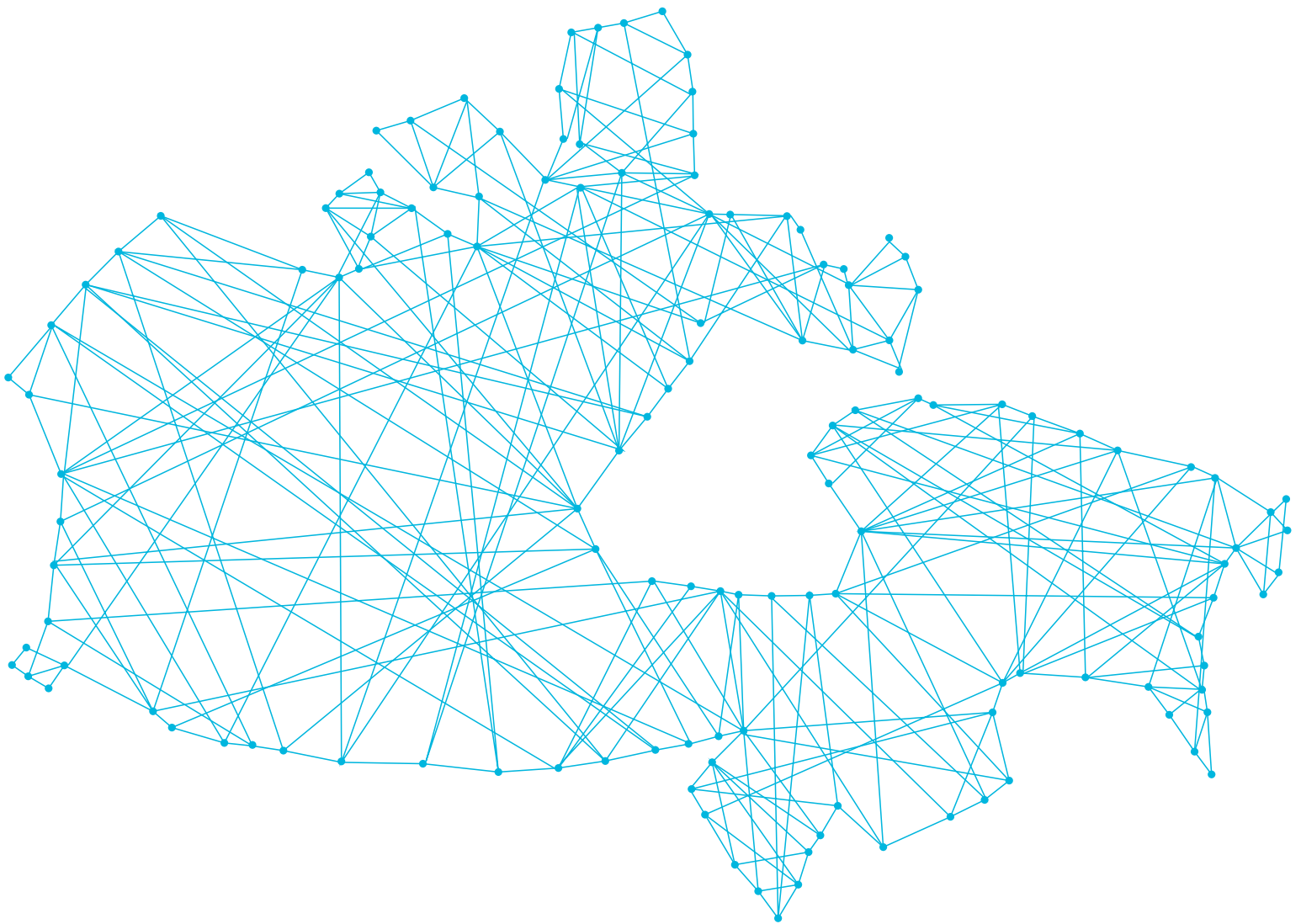


# Entrepreneurs on Campus: University-Based Support for Start-ups

Spring 2018



**Mitacs**

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### Table of Contents

<b>Overview and Methodology</b>	<b>1</b>
<b>Introduction</b>	<b>1</b>
<b>University Approaches to Entrepreneurship</b>	<b>3</b>
University Incubators and Accelerators	7
Campus-Based Entrepreneurship and Skills Development	8
Community Links	9
<b>An Entrepreneurial Culture on Campus</b>	<b>9</b>
Student Perceptions	11
Faculty Engagement	12
<b>Conclusion</b>	<b>13</b>
<b>Recommendations</b>	<b>13</b>

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## Overview and Methodology

As a university-driven organization, Mitacs recognizes the increasing emphasis that universities, as well as all levels of government, place on promoting and supporting entrepreneurship. In response, Mitacs developed an entrepreneurship pilot of its Accelerate program. It is a unique initiative that provides funding to student start-up companies housed in university incubators and accelerators to collaborate with university researchers to solve business challenges, or to develop new products, services, or technologies.

Mitacs carried out this research project to better understand the role that universities are playing in developing and supporting entrepreneurs, with associated challenges and opportunities. Mitacs worked with an advisory committee, consisting of individuals with knowledge of campus-based entrepreneurship, to provide guidance and feedback on the project as it evolved. Building on background research to identify key themes and issues relating to campus entrepreneurship, Mitacs and the Public Policy Forum hosted a series of round table discussions across the country.

These discussions were held in Ottawa, Montreal, Toronto, and Vancouver in Spring 2018. Participants represented various sectors and roles connected to entrepreneurship and higher education.

For each round table, Mitacs invoked the Chatham House Rule,<sup>1</sup> ensuring anonymity to encourage participants to speak freely. Following the round tables, Mitacs conducted semi-structured interviews with stakeholders across Canada.

