

KPMG-JMSB ENTREPRENEURIAL INDICES:

The entrepreneurial lifecycle of
Québec Private Enterprise

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By: Robert Nason and Karen Naaman
With special thanks to Caroline Charest and Michael Baratta



Introduction

In the midst of an aging population, rapid technological development and a constantly evolving economic landscape, there is a need to understand the unique features of entrepreneurial activity in Québec. While there is growing attention on entrepreneurial activity in venture backed start-ups and large public companies, the fact remains that the majority of entrepreneurial activity is undertaken by more everyday small businesses. Even the largest actors and the face of the Québec economy, such as Bombardier and Saputo, began as start-ups. This report seeks to shed light on the hidden champions and backbone of the Québec Economy.

We trace the lifecycle of Québec private enterprises along a trajectory from new business, to small firms, to more established medium and large sized firms:

The start-ups of today may become the industry giants of tomorrow. We identify new businesses in Québec and map their geographic distribution across the province.

Small enterprises represent the dominant form of organization, comprising more than 99% of all firms in the province. We examine their prevalence and performance in Québec and across Canada.

Medium and large private firms are the prized few that often are poised to channel further growth both within and beyond the province. We examine their mindset and strategies through a proprietary survey of KPMG clients.

Each of these actors play a vital role in the economic engine of Québec. We build understanding on these three critical actors in the Québec landscape by marrying diverse datasets together. We focus our analysis on the most comprehensive data available on start-ups and small firms as well as a proprietary survey collected from established medium sized KPMG client firms. Together, this approach provides an in-depth examination of the state of the landscape of Québec's private enterprises and helps to uncover hidden features of Québec's entrepreneurial landscape. As a result, we are able to provide an objective and informative set of facts based on the best data available.

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Executive Summary

Québec represents 20% of Canadian GDP and 20% of all businesses in Canada. The great majority of Québec businesses have no employees (70%) and 98% of the employer businesses are considered small (<100 employees). Thus, small private enterprises dominate the economic landscape of Québec as they do all across Canada. We trace the lifecycle of Québec private enterprise from startup to small firm to medium and large firms.

New Businesses

We find that Québec has a vibrant cohort of new businesses. 147,644 new businesses were formed in Québec in 2015 and 2016. New businesses span the vast landscape of Québec, but are most concentrated in population centers. In fact, 46% of all new ventures are formed in the greater metropolitan area of Montréal.

New ventures are driving the shift in the economy from an industrial base to a knowledge and service-based economy. While 75% of all Québec firms produce services compared to goods, 84% of all startups produce services. The most common industries for new businesses are "Finance, insurance, real estate, rental and leasing" and "other services" which is comprised of miscellaneous services ranging from repair and maintenance to household and personal services.

Not all new businesses in Québec are innovative, but over 2,000 are in technology-oriented industries. The tech sector is even more heavily concentrated with about 57% of all tech firms based in Montréal. This is especially true for Life Science and Health Technology where 75% of new businesses are in Montréal.

Of course, not all new ventures survive. We found that 5.64% of new businesses failed in their first year and 10% failed by their second year. Failure rates were highest in accommodation and food services and retail trade. Real estate and agriculture had the lowest failure rates in the first two years.

Small Businesses

Those companies which survive often graduate to small firms. 98% of all employer firms have less than 100 employees. These small firms contribute 30% to Québec's GDP and employ 71% of the private labor force.

Québec has fewer tech firms per capita compared to Ontario and Canada as a whole. Most tech firms are in Information Technology. Small firms still dominate even amongst tech-oriented firms as 93% have less than 100 employees.

Professional Scientific and Technical Services is the most prevalent specific industry amongst small firms with less than \$5 million in revenue, though there are fewer per capita in Québec than the rest of Canada. In Québec, Health care industries are the fastest growing amongst small firms, while wholesale distribution is the fastest declining sizeable industry amongst small firms.

The best performing small firm industries in terms of return on assets are couriers and messengers (45.6%) as well as ambulatory health services (43.8%). In both cases, profitability for these firms is substantially higher than elsewhere in Canada.

SME Mindset and Strategy

Finally, a privileged few firms grow into the upper echelon of medium and large businesses. These firms are often the coveted profile of policy makers since they are major employers and significant economic actors. We conducted a survey among KPMG clients with larger businesses. The respondents were most heavily concentrated in manufacturing (1/3) but comprised a diverse range of companies.

While research has found that most business owners prefer to avoid the hassles of growth, we found the business owners in our sample to be very ambitious. 72% of respondents want their business to be as large as possible. To achieve that goal, the most prevalent growth strategies include customer base expansion and geographical expansion. However, there is a strong preference to finance growth through debt rather than equity.

There were noticeable differences between firms that reported high growth compared to those that reported low growth. High growth firms were more likely to focus attention on innovation and activity outside of Québec. Low growth firms tended to be run by older owners and be looking towards exit.

Family firms are some of the largest and most iconic businesses in Québec, such as Molson Brewing or Bombardier. Family firms were common in our sample as well, constituting 50% of all respondents. Family firms tended to view themselves as risk averse, are much less likely to bring in new owners to grow, and are less likely than non-family firms to plan for succession or exit.

We found interesting patterns in the innovation strategies of business owners as well. 97% of firms reported to have introduced new products or services in the last 5 years. However, many of these new products and services do not appear to be the result of formal innovation practices. 60% of firms do not have an R&D department and 80% do not hold any patents.

The preference for informality is also evidenced in how firms approach collaborations with other firms. While respondents are heavily engaged in collaborations, less than 20% of this collaboration is codified into formal contracts. Thus, social capital and trust are critical factors in Québec business activity.

Our analysis complements current studies finding that exit considerations are a major issue in Québec. Business owners are aging, but many are not planning for exit. In fact, we find that owners over 60 are less likely to plan for exit compared to the rest of the population. Those older owners who are planning for exit often do not have fast growing businesses and may be decreasing risk taking and new growth investments in preparation for transfer. Clearly, there will be motivated retiring sellers who need to liquidate wealth concentrated in their businesses, but buyers should beware of the state of their target firm in order to value it appropriately.

Finally, business owners in our study indicated a wide range of challenges to doing business in Québec. The most important issue is hiring talent, indicating a need for skilled worker development and attraction programs. For high growth firms, managing that growth is critical and a lack of access to growth capital sometimes constrains further growth.

As a whole, our report sheds light on the entrepreneurial trajectory of firms in Québec and draws attention to the importance of hidden champions in the economy. These firms may not dominate headlines, but are the lifeblood of the Québec economy.

Québec Economic Landscape

Spanning 1.5 million square kilometers, Québec is the largest province in Canada by surface area; and with 8.3 million inhabitants it is the second largest by population (to Ontario). Known for its multilingual, creative, and innovative workforce, Québec accounts for a substantial portion of economic activity in Canada.

\$400 Billion GDPⁱ of which manufacturing (14%) and real estate (12%)ⁱⁱ are the largest contributors by industry

20% of Canadian GDP ⁱⁱⁱ

23% of the Canadian Labor Force ^{iv}

Québec Businesses

There are more than 4 million active Canadian businesses.^v Québec represents more than 20% of all businesses in Canada (860,498), second to Ontario (1.5 million) in terms of number of businesses by province. However, Québec ranks 7th according to number of businesses per capita, before Manitoba and most Atlantic provinces (except PEI), which may be attributable to Québec's relatively large population (Saskatchewan has the highest per capita business rate with a much smaller population) or a population that is living longer, but aging beyond working age.

Active Businesses in Canada by Province (as of June 2017) ^{vi}					
Region	Total	%	Per Capita (thousand individuals)	With employees	No employees
Canada	4,030,046		109.79	31.26%	68.74%
Ontario	1,517,318	37.70%	106.90	30.21%	69.79%
Québec	860,498	21.40%	102.51	29.83%	70.17%
British Columbia	612,336	15.20%	127.11	31.99%	68.01%
Alberta	552,413	13.70%	128.88	31.79%	68.21%
Saskatchewan	153,680	3.80%	132.04	27.83%	72.17%
Manitoba	124,247	3.10%	92.85	33.04%	66.96%
Nova Scotia	80,942	2.00%	84.85	38.61%	61.39%
New Brunswick	58,730	1.50%	77.31	45.26%	54.74%
Newfoundland and Labrador	44,237	1.10%	83.66	46.97%	53.03%
Prince Edward Island	15,968	0.40%	105.05	40.42%	59.58%
Yukon	4,724	0.10%	122.70	39.35%	60.65%
Northwest Territories	3,590	0.10%	80.67	47.63%	52.37%
Nunavut	1,363	0.00%	35.87	56.35%	43.65%

Table 1 Number of Businesses by Province

70% no employees

30% at least 1 employee

The great majority of businesses in Québec have no employees 603,820 (70%). These are individuals with economic activity constituted around their individual expertise. The remaining 256,678 (30%) are incorporated businesses with at least one employee, a proportion similar to Ontario. Canada as a whole has a slightly higher proportion of businesses with employees (31%).

New Business

New businesses are critical to infuse new activity into the economy. To examine new business in Québec, we draw on the comprehensive listing of businesses registered with the Registraire des entreprises du Québec (REQ). An enterprise is required to register with the REQ as soon as it starts operating in Québec.^{vii} Upon registration all enterprises are assigned a unique number (NEQ).^{viii} We examine the number of enterprises with a unique NEQ, which started operating in Québec for the first time in 2015 and 2016.^{ix}

We use the geospatial features of the data to map new businesses throughout the province in 2015 and 2016.

147,664

new businesses in 2015 and 2016

1.5% increase in business formation

in 2016 relative to 2015

What is entrepreneurship? New Business vs. Innovation

There is a longstanding debate about what **really** constitutes entrepreneurship. To some, simply opening any business is entrepreneurial activity. For others, new businesses have to be **innovative**, introducing new products or services that hold the potential to spur economic growth in order to be considered entrepreneurial.

To be certain, not all new businesses are innovative:

- Only about 1% of all new businesses in Québec are considered high tech and thus clearly fit the classic perception of innovative.
 - 164 firms in Québec received venture capital financing in 2016, a sign that they are bringing new products or services to market and have substantial growth potential.
 - 2% of new businesses registered in Québec are condominium syndicates, which is a legal entity for the collective of condominium owners.
- Management of companies and enterprises is one of the largest categories of new businesses, but some of these entities are holding companies which are effectively paper businesses that facilitate ownership control of operational entities and serve to limit the tax exposure of their owners.
 - An estimated 60% of individual doctors in Québec are legally incorporated as a business, which is a function of a policy compromise with doctors rather than a sign of growth enterprises.

