment, sector development, and research and marketing.

MBEC is responsible for EDO's small business and entrepreneurship service area. Located on the fourth floor of the City of Mississauga Central Library, MBEC is the primary source of information, guidance, and resources for small business owners and entrepreneurs who are looking to start new businesses or expand existing ones. MBEC provides key services such as business registrations and business plan reviews, holds seminars and events, and delivers small business and entrepreneurship programs funded by the Province of Ontario. MBEC is also part of a network of 54 Small Business Enterprise Centers (SBEC) across Ontario.

SBECs provide services and supports to entrepreneurs within a municipality and surrounding Service Region to start and grow their businesses. The SBEC program was established in the mid-1980s with a select number of pilot Business Self-Help Offices (BSHOs). Today, the program is funded by the Ministry of Economic Development, Job Creation and Trade (MEDJCT) and is part of the Ontario Network of Entrepreneurs (ONE) – a provincial initiative that is designed to help entrepreneurs start, grow, and finance their businesses.

2.1.2 Mississauga Entrepreneurship and Innovation Asset Inventory

Mississauga is home to a number of public and private sector organizations providing varying degrees of services and support (assets) to entrepreneurs and innovators. The study team reorganized and updated the city's asset inventory list to serve as a more effective tool for catalyzing partnerships, identifying EDO opportunities, and implementing those opportunities. We used the categorization employed in the report entitled *Asset Mapping Roadmap: A Guide to Assessing Regional Development Resources* (Council on Competitiveness, 2007) using the following major asset types

- Human capital, including K-12 and higher educational institutions;
- Research and development institutions;
- Financial capital; and
- Connective organizations.

Table 1. Updated Mississauga Entrepreneurship and Innovation Asset Inventory by Major Asset Type

Major Asset Type	Number
Connective organizations	**30**
Support network	20
Industry/cluster associations	5
Business and economic development organizations	5
Financial capital	**76**
Government programs	37
Venture capital	36
Angel investors/networks	3
Research and development	**737**
Corporate R&D	697
Co-working space	28
Business incubator	7
Research centres	5
Human capital	**5**
K-12	3
Four-year colleges and universities	2
Specialized workforce	1
Grand Total	**849**

Note:
[1]Source: Impact Centre at the University of Toronto; City of Mississauga EDO

In the end, the list was updated to include approximately 670 additional entries, increasing the total number of assets on the previous list by more than fourfold. The complete list of assets is included as a separate Excel file to remain a living document that should be updated regularly. Due diligence is also needed to identify assets that no longer exist or are not appropriate to be considered an “innovation asset”

2.1.3 Entrepreneurship & Innovation Key Champions

An entrepreneurship and innovation ecosystem thrives when it is supported by a core of well-established large businesses that provide mentorship, local and global connections, and, in some cases, catalytic funding for startups and entrepreneurs seeking to scale. Mississauga has a strong core of leading private and public companies headquartered in Mississauga that can be leveraged as key champions to the entrepreneurship and innovation ecosystem.

These organizations include:

- Concordia International
- Covalon Technologies
- EnerSource
- Fielding Environmental
- Grasshopper Solar
- GreenCentre Canada
- MedAvail technologies
- Nytric Ltd.
- Optiva
- PointClickCare
- SOTI Inc.
- The Green Organic Dutchman
- Xerox Research Centre of Canada

Post-secondary institutions have also been identified as key champions in the entrepreneurship and innovation ecosystem, providing vital workspace, resources and connections for businesses to scaleup and commercialize their services and goods. Within Mississauga, the University of Toronto at Mississauga (UTM) and Sheridan College are ecosystem champions, specifically UTM's I-CUBE and the Mississauga Sheridan Innovation Hub within the EDGE Entrepreneurship Hub.

The Regional Innovation Centre (RIC) was also developed as a key asset for entrepreneurs and innovation in Mississauga.

3 Changes that Impact Mississauga's Entrepreneurship & Innovation Ecosystem

3.1 Shifting Policy Focus from Startups to Scaleups

While continuing to provide information and service support to small businesses, the shifting entrepreneurship and innovation policy and program landscape is one that municipalities need to understand to effectively align priorities with other orders of government and economic growth strategies. Research institutes, public policy experts, and government agencies around the globe are re-considering the allocation of public resources to small startups and paying greater attention to businesses with a demonstrated ability and desire to scale.

Federal and provincial governments appear to be captured by economic development initiatives that go beyond entrepreneurship and small business formation and are instead driven by efforts to produce world-class businesses that compete on the global stage.

As the old (industrial) economy shifts to a new (post-industrial) economy, federal and provincial governments' policy and program support is shifting away from startups to an increasing focus on high-growth firms.

Strategies to support entrepreneurs and innovation recognise two different types of entrepreneurial companies: small- and medium-sized businesses and (high growth) scaleups.

3.1.1 Small- and Medium-sized Businesses (SMBs)

Small- and Medium-sized Businesses (SMBs), also referred to as small- and medium-sized enterprises (SMEs), are new and existing businesses that serve local populations but are not trying to scale. This classification would probably include all companies started by necessity-driven entrepreneurs and may include ones who are opportunity-driven but with small scope. These do not drive higher income per capita, local wealth, or significantly grow the overall economic pie.

3.1.1.1 SMB Needs

All entrepreneurs have a basic set of needs that must be met to enable them to prosper such as:

- Access to technical information on regulations and procedures for establishing a business;
- Access to knowledge and training about business management and development;
- A network of service suppliers in areas such as law, accounting, and banking;
- Physical space for operations;
- Access to personnel;
- Access to debt capital;
- Mentorship; and
- Supportive community.

KEY TERM

Small- and Medium-Sized businesses (SMBs) are new and existing businesses that serve local populations and are not trying to scale.

3.1.1.2 Scaleups

A **scaleup** is a firm with an average annual rate of employment growth or turnover above 20% over a three-year period, and with more than 10 employees at the beginning of the period. Scaleups employ quick growth- and export-driven strategies and business models to gain significant market penetration and generate revenues sustainably without adding substantial resources. This classification would likely encompass all opportunity-driven entrepreneurs with businesses that have a large potential scope. It would certainly include all businesses that have raised some capital and are attempting to scale. All scaleups are considered high-growth, but not all high-growth firms are considered scaleups. Scaleup founders are entrepreneurs that drive economic growth in a city or region.

KEY TERM

A **scaleup** is a firm that experiences an average annual rate of employment growth or turnover above 20% over a three-year period, with more than 10 employees at the beginning of the period. Scaleups employ quick growth- and export-driven strategies and business models to gain significant market penetration and generate revenues sustainably without adding substantial resources**.**

3.1.1.3 Scaleup Needs

In addition to the basic needs of all entrepreneurs, scaleups require a specialized set of resources:

- Regulatory and standards information;
- Protection of intellectual property;
- Access to specialized export markets;
- Access to capital;

- Access to manufacturing and supply channels;
- Enhanced knowledge in a variety of subjects, depending on the market (e.g. political/cultural context of customers internationally);
- Each key sector—from information and communications technology (ICT) and healthcare to advanced manufacturing and finance, insurance and real estate (FIRE)—will necessitate a different specialized set or combination of resources.

3.2 Shifting Government Funding Support

3.2.1 Support for High Growth Companies

Our team conducted a scan of over 30 global, federal, provincial, regional and municipal policies, strategies and directives to identify key policy and program themes in the areas of small business, entrepreneurship, and innovation[2]. The scan suggests that innovation policy and program support is shifting away from startups to high-growth firms and scaleups. Federally, there is a focus on growing high-potential companies, with a target to double the number of high-growth firms in Canada by 2025 (as reflected in the 2018 federal budget).

Several resources that we reviewed discussed how simply enabling entrepreneurship will not necessarily lead businesses to become high-growth firms.

Developing an interconnected entrepreneurship and innovation ecosystem has been identified as an effective strategy for providing the critical resources and connections that high-growth companies need to succeed.

[2] The full scan is available in the Appendix package available upon request.

The following are key lessons for creating effective partnerships and practices in Mississauga's entrepreneurship and innovation ecosystem:

- Large established businesses should be at the core of the ecosystem to exchange knowledge and provide mentorship.
- Policy intervention needs to take a holistic approach and address diverse stakeholders, including entrepreneurial actors, resource providers, and entrepreneurial connectors.
- Fostering relationships with post-secondary institutions is critical for innovation and commercialization, as these institutions have taken on a critical role providing research and development as well as infrastructure (incubators and accelerators) for entrepreneurs.
- Collaboration is key, and the innovation hub/meeting place model has the potential to increase innovation and strengthen individual firms. Some projects currently underway at the City will provide space and opportunities to create clusters, including the Inspiration Lakeview Innovation Corridor and the revitalization of the Central Library as a Digital Showcase.
- The Mississauga Library System is a well-known venue for small business information and support through the co-location of the Enterprise Center in Central Library.

3.2.2 Review of Funding Programs

A review of programming opportunities through the Ministry of Economic Development, Job Creation and Trade (MEDJCT) was undertaken[3]. These programs provide the following type of support:

- Social/cultural entrepreneurship and enterprise (e.g. Social Enterprise Demonstration Fund, Procurement and Investment Readiness Fund, Interactive Digital Media Fund);
- Economic development and diversification (e.g. Eastern Ontario Development Fund, Southwestern Ontario Fund, Communities in Transition Program);
- Innovation and R&D locally or globally (e.g. Ontario Research Fund, Low Carbon Innovation Fund, Ontario-Jiangsu Partnership, Ontario-Israel Partnership, Jobs and Prosperity Fund);

[3] The full review is available in the Appendix package available upon request.

- Youth entrepreneurship (e.g. Entrepreneurship Learning Stream, Youth Skills Connections Program, Summer Company)
- “Main street” businesses (e.g. Digital Main Street, Starter Company Plus).

While some programs provide financial contributions directly to private companies, others provide funds to non-profit organizations, consortia, networks, and business associations that support these companies. Provincial programming focuses largely on “innovative” and technology-driven business, with limited resources available to “main street” businesses.