## Introduction

For generations, universities have prepared students for career success, and have strengthened Canada's research capacity. Today, in an era of precarious work, disruptive technology, and a shifting economy, Canada's universities are under increasing pressure to expand and enrich their offerings through experiential learning opportunities, community engagement, and entrepreneurship.

Students transitioning into the workforce face increasingly uncertain employment, with temporary, unstable work offering little security and lacking benefits.<sup>2</sup> Meanwhile, business leaders lament that universities aren't preparing graduates with the right combination of skills.<sup>3</sup> As such, universities are under growing pressure to provide students with the right skill sets needed for success in the 21<sup>st</sup> century economy. Students, for their part, also recognize that traditional degree programs may be insufficient for achieving their goals and many consider entrepreneurship to be a viable career path. Although only 29 percent of Canadian post-secondary students report feeling very confident that they will find a job in their field after graduation, nearly half (46 percent) report that they see themselves starting a business.<sup>4</sup>

Providing students with opportunities to discover or nurture entrepreneurial aspirations is timely when one considers the key role of entrepreneurship within the Canadian economy. Canada boasts the highest rate of early-stage entrepreneurship among major developed countries, with 14.7 percent of the adult population age 18 to 64 having undertaken a business start-up in the last three years, or operating a business that is less than 3.5 years old.<sup>5</sup>

1 Chatham House. (n.d.). Chatham House Rule. <https://www.chathamhouse.org/chatham-house-rule>

2 Haberl, Monica. (2017). New to the workforce: compensating and developing recent-graduate and student employees. *The Conference Board of Canada*. <http://www.conferenceboard.ca/e-library/abstract.aspx?did=8801>

3 McFarland, Janet. (2016, Aug. 7). Universities not providing the graduates we need, executives say. *The Globe and Mail*. <https://www.theglobeandmail.com/report-on-business/universities-not-providing-the-graduates-we-need-executives-say/article31303668/?cmpid=rss1&1470748877698>

4 Bank of Montreal. Half of Canadian students aspire to start their own business after graduating: BMO survey. <https://newsroom.bmo.com/2013-09-06-Half-of-Canadian-Students-Aspire-to-Start-Their-Own-Business-After-Graduating-BMO-Survey>

5 Langford, C.H., Josty, P. & Saunders, C. (2015). 2015 GEM Canada National Report. *The Centre for Innovation Studies*. <http://thecis.ca/wp-content/uploads/2016/04/GEM-Canada-Report-5.2015.pdf>

Canadian universities are implementing a diverse range of approaches to promote and support entrepreneurship, reflecting the vibrancy and dynamism of university campuses. These models equip students with skills and experience that may help them navigate the transition from a university environment to a fast-changing workforce, whether as employees or as entrepreneurs.

In many cases, universities have developed entrepreneurship programs and initiatives to respond to the needs of the communities in which they operate. While one initiative may have an explicit focus on skills development and experiential learning, another may focus on commercializing intellectual property or securing venture capital. Some focus exclusively on students and alumni, while others engage entrepreneurs outside of academia. Some may have a thematic focus, such as social innovation or the establishment of technology companies, while others are broadly available to entrepreneurs across disciplines and sectors.

### **TEC Edmonton: A focus on commercialization**

With a focus on technology-based companies, TEC Edmonton is a joint venture between the Edmonton Economic Development Corporation and the University of Alberta, providing programs and services to support entrepreneurs and start-ups, while acting as the commercialization agent for the University of Alberta.

Recently ranked third on UBI-Global's list of top business accelerators linked to a university, TEC Edmonton offers a range of programs and services to support entrepreneurs, including business development services, such as mentoring and product development assistance; access to funding opportunities and investor networks; Intellectual Property (IP) management services; and the Launch Program, which provides early stage tech companies with mentorship and advice from industry experts, a shared workspace and growth planning.

TEC Edmonton helps students and alumni to commercialize IP developed through their research, or to scale companies they created during their studies.

This presents challenges to the observer who seeks to understand how and why universities are engaging in entrepreneurship activities: Are these activities intended to have an economic impact, or to provide students with experiential learning opportunities? What are the skills associated with successful entrepreneurship, and what role do they play in preparing students for a fast-changing economy? What are some of the challenges that universities face as they look to grow an entrepreneurial culture?

Through a series of discussions with individuals engaged in campus-based entrepreneurship, two key themes emerged:

1. Across university campuses, there is a diversity of approaches to support and promote entrepreneurship, and the extent to which these efforts engage with broader communities. The identification of a “one size fits all” approach to campus-entrepreneurship is neither desirable nor practical.
2. The qualities and characteristics typically associated with the university may not necessarily be aligned with a culture of entrepreneurship. Developing an “entrepreneurial mindset” and incentivizing activities is an ongoing challenge for universities.

Campus-based entrepreneurship — as a process and in practice — is dynamic and changes quickly. For participants, this fast pace can present challenges to understanding where one fits best; for institutions, it creates challenges for monitoring growth and change.

## University Approaches to Entrepreneurship

For decades, universities have offered undergraduate programs in business administration, resulting in near-exponential growth in the number of MBA programs offered by Canadian universities over the past 25 years.<sup>6</sup> Almost half of Canada's universities (46 percent) offer specific programs or specializations in entrepreneurship.<sup>7</sup> They are largely course-based, curricular programs, though many involve co-ops or internship experiences.

The following table provides a list of types of campus-based entrepreneurship initiatives (based on those identified in a 2014 HEQCO report<sup>10</sup>) and some examples at universities across the country.