In this report, we follow what the province of Québec deems to be new business. Thus, we use all unique firm registrations in the the Registraire des Entreprises du Québec. This broad perspective allows for the most comprehensive assessment of entrepreneurial activity.

New Businesses in Québec by Location

New Businesses span the vast landscape of Québec. The map behind shows the geospatial location of new businesses with recorded addresses in Québec in 2015 and 2016, which is a total of 95,669 firms. As you can see, new businesses were formed from the Ontario border to the furthest east along the Gulf of the St Lawrence and from the southern border with the United States to the furthest north near the Artic Circle.



While new businesses are spread all over Québec, they are heavily concentrated in metropolitan areas and especially Montréal. Table 2 below shows the breakdown of new businesses by Québec administrative regions. The most populous administrative regions generally also tend to have the most businesses and contribute the most to provincial GDP. Most regions have a percentage of new businesses and the percentage of GDP relatively proportional to its population. However, Montréal contributes disproportionately more to the number of new businesses and GDP relative to its population (a 10 percentage point difference). Part of this is explained by commuters who live in the suburbs but work in the city. However, this concentration is being challenged, as the figure below suggest:

- Montréal still creates by far more businesses per capita, but is not the champion in terms of business creation per capita
- Montérégie, Laurentides, Laval and Lanaudière are the champions in business creation per \$ of GDP;
- Laval and Laurentides also perform well in per capita basis;
- In all, we see that remote regions often display weaker business creation than their share of population or GDP which suggests that economic activity is being increasingly concentrated in major metropolitan areas.

New Businesses in Québec by Region (2015 & 2016)				
Region	# of new businesses	% of all new businesses	% of population	% of GDP
Montréal	33,075	34.57%	24.19%	35.35%
Montérégie	16,498	17.24%	18.45%	15.11%
Capitale-Nationale	8,211	8.58%	8.86%	9.99%
Laurentides	7,305	7.64%	7.23%	5.41%
Laval	5,710	5.97%	5.16%	4.08%
Lanaudière	4,877	5.10%	6.03%	3.56%
Chaudière-Appalaches	3,957	4.14%	5.10%	4.44%
Estrie	3,028	3.17%	3.89%	3.19%
Outaouais	2,903	3.03%	4.67%	3.48%
Saguenay–Lac-Saint-Jean	2,215	2.32%	3.33%	3.01%
Mauricie	2,148	2.25%	3.22%	2.46%
Centre-du-Québec	2,033	2.13%	2.93%	2.44%
Bas-Saint-Laurent	1,421	1.49%	2.40%	1.89%
Abitibi-Témiscamingue	1,028	1.07%	1.78%	1.94%
Gaspésie–Îles-de-la-Madeleine	558	0.58%	1.10%	0.83%
Côte-Nord	476	0.50%	1.11%	1.84%
Nord-du-Québec	223	0.23%	0.54%	0.97%

Table 2 Distribution of Québec New Businesses by Administrative region 2015/2016

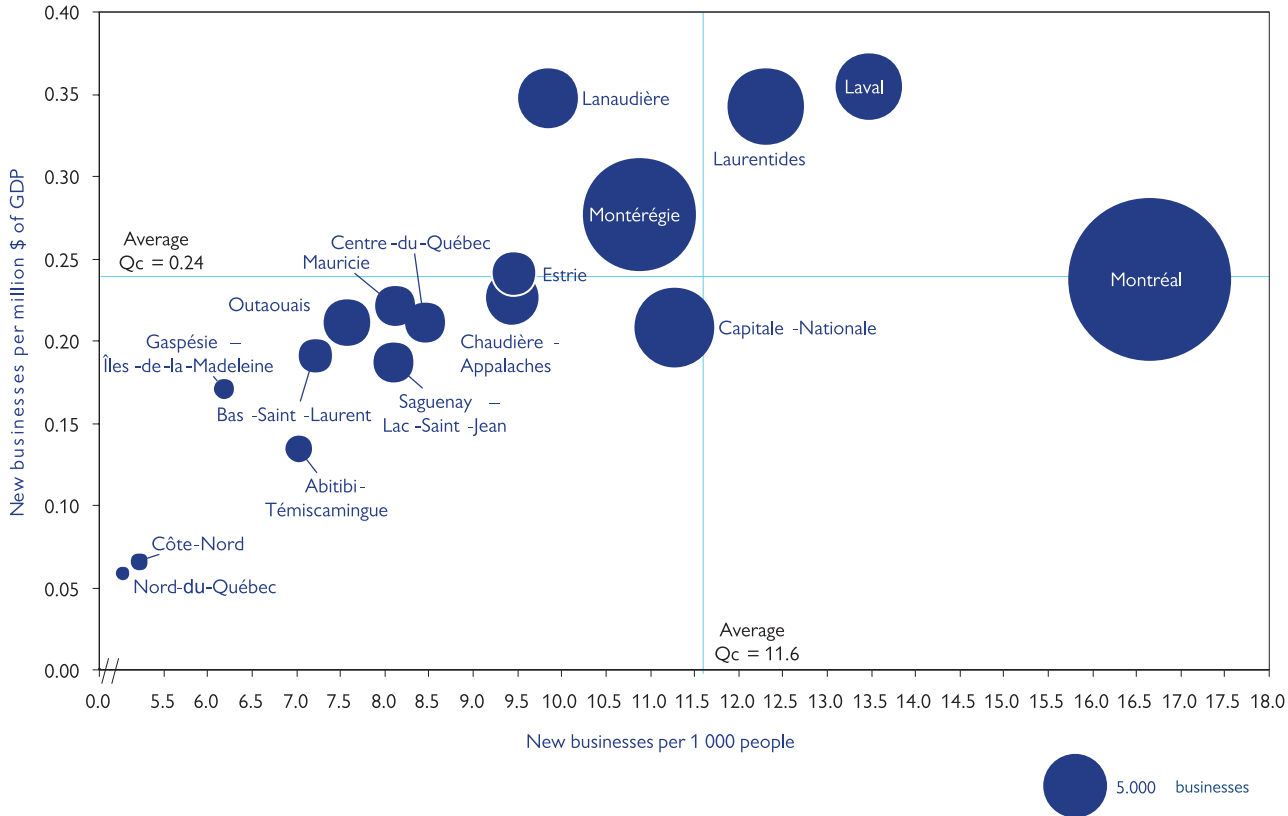


Figure 2 New businesses per dollar of GDP and per capita by Québec administrative region

Businesses in Greater Montréal (2015 & 2016)			
Region	# of new businesses	% of new businesses	% of population
Elsewhere in Québec	51,447	53.78%	52.48%
Greater Montréal	44,222	46.22%	47.52%
Agglomeration Montréal	33,075	34.57%	24.21%
Laval	5,710	5.97%	5.10%
Other North Shore	1,706	1.78%	7.03%
South Shore	3,731	3.90%	11.18%

Table 3 Number of businesses in Greater Montréal 2015/2016

If we look at the greater metropolitan area of Montréal, the Montréal metro area has a proportion of new businesses that is more on par with its overall population. While Laval and the South Shore certainly have some significant new business activity, the North Shore has much lower shares of new business compared to their population. This suggests that the city of Montréal serves as a hub for new venture activity and may be attracting individuals from outside of the city to set up their businesses in the city. Appendix 2 provides a detailed breakdown of new business formation within the agglomeration of Montréal.

New Businesses in Québec by Industry

The activities that new businesses undertake are indicators of the future composition of the provincial economy. Business activities are organized into industry classifications, which are not always perfect (i.e. any one business may be involved in many different activities), but it gives us the clearest look possible at what new businesses in Québec do.

84%

Services

16%

Goods

New businesses are reinforcing the shift in the industrial base from manufacturing towards service, which is currently 75% services producing compared to goods producing for the province^{xi}

Finance, insurance, real estate, rental and leasing industry is the most common industry amongst new businesses representing 16.46% of all new businesses