The recent change in leadership in Ontario has had some implications for regional support available to small businesses and entrepreneurs. With ongoing cuts to funding for various programs and services, the status of many provincial entrepreneurship programs is uncertain. Some programs appear to have active websites, while others have been archived or are inactive without calls for proposals. For the 3 year fiscal period commencing April 1, 2019, the City of Mississauga has received confirmation of provincial funding to deliver entrepreneurship related programs and services with modest reduction as compared to previous provincial funding arrangements. Of note, the province of Ontario is undergoing a review of the Regional Innovation Centres (RIC Centres) with expectation of report delivered in Fall 2019.

Given the changes in provincial support, many firms in Ontario attempt to support their R&D activities by tapping into federal funding sources, which tend to be more stable and predictable than provincial programming. This is illustrated by table 2, which provides a (non-exhaustive) sample of firms in Mississauga that were found to rely on multiple government programs.

Table 2. Mississauga Firms with Contributions (Past/Current) from Multiple Government Agencies

Firm	National Research Council (NRC)	Ontario Economic Development (OED)	Ontario Centres of Excellence (OCE)	Sustainable Development Technology Canada (SDTC)
2Source Manufacturing	✗	✗		
AbCelex Technologies	✗		✗	
Agfa	✗		✗	
Ambiance Data	✗		✗	
Baylis Medical Company	✗	✗	✗	
Concept Plastics	✗	✗		
Cyclone Manufacturing	✗	✗		
Dynamic Systems Group			✗	✗
Electrovaya	✗	✗		✗
Escord Manufacturing	✗		✗	
Gracious Living Innovations	✗		✗	
GVA Lighting	✗		✗	
Hybrid Power Solutions	✗		✗	
Hydrogenics	✗	✗		✗
Imtex Membranes		✗		✗
Infinity Testing Solutions	✗		✗	
Integran Technologies		✗	✗	✗
Myndtec	✗		✗	
PinPoint GPS Solutions	✗		✗	
Pratt & Whitney Canada		✗	✗	
Pulse Microsystems	✗		✗	
Safety Power	✗		✗	
SceneDoc	✗		✗	
Signifi Solutions	✗		✗	
Springpower International	✗	✗	✗	✗
Temporal Power		✗		✗
Tenova Goodfellow	✗			✗
Therapure Biopharma	✗	✗		
Ultrafit Manufacturing	✗		✗	
Vive Crop Protection			✗	✗

Notes:

[1]Analysis conducted by the Impact Centre based on funding recipients in various public databases.

3.3 Trends in Key Communities and Sectors

3.2.3 Scaling

The concept of "scaling" and "scaleup[4]" is emerging as a central policy theme in innovation. Policy experts and innovation practitioners have criticized Canada's innovation system for its inability to grow and scale companies. This may come as a surprise, given that Canada's technology sector has been successful at starting companies and generating innovations with high potential.

Identifying the root causes of the scaling problem has proved to be a challenging endeavour. Certainly, the shortage of venture capital (VC) is frequently cited as a contributing factor. The reasoning is that since Canada does not have the capital available to fuel late-stage growth, our high-tech companies are sold off before they have a chance to become globally competitive players.
A study conducted by the Impact Centre (2017) at the University of Toronto highlights three issues:

- Canadian companies wait longer before they start raising funds,
- They raise funds less often, and
- They raise less money over time when compared to their American counterparts.

The lesson for EDOs, business advisors, policy experts, and government agencies involved in scaling Canadian firms is that smaller companies should be encouraged to begin raising funds earlier, more often, and in larger amounts. This way firms could spend more money on critical functions and position themselves as attractive investment opportunities to fuel further growth.

3.2.4 Life Sciences

The life sciences sector is seen as a promising growth area for Mississauga. Life sciences can be divided into three primary areas: (1) health tech software; (2) devices and equipment for health; and (3) biotechnology, drug discovery and development. Our review of active life sciences companies in Canada and the US is summarized in table 3. We have organized firms according to whether they are "starting" or "scaling", using $10 million as a cut-off between early-stage and growth companies. The results

[4] A **scaleup** is a firm with an average annual rate of employment growth or turnover above 20% over a three-year period, and with more than 10 employees at the beginning of the period. Scaleups employ quick growth- and export-driven strategies and business models to gain significant market penetration and generate revenues sustainably without adding substantial resources (see Section 3.1.1.2 above)

illustrate that US has five times as much capital available to both new and growing companies on a per capita basis. The gap widens for more established businesses, where our southern neighbour has six times as much investment capital for scaling companies. Within the US, Massachusetts has displayed the strongest performance relative to its state counterparts, followed by California.

Table 3. Health Technology Investment Capital Per Capita

	Canada	Ontario	US	California	Massachusetts
Capital per 1 Million Population	57	66.8	298.6	939.9	2930.2
Scaling					
Over $10 Million	46.8	54.6	276.1	893.1	2816.1
Starting					
Under $10 Million	10.1	12.3	22.5	46.1	114.1

Notes:
[1]All figures are expressed in thousands (000s).
[2]Source: CB Insights

Previous research conducted by the Impact Centre suggests that these trends in health technology innovation are linked to at least three factors:

1. There is misalignment between researchers and commercialization objectives.
2. From the perspective of the entrepreneur, the system for commercializing health technology is overly cumbersome with multiple overlapping parts as well as funding and assistance gaps.
3. The healthcare system is not adequately aligned to purchase innovation that comes out of the health technology system.

While Mississauga's EDO has not played an active role in scaling companies in this sector, there may be opportunities to act as a broker and bring parts of the system together to create more opportunities for entrepreneurs.

3.2.5 Physical Technologies

Government agencies in Canada typically focus investments on four key sectors: ICT, biotechnology, cleantech and advanced manufacturing. In doing so, they omit physical technologies[5], which have a much greater impact on the economy of Canada than other sectors.

[5] We define physical technologies as technologies arising from academic research in faculties of engineering and departments of chemistry, physics, earth sciences, and space sciences.

- They contribute almost eight times as much to Canada's GDP as does the combined effort of the ICT and biotechnology industries.
- Industries employing physical technologies substantially outspend traditional ICT and pharma sectors when it comes to R&D.
- Worldwide, leading physical technology companies spend more in total on R&D than either ICT or life sciences, and are granted a significantly larger number of patents.

While Mississauga has not played an active role in the physical technologies sector, there is a potential role for Mississauga in bringing resources together and enabling physical technology companies to access those resources in a more expeditious manner. Some of EDO's existing work in areas such as advanced manufacturing and cleantech already encompasses physical technologies.

3.2.6 Improving Access to Business Support for Underrepresented Groups

In Mississauga, significant attention has been paid to providing business support to youth, seniors, newcomers, women, social enterprises, and other groups. Governments that provide this type of support to individuals from these groups believe that they face systemic barriers that warrant public intervention and support to promote equal opportunity.

3.2.6.1 Youth

Since 2013 funds from Ontario have helped support the Campus-Linked Accelerators Program for on-campus entrepreneurship, outreach programs for entrepreneurship in high schools, and the Summer Company and Starter Company youth entrepreneurship programs. These latter two are administered by MBEC in Mississauga. This level of activity has contributed to Ontario's reputation as one of Canada's major hubs for youth entrepreneurship (Global Entrepreneurship Monitor, 2017).

3.2.6.2 Women

Although progress has been made in closing labour force disparities between Canadian women and men, significantly more effort is required to reach parity in entrepreneurship. A recent study conducted by Statistics Canada found that, between 2005 and 2013, women-owned enterprises were highly underrepresented in the Canadian economy (especially among larger enterprises), accounting for between 11% and 19% of all enterprises, depending on the firm size (Grekou et al., 2018). Several persistent barriers stand in the way of women occupying an even position in the field of entrepreneurship, including:

- Access to capital is critical during healthy business growth, but women face additional challenges due to ageism and sexism. Women are also underrepresented among funding and venture capital organizations making investment decisions.
- Women often perform the bulk of unpaid child care and domestic labour, making entrepreneurship a significant challenge in earlier career stages. For this reason, women are more likely to become entrepreneurs at a later point in life.
- Lower entrepreneurship among women can leave newer generations of female entrepreneurs with fewer role models, mentors, and networks. Persistent social biases and attitudes can also hider women's ability to build trust-based business relationships (Allan et al., 2018).

Although the barriers confronting women entrepreneurs are becoming increasingly recognized, Mississauga's current economic development strategy makes no mention of gender disparities in entrepreneurship, or how such disparities hinder the realization of economic development objectives.

3.2.6.3 Newcomers

Mississauga is one of the most diverse cities in the country. As of 2016, more than 53% of the City's population was composed of immigrants. While immigration can have a positive economic impact on a region in a number of indirect ways (e.g. provision of new skills, expansion of the labour force), immigrants also contribute directly to new business and job creation (Canadian Citizenship & Immigration Resource Center, 2018).

Immigrants face many barriers to establishing and growing their businesses that are not faced by non-immigrants. These include language and cultural barriers, potentially weak social and business networks, difficulty understanding the legislative and regulatory environment for businesses, and additional difficulty accessing financing (Cukier et al., 2017; El-Assal, 2018). New immigrants also often experience difficulty having their foreign credentials recognized, which can lead them to un(der)employment, low-paid and/or exploitative work, and domestic stress.

The City of Mississauga strategic plan has firmly established the need to support new immigrants through more cultural exchange, understanding and opportunity for small-scale entrepreneurialism.

In addition, the City's economic development strategy highlights the need to "provide continued support to the accreditation of foreign-trained professionals and recognition of foreign credentials, in order to maximize the integration and productivity of Mississauga's immigrant workforce" (p.45).

In 2019, EDO will be delivering a new Youth and Immigrant Entrepreneurship Program, which will support the entrepreneurial potential of local youth (ages 15 to 29) and recent immigrants (arriving in Canada within the last 5 years) by providing targeted client service delivery and programming and building stakeholder relationships with various agencies servicing youth and newcomers. The program will be delivered through MBEC and is expected to commence in October 2019.

4 Building Mississauga's Success

4.1 Measuring Entrepreneurs & Small Business Activity

4.1.1 Current Indicators

Mississauga currently assembles and represents StatsCan data on entrepreneurial activity related to the following indicators - establishments and employment, industry representation, small business geographic concentration, small business employment, small business growth patterns, entrepreneur and small business ranking, and key sector small business ranking.