Initiative	Description	Example
<b>Incubators</b>	An incubator is an enterprise or facility that directly supports the early-stage development of new business ventures by providing things like office space, shared business or legal services, and other forms of business assistance.	Ryerson University: The DMZ is a business incubator for early-stage technology start-ups. It may also be considered a "hybrid" organization, in that it blends incubation and acceleration.
<b>Competitions</b>	Competitions are processes during which students, most often in teams, present a venture idea before a panel of judges for the chance to win awards and cash prizes. A few competitions offer workshops and mentoring to successful applicants in preparation for the presentation.	Mount Royal University: The JMH LaunchPad Pitch Competition provides grants and mentorship to students, culminating in an annual competition where students pitch their ventures to a panel of experienced judges and an audience for their share of \$60,000 in cash and services.
<b>Workshops</b>	Workshops engage students in start-up activities, where the aim is often skills development rather than venture creation.	Saint Mary's University: The Business Development Centre offers workshops and events for students interested in learning about entrepreneurship.
<b>Co-ops</b>	Co-operative programs, or co-ops, include for-credit programs that allow students to work on their own projects with guidance from university faculty and entrepreneur mentors.	Brock University: The Deborah E. Rosati Entrepreneurship Award allows co-op students to launch a business for a co-op work term and earn up to \$10,000.
<b>Internships</b>	Entrepreneurship-focused internship programs are specifically designed to place students in start-up companies with high-growth potential and large probability of failure.	Mitacs: Through the Accelerate entrepreneurship pilot, student-led companies housed at pre-approved university accelerators or incubators are able to access Mitacs research funding.
<b>Mentorships</b>	Mentorship programs connect students with entrepreneurs who advise students. Most extracurricular programs connect student entrepreneurs with mentors while providing other education and training components.	University of British Columbia: Mentors contribute their time to e@UBC ventures through coaching programs such as the Lean Launchpad and Open Office, sharing their knowledge and experience in lunch-and-learn sessions, and working individually with venture teams to provide guidance, advice, connections, and to help maintain accountability.

6 Chambers, Edward. (2012). The Canadian Encyclopedia: business education. <http://www.thecanadianencyclopedia.ca/en/article/business-education>

7 Universities Canada. (2018). *Universities Canada online database*. [www.universitystudy.ca](http://www.universitystudy.ca)

<b>Initiative</b>	<b>Description</b>	<b>Example</b>
<b>Residences</b>	Residence programs focused on supporting entrepreneurship bring together entrepreneurially minded undergraduate students, to live in a shared residence facility for at least part of their program. Such residences provide an experience that combines academic and extracurricular programming, based on the understanding that co-location of entrepreneurially inclined students may facilitate the creation of business ideas and entrepreneurial attitudes and culture.	Wilfrid Laurier University: The Entrepreneurship Residence Learning Community (RLC) is designed to expose first-year students from every discipline to the Region of Waterloo's start-up community.
<b>Workspaces</b>	Workspaces are designated spaces for students to meet, collaborate, and access technical equipment for the making of applications and prototypes. Such spaces are often found within incubators, accelerators, or hubs, but can also operate independently of other services.	The University of Guelph: The Business Innovation Zone houses classrooms and meeting spaces for use by entrepreneurship courses, workshops, and clubs, as well as for students developing a business idea or preparing and delivering their business pitch.
<b>Awards and funding opportunities</b>	Awards and funding are campus-based grant competitions that provide seed money to selected applicants.	University of Waterloo: The Norman Esch Entrepreneurship Award provides a minimum of six awards, ranging in value from \$5,000–\$10,000 each, for student teams in the Faculty of Engineering's Fourth-Year Capstone Design Project.
<b>Speaker series</b>	Speaker series are regular lectures offered throughout the year by invited speakers. Such events seek to inspire a culture of entrepreneurship among students, provide advice, and connect students with experienced entrepreneurs.	University of Ottawa: The Entrepreneurship Bridges Lecture Series consists of six events that promote entrepreneurship, and provide start-up and new ventures with advice and access to a community of entrepreneurs. The program is a joint initiative between the university's Entrepreneurship Hub, the Faculty of Engineering, Startup Garage, the Entrepreneur's Club, and the Telfer School of Management.
<b>Networking events</b>	Networking events are held with the purpose of bringing students, faculty, community entrepreneurs, and investors together.	Memorial University: The Memorial Centre for Entrepreneurship offers networking events such as Open Coffee Meetups and Open Office Hours for Entrepreneurs.

In addition to the activities defined by the HEQCO report, other university entrepreneurship initiatives include:

<b>Accelerators</b>	Accelerators emphasize the scaling of established ventures, often providing seed funding and time-limited support to start-up teams using structured programming and mentorship services designed to accelerate high-potential firms to success or failure. <sup>8</sup>	University of Alberta: TEC Edmonton is a business accelerator that assists early-stage companies in business development, funding and finance, technology management, and entrepreneur development and training.
<b>Hubs</b>	Hubs offer a diverse array of entrepreneurial support activities, usually aggregating incubation, acceleration, investment, and co-working services into one regional hub. <sup>9</sup>	Concordia University: District 3 is a makerspace, and offers workshops, tools and mentorship programs, as well as incubator and accelerator programs.
<b>Makerspaces and sandboxes</b>	These tend to provide informal, creative spaces for students to develop and test ideas or potential products, and often place emphasis on bringing diverse disciplines together in collaboration.	University of Ottawa: The uOttawa Richard L'Abbé Makerspace provides a student-run space for students and community members to access cutting-edge technology, free of charge, to develop ideas or work on projects.

The result is a rich fabric of experimentation and support for students to engage in entrepreneurship at various levels and stages throughout their university studies.

In recent years, the number of extracurricular entrepreneurship activities available at Canadian universities has increased dramatically.<sup>10</sup> As one round table participant put it, “Ten years ago, the question was ‘Why are universities involved in entrepreneurship?’ Now, it’s ‘Why aren’t we doing more to support entrepreneurs?’” Universities employ a wide range of initiatives, offering a broad spectrum of supports to students, from teaching entrepreneurship and encouraging the development and testing of ideas, to scaling companies.