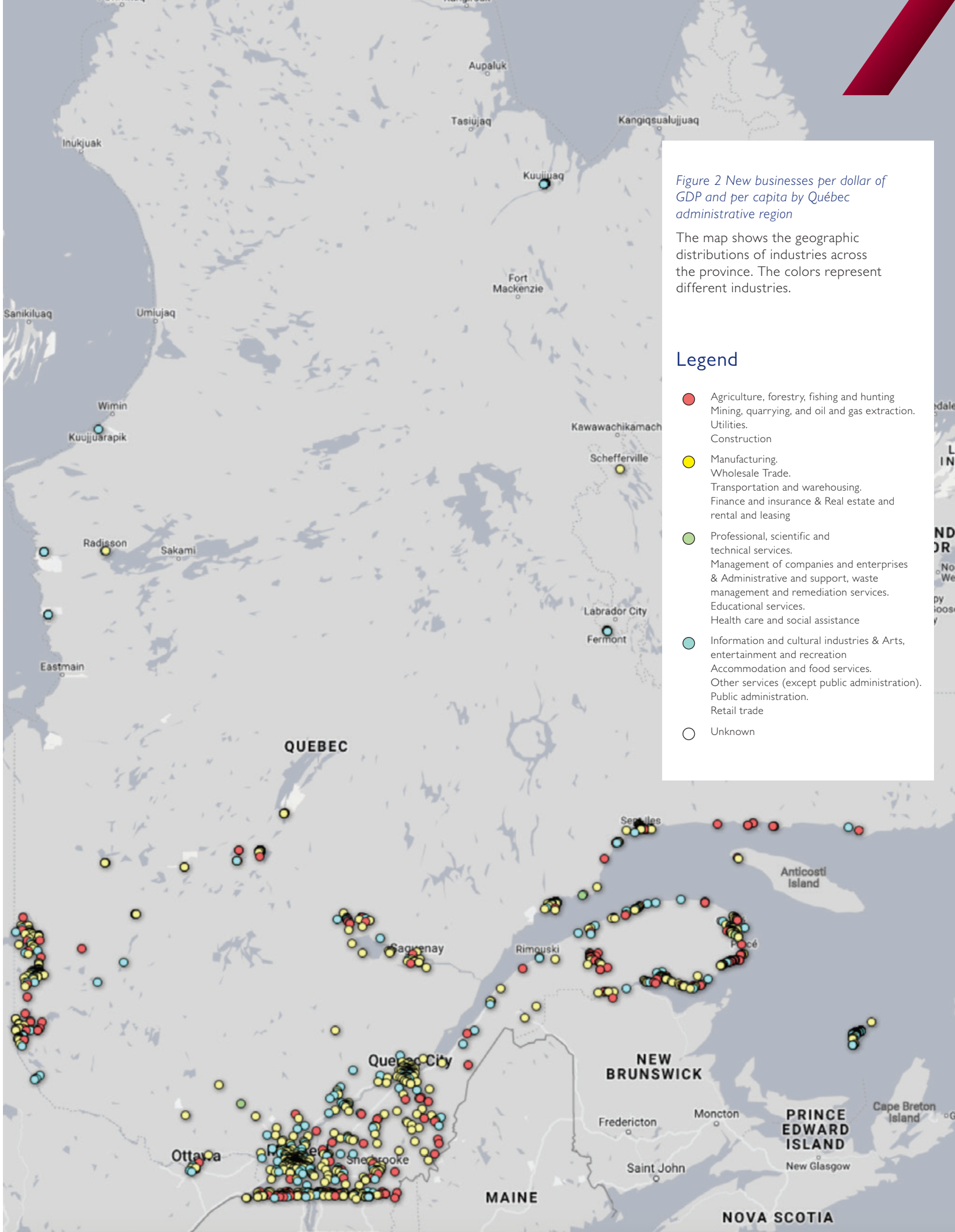
More than 50%

of new businesses producing goods are in Construction

Management of companies and enterprises represents very little in terms of overall GDP contribution (.77%), but is one of the *most common* industries for new businesses (13.24%)

New Businesses in Québec by Industry (2015 & 2016)			
	Industry	# of Firms	%
Goods 16%	Construction	13,204	8.94%
	Manufacturing	8,393	5.68%
	Agriculture, forestry, fishing and hunting	3,773	2.56%
	Mining, quarrying, and oil and gas extraction	158	0.11%
Services 84%	Finance, insurance, real estate, rental and leasing	24,312	16.46%
	Other services (except public administration)	19,934	13.50%
	Management of companies and enterprises, administrative and support, waste management and remediation services	19,556	13.24%
	Information, cultural, arts, entertainment and recreation	15,564	10.54%
	Retail trade	13,020	8.82%
	Health care and social assistance	7,127	4.83%
	Transportation and warehousing	6,770	4.58%
	Accommodation and food services	6,217	4.21%
	Wholesale trade	4,142	2.81%
	Educational services	1,842	1.25%
	Public administration	1,132	0.77%
	Unclassified	2,520	1.71%

Table 4 Québec new business prevalence by industry 2015/2016



Only 1.5% of new businesses in Québec are tech-oriented,

but these precious few can have a big impact

New Businesses in Québec by Technology Industries

While the number of new businesses is one way to capture economic composition, not all new businesses make the same economic contributions. New businesses in technology-oriented industries are generally considered to be more innovative and hold greater potential to grow. We examine the prevalence of specific industries that can be considered technology-oriented amongst new businesses with recorded addresses in Québec.^{xiii} We identify a broad category of technology businesses and then more specific subsets of life sciences and health technologies, aerospace, and information technology. Appendix 3 provides the precise breakdown and explanation of the coding scheme.^{xiii}

New Technology Business in Québec (2015 & 2016)		
Industry	# of new firms	% in Greater Montréal
All Industries	95,669	46.22%
Technology Industries (all)	1,476	56.93%
Life Science and Health Technologies	129	75.19%
Aerospace	47	57.44%
Information Technology	949	55.95%

Table 5 Prevalence of New Technology Businesses in Québec 2015/2016

Only about 1.5% of all new ventures in Québec can be considered tech^{xiv}, but this still translates into a substantial number of new firms each year. There were over 2,000 new tech ventures in Québec in 2015 and 2016, but only 1,476 that provided primary addresses within the province as indicated above. There are 107 tech new businesses that report primary addresses outside of Québec and 811 tech new businesses that do not report an address, all of which are registered as a sole proprietorship and thus are not required to provide an address. As Table 4 indicates, most of the new tech businesses are concentrated in the information technology sector.

While there are technology new businesses spread throughout the province, they are highly concentrated in the greater Montréal metropolitan area.^{xv} Life sciences and health technologies are particularly concentrated with over 75% of all Québec new businesses in this industry residing in Montréal. Appendix 4 provides a more detailed breakdown of where in Greater Montréal tech businesses are located.

Because of their growth requirements and potential, these industries attract attention from external investors, especially venture capital. According to the Canadian Venture Capital & Private Equity Association, the total amount of money invested in Québec companies has risen sharply in recent years and in 2016 alone exceeded the \$1 billion dollar mark. More than 31% of Canada's 530 venture capital transactions occurred in the province of Québec. Over 70% of these Québec venture capital deals were done in Montréal. Approximately 50% of the total sum of venture capital (\$1B) was invested in the information and communications technology sector (over 90 deals) another third, approximately \$313M was invested in life sciences (over 38 deals).^{xvi}

Geographic Distribution of Tech New Businesses in Québec (2015 & 2016)				
Region	# of new Tech firms	% of new Tech firms	% of new firms	% of GDP
Montréal	692	46.79%	34.58%	35.35%
Montréal	179	12.10%	17.24%	15.11%
Capitale-Nationale	122	8.25%	8.58%	9.99%
Laval	106	7.17%	5.97%	4.08%
Laurentides	99	6.69%	7.64%	5.41%
Lanaudière	58	3.92%	5.10%	3.56%
Outaouais	39	2.64%	3.03%	3.48%
Mauricie	38	2.57%	2.25%	2.46%
Estrie	38	2.57%	3.17%	3.19%
Chaudière-Appalaches	30	2.03%	4.14%	4.44%
Saguenay-Lac-Saint-Jean	28	1.89%	2.32%	3.01%
Centre-du-Québec	17	1.15%	2.13%	2.44%
Bas-Saint-Laurent	14	0.95%	1.49%	1.89%
Abitibi-Témiscamingue	7	0.47%	1.07%	1.94%
Gaspésie-Îles-de-la-Madeleine	6	0.41%	0.58%	0.83%
Nord-du-Québec	4	0.27%	0.23%	0.97%
Côte-Nord	2	0.13%	0.50%	1.84%
Greater Montréal	842	56.93%	46.22%	55.62%

Table 6 Geographic Distribution of Tech New Businesses in Québec 2015/2016

The table above shows the breakdown of tech firms by administrative region in the province. We see again that the administrative region of Montréal has about 6x more tech firms than any other region, followed by Montréal and Capitale-Nationale as the most prevalent sources of tech firms. The concentration of new tech firms in Montréal (46,79%) is even greater than the concentration of all new businesses in the region (34,58%)

Unsurprisingly, Côte-Nord and Nord-du-Québec have the fewest tech firms. The map below visualizes the geographic distribution of technology oriented and non-technology oriented new businesses.^{xix} Most of these new ventures are still quite small and would be categorized as early seed stage ventures. Nevertheless, some of these high potential new ventures may be the ones attracting significant investment and driving economic growth in Québec in the future.



Figure 3 Geographical Distribution of high-tech new businesses in Québec 2015/2016

5.64% of new businesses
failed in their first year

Survival of Québec New Businesses

Start-ups are fragile in their early days, facing liabilities of newness that threaten their survival. However, those that succeed may drive innovation and grow into powerful contributors to the economy in the future. We examine whether firms that opened in 2015 and 2016 were still open in 2017.

This compares quite favorably with research on failure of new businesses more broadly. The Bureau of Labor Statistics indicates that 20% of American firms fail in the first year and about 30% fail by their second year.^{xx} Canadian estimates have shown 15% failure rates in the first year and 30% by their second year, though these estimates were only for employer new businesses.^{xxi} We find lower failure rates for the Québec new businesses in our sample. This may be because many smaller businesses persist even when underperforming.

New Business Failure Rates in Québec (as of 2017)			
Status in 2017	Opened in 2015	Opened in 2016	Overall
Closed	7,439	4,198	11,637
Open	65,845	70,182	136,027
Total	73,284	74,380	147,664
Failure Rate	10.15%	5.64%	7.88%

Table 7 Survival of New Businesses in Québec in 2017

10% of new businesses

failed by their second year

Survival is also dependant on the conditions within the new business' industry. Industries are comprised of similar companies who may collaborate extensively and/or compete intensively. As a result, survival rates for the cohort of all new businesses vary by industry.

The *finance, insurance, real estate, rental and leasing industry* exhibits the lowest failure at 4% of all businesses. Survival rates are lowest in the *Wholesale trade* as well as the *Retail trade* industries, where 9% of firms failed within the first 2 years.

Failure Rates in the High Tech oriented firms, which occur across industry categories in the Table below, are 6% (vs. 8% in non-high tech). This is in line with previous research that demonstrates lower failure rates for high tech firms.^{xxvii}

Industry Survival Rates of New Businesses in Québec (2017)		
	Industry	Failure
Goods	Manufacturing	8%
	Construction	7%
	Agriculture, forestry, fishing and hunting	5%
	Mining, quarrying, and oil and gas extraction	5%
Services	Accommodation and food services	9%
	Retail trade	9%
	Transportation and warehousing	9%
	Wholesale trade	9%
	Information, cultural, arts, entertainment and recreation	8%
	Educational services	8%
	Management of companies and enterprises, administrative and support, waste management and remediation services	8%
	Other services (except public administration)	8%
	Public administration	8%
	Health care and social assistance	7%
	Finance, insurance, real estate, rental and leasing	4%

Table 8 Survival of New Businesses in Québec by Industry 2017

Figure 4 Geographic Distribution of failure firms in Québec 2017



Small Business

Prevalence and Contribution

Small businesses, which are defined as firms with less than 100 paid employees, are often the unheralded backbone of economies. This is certainly the case in Québec. Small businesses play a major role in the economic life of the province. In Québec, small employer firms account for:

98% of all employer firms

30% of Provincial GDP ^{xxiii}

71% of the private labour force ^{xxiv}

Employment of
1.89 million individuals

As the table below reveals, the prevalence of firms is highly concentrated at small sizes. More than half of all firms have between 1 and 5 employees. Québec actually has a slightly lower percentage of very small firms between 1-4 employees (52%) than Canada as a whole (56%), but a slightly higher concentration of firms across categories between 5-100 employees.