4.1.2 Entrepreneur and Small Business Rankings

4.1.2.1 Small Business Employment

While Mississauga remained the sixth largest city in Canada by total population in 2016, comparative to other major Canadian municipalities, as of December 2017, Mississauga had the seventh largest small business community accounting for the 20th largest share of total employment. Mississauga's drop to seventh place in terms of small business presence is attributed to Vancouver. While Vancouver represents the eighth largest Canadian city by population in 2016, as of December 2017 Vancouver had the fourth largest small business community behind Toronto, Montréal and Calgary.

KEY TERM

Small businesses are business establishments with 1 to 99 paid employees.

Additionally, of Canada's ten most populous cities, Mississauga ranked last in terms of the proportion of the total employment base that is employed by small businesses in 2017. Comparatively, Brampton ranked the highest, followed by Hamilton and Vancouver. This ranking signifies that…

...while small business remains an important economic driver, Mississauga's presence of large and multi-national corporations plays a significantly more important role to local employment as compared to other major Canadian cities.

Table 4. Overall Small Business Ranking for Major Canadian Municipalities, 2017

	2016 Population Rank	2017 Small Business Employment Ranking
Brampton	9	1
Hamilton	10	2
Vancouver	8	3
Calgary	3	4
Edmonton	5	5
Ottawa	4	6
Montréal	2	7
Winnipeg	7	8
Toronto	1	9
Mississauga	6	10

Notes:
[1] Employment estimates are based on business counts and assume zero employment for businesses without employees (i.e. self-employment for businesses without employees is excluded).
[2]Source: Statistics Canada, Canadian Business Counts December 2017

4.1.2.2 Canada's Most Entrepreneurial Cities

The 2016 Census indicates that of Canada's most populous cities, Vancouver ranked as the most entrepreneurial city with 14.5% of residents identifying as self-employed in 2016. In comparison, Mississauga ranked fourth, following Toronto and Montréal.

Table 5. Ranking of Canada's Most Entrepreneurial Cities for Major Canadian Municipalities, 2017

	Population Rank	Self-Employed Population	Total Class of Workers	% of Entrepreneurs	Entrepreneurial Rank
Vancouver	8	52,880	364,670	14.50%	1
Toronto	1	182,930	1,437,545	12.73%	2
Montréal	2	100,565	863,910	11.64%	3
Mississauga	6	44,275	382,205	11.58%	4
Calgary	3	79,910	713,140	11.21%	5
Brampton	9	33,255	310,435	10.71%	6
Hamilton	10	28,085	271,985	10.33%	7
Ottawa	4	50,965	501,090	10.17%	8
Edmonton	5	47,915	527,415	9.08%	9
Winnipeg	7	29,570	375,625	7.87%	10

Note:
[1]Source: Statistics Canada, 2016 Census

4.1.2.3 Key Sector Small Business Ranking

Mississauga's key sector small business community ranks competitively in comparison to other major Canadian municipalities. December 2017 rankings for small businesses remained consistent with overall key sector rankings with the exception of finance, insurance and real estate (FIRE) employment, where small business employment ranked lower (seventh position) as compared to overall Mississauga FIRE employment (fifth position). Aerospace and automotive represented Mississauga's strengths, ranking first across major Canadian municipalities for total small business employment. The following table provides an overview of Mississauga's key sector small business rankings.

Table 6. Mississauga Key Sector Small Business Rankings, 2017

	Small Business Establishments	Small Business Employment
ICT	5	4
Life Sciences	5	2
Aerospace	3	1
Automotive	2	1
Food & Beverage	4	3
FIRE	7	7

Notes:
[1] Employment estimates are based on business counts and assume zero employment for businesses without employees (i.e. self-employment for businesses without employees is excluded).
[2]Source: Statistics Canada, Canadian Business Counts December 2017

4.1.2.4 Connection Between Small Business and Economic Vigour

Countries with a large fraction of small companies are often stagnant in terms of economic vitality as individuals start small businesses when there are fewer other opportunities for employment (Henrekson and Sanandaji, 2014). As a good example of this phenomenon, one can look at entrepreneurship rates in countries such as Mexico, Greece, Italy, South Korea, and Turkey. These countries have the highest rates of self-employment according to the OECD. The US with all its economic heft, on the other hand, has the second lowest rate of self-employment.

4.1.2.5 The Need for New Indicators

Unfortunately, since the data used to measure business success is aggregated, it does not offer enough granularity to differentiate between the range of businesses in Mississauga that may have significantly different needs (i.e. traditional/main street vs. high-growth firms). These indicators also do not tell us anything about the nature of small business in Mississauga, which makes it difficult to state whether Mississauga is doing well or poorly in particular sectors. For that reason, we have completed a more granular analysis as described in the following sections.

In developing metrics for Mississauga, the first type of companies we need to take a closer look at are the ones in the new economy. Mississauga has identified certain key sectors: ICT; life sciences; aerospace; automotive; food & beverage and FIRE. Of these, ICT, life sciences and aerospace tend to be more new economy-oriented. In addition, there are new economy sectors under the umbrella of advanced manufacturing (e.g. clean tech) that need to be evaluated as well.

4.1.2.6 A Focus on High Growth Companies

Policies in other countries have also moved beyond startup to focus on scaleups and high-growth small businesses. An example comes from the United Kingdom (UK) where commentators see “growing smaller companies” as a “force for regional revival” (Scaleup Institute, 2015). Recent reports suggest staggering trends with respect to contributions to growth and job creation in the UK alone: nearly 20% of UK’s economic growth comes from these high-growth small businesses, which generate one in three new jobs.

Table 7. Summary of Academic Studies on Relationship Between Fast-Growing Businesses and Job Creation

Study Authors	Conclusion
Birch and Medoff (1994)	A small number (4%) of ongoing firms create a disproportionately large share of all new jobs in the USA (60%)
Kirchhoff (1994)	4% of firms produce 75% of employment in studied cohorts
Storey (1994)	Approximately 4% of firms create approximately half the new jobs in studied firms
Storey (1994)	
Birch et al. (1995)	Gazelles account for all new jobs in the whole economy
Picot and Dupuy (1998)	Job generation concentrated to a few fast-growing firms in the sample
Autio et al. (2000)	High-growth firms increased their employment by more than 400%
Bruderl and Prisendorfer (2000)	A small number (4%) of rapidly growing firms are crucial for job generation
Schreyer (2000), Canada	High-growth firms contribute a disproportionately large part of job creation among studied firms
Sweden in Schreyer (2000), Davidsson and Delmar (2003, 2006), Delmar et al. (2003)	Gazelles created all new jobs in the investigated population
Littunen and Tohmo (2003)	High-growth firms accounted for all jobs created in the investigated population
Fritsch and Weyh (2006)	A small proportion of the firms dominate job creation in the studied cohort
Halabisky et al. (2006)	Fast-growing firms generated the bulk of new jobs in the private sector
Acs and Mueller (2008)	Gazelles in large, diversified metropolitan regions generate long-term employment growth
Acs et al. (2008)	High-impact firms (2–3% of all firms) create almost all net jobs in the economy
Deschryvere (2008)	High-growth firms (5% of all firms) generate more than all net jobs in the economy. Firm size and organic growth negatively related

Note:

[1]Source: Table reproduced from Henkreson and Johansson (2010).

These fast-growing companies have in some cases been referred to as “gazelles”, “unicorns”, or “cheetahs”. But they all capture the notion of a small businesses with remarkable growth. Other reports estimate that these types of firms contribute up to half of the new jobs created, new employment growth in related industries, and operations

across multiple geographies (Erwing Marion Kauffman Foundation, 2016). This is further supported through a number of academic studies that show young and fast-growing companies as major job creators. Some of these assessments were summarized in meta-study on the interplay between fast-growing businesses and job creation (see Table 7). Certainly, while not all entrepreneurial ventures are destined for such growth trajectory, the challenge for policy makers is to identify high-growth small businesses. They are typically “spread across a broad range of industries, which doesn’t make for a cohesive group. This and their small size help explain why they’re easy for policymakers to miss within the wider [small to medium sized enterprises] … sector” (Scaleup Institute, 2015).

When put together, these studies and data suggest that economic success in countries and in cities goes beyond small business and entrepreneurship rates and is driven through the production of world-class businesses that compete on the global stage. Virtually every study completed over the last 20 years supports the proposition that economic development is driven by high-growth companies with the potential to scale.

4.2 Measuring Scaleups

The City of Mississauga has provided us with statistics to begin the process of measuring scaleups. Some of the data is reproduced here.

4.2.1 Traditional/Main Street vs. High-Growth Small Businesses

Small business can be categorized as high-growth or traditional/main street small businesses or both high growth and traditional/main street. As defined in earlier sections, traditional/main street small businesses represent the social fabric of the community and range from non-employee businesses and home-based businesses to main street businesses and suppliers. As outlined by the Ontario BIA [Business Improvement Area] Association, main street businesses can be catalysts of local street appeal, economic development and community building (OBIAA 2017).

High growth firms are defined by Industry Canada and the US Bureau of Labor Statistics as follows:

- A firm with fewer than 10 employees and growth of 8 or more employees over a three-year period; or
- A firm with 10 or more employees and growth at an average annualized rate of more than 20% over a three-year period.

Table 8 below presents the number of Mississauga’s high-growth businesses and their employment by industry, across 2014-2017. 12,877 business were identified as falling

within both the 2014 and 2017 City of Mississauga Employment Surveys, and whose record could be matched between both years (of approximately 20,000 business records in 2014). From this set, 2,757 businesses were excluded due to missing employment data, leaving 10,120 businesses for analysis. This set of 10,120 businesses were used in the analysis.

Of the 10,120 businesses, 9,717 (96%) were identified as small in 2014 (less than 100 employees) – these small businesses employed 100,099 people (see Table 8 below). Of the 9,717 small businesses in 2014, 1,688 (17.4%) satisfied the criteria for high growth outlined above (HGFs). These 1,688 HGFs employed 9,995 FTEs in 2014. By 2017, these 1,688 HGFs employed 111,129 FTEs, an increase of 101,134 over the three years (or a 988% increase from the 2014 level).