Figure 1 below illustrates the range of options open to students on university campuses, from ideation to scaling a company. While not all students will engage in every offering, or use them in a linear manner, they are able to access support based on their needs as they evolve and move along the path to becoming entrepreneurs.

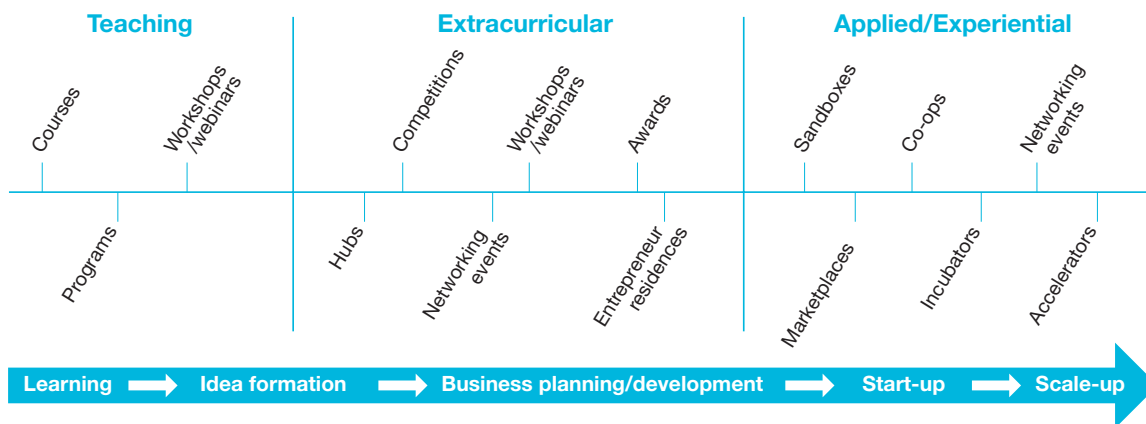


Figure 1: Spectrum of student entrepreneurship support

8 Centre for Digital Entrepreneurship and Economic Performance, (2015). Accelerating Canada’s Start-Up Ecosystem: A review of Canadian Business Accelerators and Business Incubators. <http://deepcentre.com/wordpress/wp-content/uploads/2015/10/DEEP-Centre-BABI-3-Accelerating-Canadas-Startup-Ecosystem-September-20151.pdf>

9 Ibid.

10 Sá, C., Kretz, A., Sigurdson, K. (2014). The State of Entrepreneurship Education in Ontario’s Colleges and Universities. Toronto: Higher Education Quality Council of Ontario. <http://www.heqco.ca/en-ca/Research/ResPub/Pages/The-State-of-Entrepreneurship-Education-in-Ontario-s-Colleges-and-Universities.aspx>

Using this broad range of initiatives, Canadian universities can build customized models combining the various initiatives described above to best suit their institutional goals and priorities. The objectives of each initiative are likely to vary significantly from one another. While one initiative, such as a sandbox, may promote interdisciplinary collaboration and encourage the exchange of ideas, a campus-based accelerator — even when sharing a location with a sandbox — will be much more focused on the scaling of start-ups or the successful commercialization of university intellectual property.

Variation in the ways that these initiatives are structured or implemented is by no means a quality unique to those found in university environments. “Most business accelerators and business incubators (BABIs) in Canada are relatively recent creations. New BABIs are forming all the time, and, as their founders experiment with new formulas, we are seeing among other things considerable fluidity in organizational structures, governance arrangements, partnership models, and program design.”<sup>11</sup>

The varying approaches reflect the reality that entrepreneurship is a process. One round table participant described the entrepreneurship space as a funnel. In the wide part of the funnel, actors in the system are creating awareness of entrepreneurship, instructing students to develop skills, and engaging students or stakeholders for the first time. As the funnel narrows and companies emerge, the potential for scalability, success, access to talent, and funding (with fewer funding resources, but in increased amounts) also narrows.

Each stage of this funnel calls for different supports, driven by the specific needs of an individual at that stage. The metrics for measuring impact will necessarily also vary from one initiative to another. Often, the goals of a program or initiative may even be competing or overlapping, and could include:

- Teaching and learning
- Bringing entrepreneurship into programs across disciplines
- Providing undergraduate students with experiential learning opportunities
- Supporting and developing entrepreneurial students

- Developing IP of value to the university
- Engaging the external community
- Supporting graduate students whose research has generated IP
- Providing students with access to funding

In looking at metrics used by campus-based incubators and accelerators, three categories of indicators emerge.

Economic indicators:

- Revenue/profit generated for investors
- Increased venture capital (VC) funding for participating start-ups
- Number of jobs created

Innovation indicators:

- Number of patents produced
- Number of outcomes commercialized
- Success rate of alumnus companies

Student/participant indicators:

- Skills and learning outcomes
- Attitudes towards entrepreneurship

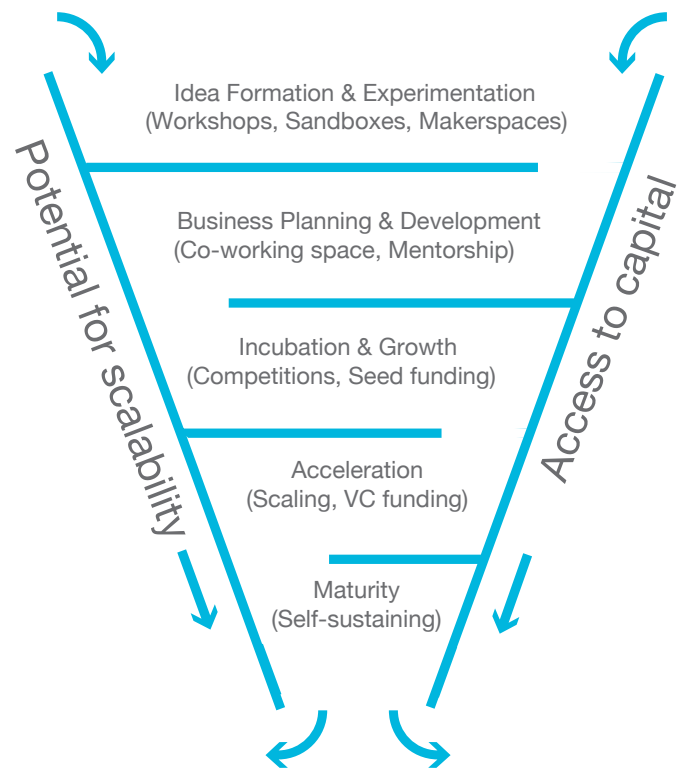


Figure 2: Illustration of the entrepreneurship funnel

11 Centre for Digital Entrepreneurship and Economic Performance. (2015). Evaluating business acceleration and incubation in Canada: policy, practice and impact. <http://deepcentre.com/wordpress/wp-content/uploads/2015/10/DEEP-Centre-BABI-1-Taxonomy-and-Performance-Measurement-September-20151.pdf>



## University Incubators and Accelerators

At the applied or experiential stage, campus-based incubators and accelerators are often the most recognizable and publicized components of a university's efforts to promote and support entrepreneurship. They are also often the anchors around which other services and supports may be provided.

Figure 3 is a mapping of the 69-known campus-linked entrepreneurship support centres across Canada's universities, with the most located in Ontario (42), followed by British Columbia (10) and Quebec (8).<sup>12</sup>

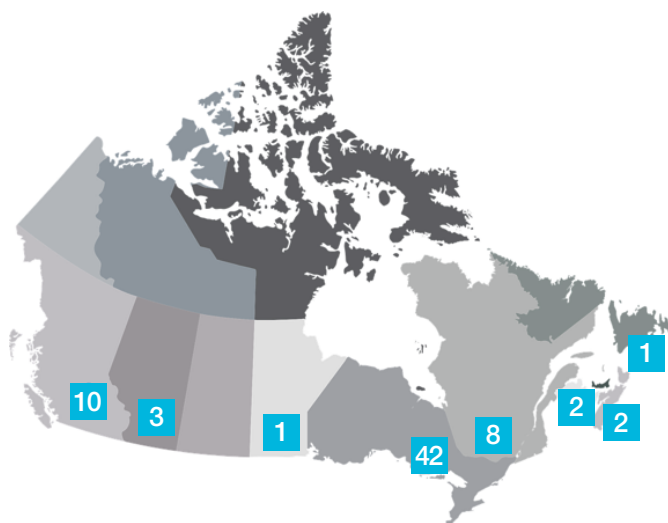


Figure 3: Distribution of campus-based incubators and accelerators, by province

Although the terms are often used interchangeably as synonyms, key differences exist between accelerators and incubators (see Figure 4). Incubators tend to be more open and less restrictive than accelerators, focusing on early-stage companies or those at the idea stage, ready for development. Still, entry to an incubator is often competitive, requiring applicants to develop a business plan for their idea or early-stage start-up.

Accelerators focus on established companies with high-growth potential. Entry to an accelerator is often highly competitive, and ongoing participation may require companies to meet specific growth or funding targets

within a fixed period (typically three-to-six months). Accelerators may require participants to pay a monthly fee, or provide a percentage of equity (or shares) in the participating company in exchange for access to the space and services being provided.

In a university context, campus-based incubators are more likely to place emphasis on skills development and experiential learning. Some are exclusively available to students, while others are open to entrepreneurs from the broader community. Participation in an incubator may be open-ended, and may require a monthly fee. It is rare for campus-based incubators or accelerators to require equity from their participants or to be for-profit entities.

	Incubator	Accelerator
Start-up stage:	Early	Early to mature
Timelines:	Longer-term or open-ended	Fixed, often 3–6 months
Eligibility:	Somewhat restrictive, larger cohorts	Restrictive, smaller cohorts
Requires equity:	Less common	More common
For-profit:	Less common	More common

Figure 4: Characteristics of incubators and accelerators

There is significant variation in the characteristics of university incubators and accelerators, by location (on-campus or off-campus); administration; the variety of services provided to participating start-ups; sources of funding and breadth of scope (discipline- or industry-specific); and participant requirements.

<sup>12</sup> This mapping was carried out through a review of available literature, university websites, and in consultation with the Mitacs network of Business Development staff hosted in Canadian universities. Authors of this report acknowledge that this mapping may not be complete, as new centres continue to emerge.

## Campus-Based Entrepreneurship and Skills Development

While a defined skill set may not be required to engage in the activity of starting a business,<sup>13</sup> certain ‘hard’ skills may lend themselves towards greater business success. These tend to be specific, teachable abilities that lend themselves towards evaluation and measurement, including marketing, sales and customer service, communication and negotiation abilities, networking, and time management.

Round table participants also identified the following ‘soft’ skills, or entrepreneurial competencies:

- Resilience
- Risk management
- Teamwork
- Creativity
- Versatility

These tend to be more difficult to both teach and measure than hard skills. Round table participants were clear that students need both hard skills and entrepreneurial competencies to be successful as entrepreneurs, and that experiential learning is key to developing these competencies: “Entrepreneurship goes beyond something that is taught in courses. It’s important to draw a distinction between learning and practicing entrepreneurship. There’s a big difference.”

Experiential learning encompasses a variety of opportunities for students to engage in hands-on learning beyond the classroom, such as internships, co-operative education programs, applied research projects, and participation in an incubator or accelerator. Such opportunities allow students to develop new skills and gain practical, real-world experience.