% of Employer Firms by size (2017)						
# of employees	Canada			Québec		
	# of firms	%	Cumul. %	# of firms	%	Cumul. %
1 to 4	706,714	56.10%	56.10%	133,982	52.20%	52.20%
5 to 9	237,417	18.85%	74.94%	52,649	20.51%	72.71%
10 to 19	154,002	12.22%	87.17%	33,761	13.15%	85.86%
20 to 49	102,354	8.12%	95.29%	23,559	9.18%	95.04%
50 to 99	34,313	2.72%	98.01%	7,694	3.00%	98.04%
100 to 199	14,799	1.17%	99.19%	3,032	1.18%	99.22%
200 to 499	7,210	0.57%	99.76%	1,398	0.54%	99.77%
500 plus	3,003	0.24%	100.00%	603	0.23%	100.00%
Total	1,259,812			256,678		

Table 9 Prevalence of Employer Firms by Size 2017

In Québec, small firms employ
1.89 million individuals

Small Business Industries

Reflective of the transition from an industrial base, Québec is decidedly focused on the production of services rather than physical goods. However, large and small firms differ in terms of their industry concentrations. At the broadest level, as might be expected, large firms are slightly more concentrated in the production of goods than services relative to small firms. 26% of all large firms produce goods, compared to 23% of small firms. However, as identified earlier both of these figures have higher rates of goods production than new firms which are only 16% goods producing and 84% services producing.

Goods/Services Distribution in Québec			
	New Firms	Small Firms	Large Firms
Goods	16%	23.10%	26.10%
Services	84%	76.90%	73.90%

Table 10 Distribution of Goods and Service Industries by: New firms (2015/2016) and Small and Large firms (2017)

Technology Sectors

We also examine the concentration of small firms within technology-oriented industries. These industries have garnered attention for being particularly innovative and reflective of the knowledge economy upon which Québec and Canada are based. The table below shows the prevalence of firms in some of these technology sectors according to total number of firms and size in Québec, Ontario and Canada as a whole.

Technology Sector Firms (2017)				
Industry	Total # of all firms	Total # of firms per Capita (per 10,000)	% of All firms	% of Industry that is SMALL
Québec				
Tech Industries (all)	11,500	13.7	4.48%	97.04%
Life Sciences and Health Technologies	1,105	1.32	0.43%	93.76%
Aerospace	86	0.1	0.03%	67.44%
Information Technology	7,113	8.47	2.77%	97.27%
Ontario				
Tech Industries (all)	29,229	20.59	6.38%	97.94%
Life Sciences and Health Technologies	1,734	1.22	0.38%	93.94%
Aerospace	131	0.09	0.03%	77.1%
Information Technology	21,286	15	4.64%	98.24%
Rest of Canada				
Tech Industries (all)	23,344	16.53	4.29%	98.00%
Life Sciences and Health Technologies	1,778	1.26	0.33%	97.19%
Aerospace	92	0.07	0.02%	77.17%
Information Technology	10,806	7.65	1.98%	97.83%

Table 11 Prevalence of Technology Sectors 2017

Compared to the other Canadian provinces and Ontario, Québec has lower concentrations of technology and specifically information technology firms. Ontario has over 2 tech firms per 1,000 individuals compared to just 1.37 for Québec. This is in large part due to a lesser presence in the IT industry. However, Québec has slightly higher concentrations of life sciences and aerospace firms. Québec accounts for 23% of all Canadian Life Sciences and Health Technologies firms and 28% of all Canadian aerospace firms. As with non-tech industries, these critical sectors are dominated by small firms with less than 100 employees. All tech industries are comprised of over 93% small firms with the exception of aerospace where small firms only account for 67% of firms in the industry in Québec.^{xxx}

Professional, Scientific, and Technical Service firms are the most common types of firms in Québec and indeed all of Canada.

Small Business Industry Rankings

Next, we take a more fine-grained look at the characteristics of small business industries by scrutinizing compiled financial statements provided by Statistics Canada. This data represents the most comprehensive look at small private business behaviour in Québec and allows us to rank the most prevalent and highest performing Québec small business industries. This data focuses on incorporated firms with revenues between 30,000CAD and 5,000,000CAD and is used to help small businesses benchmark themselves relative to competitors. As such, the data is representative of all businesses operating within the specified industry in this revenue range in Québec.^{xxvi}

With this analysis, we delve deeper into the industry classification system and concentrate on more refined 3 digit North American Industry Classification System (NAICS) codes to get a closer look. We use the exact terminology for industry names utilized in NAICS and by Statistics Canada in order to align with the reporting of government statistics and allow readers to follow up with Statistics Canada resources directly.^{xxvii} The following is a series of Top 10 rankings of Québec industries according to their prevalence, performance, and change over time.

Top 10 Most Prevalent Small Business Industries

Most Prevalent Industries (2015)					
NAICS	Industry	Québec	Ontario	British Columbia	Canada
		# of firms per capita (per 1,000 individuals)			
541	Professional, Scientific and Technical Services	3.37	5.09	5.75	4.96
531	Real Estate	2.51	2.66	3.91	2.88
238	Specialty Trade Contractors	2.30	2.07	2.99	2.63
722	Food Services and Drinking Places	1.62	1.59	1.81	1.59
561	Administrative and Support Services	1.61	1.27	1.53	1.42
621	Ambulatory Health Care Services	1.57	2.23	2.93	2.21
236	Construction of Buildings	1.43	1.10	1.94	1.43
484	Truck Transportation	1.32	1.90	1.06	1.68
813	Religious, Grant-Making, Civic and Professional and Similar Organizations	1.24	1.09	1.71	1.22
811	Repair and Maintenance	0.96	0.90	1.13	1.11

Table 12 List of the top 10 most Prevalent Industries in Québec 2015

Table 12 shows the most prevalent industries in Québec and across Canada. Since there was surprisingly little variation in the most prevalent industries across the geographic regions of Canada, we track the most common Québec industries per capita across Canada. Professional, Scientific and Technical Services firms are the most common across all of Canada, but there is a much higher frequency outside of Québec (~5 firms per 1,000 individuals) compared to within Québec (3.3 firms per 1,000 individuals).

30% of the most prevalent industries are also amongst the most profitable:

- Professional, Scientific, and Technical Services
- Ambulatory Health Care Services
- Truck Transportation

Top 10 Most Profitable Small Business Industries

Table 13 below shows the list of the top 10 most profitable industries for small businesses in Québec and their relative profitability in other Canadian provinces in 2015 according to return on assets.

Most Profitable Industries (2015)					
NAICS	Industry	Québec	Ontario	British Columbia	Canada
		Return on Total Assets %			
492	Couriers and Messengers	45.6	40.9	44.3	41.5
621	Ambulatory Health Care Services	43.8	28.6	26.6	29.8
622	Hospitals	35.8	34.8	34.7	35.2
491	Postal Service	26.9	5.1	9.2	13.5
518	Data Processing, Hosting and Related Services	22.7	16.8	10.1	16.7
484	Truck Transportation	20.2	29.7	21.7	22.3
814	Private Households	19.3	14.0	20.7	18.8
488	Support Activities for Transportation	16.6	18.4	13.2	15.5
541	Professional, Scientific and Technical Services	15.5	16.8	17.8	17.7
711	Performing Arts, Spectator Sports and Related Industries	14.3	14.0	16.8	13.5

Table 13 List of the top 10 most Profitable Industries in Québec 2015

Each of the industries on this list in Québec exhibits healthy return on assets at or above 14%. Couriers and messengers have the single highest return on asset levels at a staggering 45.6%, though this is likely driven by the low levels of asset intensity in this industry.

We also see markedly higher levels of profitability in health care related industries in Québec compared to the rest of Canada.^{xxviii}

Postal firms in Québec are 2x and 5x more profitable than their counterparts in other provinces.

The health care sector is one of the fastest growing in Québec.

Top 10 Fastest Growing Small Business Industries

Table 14 below represents the fastest growing industries for small businesses in Québec in terms of prevalence from 2012 to 2015.

Fastest Growing Industries in Prevalence in Québec (2012-2015)			
NAICS	Industry	# of firms (2012)	Growth (%)
622	Hospitals	38	165.79
621	Ambulatory Health Care Services	4,937	162.85
814	Private Households	141	108.51
454	Non-Store Retailers	444	99.55
312	Beverage and Tobacco Product Manufacturing	84	54.76
452	General Merchandise Stores	390	44.62
481	Air Transportation	136	43.38
484	Truck Transportation	7,621	43.25
115	Support Activities for Agriculture and Forestry	689	40.35
531	Real Estate	15,518	33.57

Table 14 List of top 10 fastest Growing Industries in Québec 2012-2015

This table shows that:

- The Health Care sector has recorded the highest changes in Québec in the last 5 years at more than 160%. This may be due to an increase in doctors incorporating under Ambulatory Health Care Services. It is estimated that now about 60% of doctors in Canada have opted to incorporate, a practice that is now subject to extensive policy debate.
- Private households refer to households engaged in employing workers, on or about the premises, in activities primarily concerned with the operation of the household such as cooking, cleaning, or babysitting. The growth in this sector may be reflective of the rising inequality or the democratization of such services to more middle class families.
- The growth of non-store retailers may be attributed of the dramatic rise of e-commerce in recent years.
- Truck transportation also showed a sizeable increase with over 3,000 new firms over 3 years. This likely reflects a bounce back from the steep industry recline faced during the 2008 recession.^{xxix}

Interestingly, there is little overlap between the fastest small business industries between 2012 and 2015 and new businesses registrations in 2015 and 2016. This suggests either that growth has tapered off in the more specific industries listed here in more recent years or that they represent fast growing segments of the more stagnate broader industries that we identified as part of the fastest growing new businesses.

Top 10 Fastest Declining Small Business Industries

Table 15 below reveals the top 10 fastest declining industries in Québec in terms of prevalence from 2012 to 2015.

Fastest Declining Industries in Prevalence in Québec (2012-2015)			
NAICS	Industry	# of firms (2012)	Decline (%)
211	Oil and Gas Extraction	12	-25.00
322	Paper Manufacturing	118	-24.58
212	Mining and Quarrying (except Oil and Gas)	140	-22.14
412	Petroleum Product Wholesaler-Distributors	95	-10.53
418	Miscellaneous Wholesaler-Distributors	1,825	-10.52
316	Leather and Allied Product Manufacturing	79	-7.59
517	Telecommunications	359	-6.96
491	Postal Service	47	-6.38
313	Textile Mills	103	-5.83
551	Management of Companies and Enterprises	6,736	-3.90
314	Textile Product Mills	201	-2.49
333	Machinery Manufacturing	865	-0.81
419	Wholesale Electronic Markets, and Agents and Brokers	1,292	-0.31

Table 15 List of top 10 fastest Declining Industries 2012-2015

Most of the industries on this list are relatively small in size, with total small business industry revenues of less than \$500 million. For instance, oil and gas and many of the manufacturing sub-industries have relatively few firms and thus small declines in the absolute number of firms will indicate relatively high rates of decline.