Manufacturing, Wholesale, Retail and Other Services accounted for the three highest shares of employment gains from HGFs. Wholesale HGFs added 16,447 FTEs (16.1% of total added), Other Services HGFs added 16,195 FTEs (15.9% of total added), Retail HGFs added 12,677 FTEs (12.4% of total added), and Manufacturing HGFs added 10,888 FTEs (10.7% of total added). These three industries are not typically associated with R&D or innovation (other than in the implementation of new technologies created in other sectors) and furthermore, emerges in reaction to growth in other sectors. This indicates a lack of export-oriented high growth firms in Mississauga, and the currently important role that main street type businesses play in the high-growth small business economy.

Another way to assess the prevalence of HGFs across industries is to look at the ratio of each industry's share of added employment from HGFs over each industry's share of total employment in 2014 (including both HGFs and non-HGFs) – this captures whether an industry's prevalence of HGF firms is greater than its overall prevalence in the economy. For example, Manufacturing accounted for 10.7% of added employment from HGFs, and in 2014 Manufacturing accounted for 15.4% of employment overall. (10.7% divided by 15.4% results in a ratio of 0.69). This indicates HGF employment added from Manufacturing was lower than could be expected based on Manufacturing's share of employment overall.

The top four industries using the HGF Ratio were Utilities (2.44), Management of companies and enterprises (1.88), Arts, entertainment and recreation (1.70), and Other services (1.45). Of note, HGF Ratios were also high for Information and cultural industries (1.23) and Professional services (1.28).

These are important trends to monitor as high-growth small businesses not only have a high growth trajectory, but also generate meaningful employment and are the most

likely of all types of businesses to grow into world-leading firms creating new markets and industries. However, the data presented in Table 8 below does not differentiate which high-growth small businesses are also scaleups or have the potential to become world-class firms.

Table 8. 2014-2017 Mississauga High-Growth Small Businesses by Industry

	Number of High-Growth Small Businesses, 2014[6]	2014 Employment	2017 Employment	2014-17 Employment Gains	2014-17 Percentage Growth
Unknown	4	90.5	315.5	225	248.6%
22 - Utilities	5	29.5	265.3	799.2%	699.19%
23 - Construction	39	259.0	1,801.2	595.4%	495.43%
31-33 - Manufacturing	221	1,400.5	12,227.4	773.1%	673.07%
41 - Wholesale trade	225	1,686.5	18,049.8	970.3%	870.25%
44-45 - Retail trade	217	1,096.5	13,667.2	1146.4%	1046.43%
48-49 - Transportation and warehousing	91	577.5	5,393.7	834.0%	733.98%
51 - Information and cultural industries	14	148.0	930.8	528.9%	428.89%
52 - Finance and insurance	52	363.0	2,362.1	550.7%	450.71%
53 - Real estate and rental and leasing	31	123.0	1,990.5	1518.3%	1418.32%
54 - Professional, scientific and technical services	133	675.0	8,326.6	1133.6%	1033.57%
55 - Management of companies and enterprises	5	47.5	1,300.0	2636.8%	2536.84%
56 - Administrative and support, waste management and remediation services	44	263.0	2,648.6	907.1%	807.07%
61 - Educational services	75	515.5	6,575.8	1175.6%	1075.62%
62 - Health care and social assistance	123	593.0	6,487.4	994.0%	894.00%
71 - Arts, entertainment and recreation	23	166.5	2,649.0	1491.0%	1390.98%
72 - Accommodation and food services	148	758.0	8,286.3	993.2%	893.18%

	Number of High-Growth Small Businesses, 2014 [6]	2014 Employment	2017 Employment	2014-17 Employment Gains	2014-17 Percentage Growth
81 - Other services (except public administration)	228	1,117.5	17,190.5	1438.3%	1338.30%
91 - Public administration	10	85.0	661.3	678.0%	578.00%
Total	**1,688**	**9,995.0**	**111,128.9**	**1011.8%**	**911.85%**

Notes:
[1]Source: City of Mississauga, 2014 and 2017 Databases

Although the data above provides useful information about broad trends, it does not permit a more nuanced analysis of the progress that the City of Mississauga is making at scaling new-economy businesses. To provide "external validated indicators" of innovative activity, we propose to use the following three metrics:

- **Government grants.** The use of government supports for industrial R&D, innovation and similar activities among Canadian businesses is well established. The analysis of public funds will allow us to examine changes in the per-capita rate of granting and to gauge Mississauga's performance in securing public funds against its peers.

- **Patents.** By looking at patents, particularly those granted in the US, we can identify firms that are likely preparing for growth in foreign markets and that are devoting time and dollars to secure intellectual property in the preparation for that growth.

- **Capital acquisition.** To attain world-class status, firms need to acquire capital. Particularly if they are seeking to grow rapidly, capital is essential. As much of the growth capital is provided by venture capitalists, we can evaluate how Mississauga companies are doing at obtaining capital to fuel their growth.

Each metric effectively requires "external validation", meaning that external parties (e.g. grant evaluation committees, patent officers, investors) have looked in on the activity and determined that it is innovative and/or has the potential for economic growth, and therefore deserves to be funded or is worthy of recognition as intellectual property.

4.2.2 Government Grants

Provincial and federal supports represent major sources of funds for entrepreneurship and innovation work among Canadian companies. The number of programs delivered through ministries and public organizations has proliferated in recent years. Most

programs provide subsidies to encourage business investment in R&D but demand some matching funds from the businesses as a sign of "buy-in". Government money remains a permanent fixture in the Canadian innovation ecosystem. It is an important source of funds for companies at all stages: for startups as they begin operations, for SMBs to reduce the burden of R&D on limited resources, and for large/multinational companies to conduct R&D at a discounted rate. These funds aim to get companies over any barriers standing between some and no R&D.

Since businesses of all sizes tap into government programs to subsidize the development of their products, processes, and services, government support is an effective innovation indicator and proxy of the level of R&D within enterprises. We have used data available from a number of provincial and federal agencies to assess the concentration of supports captured by Mississauga and to identify organizations engaging in R&D. We have relied in particular on the following sources: the Ontario Centres of Excellence (OCE), Government of Ontario economic development funding, and select federal government programs.

Overall, our analysis suggests that Mississauga firms lag in securing major public funds for innovation, commercialization, and related talent. Without access to the actual applications submitted, it is difficult to state whether Mississauga companies:

- Are not conducting R&D and hence do not need supports;
- Are applying for R&D supports but not succeeding, or
- Rely on their own funds to support R&D.

The results of our examination of each funding source is below:

4.2.2.1 Ontario Centres for Excellence (Provincial Funding)

OCE is a provincial agency that has been the major administrator of provincial funds for startups and innovation in sectors considered of high priority by the Ontario Government, particularly energy and environment, advanced manufacturing, health tech, ICT and digital media. OCE offers a number of programs that help companies and entrepreneurs commercialize innovations generated in Ontario's colleges, universities and research hospitals and that also help develop the "next generation of innovators". The latter is achieved through entrepreneurship fellowships and programs for Ontario students and youth.

OCE has invested a total $317M across Ontario in the last five years. The table below ranks the performance of the various cities/towns across the Province. The analysis suggests that businesses in the City of Mississauga have either not tapped into OCE as a resource or not been very successful at securing funds: collectively, they captured just

2.2% of all OCE commitments between 2013 and 2018. A full list of OCE funding recipients in Mississauga, is available in the Appendix package available upon request.

Table 9. Ontario Centres of Excellence Commitments Across Ontario (2013-18)

Rank in Ontario ***Absolute funding***	**Rank in Ontario** ***Funding per capita***	**City/Town**	**Absolute funding** ***in 2017 constant $***
1	15	Toronto	$ 109.8M
2	11	Hamilton	28.0M
3	1	Waterloo	24.5M
4	23	Ottawa	20.5M
5	12	Markham	17.1M
6	17	London	12.9M
7	16	Kitchener	9.1M
8	6	Kingston	8.9M
9	13	Oshawa	8.1M
10	7	Chatham-Kent	7.1M
…	…	…	…
17	47	Mississauga	3.7M

Note:
[1]Source: Analysis based on funding recipients in OCE's funding database.

4.2.2.2 Government of Ontario Economic Development Funding

Government of Ontario funding is an umbrella term for a wide range of economic development programs administered directly by the Province, largely by what is now known as the Ministry of Economic Development, Job Creation and Trade (MEDJCT) and its past incarnations (e.g. Ministry of Economic Development and Growth, MEDG). The programs included in our benchmarking analysis include investments through major provincial funds since the 2004-05 fiscal year:

- Advanced Manufacturing Investment Strategy (AMIS)
- Eastern Ontario Development Fund (EODF)
- Innovation Demonstration Fund (IDF)
- Jobs and Prosperity Fund (JPF)
- Low Carbon Innovation Fund
- Next Generation of Jobs Fund (NGOJF)
- Strategic Investments (SI)
- Strategic Jobs and Investment Fund (SJIF)
- Southwestern Ontario Development Fund (SWODF)

Together these programs have provided about $3.6B in grants and/or loans to Ontario entrepreneurs, companies, and researchers in the last 15 years for a range of projects—from productivity and export activities to commercializing low-carbon technologies.

The following tables provide insight into Mississauga's performance along with the largest beneficiaries of these funds.

Table 10. Contributions Disbursed Through Government of Ontario Programs (2004-05 to 2017-18)

Rank in Ontario ***Absolute funding***	**Rank in Ontario** ***Funding per capita***	**City/Town**	**Absolute funding** ***in 2017 constant $***
1	37	Toronto	$ 650.0M
2	7	Windsor	304.9M
3	3	Oshawa	282.5M
4	31	Ottawa	273.6M
5	8	Oakville	235.1M
6	4	Waterloo	172.1M
7	1	New Tecumseth	152.5M
8	10	Cambridge	143.5M
9	2	Woodstock	129.0M
10	13	Guelph	119.3M
11	57	Mississauga	111.3M
…	…	…	…

Note:

[1]Source: Analysis based on funding recipients in Government of Ontario's Data Catalogues.

Relative to other Ontario towns and cities, Mississauga is ranked relatively low in absolute funding and funding per capita awarded to it by the Province. Firms received only 3.1% of all Government of Ontario contributions (loans or grants).