A growing emphasis on the value of experiential learning is reflective of the challenges that many students face in securing employment upon graduation: “Recent graduates face the paradox of needing experience to get

“Entrepreneurship goes beyond something that is taught in courses.”

a job and needing a job to get experience. Despite possessing relevant hard skills, they often lack the soft skills and work experience that employers are seeking.”<sup>14</sup>

Universities Canada reports that 55 percent of undergraduates benefit from experiential learning as part of their university education, and that enrolment in co-op programs at universities has increased significantly over the past decade.<sup>15</sup> Similarly, the Business Higher Education Roundtable estimates that about half of university students engage in some form of work-integrated learning during their post-secondary studies.<sup>16</sup>

Surveys of past Mitacs Accelerate interns, who engage in experiential learning through industrial research, show that 85 percent feel the experience enhanced their expertise and know-how relevant to the private sector. This Mitacs program has shown that students provided with experiential learning become aware of entrepreneurship as a career path, develop contacts and a network that can help start a company, and can recognize gaps in their knowledge and skills. Although the program is not explicitly designed to develop entrepreneurs, 11 percent of past program participants (largely comprised of PhD students and postdoctoral fellows) report having started their own company.<sup>17</sup>

In the context of entrepreneurship, experiential learning opportunities can both support students with entrepreneurial aspirations and act as a catalyst for those who have not previously considered entrepreneurship as a viable career option. In both cases, the skills and experience gained by students will be valuable to them,

13 Lazeur, Edward P. (2004). “Balanced skills and entrepreneurship.” *American Economic Review*, vol. 94, no. 2, 2004, p. 208. *Academic OneFile*, <http://link.galegroup.com/apps/doc/A129948929/AONE?u=otta35732&sid=AONE&xid=3371638e>

14 Lamb, Creig & Doyle, Sarah. Future proof: preparing young Canadians for the future of work. *Brookfield Institute*. <http://brookfieldinstitute.ca/wp-content/uploads/2017/03/FINAL-FP-report-Onlinev3.pdf>

15 Universities Canada. (2015). Co-ops and internships. <https://www.univcan.ca/priorities/co-ops-internships/>

16 Business Higher Education Roundtable. (2016). Taking the pulse of work-integrated learning in Canada. <http://bher.ca/wil-in-action>

17 Mitacs. (2017). Longitudinal Survey of Accelerate Program Interns. <http://www.mitacs.ca/en/newsroom/publication/accelerate-interns-survey>

whether they pursue entrepreneurial careers or not. “Not all students need to launch companies,” stated one round table participant, “but broadly, entrepreneurial skills are relevant to everyone.”

### Community Links

Universities engage with local communities in entrepreneurship in many ways including opening campus-based incubators and accelerators to non-students (57 percent of the known centres),<sup>18</sup> operating with support from a regional development agency, partnering with colleges and other universities, and initiatives that connect students with the local business community. *Le Centre Assomption de Recherche et de Développement en Entrepreneuriat (CARDE)* at the Université de Moncton, for example, pairs graduate students who start their own business with a volunteer mentor from New Brunswick’s francophone business community.

Canadian universities are housed within communities large and small, rural and urban, serving different populations: when it comes to entrepreneurship, the strengths and needs of one community or region will differ significantly from another. We might expect that an entrepreneurship ecosystem in one of Canada’s largest urban centres would have different strengths and face different challenges than those of a small- to mid-sized city. Indeed, several round table participants felt that there was a higher level of coordination and support among actors in mid-sized cities than one would find in cities of a larger size.

**“Not all students need to launch companies, but broadly, entrepreneurial skills are relevant to everyone.”**

Round table participants noted that institutions in smaller urban centres tend to focus on commercialization activities and necessity-based entrepreneurship, whereby individuals are motivated to create businesses due to a lack of other job opportunities.

Larger centres, with a higher concentration of people and ideas, are more likely to support opportunity-based entrepreneurship, where the participating individual has developed a promising idea or identified a gap in a market.<sup>19</sup>

One round table participant emphasized that “city by city, the ecosystems are very different. National and regional program delivery organizations must be aware of these geographic differences and respond accordingly. We can’t create the same programs and assume they’ll work effectively across all [regional] ecosystems.” The best practices of one region may not be appropriate or necessary for another.

### An Entrepreneurial Culture on Campus

Establishing a strong culture of entrepreneurship can be challenged by traditional program and institutional structures at universities, which were not typically designed with entrepreneurship as a priority. As one individual put it, “Entrepreneurship doesn’t always work well within traditional course structures. Universities aren’t always agile enough to respond to the uncertain and evolving nature of entrepreneurship.” In contrast to slower-paced, structured environments, one individual explained succinctly, “Entrepreneurship is a roller coaster wrapped in chaos.”

For most institutions, the process of establishing an entrepreneurial culture is an ongoing one, and progress may be incremental: “Becoming an institution that fully supports entrepreneurship entails a complex process that requires parallel actions in a number of areas. It goes beyond providing entrepreneurship courses and/or engaging in efforts such as making use of placement programs in start-ups, establishing incubator facilities, or appointing professors of entrepreneurship.”<sup>20</sup>

18 Based on a review of publicly available information on institutions’ websites.

19 Sá, C., Kretz, A. (2015). The Entrepreneurship Movement and the University. DOI10.1057/9781137401014

20 Parsley, C. & Weerasinghe, M. (2010). The teaching and practice of entrepreneurship within Canadian higher education institutions. *Industry Canada*. [https://www.ic.gc.ca/eic/site/061.nsf/eng/h\\_rd02541.html#toc-10](https://www.ic.gc.ca/eic/site/061.nsf/eng/h_rd02541.html#toc-10)

**Université de Sherbrooke:  
A focus on the local economy**

The Université de Sherbrooke has demonstrated a commitment to developing a vibrant local entrepreneurship ecosystem. Located in the university's Innovation Park, the Accelerator for the Creation of Technology Companies (ACET) supports entrepreneurs and promotes economic development. ACET provides entrepreneurs with mentorship, physical space, as well as networking opportunities and access to resources to help them commercialize ideas and create successful companies with economic impact.