However, management of companies and enterprises as well as wholesale distributors are both relatively large industries with 2.9B and 1.5B in total revenues amongst small businesses respectively in 2015. Thus, declines in these sectors have more meaningful economic impacts on the Québec economy. Interestingly, we saw that management of companies and enterprises was a common sector amongst start-ups in 2015 and 2016 which may suggest that the industry is growing in more recent years or that there is relatively high level of churn in the industry as many firms enter and exit the industry each year.

72% of business owners want their firm to be as large as possible.

SME Mindset and Strategy

While the previous analysis reveals the more quantitative state of the small business landscape, we are not able to assess the more qualitative aspects through the investigation of secondary government statistics alone. Therefore, we conducted a proprietary survey of KPMG clients and business contacts in order to better assess attitudes and strategies of Québec business owners directly. In total, we received responses from 104 business owners collected during the summer of 2017.

Entrepreneurial Entry

Individuals can enter into business ownership in different ways. In our sample...

41% founded

39% acquired

20% were transferred through family

SME Mindset

Most people think that all owners want to grow their firm, but the reality is that most owners prefer to stay small and avoid the hassles of high growth.^{xxx} Nevertheless, in our sample we find rather high growth ambitions. While their risk tolerance is more tempered, this finding is in line with most entrepreneurship research which rejects the myth that entrepreneurs are risk seekers.^{xxxi}

Growth Ambitions

72% want their business to be as large as possible

28% want to manage the business alone or with a few key employees

Moderate Risk Takers

Only 1/3 prefer high risk projects with chance of very high return to low risk project with more certain returns

80% prefer to proceed with an average pace in an uncertain environment

Demographic Characteristics

Our survey contains responses from a broad segment of the small and medium sized enterprise (SME) owner population, but it is not meant to be representative of the Québec population of business owners. In our sample about 10% of firms can be considered large (>500 employees) and firm ages ranged from 1 to 108 years old. One third of responses were from manufacturing firms, while the rest was rather evenly distributed across industries. As a result, these survey responses are well positioned to reflect broad attitudes while capturing important heterogeneity in the Québec SME population.

Educated

Only 10% did not have a bachelor's Degree and 43% had Graduate Degrees

Experienced

73% have more than 10 years industry experience, 31% more than 20 years

Male

94% are men

Approaching Retirement

60% age 50 or older

The demographic composition of SME business owners in our survey is in line with Canadian estimates in terms of age and experience. Approximately 60% of Canadian SME business owners are 50 years or older and 80% have more than 10 years of experience. However, our population of business owners shows significantly higher levels of education. Only 11% of our sample do not have a bachelor's degree compared to nearly 50% in the more general Canadian SME business owner population. In addition, we found a much more male dominated SME business owner population with only 6% of female SME business owners, compared to nearly 25% in Canadian SMEs more broadly. These differences may be attributable to firm size as our survey population is more heavily weighted toward larger firms which have been found to be more male dominated and have owners with higher levels of education.

50% of firms in our sample considered themselves to be family firms

Family Firms

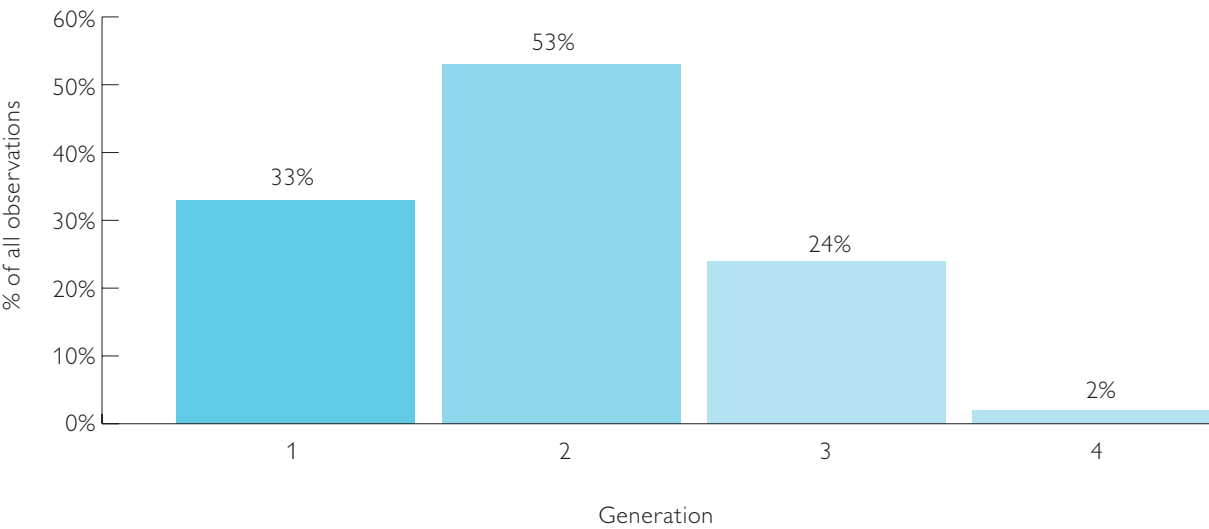
Family firms, where multiple members of the same family are involved in either ownership or management, are the oldest and still the dominant form of organization, accounting for between 70 and 95% of all business entities worldwide.^{xxxii} Like all businesses, most family businesses are small, perhaps run by just a few key family members. However, family firms are also prevalent among public companies and some of the largest and most iconic businesses ^{xxxiii}, such as Molson Brewing or Bombardier in Québec. We clearly see the importance of family firms even amongst our survey of relatively larger SMEs in Québec.

50% identified as family firms

While only 20% acquired their firm through family, 50% more consider themselves to be family firms. This means that owners who founded or acquired their business have likely employed family members and/or intend to pass on their business to future generations.

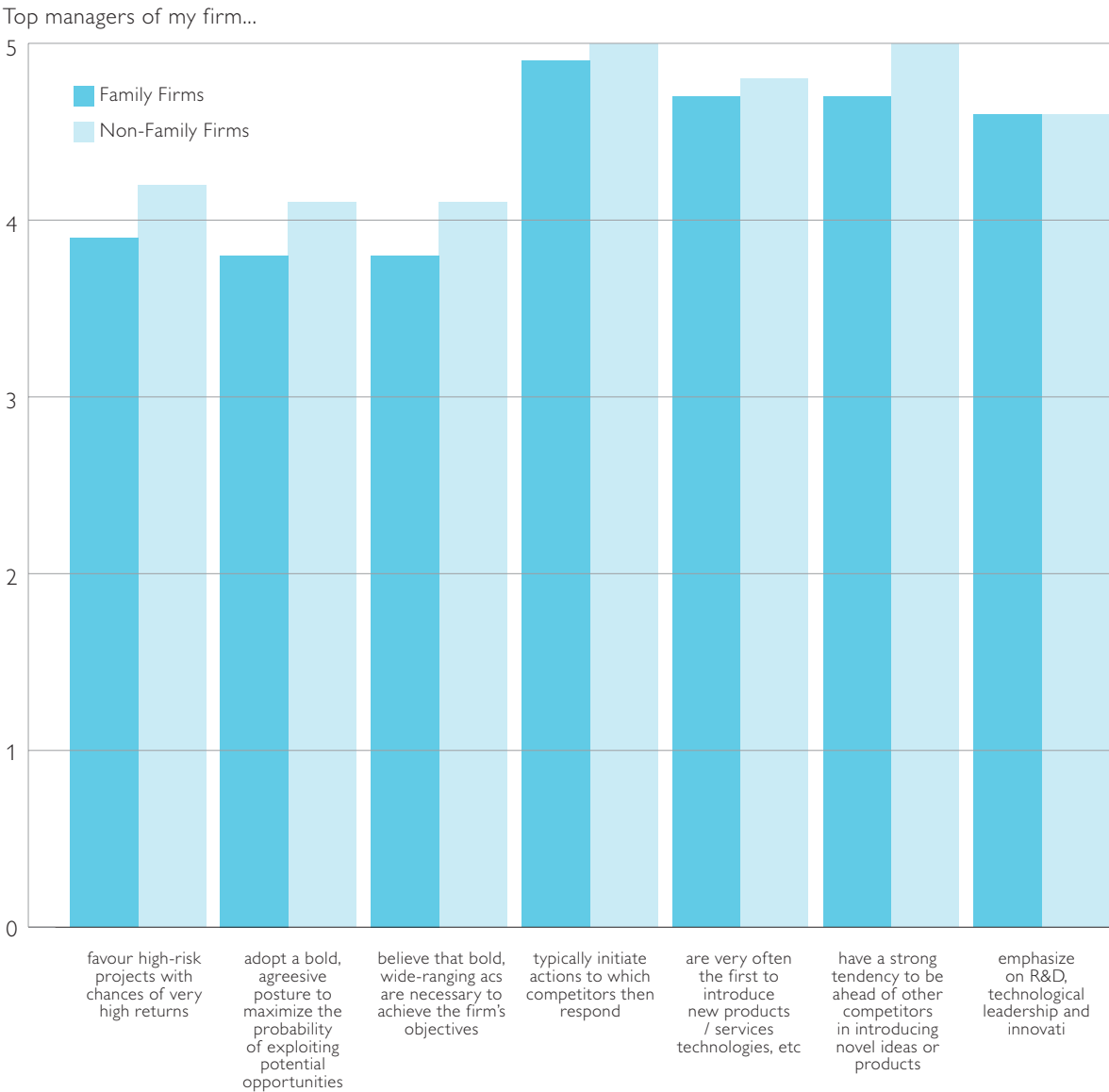
Most family firms are in the 2nd generation (53%)

But a full third of family firms are in the first generation.