Table 11. Government of Ontario Economic Development Funding Recipients in Mississauga (2004-05 to 2017-18)

	Firm	Absolute funding in 2017 constant $
1	Electrovaya	$ 19,112,571
2	Pratt & Whitney Canada	15,584,443
3	Hydrogenics	10,772,995
4	Cyclone Manufacturing	8,721,498
5	Roche Canada	8,472,193
6	Silfab Solar	5,588,991
7	Therapure Biopharma	4,684,326
8	Baylis Medical Company	4,351,817
9	Magellan Aerospace	4,078,399
10	GlaxoSmithKline	3,890,401
11	2Source Manufacturing	3,574,707
12	Sumitomo Precision Products	3,482,334
13	Integran Technologies	3,175,228
14	Pride Pak Canada	2,552,034
15	Imtex Membranes	2,340,474
16	Eisai	2,175,146
17	6N Silicon	1,754,260
18	Concept Plastics	1,749,685
19	Temporal Power	1,545,237
20	Fifth Light Technology	1,424,825
21	Super-Pufft Snacks	1,030,016
22	Springpower International	753,984
23	GreenCore Composites	467,803

Note:
[1]Source: Analysis based on funding recipients in Government of Ontario's Data Catalogues.

4.2.2.3 National Research Council (federal funding)

The Government of Canada has played a critical role in investing in innovation and R&D. These investments have come both directly from federal ministries like Innovation, Science, and Economic Development (ISED) and indirectly through arm's-length federal agencies such as the National Research Council (NRC) and Sustainable Development Technology Canada (SDTC).

As a first step, we looked at how Mississauga stacks up against other major regions in NRC supports. The NRC was selected because it is the largest and oldest federal research organization supporting industrial innovation. Its programs and national network of facilities help Canadian SMBs connect with NRC's scientists, engineers and business experts to advance technology development and/or help bring new technologies to market. This is done through some of the longest-running programs like

the Industrial Research Assistance Program (IRAP) created in the 1960s. Despite the importance of NRC as a source of funds, investments in Mississauga firms are substantially lower than other major urban centres (table below).

Table 12. National Research Council Commitments to Major Canadian Urban Centres (2016-18)

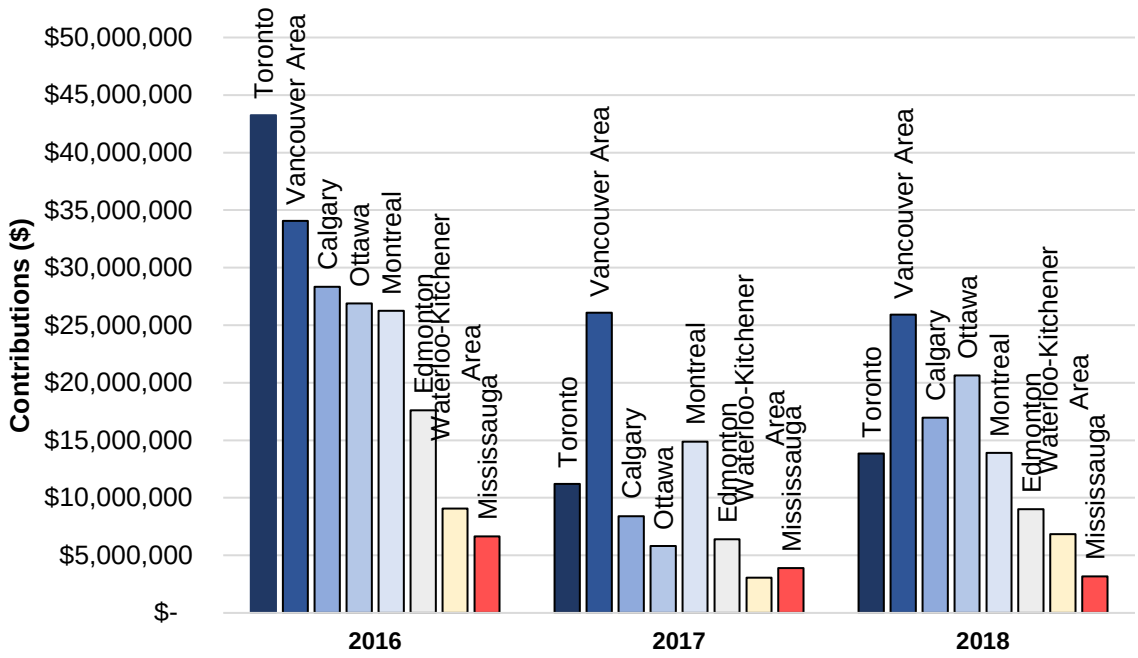
Area	Grand Total
Vancouver	$86.1M
Toronto	$68.3M
Montreal	$55.0M
Calgary	$53.7M
Ottawa	$53.4M
Edmonton	$33.0M
Waterloo-Kitchener	$19.9M
Mississauga	$13.7M

Notes:
[1]Calculated based on current $ in each year.
[2]Source: Analysis based on funding recipients in Treasury Board of Canada Secretariat, Open Government Data Catalogue, Proactive Disclosures-Grants and Contributions.

When the totals are broken down further, there is a clear downward trajectory over the past three years in terms of total project investments in Mississauga (like other urban centres across the country). Mississauga also saw a dip in the number of funded projects in 2017 and 2018 (while the other cities saw a slight upswing in 2018).

The latest federal budget expanded NRC's activities for industrial innovation, which is likely to boost investments in subsequent years.

Figure 3. NRC Contributions ($) Received in Major Canadian Urban Centres, 2016-2018

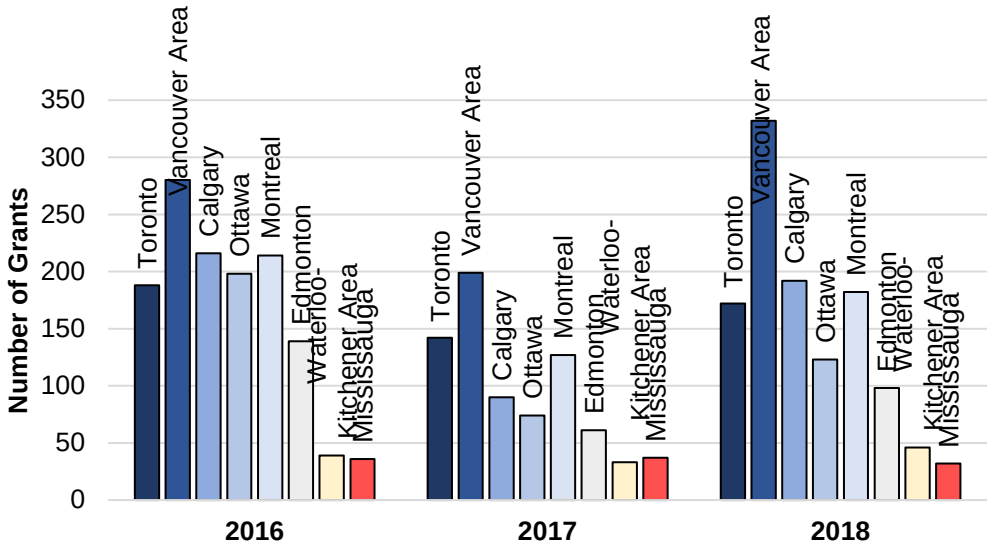


Notes:

[1] Calculated based on current $ in each year.

[2] Source: Analysis based on funding recipients in Treasury Board of Canada Secretariat, Open Government Database, Proactive Disclosures-Grants and Contributions.

Figure 4. Number of NRC Contribution Agreements in Major Canadian Urban Centres, 2016-18



Note:

[1] Source: Analysis based on funding recipients in Treasury Board of Canada Secretariat, Open Government Database, Proactive Disclosures-Grants and Contributions.

The following table lists all Mississauga organizations that have received some support from the NRC over the last 10 years—ordered from largest to smallest beneficiaries (many of which are SMBs). NRC programs have supported recipients across a wide range of sectors.

Table 13. Top 25 NRC Recipients in Mississauga, 2009-18

	Firm/Organization	Grand Total ($)
1	Alliance of Manufacturers and Exporters Canada (AMEC)	4,453,000
2	ISS Communications	1,746,500
3	SOTI	1,730,000
4	Pure Technologies	1,559,001
5	IMAX Corporation	1,500,000
6	Pulse Microsystems	1,023,278
7	Veriday	968,300
8	Safety Power	770,631
9	Macro Engineering & Technology	700,000
10	Springpower International	700,000
11	Delphax Technologies	659,828
12	Electrovaya	650,000
13	Hydrogenics	645,958
14	Research Innovation	644,725
15	Baylis Medical Company	633,170
16	Allegro Wireless	560,000
17	EnercoreFX	500,000
18	RIC Centre	654,500
19	Signifi Solutions	480,863
20	Tenova Goodfellow	455,740
21	Lumen Dynamics Group	440,000
22	Microsat Systems Canada	438,246
23	Aversan	395,000
24	EXFO Photonic Solutions	390,000
25	Axiomatic Technologies	382,144

Notes:

[1]Source: Source: Analysis based on funding recipients in Treasury Board of Canada Secretariat, Open Government Database, Proactive Disclosures-Grants and Contributions.

4.2.2.4 Sustainable Development Technology Canada

While NRC tends to support a wide range of R&D areas (from crops to mining), a closer look at more focused funders may reveal niche areas for Mississauga companies. For example, SDTC is an arm's-length foundation created by the federal government to support Canadian companies in becoming cleantech leaders. It funds the development and demonstration of sustainable technologies, broadly defined as technologies related to climate change, clean air, clean water, and clean soil.

Ontario has captured about one-third (32.9%) of all SDTC funding in Canada ($1.2B since the 2002-03 fiscal year). Interestingly, Mississauga fares very well here: The City is the third-largest beneficiary in the Province, accounting for about $62.2M of contributions flowing to Ontario. Mississauga is also home to some of the top SDTC funding recipients (e.g. Electrovaya and Vive Crop Protection).

Table 14. Sustainable Development Technology Canada commitments in Ontario, 2002/03-2018/19

Rank in Ontario Absolute funding	Rank in Ontario Funding per capita	City/Town	Absolute funding in 2017 constant $
1	17	Toronto	84.7M
2	8	Ottawa	72.7M
3	7	Mississauga	62.2M
4	1	Sarnia	33.3M
5	6	Oakville	23.9M
6	4	Waterloo	23.1M
7	14	Vaughan	11.4M
8	19	Hamilton	10.8M
10	18	Burlington	4.8M

Note:
[1] Source: Analysis based on funding recipients in SDTC's database.