Applicants must demonstrate proof of concept, and their project must be technological and/or innovative. While skills development and experiential value is implied, the program's focus is squarely on creating technology companies — 70 businesses have been established and 260 jobs created.

Notably, applicants to the program must agree to locate their head office in the province of Quebec.

Strengthening a culture of entrepreneurship, or instilling an “entrepreneurial mindset” is a priority for many universities, some of whom refer to this in their strategic plans. Dalhousie University's plan, for example, features a commitment to “contribute to cultural and economic vitality by fostering creativity, innovation, and entrepreneurship” through experiential learning opportunities, sandboxes, entrepreneurship programs, the Norman Newman Centre for Entrepreneurship, and innovation spaces. In Ontario, most universities refer to entrepreneurship in their Strategic Mandate Agreements, as negotiated with the provincial government.<sup>21</sup> The University of Waterloo has notably set a goal for 2018 to solidify Waterloo's global leadership in all forms of entrepreneurship education, practice, and research.

Most round table participants felt that there was significant variation both among and within institutions in the extent to which an entrepreneurial culture or mindset was instilled, and they described varying degrees of success. Some institutions will have multiple well-resourced

initiatives available to students, while others may have one small initiative with minimum staff.

This speaks to the importance of leadership, and the need for champions in senior levels of administration to establish and nurture an entrepreneurial culture. The role of former Ryerson University president, Sheldon Levy, in establishing Ryerson's DMZ (then known as the Digital Media Zone) is an example — recognizing the importance of entrepreneurship, he allocated space on campus for budding entrepreneurs to work on their ideas, collaborate with others, seek business advice, and meet potential investors. The initiative was hugely successful and has established Ryerson University as a world leader in campus-based entrepreneurship.

The diversity of approaches implemented by Canadian universities to promote entrepreneurship precludes the identification of best practices in developing an entrepreneurial culture. The extent to which the university is considered “traditional” in structure; the duration of time with which it has developed entrepreneurial programs and structures; and the level of engagement across departments and faculties can all affect the extent to which the university is perceived as fostering an entrepreneurial culture.

**Ryerson University:  
A focus on individual needs**

Ryerson's Zone Learning is described as a new model of experiential learning built to prepare students for the 21<sup>st</sup> century workplace. The Zones consist of ten distinct on-campus business incubators, each with a unique sectoral focus. Zone participants (both students and non-students) are provided with workspace, mentorship, workshops, and networking opportunities, while gaining direct experience working on projects, causes, companies, or start-ups.

Zone Learning emphasizes a multidisciplinary approach: participants come from all academic backgrounds, and can participate in several Zones. The model is unique in that it allows students and entrepreneurs to access support that is tailored to their needs.

21 Harvey, D. & Szeman, I. (Dec 2014). University Affairs. Are we all entrepreneurs now?  
<https://www.universityaffairs.ca/opinion/in-my-opinion/entrepreneurs-now>

## Student Perceptions

While many students share the positive attitudes Canadians generally hold towards entrepreneurship<sup>22</sup> and see entrepreneurship as a potential career path,<sup>23</sup> that perception is not uniform and may vary across faculties and disciplines. Round table participants suggested that more traditional institutions or faculties may face greater challenges in adapting to pressures to support entrepreneurship. For example, it was noted that, despite the important role that innovation plays in research-intensive fields such as medicine or dentistry, their students are often under-represented in on-campus entrepreneurship activities. As the economy changes, one individual explained, “We need entrepreneurial lawyers, doctors, and tech people. It’s not just about creating entrepreneurs, but entrepreneurial people.”

**“We need entrepreneurial lawyers, doctors, and tech people. It’s not just about creating entrepreneurs, but entrepreneurial people.”**

Round table participants felt that students in the social sciences and humanities are under-represented in entrepreneurship activities, and often do not view entrepreneurship as a viable option, thereby ruling themselves out of entrepreneurship as a career.

The association of entrepreneurship with the business and management schools reflects the origins of entrepreneurship as an academic pursuit, but presents a challenge or barrier for some campus actors who are working to establish initiatives or increase student engagement in entrepreneurial activities. Round table participants felt that embracing a focus on social innovation or social impact may appeal to students from disciplines not traditionally associated with entrepreneurship.

Overwhelmingly, round table participants recognized the value of multidisciplinary teams and experience. Rarely, it was noted, do successful entrepreneurial ventures on a

## Simon Fraser University: A focus on social innovation

Housed in the Beedie School of Business at Simon Fraser University, RADIUS is an interdisciplinary social innovation lab and venture incubator that aims to change business education and launch high-impact solutions to social challenges.

RADIUS consists of several distinct programs, which, until recently, included a four-month fellowship program for emerging social innovators; the Local Economic Development Lab connected graduate students with local organizations to develop community-designed and driven social enterprise; as well as incubation and acceleration services to advance social ventures.

“As a business school we have made a long-standing commitment to social innovation and entrepreneurship,” says Daniel Shapiro, Dean of the Beedie School of Business. “Our students engaged with RADIUS will continue to inspire and motivate us as we help them learn how to become responsible, creative leaders and entrepreneurs. This is a great example of learning that that is adaptive, interactive, and highly experiential.”

campus involve teams from a single discipline. More often, teams draw on individuals with a range of backgrounds and complementary skills. University structures, however, are not typically designed to encourage multidisciplinary learning, and those who engage in multidisciplinary activities can find themselves pushing against existing systems and administrations.

A student’s level of education may also influence their perception of — and engagement in — entrepreneurial activities. Participants suggested that campus-based initiatives that prioritize skills development as a key objective may be more suited for students at the undergraduate level. Initiatives with greater focus on commercialization and economic impact (particularly accelerators), may be of greater value for graduate students, who are more likely to launch ventures based on their research and to commercialize their IP.