Graph 1 Percentage of SME firms with the generation level owning and/or working in the firm

Most family firms in our sample consider themselves to be risk-averse



Graph 2 Risk taking pattern of top managers in family versus non-family firms

Comparing family firms to non-family firms, the average risk initiatives of top managers in family firms are in all cases below the risk initiatives taken by managers of non-family firms on average. Moreover, non-family firms are consistently above the threshold preferring riskier strategies (a rate of 4). However, while the risk taking in family firms is always risk-averse below the non-family firms' risk taking, family firms are risk-averse especially when the environment is uncertain, and they are challenged to engage in risky projects. These observations are in line with family business literature that suggests that family firms may take less risk to prioritize survival and preserve their non-financial attachment to the business.

Québec firms tend to favor informal innovation and collaboration strategies

High growth firms tend to extend their focus outside of Québec

Growth Strategies

While owners may have ambitions to grow, they have many choices in terms of how they grow. The following is a ranking of the strategies that were deemed the most and least important for growth.

Most important

(% represents respondents who consider the strategy to be “important” or “very important”)

87% Customer Base Expansion 82% Product or Service Expansion 79% Geographic Expansion

Least important

38% Licensing 34% External Contracting 31% Joint Ventures

Innovation

The business owners in our sample demonstrated mixed results on innovative activity.

On the one hand...

65% have no inventions 80% hold no patents

On the other hand...

40% have an R&D department Only 3% of firms reported no new products or services in the last 5 years More than 40% of firms had more than 20% of sales from new products

Financing

58% are willing to bring in new owners in order to grow but there is a strong preference for debt over equity financing family firms are much less likely to bring in new owners in order to grow

Collaboration

80% report to engage in equal or more collaboration compared to competitors

But less than 20% of this collaboration is codified into formal contracts

This suggests that collaboration is an important strategy for Québec SMEs, but social capital and trust are critical resources between firms.

Performance Indicators

There are many ways to measure performance. In fact, entrepreneur and policy maker perceptions of performance often conflict. Policy makers tend to care most about employment growth while business owners often care more about efficiency or the value of their equity. ^{xxxiv}

In our sample, business owners cared more about profitability and growth than their own equity. Gross margin was considered the most important performance indicator (92% of respondents considered it to be “important” or “very important”) followed by sales growth (86%), equity value (84%) and return on equity (79%).

High Growth versus Low Growth firms

New businesses may be able to glean insights from the model that high growth firms provide. We examined how firms that reported to do better than competitors in terms of sales growth (51% of the sample) compared to firms that reported to do worse than competitors on sales growth (13% of the sample).

High Growth Firms	Low Growth Firm
Want to grow as big as possible	Prefer to stay small
Only 54% of owners over 50	Owners tend to be older: 85% over 50
Are focused on R&D as a growth strategy	Are more likely to hold a patent (perhaps as an exploitation strategy)
Not thinking about exit	More likely to planning for exit and succession
Growth management is their biggest challenge	Hiring Talent is their biggest challenge
More collaborative with other firms	
Are more likely to be focused outside of Québec	

Many business owners in Québec are nearing retirement age, but few have a time horizon or plan for exit

Exit

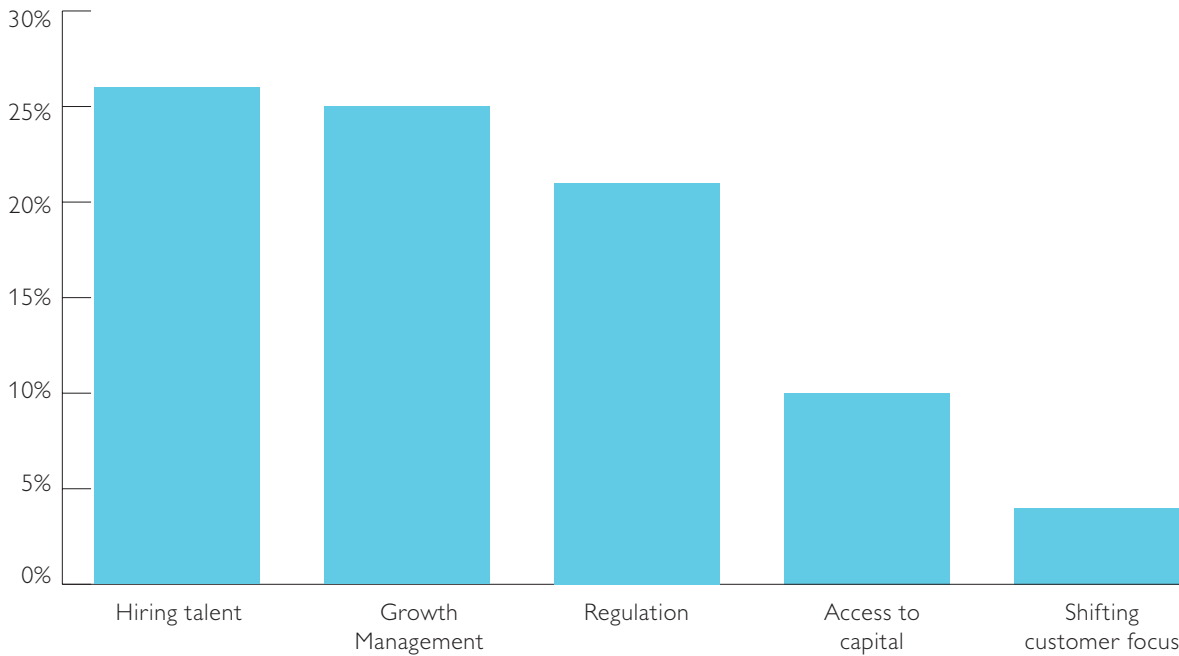
Given the aging population amongst Québec business owners, business exit is a topic of critical importance to the economy. As we saw, more than 60% of business owners in our sample are age 50 or older. It is estimated that there will be a massive transfer of economic control due to business transfer in the coming years. ^{xxxv} We found the following exit considerations from our business owners in our sample.

60% have no succession or exit plan 70% have no time horizon for exit	Family firms are less likely to have an exit or succession plan! 78% of family firms have no time horizon for exit 62% have no succession plan.
Older owners are LESS likely to plan for exit... 70% of owners age >60 have no succession plan 75% of owners age >60 have no time horizon for exit	Most likely types of exit: sale to another firm (50%) family transfer (30%) employee buyout (11%)

The aging business owner population and relative lack of planning for exit means that there is a tremendous need to develop entrepreneurial individuals to acquire private enterprises in Québec. Only 50% of business owners see internal solutions to their succession via employee buyout or family transfer and thus are mostly looking to sell to an outside firm. For potential acquirers, there are likely to be motivated sellers in the coming years as business owners tend to have their wealth highly concentrated in their business ^{xxxvi} and may need to liquidate that wealth for retirement. However, the firms that come for sale may not be high growth. Aging owners also tend to be more risk averse^{xxxvii} and may decrease their growth investments in the years prior to sale. This is a major productivity issue for the economy and important factor for individuals looking to buy a business to consider.

Challenges

Doing business in Québec is not without its challenges. The following are the most significant areas that were identified by our respondents in response to the question “what is the biggest challenge you face as a Québec private business owner?” We found that hiring talent and managing growth were the biggest challenges for Québec business owners in our sample followed by regulation, access to capital, and shifting customer focus. The following quotes illustrate the concerns voiced by our respondents further.



Graph 3 Challenges for Québec Business Owners

Hiring Talent (26% of responses)	“Attracting top quality human resources to execute ownership vision and support the growth”
Regulation (21% of responses)	“Profit erosion given administrative burden (labor unions, tax legislation, etc.)”
Access to Capital (10% of responses)	“Access to growth capital”
Growth Management (25% of responses)	“Growing in other markets and internationally”
Shifting customer behavior (4% of responses)	“Difficulty to compete with internet sales by outside companies that do not charge sales taxes. Because even if we have a transactional website, it is 15% more expensive for the customer due to sales taxes...”

Conclusion

As we have seen, private enterprise is alive and well in Québec. While large public firms dominate headlines, small businesses dominate the economic landscape. Despite their stature, we should not forget these hidden champions. They are a backbone for the economy and may hold the potential for future growth.

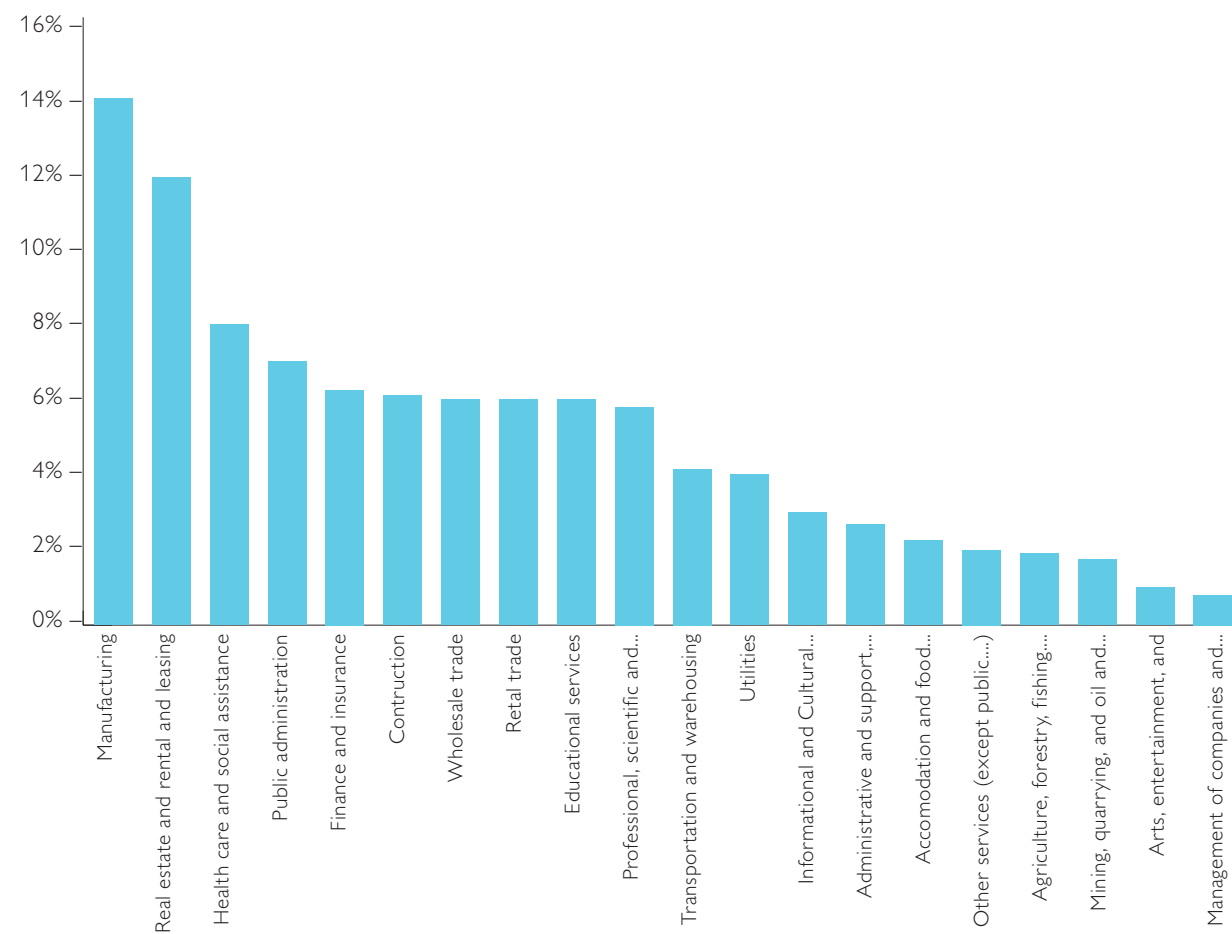
As this report provides the latest assessment of the state of the private enterprise landscape in Québec, we hope that it will be valuable to a wide variety of audiences. The report may serve as an informative foundation for policy makers to create policy that fosters entrepreneurial activity not only in new ventures, but also amongst the existing base of small and medium enterprises in the province. For entrepreneurs investing in Québec, this report provides competitive intelligence regarding industry features that can be used to enter promising industries or to understand the performance track record of their industry. Furthermore, the report will be instrumental to media members and researchers as a tool to raise awareness about key features of Québec businesses and contextualize studies conducted in Québec.