Table 15. SDTC Funding Recipients in Mississauga, 2002/03-2018/19

Firm	Absolute funding *in 2017 constant $*
Electrovaya*	15,119,730
Vive Crop Protection*	10,063,316
Integran Technologies	7,894,484
Tenova Goodfellow	5,871,772
Temporal Power	5,527,562
Hydrogenics	5,161,291
Springpower International	3,409,631
Polar Sapphire	2,684,689
Li-Cycle	2,649,785
Imtex Membranes	1,359,119
Echologics Engineering	1,132,250
Dynamic Systems Group	843,691
NIMTech	357,100
NextGrid	134,131

Notes:
[1]**Among Top 10 recipients in Ontario;* [2]Source: *Analysis based on funding recipients in SDTC's database*

4.2.2.5 Funding Summary

The following tables summarize our analysis of funding data in absolute dollars and per capita, highlighting Mississauga's performance relative to other centres across Ontario, including Toronto, Kitchener-Waterloo-Cambridge (KWC), York Region, and Ottawa.

Table 16. Summary of Government Funding in Major Canadian Urban Centres

	Mississauga	Toronto	KWC	York	Ottawa
OCE (2013-18)	3.7	109.8	34.2	20.8	20.5
Ontario Economic Dev (2004-05 to 2017-18)	111.3	650.0	371.3	163.8	273.6
NRC (2016-18)	13.7	68.3	19.0	12.6	53.4
SDTC (2002-03 to 2018-19)	62.2	84.7	27.2	18.1	72.7
Total contributions (millions of $)	190.9	912.8	451.7	215.3	420.2

Note:
[1]Source: Analysis based on funding recipients in OCE's funding database, Government of Ontario's Data Catalogues, Treasury Board of Canada Secretariat, Open Government Database, Proactive Disclosures-Grants and Contributions, and SDTC's database.

Table 17. Summary of Government Funding in Major Canadian Urban Centres

	Mississauga	Toronto	KWC	York	Ottawa
Population (thousands)	722	2731	467	634	934
Contributions ($ per capita)					
OCE* (2013-18)	5.1	40.2	73.2	32.8	21.9
Ontario Economic Dev (2004-05 to 2017-18)	154.2	238.0	795.1	258.4	292.9
NRC (2016-18)	19.0	25.0	40.7	19.9	57.2
SDTC (2002-03 to 2018-19)	86.1	31.0	58.2	28.5	77.8
Total per capita	264.4	334.2	967.2	339.6	449.9

Note:
[1]Source: Analysis based on funding recipients in OCE's funding database, Government of Ontario's Data Catalogues, Treasury Board of Canada Secretariat, Open Government Database, Proactive Disclosures-Grants and Contributions, and SDTC's database.

OCE funding is provided to several types of beneficiaries, including researchers at higher education institutions (universities, colleges), students, more established firms as well as startups that are “endorsed” by university campus-linked accelerators and on-campus entrepreneurship activities at colleges. There could be several reasons for the low OCE funding provided to recipients in Mississauga; and this deserves further study. For example, University of Toronto Mississauga grants may have been allocated to the downtown campus in Toronto, or the results may signal an inactive incubator and accelerator community that has not generated a sufficiently high number of applications in the system. Although Mississauga ranks lowest in funding from Ontario Economic Development programs and the NRC, it ranks highest in contributions per capita received from SDT. This may indicate the existence of a cleantech cluster that is worthy of further attention.

4.2.3 Capital Acquisition

One of the objectives of this report is to develop metrics that could show at any point in time not only how a business performs in terms of its ability to scale but also how Mississauga as a whole is faring. In order to show where a company is situated relative to its peers, we made use of the concept of a “high-tech funnel”. The notion of a sales funnel is typically encountered in discussions at company level; it can show the management and sales teams where prospective or existing customers fall in terms of engagement. Thus, companies can track customers as they proceed through the stages of the sales funnel, from awareness to purchase to after-sales servicing.

Similarly, we should be able to track companies as they move through Mississauga’s technology funnel, from inception and scaleup to globally competitive markets. We should also be able to measure the funnel and therefore gauge not only the progress of each company, but also the general system for innovation in Mississauga. Such a data-driven framework would help innovators and the wider innovation ecosystem identify areas of the funnel on which efforts should be concentrated to build a more effective technology pipeline.

In order to develop such a funnel for Mississauga, we divided technology companies into stages of the funnel according to the amount of capital acquired. Categories that range from inception/startup to world-class status proved particularly useful (see below for Funnel Classifications).

Table 18. Classification of Private Company Capitalization Funnel Stages

Stage	Capital raised
World Class	Over $1 billion
Scaling	$100 million–$1 billion
Growth	$10 million–$100 million
Emergence	$1 million–$10 million
Startup	Under $1 million

Note:
[1]Source: CB Insights

To report on Mississauga's technology funnel for private companies, we relied on statistics available from CB Insights that were obtained in January 2019. Statistics were recorded for all companies that had obtained capital in internet, healthcare, software, mobile and telecommunications, computer hardware and services, and electronics (categories used by CB Insights).

The following table shows the number of private companies in Mississauga for which CB Insights has recorded financing. They are divided according to the categories described earlier:

Table 19. Mississauga Private Company Capitalization by Funnel Stage

Stage	Capital raised	Number of Private Companies
World Class	Over $1 billion	0
Scaling	$100 million–$1 billion	0
Growth	$10 million–$100 million	11
Emergence	$1 million–$10 million	9
Startup	Under $1 million	37

Notes:
[1] Source: CB Insights

Two caveats regarding these numbers should be explained. First, the data is probably more reliable for larger companies than smaller ones as CB Insights may be more likely to miss amounts from smaller companies that are not as widely reported. Second, the failure of firms is not generally reported. For that reason, CB Insights might be more likely to miss and continue reporting on those firms that are no longer in business. But any errors associated with these factors are spread across all jurisdictions; so, the numbers still serve as good general guides.

4.2.3.1 Comparison to Other Cities in Canada

The following table compares Mississauga to major urban centres across Canada. It shows that Mississauga trails most other cities at creating startups and scaling companies.

Table 20. Private Company Capitalization by Funnel Stage in Major Canadian Urban Centres

	Stage and Capital					Total
	Startup	Emergence	Growth	Scale	World Class	
	Under $1 million	$1 million- $10 million	$10 million- $100 million	$100 million- $1 billion	Over $1 billion	
Mississauga	37	9	11	0	0	57
Toronto	513	160	81	6	1	761
KW	118	33	13	3	0	167
York	86	13	12	1	0	112
Ottawa	93	29	19	1	0	142
Vancouver	283	110	54	3	0	450
Montreal	218	90	36	6	0	350
Calgary	82	19	6	0	0	107
Edmonton	37	12	2	0	0	51

Note:
[1]Source: CB Insights

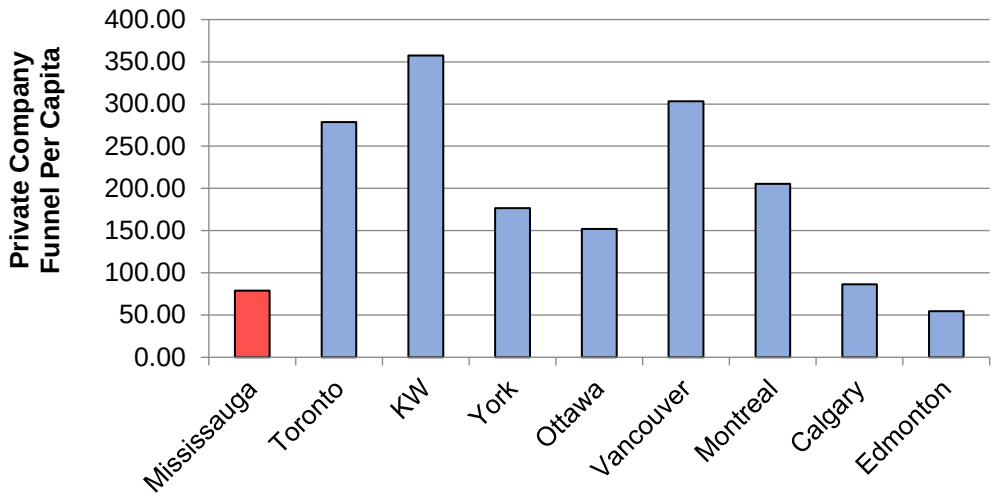
One can also look at this data in terms of percentage of population. When it comes to rates of “startups” (i.e. firms with under $1M in capital), Mississauga is relative underperformer and is, in fact, ranked second lowest after Edmonton. All of the calculations relating to population that follow measure the number of companies that startup or scale per one million population.

Table 21. Private Company Capitalization per Capita by Funnel Stage in Major Canadian Urban Centres

	Population (thousands)	Stage and Capital					Totals
		Startup	Emergence	Growth	Scale	World Class	
		Under $1 million	$1 million-$10 million	$10 million-$100 million	$100 million-$1 billion	Over $1 billion	
Mississauga	722	51.25	12.47	15.24	0	0	78.95
Toronto	2,731	187.84	58.59	29.66	2.2	0.37	278.65
KW	467	252.68	70.66	27.84	6.42	0	357.6
York	634	135.65	20.5	18.93	1.58	0	176.66
Ottawa	934	99.57	31.05	20.34	1.07	0	152.03
Vancouver	1,484	190.7	74.12	36.39	2.02	0	303.23
Montreal	1,705	127.86	52.79	21.11	3.52	0	205.28
Calgary	1,239	66.18	15.33	4.84	0	0	86.35
Edmonton	933	39.66	12.86	2.14	0	0	54.66

Notes:
[1]Source: CB Insights

Figure 5: Private Company Capitalization per Capita (All Funnel Stages) in Major Canadian Urban Centres



Note:
[1]Source: CB Insights

Using this concept of funnel, we can also determine how effective each jurisdiction is at scaling companies. In order to examine and compare Canada's rate of company creation to other jurisdictions, we split the funnel into two parts. We have arbitrarily classified companies with below $10M of capital as "earlier-stage" and companies with over $10M of capital as "later-stage". The following analysis was done only on private companies as obtaining all public company records for such a study was not feasible.