22 Langford, C.H., Josty, P. & Saunders, C. (2016). 2016 Global Entrepreneurship Monitor: Canada National Report. <http://www.gemconsortium.org/report/49847>

23 Langford, C.H., Josty, P. & Saunders, C. (2015). 2015 Global Entrepreneurship Monitor: Canada National Report. <http://www.gemconsortium.org/report/49541>

This reality may reflect the added research experience, age, and maturity of graduate students, who are typically at different life stages than undergraduate students. As one participant stated, “graduate students are a little older, understand the world a bit more, and have an opportunity to take things to the next level.” The challenge is to overcome traditional program structures and mindsets. Graduate students and professors working together are primarily focused on their research and on publications, and not on starting new businesses or commercializing IP.

Women are often under-represented in efforts to promote entrepreneurship, with Federal data showing that, across Canada, just 15.7 percent of Canadian SMEs are majority-owned by women.<sup>24</sup> While data on the participation of women in campus-based entrepreneurship initiatives is not available, comments from round table participants suggest that women are under-represented in such activities.

One participant felt that alternative perceptions of entrepreneurship affected women’s participation and shared an observation that different terminology may lead to increased engagement: “If you talk about innovation and entrepreneurship with women in the arts, or even in engineering, you’ll have a mixed impact.... So, you need to choose words carefully, and steer away from ‘tech,’ or ‘start-up,’ towards ‘social impact,’ and you see a big increase in participation [among women].”

Awareness of entrepreneurship activities among international students was also thought to be low, suggesting that institutions could do more to engage individuals from diverse backgrounds, who may have unique perspectives and ideas conducive to entrepreneurial activities. Overwhelmingly, round table participants felt that diversity was a positive factor in entrepreneurship activities and led to more successful ventures. This sentiment is validated by research showing that inclusive businesses are more likely to report revenue growth, engagement in national and international markets, and employment growth.<sup>25</sup>

## Faculty Engagement

Faculty members also have an important role to play in teaching entrepreneurial skills and introducing students to related opportunities. Some participants expressed frustration that although faculty members invest time and energy in entrepreneurship, they are not rewarded (such as in performance reviews) as they are with publications or research achievements. One round table participant noted that “raising awareness of entrepreneurship as a career option is a worthy objective. But there’s misalignment in how professors are incentivized to work with industry, or to engage in entrepreneurship.”

Comments from individuals engaged or experienced in campus-based entrepreneurship suggest that support for new initiatives is needed not only at the university level — from administration and leadership — but at the faculty level, to generate awareness and grow a mindset throughout the institution. In addition, while certain disciplines, such as business or engineering, may be more likely to participate in entrepreneurial activities, proactive efforts to engage more faculty members across other departments may also contribute to a stronger entrepreneurial culture on the university campus.

24 Statistics Canada. (2014). Survey on Financing and Growth of Small and Medium Enterprises. [https://www.ic.gc.ca/eic/site/061.nsf/eng/h\\_02774.html](https://www.ic.gc.ca/eic/site/061.nsf/eng/h_02774.html)

25 Deloitte. (2017). Outcomes over optics: building inclusive organizations. [https://www.canada175.ca/sites/default/files/download/files/inclusion\\_aoda\\_en\\_0.pdf](https://www.canada175.ca/sites/default/files/download/files/inclusion_aoda_en_0.pdf)

## Conclusion

Canadian universities are increasingly engaged in campus-based entrepreneurship initiatives. The rich variety in approaches and initiatives offered by universities is evidence of the importance that universities place on providing students with opportunities to explore ideas, develop entrepreneurial skills and mindsets, engage in experiential learning, and potentially launch their own business ventures.

These initiatives are exciting and offer tremendous potential, not only for changing the university experience for students at all levels and across all disciplines, but for creating an environment in Canada where entrepreneurs can thrive. Given the role universities play in their local communities, there is great potential for campus-based entrepreneurship to directly impact regional economies while equipping graduates with practical and transferrable skills that can help them navigate uncertainties in the labour market, whether the graduates become employees in companies or launch one of their own.

To maximize the potential of these initiatives, universities, partners, program funders, and the broader entrepreneurship ecosystem must work collaboratively in supporting students as they move from learning about entrepreneurship, to graduating from an institution and becoming entrepreneurs in their own right.

## Recommendations

As this period of rapid growth and experimentation in campus-based entrepreneurship continues to evolve, the following recommendations can lead to greater success:

1. Let experimentation flourish: different approaches to campus-based entrepreneurship are relevant in different contexts and at distinct stages of the entrepreneurship process. While each university may develop their own approach or model to encouraging entrepreneurship on their campus, the sharing of successes and failures among institutions may help universities determine what approaches may be applicable in their own context.
2. When establishing entrepreneurship initiatives, develop a clear set of metrics appropriate to the goals of the initiative, be they economic, innovation or student-focused, or a relevant combination of these. From a program design point of view, this can help institutions make adjustments, develop new initiatives, strategically align with new partners, and/or seek funding from appropriate sources.
3. Maintain close collaboration with the local ecosystem to help identify needs/gaps, and build a pipeline of support for graduates as they leave the university. This close collaboration will also allow institutions to monitor the cumulative impact of campus-based entrepreneurship initiatives as they strengthen the capacity of the surrounding ecosystem, where university initiatives may lead to the establishment of new services, supports, or programs outside the university.
4. Promote multidisciplinary collaboration, diversity, and teamwork by making opportunities accessible to students from all disciplines, at undergraduate and graduate levels, as well as international students and other under-represented groups. Ensuring diversity in entrepreneurship at the campus level will not only contribute to skills and workforce development but will also lead to greater business success of new ventures.