However, in this report, we have only begun to scratch the surface of these important issues. There is still much to learn about the unique entrepreneurial infrastructure in Québec as well as the opportunities and challenges for its entrepreneurs. As our report indicates, further exploration of the critical challenges is likely to help unleash the province's entrepreneurial potential. For instance, how do we provide the best growth support to the most promising businesses? How do we make sure that growth capital is invested in the province? How do we create an environment that develops leading talent and is an attractive destination for talent from around the world?

In sum, we hope that this report shines a light on some of the less examined corners of the Québec economy and fosters greater discussion of how to best support and develop entrepreneurial activity within Québec.

Appendix

Appendix 1: Québec GDP contribution by industry in 2016^{xxxviii}



Source: Statistics Canada. "Gross domestic product by industry, chained (2007) dollars", Statistics Canada, 2017, <http://www.statcan.gc.ca/daily-quotidien/170501/t001a-eng.htm> Accessed 04. Dec. 2017

Appendix 2: New Businesses in the Agglomeration Montréal

New Businesses in Québec by Region (2015 & 2016)			
Region	# of new businesses	% of new businesses	% of population
Elsewhere in Québec	62,594	65.43%	75.79%
Agglomeration Montréal	33,075	34.57%	24.21%
Montréal	27,674	28.93%	21.25%
Mont-Royal	964	1.01%	0.25%
Westmount	797	0.83%	0.25%
Dollard-Des Ormeaux	714	0.75%	0.62%
Cote-Saint-Luc	532	0.56%	0.41%
Hampstead	432	0.45%	0.09%
Pointe-Claire	396	0.41%	0.39%
Montréal-est	290	0.30%	0.05%
L'Ile-Dorval	271	0.28%	0.00%
Beaconsfield	264	0.28%	0.24%
Kirkland	236	0.25%	0.26%
Dorval	183	0.19%	0.24%
Montréal-ouest	107	0.11%	0.06%
Sainte-Anne-de-Bellevue	95	0.10%	0.06%
Senneville	85	0.09%	0.01%
Baie D'Urfe	35	0.04%	0.05%

Appendix 3: Technology Industry Coding

Technology Industry Coding. We draw on established coding schemes to distinguish tech industries. Unfortunately, the Registraire des entreprises du Québec (REQ) uses its own coding scheme which is different from NAICS. As a result, we matched them as closely as possible. The tables below provide the exact specifications.

Technology Industries

Technology industries are difficult to define due to the changing nature of and consistent advancement of technology. In this case, the industries have high concentrations of STEM (Science, Technology, Engineering, and Mathematics) occupations 1 This is comprised of the following codes:

NAICS		REQ	
3254	Pharmaceutical & Medicine Mfg	3741	Pharmaceutical & Medicine Products Industry
3341	Computer & Peripheral Equipment Mfg	3361	Computer & Peripheral Equipment Industry
3342	Communications Equipment Mfg.	3351	Telecommunication equipment Industry
		3359	Other Electronic equipment and Communication Industries
3344	Semiconductor & Other Electronic Component Mfg	3352	Electronic parts and components Industry
		3371	Electric transformers Industry
		3392	non-current carrying wiring devices Industry
		3399	Other electronic products Industry

3345	Nav, Measuring, Electromedical, & Control Inst Mfg.		
3364	Aerospace Product & Parts Mfg.	3211	Aerospace Product & Parts Industry
3391	Medical equipment and supplies manufacturing		
5112	Software Publishers	2851	Software Industry
517	Telecommunications	4811	Radio services
		4812	TV services
		4813	Radio and TV services
		4814	Cablevision
		4839	Other Telecommunication Services
		4821	Telegraphy and Cable Network
		4822	Telephone Network
		4824	Telecommunication Service Provider/Dealer
		4037	Energie and Telecommunication transmission lines
5182	Data Processing, Hosting, & Related Services		
5413	Architectural, Engineering, & Related Services	7751	Arcitecture office
		7752	Engineering office
5415	Computer Systems Design & Related Services		
5417	Scientific Research & Development Services	7753	Scientific Research lab services
		681	Medical Labs
		8682	Radiological Labs
		8683	Medical and Radiological Labs
		8684	Public Health Care Labs
		8686	Other Health related Labs
		8687	Dental Technicians and Labs
519	Internet publishing and broadcasting and web	4823	Internet Service Providers & Web Search
130	search portals		Portals

Life Sciences and Health Technology

Life sciences and health technology is the study of living organisms though the industry is not limited to strictly scientific research. It contains industries such as healthcare, technology, manufacturing, and many others 2 This is comprised of the following NAICS codes:

NAICS		REQ	
3254	Pharmaceutical and medicine manufacturing	3741	Pharmaceutical & Medicine Proucts Industry
334512	Measuring, medical and controlling devices manufacturing		
3391	Medical equipment and supplies manufacturing		
541710	Research and development in the physical, engineering and life sciences	681	Medical labs
		8682	Radiological Labs
		8683	Medical and Radiological labs
		8684	Public Health Care Labs
		8686	Other Health related labs
		8687	Dental technicians and labs

Aerospace product and parts manufacturing

Aerospace product and parts manufacturing contains the global civil/military aerospace market, and space market. It includes manufacturing, service providers, training and simulation, design, research, amongst others.³ This is comprised of a single NAICS code:

NAICS		REQ	
3364	Aerospace product and parts manufacturing	3211	Aerospace Product & Parts Industry

Information Technologies

Informations and communications technology is the infrastructure that allows individuals and organizations (government, NGO's, business) to interact digitally. It includes wireless networks, telephones, radio, television, and artificial intelligence, amongst others ⁴

This is comprised of the following NAICS codes:

NAICS		REQ	
334	Computer and electronic products	3352	Electronic parts and components Industry
		3359	Other Electronic equipment and Communication Industries
		3361	Computer & Peripheral Equipment Industry
		3369	Other office and store equipment
		3392	non current carrying wiring devices Industry
		3399	Other electronic products Industry
5112	Software Publishers	2851	Software Industry
517	Telecommunication	3351	Telecommunication equipment Industry
		4811	Radio services
		4812	TV services
		4813	Radio and TV services
		4814	Cablevision
		4839	Other Telecommunication Services
		4821	Telegraphy and Cable Network
		4822	Telephone Network
		4824	Telecommunication Service Provider/Dealer
		4037	Energie and Telecommunication transmission lines
519130	ISPs & Web Search Portals	4823	Internet Service Providers & Web Search Portals
518	Data Processing & Related Services		
5415	Computer Systems Design & Related Services		

Sources

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Appendix 4: New Montréal Technology Businesses in Montréal

Breakdown of New Tech Businesses in Greater Montréal (2015 & 2016)		
Region	# of Tech firms	% of Tech Firms
Québec (excluding Montréal)	787	53.21%
Agglomeration Montréal	692	46.79%
Baie D'Urfe	1	0.07%
Beaconsfield	7	0.47%
Cote-Saint-Luc	6	0.41%
Dollard-Des Ormeaux	12	0.81%
Dorval	0	0.00%
Hampstead	4	0.27%
Kirkland	5	0.34%
L'Ile-Dorval	4	0.27%
Montréal	601	40.64%
Montréal-East	6	0.41%
Montréal-West	2	0.14%
Mont-Royal	20	1.35%
Pointe-Claire	6	0.41%
Sainte-Anne-de-Bellevue	3	0.20%
Senneville	1	0.07%
Westmount	14	0.95%

Appendix 5: Firm Size by Industry

The table below provides a more detailed look at how firm sizes break down according to industry classifications.

xxxxix It reports the total number of firms by industry and the percentage of small firms (<100 employees) in that industry. We see that in agriculture, construction, and real estate and other services have the highest concentration of small firms (all over 99%) while utilities, management of companies, educational services and public administration have the lowest concentration of small firms (though still between 86-89%).

The table also presents the percentage of small firms by industry and the percentage of large firms by industry. This allows us to compare how industries are concentrated across firm size. That is, we see which industries are most common amongst small firms and which are most common amongst large firms. We find that retail trade, construction, professional scientific and technical services, and other services are the most common industries for small firms. Manufacturing, retail trade, and health care and social assistance on the other hand are the most common industries for large firms.

Finally, we identify industry size preference as the difference between the % of small firms by industry and the % of large firms by industry. This allows us to visualize more clearly which industries are more popular for small firms (green) relative to large firms (red). The analysis reveals that construction and other services are more common for small firms compared to large firms, while manufacturing, educational services and public administration are more heavily weighted towards large firms.