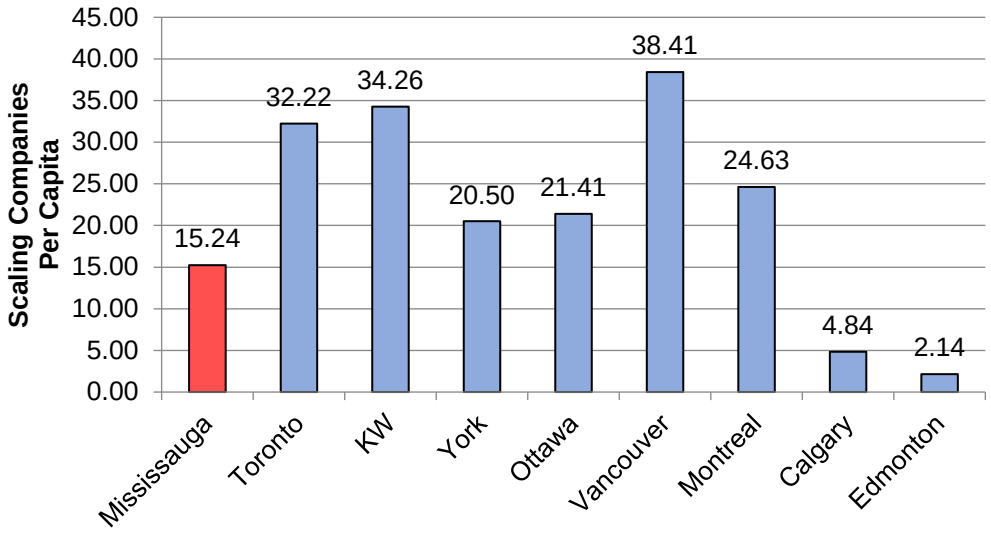
The following table shows the percentage of companies that are starting versus scaling. Among major urban regions across Canada, Mississauga has the third lowest rate of scaling companies, exceeding only Calgary and Edmonton. Its startup rate only exceeds that of Edmonton. Thus, the data shows that Mississauga is challenged to start and scale those types of companies that are more likely to produce significant economic activity and lead the city to wealth and prosperity in the future.

Table 22. Number of Companies Starting versus Scaling in Major Canadian Urban Centres

	Population (thousands)	Stage and Capital		Total
		Starting	Scaling	
		Under $10 million	Over $10 million	
Mississauga	722	63.71	15.24	78.95
Toronto	2,731	246.43	32.22	278.65
KW	467	323.34	34.26	357.6
York	634	156.15	20.5	176.66
Ottawa	934	130.62	21.41	152.03
Vancouver	1,484	264.82	38.41	303.23
Montreal	1,705	180.65	24.63	205.28
Calgary	1,239	81.52	4.84	86.36
Edmonton	933	52.52	2.14	54.66

Notes:
[1] Source: CB Insights

Figure 6. Number of Companies Starting versus Scaling in Major Canadian Urban Centres



Note:
[1] Source: CB Insights

The 57 firms identified through reference to CB Insights database of private funding show that almost $1B of private capital was invested in firms now active in Mississauga. This breaks down as follows:

Table 23. Capital Invested in Private Companies in Mississauga by Key Sector

Sector	Private Capital ($ 000)
Life Sciences	$223,840
ICT	$191,010
Advanced manufacturing	$599,280
Total	$ 1,014,130

Note:
[1] Source: CB Insights

Analysis of public company data by niche area offers additional insights. The following data shows the market value of public companies headquartered in various locations throughout Canada. (We have excluded marijuana firms as this will distort averages due to recent high valuations.)

Table 24. Valuation of Public Companies by Key Sector in Major Canadian Urban Centres

	Life Sciences	ICT	Advanced Manufacturing	Totals
Mississauga	1,954,366	324,158	4,913,970	7,192,494
Toronto	1,425,884	34,469,483	24,376,571	60,271,938
KW	0	25,200,969	0	25,200,969
York	96,313	3,054,877	6,049,808	9,200,998
Ottawa	20,810	24,689,631	0	24,710,441
Vancouver	2,700,612	5,127,229	-	7,827,841
Montreal	14,493,202	28,170,400	-	42,663,602
Calgary	777,380	2,053,748	-	2,831,128
Edmonton	77,543	65,362	-	142,905

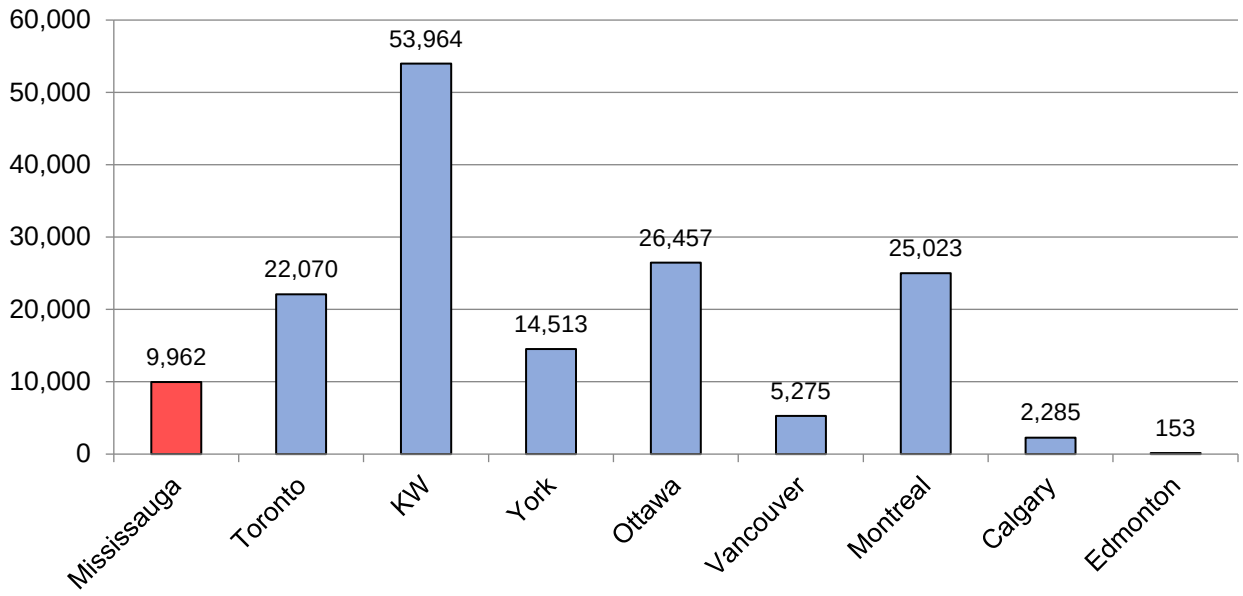
Notes:
[1]All dollar figures are in thousands (000s).
[2]Data exclude marijuana companies.
[3]Source: Toronto Stock Exchange

Table 25. Valuation of Public Companies per Capita by Key Sector in Major Canadian Urban Centres

	Population (000s)	Life Sciences	ICT	Advanced Manufacturing	Total
Mississauga	722	2,707	449	6,806	9,962
Toronto	2,731	522	12,622	8,926	22,070
KW	467	0	53,964	0	53,964
York	634	152	4,818	9,542	14,513
Ottawa	934	22	26,434	0	26,457
Vancouver	1,484	1,820	3,455	-	5,275
Montreal	1,705	8,500	16,522	-	25,023
Calgary	1,239	627	1,658	-	2,285
Edmonton	933	83	70	-	153

Notes:
[1]All dollar figures are in thousands (000s).
[2]Data exclude marijuana companies.
[3]Source: Toronto Stock Exchange

Figure 7. Valuation of Public Companies per Capita (All Key Sectors) in Major Canadian Urban Centres



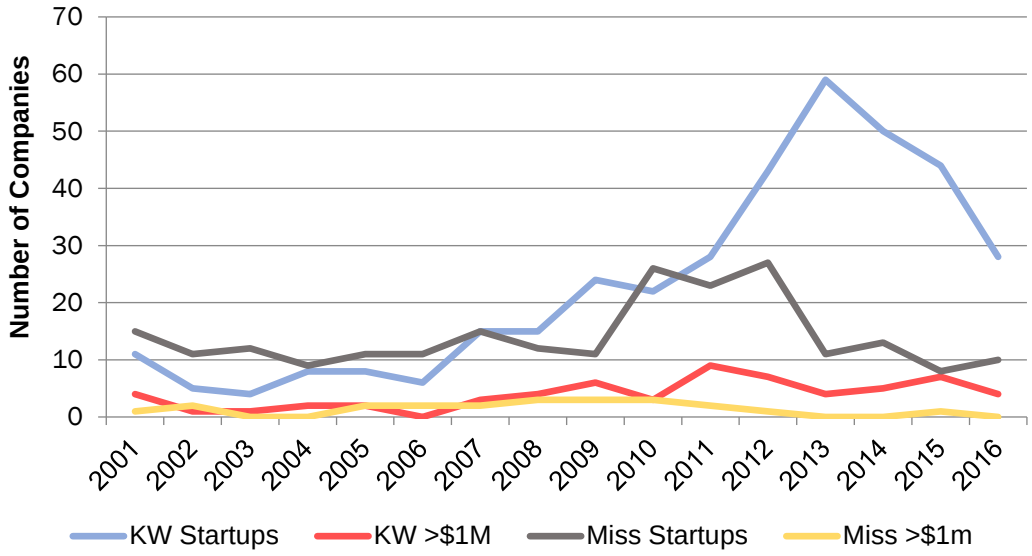
Notes:
[1]Data exclude marijuana companies.
[2]Source: Toronto Stock Exchange

Interestingly, Mississauga has an exceptionally high per-capita valuations for the health tech sector compared to other areas in Canada. The data clearly shows that Mississauga has a very strong life sciences cluster in terms of public companies and is, in fact, in the number two spot in Canada. Mississauga also appears strong in "industrial" firms. Details as to companies driving these sectors can be seen by reference to the leading private and public companies in the next section.

4.2.3.2 *Scaling Up Over Time*

The following chart shows the number of firms listed in Crunchbase started by year in Mississauga and in Kitchener-Waterloo (KW) as a comparison. The top two lines show the number of companies in Crunchbase. The bottom two lines show the number of companies that have raised more than $1M as identified in Crunchbase. This data is especially relevant because Mississauga is substantially larger than KW. Although Mississauga and KW started out at a similar base in the years prior to the Government of Ontario's funding of the ONE network in 2007, their trajectories diverged since then. Mississauga has improved its ability to create startups, but it has also trailed the results of KW by an increasing margin. Similarly, while KW's results are improving at starting companies that get over $1M of funding, Mississauga's results are declining.

Figure 8. Rate of Company Creation: Kitchener-Waterloo versus Mississauga, 2001-2016



Note:
[1]Source: Crunchbase

5 What We Learned

5.1 From the Gap Analysis & Stakeholder Engagement

Over the course of the Study's two phases, key stakeholders were engaged to review and refine the findings and direction. Three stakeholder sessions were held in Phase 1 to review the research including an environmental scan and gap analysis of Mississauga's E&I ecosystem. Phase 2 included two points of engagement with stakeholders: a SWOT roundtable to engage participants in identifying strengths, weaknesses (gaps), opportunities and constraints for entrepreneurship and innovation and a second set of stakeholder sessions to develop priority recommendations for EDO.

5.1.1 Gaps in Mississauga's Entrepreneurship & Innovation Ecosystem

5.1.1.1 Connective Organizations and Self-Help

- Mississauga has no member-based community organization such as Communitech, that offers activities such as Peer-to-Peer counselling and events at a sufficient scale to support innovation and scaling.
- There is no easily accessible physical focal point for tech entrepreneurship (Technology and Innovation Centres).
- Mississauga lacks incubation space and flexible growth space.
- Mississauga lacks organizations that focus on scaling up and commercialization.

5.1.1.2 Asset Co-ordination

- Successful innovation-fostering organizations (such as Communitech in Kitchener-Waterloo) effectively solve the "asset coordination problem". A deep understanding of when assets come into play plus an actual process for moving companies through all the stages is critical to addressing the asset co-ordination challenge. This helps:
    - Identify gaps, redundancies, and inefficiencies in service offerings;
    - Gain insights into formal or informal linkages between entities in the region or with organizations outside the region, and;
    - Identify the stage of the entrepreneurship and innovation process at which each asset would be most valuable (e.g. extract the greatest economic or social value).
- Although Mississauga has a number of supports in the eco-system, Mississauga lacks a coordinated effort on asset co-ordination.

5.1.1.3 Financial Capital and Access to Funds

- Mississauga firms are not securing major available public funds for innovation, commercialization and related talent, specifically:
    - Ontario Centres of Excellence (OCE) grants; and
    - Natural Research Council funds
- There is no defined approach for assessing funding requests to EDO.

5.1.1.4 Support for Start Up

- Based on the Statistics Canada Business Count data, if home-based and unclassified small businesses (with and without employees) are included, Mississauga has experienced 6.5% growth in number of small businesses between 2016 and 2018, growing from 87,762 to 93,458. This growth gives an indication of rate of small business startups in Mississauga and the potential constituency for small business services. Of the 5,690 businesses created in this period, over 90% appear to have formed without government assistance.
- MBEC could explore working with other City departments to develop more automated and online support for small business startup information.

5.1.1.5 Support for Scaling Up

- Currently, EDO does not perceive itself to have a role in scaleups, deferring to others. Unfortunately, other parties are not adequately serving scaleups, and this area remains underserved.
- Concept of “scaling” and “scaleup” is emerging as a central policy theme in innovation
- As the old economy shifts to a new economy, federal and provincial governments’ policy and program support is shifting away from startups to an increasing focus on high-growth firms and new-economy scaleups.
- The entrepreneurship and innovation ecosystem in Mississauga is not aligned with the federal and provincial efforts to expand the scope of services to scaleups.
- Consequently:
    - Compared to other major urban centres, Mississauga has a gap in creating startups and scaling companies.
    - Mississauga also lags its municipal peers in terms of scaleup resources and supports. Ottawa, Toronto, Hamilton and Waterloo are pursuing a focus on scaleups while ensuring the continued

delivery of core services such as business consultations and small business programming.

- Mississauga lacks a clearly defined and navigable entrepreneurship and innovation asset map from which to build a roadmap for the coordination of assets.

5.1.1.6 Branding

- The entrepreneurship and innovation ecosystem in Mississauga lacks a clear brand (i.e. sector/industry reputation).

5.1.1.7 Support for High Growth Companies

- That federal and provincial governments' policy and program support is shifting away from startups to an increasing focus on scaling up high-growth firms
- Federally and provincially, there is a focus to grow high-potential companies, with a target to double the number of high growth firms by 2025, which is reflected in the 2018 Federal Budget.
- The local community does not seem to be connected with federal and provincial efforts to expand the scope of service to scaleups.

5.1.2 From the SWOT Matrix

The study team undertook a Strengths, Weaknesses, Opportunities and Threats (SWOT) assessment for the EDO and the local E&I Ecosystem. The SWOT Matrix relies upon the research conducted in Phase 1 of this study, the feedback and comments from 3 Stakeholder sessions held February 4, 2019 and the review and analysis by the Study Steering Committee and consulting team.

A preliminary or draft version of the SWOT was presented to group of key stakeholders, at a Roundtable session held February 22, 2019. This session proved to be a valuable exercise, which confirmed the main SWOT elements and provided additional information to inform the study. Throughout the consultation process, the Consultants were impressed with level of commitment from participants and the quality of the input.

The complete 22 page SWOT Matrix is available in the Appendix package available upon request.

The development of the SWOT matrix provides some insight to the following issues/questions.:

1. **The integration of the EDO with broader regional initiatives**

The City's EDO (through its MBEC) is currently one player in the broader regional initiative or the E&I Ecosystem. In other words, it functions as one of the "dots" that must be connected by local entrepreneurs/innovators, as they try to grow and expand. The development of the SWOT has revealed the need for a leadership position for the Ecosystem, to champion the growth and development of the Ecosystem, help connect the dots and better integrate/leverage the existing resources. This could be a role for the City's EDO, along with other roles that will be examined in the Continuum of Opportunities and Recommendations (Phase 2) of this Study.

2. **The part of the startup spectrum in which EDO has the greatest impact (e.g. discovery, seed and development, startup, growth/expansion).**

The development of the SWOT Matrix has confirmed the EDO's current small business development services (i.e. MBEC) are targeted primarily to the startup phase, consistent with the primary objectives of the Province's SBEC program. There is no specific focus on high growth scaleups opportunities. While serving all small business inquiries is important, research in this study has found the high growth scaleups have the greatest potential to generate significant economic growth.

3. **The types or organizations that EDO most effectively addresses- small business or niche areas/target groups and sectors**

The EDO's small businesses services currently address all inquiries and have developed themes for niche areas such as youth and newcomer entrepreneurs. In 2019, the MBEC office received additional funding to support these niche areas, including a new focus on Innovation Entrepreneurship. There is no specific sector focus.

6 Moving Forward

6.1 Emerging Two Layer Strategy

The study team proposes that the EDO consider a broad two-layer strategy for moving forward focused on (1) strengthening the startup ecosystem and (2) focusing on high growth startups.

1. To strengthen the startup ecosystem EDO would make information more accessible to startups in all sectors, youth, new comers and traditional main street businesses and distribute information and services through multiple points of access anchored by a central location in the downtown Library. It would operate this distribution and service delivery function in cooperation with other municipal departments principally the Library.

   EDO would also Identify small businesses with high growth potential and funnel these companies into a specific stream for additional support required to scaleup.

2. To focus on High Growth Startups, EDO would align the city with scaleup strategies at other orders of government and identify companies on their way to an IPO and build a network of support in terms of financing, talent, networks, and expertise.

6.2 Emerging Roles for EDO

Moving forward, the study's analysis and input from stakeholders suggests that EDO take on a responsibility for the health of the broad E&I ecosystem and work to achieve strategic outcomes through 3 types of roles:

1. **Lead Coordinator** - The EDO holds the strategic vision for Mississauga's role and identity in the innovation ecosystem locally, regionally and nationally; the EDO plays a hands-on leadership role in certain activities, which can include the coordination of assets and resources; connecting, facilitating and supporting where needed, the allocation of financial and/or staff resources and ensuring that activities meet the terms of 3rd party agreements (e.g. SBEC)
2. **Partner or Collaborator** - The EDO is one partner with other key partners collaborating with other City Departments (Internal), institutions, the wider public sector and business sectors to achieve strategic outcomes.
3. **Funder** - The EDO provides various types of financial assistance (cash or in-kind) for programming or to support a 3rd party initiative that meets strategic objectives.

6.3 Priority Recommendations

6.3.1 Strengthen the startup ecosystem

Description:

- Make information more accessible to startups in all sectors, youth, new comers and traditional main street businesses by distributing information and services through multiple points of access anchored by a downtown location in the Central Library.
- Identify small businesses with high growth potential and stream for additional support.
- Involve the Library and possibly other City departments, community organizations, BIA's etc.

Rationale:

- City (through EDO) takes responsibility for performance / health of the entrepreneurship and innovation ecosystem.
- MBEC information and services are more available to startups by creating multiple points of access throughout the community.
- Meets the requirements of the provincial SBEC agreement.
- Identifies small businesses with high growth potential and streams them to receive scaleup support.

6.3.2 Focus on scaling up high growth companies

Description:

- Identify companies on their way to an IPO and build a network of support in terms of financing, talent, networks and expertise.

Rationale:

- Aligns the City with scaleup strategies at other orders of government.

6.3.3 Develop plans to strengthen innovation space for scaleups in Mississauga by leveraging existing and new partnerships

Description

- Develop a detailed analysis and business model that outlines a plan for the innovation space including public/private partnerships, governance, location and measurements for success.

Rationale

- Increases the focus on scaleups by developing partnerships with member-based groups that will increase peer-to-peer learning, events, and mentorship for scaleups.

6.3.4 Create an identity for Mississauga in the Toronto-Waterloo Tech Corridor

Description:

- Explore establishing a priority focus as a way of differentiating Mississauga in the Toronto-Waterloo corridor.

Rationale:

- Creates potential for leveraging community assets and building a more visible presence in the wider regional innovation community.

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