Industry Distribution in Québec (2017)^{xi}

		# of firms	% of industry (small)	% of SMALL firms by industry	% of LARGE firms by industry	Industry Size Preference
Goods	Agriculture, forestry, fishing and hunting (11)	11,896	▲ 99.48%	5.03%	1.26%	3.77%
	Mining, quarrying, and oil and gas extraction (21)	432	▶ 92.36%	0.17%	0.67%	-50%
	Utilities (22)	171	▼ 87.72%	0.06%	0.43%	-0.36%
	Construction (23)	29,864	▲ 99.22%	12.60%	4.75%	7.85%
	Manufacturing (31-33)	13,182	▶ 92.88%	5.21%	19.05%	-13.84%
Services	Wholesale trade (41)	13,031	▲ 97.93%	5.43%	5.48%	-0.05%
	Retail trade (44-45)	33,558	▲ 98.35%	14.04%	11.22%	2.82%
	Transportation and warehousing (48-49)	12,725	▲ 98.23%	5.32%	4.56%	0.75%
	Information and cultural studies (51)	3,273	▲ 96.39%	1.34%	2.39%	-1.05%
	Finance and insurance (52)	7,230	▲ 97.79%	3.01%	3.25%	-0.24%
	Real estate and rental and leasing (53)	8,809	▲ 99.28%	3.72%	1.28%	2.44%
	Professional, scientific and technical services (54)	23,364	▲ 98.78%	9.82%	5.76%	4.06%
	Management of companies and enterprises (55)	1,185	▼ 88.44%	0.45%	2.78%	-2.33%
	Administrative and support, waste management and remediation services (56)	10,531	▲ 96.83%	4.34%	6.77%	-2.44%
	Educational services (61)	2,424	▼ 88.33%	0.91%	5.74%	-4.83%
	Health care and social assistance (62)	21,666	▲ 97.75%	9.01%	9.88%	-0.87%
	Arts, entertainment and recreation (71)	4,442	▲ 97.10%	1.83%	2.62%	-0.78%
	Accommodation and food services (72)	17,725	▲ 98.77%	7.45%	4.42%	3.02%
	Other services (except public administration) (81)	22,743	▲ 99.42%	9.62%	2.68%	6.94%
	Public administration (91)	1,814	▼ 86.33%	0.67%	5.03%	-4.36%
Total number		240,064		251,645	4,430	

Notes

ⁱ Serebrin, Jacob. “Québec’s economy is growing faster than Canada’s” Montréal Gazette Business, 2017, <http://Montréalgazette.com/business/Québecs-economy-is-growing-faster-than-canadas>. Accessed 04 Dec. 2017

ⁱⁱ See Appendix 1 for more detail

ⁱⁱⁱ Statistics Canada. “Gross domestic product, expenditure-based, by province and territory” Statistics Canada, 2017, <http://www.statcan.gc.ca/tables-tableaux/sum-som/I01/cst01/econ15-eng.htm>.

Accessed 04 Dec. 2017.

^{iv} Statistics Canada. “Labour force, employment and unemployment, levels and rates, by province”, Statistics Canada, 2017 <http://www.statcan.gc.ca/tables-tableaux/sum-som/I01/cst01/labor07b-eng.htm>. Accessed 04 Dec. 2017.

^v Statistics Canada. “Canadian Business Counts, June 2017.” <http://www.statcan.gc.ca/daily-quotidien/170814/dq170814b-cansim-eng.htm> Accessed 04 Dec. 2017.

“To be included in the business count, a business must register revenues of at least \$30,000. In addition, businesses are counted according to the number of ‘statistical locations’ they have. For example, a retail business with 10 stores and a head office is counted 11 times in the Canadian business counts”

^{vi} *ibid*

^{vii} REQ defines operating as “to possess an address in Québec, it or its representative possesses an establishment or post office box in Québec, it or its representative has a telephone line in Québec, or it or its representative carries on an activity in Québec for the purpose of profit.”

^{viii} Nevertheless, a few businesses are exempt from the obligatory registration and may provide their information on a voluntary basis. This is the case for “a natural person who operates a sole proprietorship under a name including the person’s first and last names, legal persons established in the public interest, such as public bodies and municipalities, joint ventures (undeclared partnerships), and associations or other groups of persons.”

^{ix} Note that an enterprise may have several locations, which is different than how Statistics Canada reports business counts. However, since are only examining enterprises that are new to Québec, this is likely to be minor issue in our data as very few new businesses open multiple outlets at the same time.

^x Coding of Greater Montréal and the Agglomeration of Montréal can be found in “Portrait du Grand Montréal, Edition 2016” from Communauté métropolitaine de Montréal.

http://cmm.qc.ca/fileadmin/user_upload/periodique/cahiersMetropolitains_no05.pdf

^{xi} Gouvernement du Québec, “Economy Québec”, Québec Portal - Services Québec, 2017 <http://www.gouv.qc.ca/EN/LeQuébec/Pages/Economie.aspx>. Accessed 04 Dec. 2017

^{xiii} Note that there is a small overlap between Health Sciences and Information Technology. Measuring, medical and controlling devices manufacturing [NAICS 334512] in Health Sciences is a subset of the broader Computer and electronic product manufacturing [NAICS 334] which is included in IT.

^{xiv} Industry classifications in the table are partially overlapping and not mutually exclusive.

^{xv} See pg 7 for the precise geographic definition of Greater Montréal http://cmm.qc.ca/fileadmin/user_upload/periodique/cahiersMetropolitains_no05.pdf

^{xvi} Canadian Venture Capital & Private Equity Association. “The CVCA’s VC & PE Canadian Market Overview”, CVCA, 2017. <https://www.cvca.ca/research-resources/industry-statistics/2016-market-overview/>. Accessed 04 Dec. 2017.

^{xvii} While most figures are based on 2015 data, the GDP for Greater Montreal is based on 2014 data from the Communauté métropolitaine de Montréal. http://cmm.qc.ca/fileadmin/user_upload/periodique/cahiersMetropolitains_no05_en.pdf and population data based on 2014 STATSCAN figures <http://www.statcan.gc.ca/tables-tableaux/sum-som/I01/cst01/demo05a-eng.htm>

^{xix} See Appendix XX for detailed Table of breakdown by Québec administrative region

^{xx} Bureau of Labor Statistics, “Entrepreneurship and the U.S. Economy”, Business Employment Dynamics, 2016, https://www.bls.gov/bdm/entrepreneurship/bdm_chart3.htm. Accessed 04 Dec. 2017.

^{xxi} Fisher & Reuber “The State of Entrepreneurship in Canada” Small Business and Tourism Branch Industry Canada, 2010, [https://www.ic.gc.ca/eic/site/061.nsf/vwapj/SEC-EEC_eng.pdf/\\$file/SEC-EEC_eng.pdf](https://www.ic.gc.ca/eic/site/061.nsf/vwapj/SEC-EEC_eng.pdf/$file/SEC-EEC_eng.pdf). Accessed 04 Dec. 2017.

^{xxii} Karakaya, F., & Kobu, B. (1994). New product development process: An investigation of success and failure in high-technology and non-high-technology firms. Journal of Business Venturing, 9(1), 49-66.

^{xxiii} Small Business BC, BC Stats, Ministry of Small Business, “Small Business Profile 2015

A profile of small business in British Columbia”, Small Business Profile 2015, 2015 <https://www2.gov.bc.ca/assets/gov/>

[employment-business-and-economic-development/business-management/small-business/sb_profile_2015.pdf](http://www2.gov.bc.ca/assets/gov/employment-business-and-economic-development/business-management/small-business/sb_profile_2015.pdf) Accessed 04 Dec. 2017

Note: This calculation uses a slightly different definition of small businesses: those with fewer than 50 employees, plus those operated by the self-employed with no paid employees. Source:

^{xxiv} *ibid*

^{xxv} Canadian Business Counts, June 2017. <http://www5.statcan.gc.ca/cansim/a26?lang=eng&retrLang=eng&id=5520006&&pattern=&stByVal=1&p1=1&p2=31&tabMode=dataTable&csid=>

^{xxvi} <https://www.ic.gc.ca/eic/site/pp-pp.nsf/eng/home>

^{xxvii} Visit Financial Performance Data from Statistics Canada for the publically available portal: <https://www.ic.gc.ca/eic/site/pp-pp.nsf/eng/Home>

^{xxviii} Notably, ambulatory health services does not refer to ambulances, but rather health services to patients who are not bedridden. This industry is mostly comprised of “Offices of Physicians” which likely includes individual doctors who choose to incorporate.

^{xxix} <https://www.ctvnews.ca/business/canada-s-trucking-sector-may-face-inflection-point-in-2015-say-observers-1.1934689>

^{xxx} Delmar, F., & Wiklund, J. (2008). The effect of small business managers’ growth motivation on firm growth: A longitudinal study. Entrepreneurship Theory and Practice, 32(3), 437-457.

^{xxxi} Barringer, B and Ireland (D). (2012). Entrepreneurship: Successfully Launching New Ventures

^{xxxii} Family Firm Institute, “Global Data Points”, FFI Family Firm Institute, 2014, <http://www.ffi.org/page/globaldatapoints>, Accessed 04 Dec. 2017

^{xxxiii} Robert Nason, “The future of family Business”, Family Business Resources, 2015, <https://businessfamilies.org/en/education/p-the-future-of-family-business/> Accessed 04 Dec. 2017.

^{xxxiv} Achtenhagen, L., Naldi, L., and Melin, L. 2010. ‘Business growth’—Do practitioners and scholars really talk about the same thing? Entrep Theory and Pract, 34(2), 289-316.

^{xxxv} Corner & Ratté, “BDC The Coming Wave of Business Transitions in Canada.”, Business Development Bank of Canada (BDC), 2017 http://publications.gc.ca/collections/collection_2017/bdc/lu134-1-4-2017-eng.pdf

Accessed 04 Dec. 2017.

^{xxxvi} Carney, M., & Nason, R. S. (2016). Family Business and the 1%. Business & Society,

^{xxxvii} Marshall, J. P., Sorenson, R., Brigham, K., Wieling, E., Reifman, A., & Wampler, R. S. (2006). The paradox for the family firm CEO: Owner age relationship to succession-related processes and plans. Journal of Business Venturing, 21(3), 348-368.

^{xxxix} Note that 16,600 firms are unable to be classified into a specific industry.

^{xl} Note that industry classifications for small business and new business are not perfectly comparable because REQ uses a unique classification system that is different from NAICS. However, we aligned them as closely as possible.



1450 Guy St. MB 13.217
Montreal, Québec, Canada H3H 0A1
Phone: 514-848-2424, ext. 2907

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