

Fuelling Canada's Economic Success:

A National Strategy for High-Growth Entrepreneurship



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Acknowledgements

This report was prepared by a Task Force of 2010-2011 Action Canada Fellows:

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Foreword

It is a privilege to provide a few words of introduction to this timely report by a task force of five remarkably accomplished Action Canada Fellows: Terry Beech, Brenna Donoghue, Geordie Hungerford, Ali Okhowat and Shannon Wells. Their work builds the case for “A National Strategy for High Growth Entrepreneurship” and proceeds to outline a coherent set of public policy proposals to give concrete substance to the strategy.

The report is focused on the long-standing challenge of stimulating the creation and maturation of very high-growth companies—“gazelles” as they are often called. While such businesses invariably comprise only a small proportion of all firms, they are of vastly disproportionate importance in terms of innovation, job creation and long-term growth potential. They are the “green shoots” of Canada’s economic future. Creating the conditions where gazelles can survive and thrive, and remain anchored in Canada as they mature, should therefore be one of the top priorities of economic policy.

The present report provides a remarkably succinct and well-researched assessment of the factors in Canada that support or currently impede the evolution of gazelle firms from birth through maturity. The analysis pin-points the key impediments, such as a persistent shortage of seasoned early-stage managers and of sufficient risk financing to trigger and sustain high growth. The analytical insights then inform an imaginative set of policy proposals—in effect setting out a much-needed agenda for debate and ultimate refinement.

I salute the authors for their superb contribution to our understanding of the “ecology” of gazelle firms, the nurturing of which is one of the most important economic policy challenges facing Canada, and many other countries as well. Their work also bears impressive testament to the value of the Action Canada Fellowship program for the opportunity it is providing to develop and showcase the talents of those who will be among our country’s leaders of tomorrow.

Dr. Peter J. Nicholson, C.M.
Founding President, the Council of Canadian Academies

Executive Summary

High-growth companies or ‘gazelles’ are young firms, found in any sector, which can transform industries through novel technologies or business methods. While few in number, gazelle firms consistently outperform all other businesses in terms of creating innovation, new jobs, and economic growth. Despite Canada’s world-leading funding of research and development at universities, our highly educated population, and our favourable business climate, our country produces too few gazelle companies. Canada is falling far short of realizing its entrepreneurial potential. Much more can be done to support the enterprises that are catalysts of Canada’s future prosperity.

Based on publicly available data and research, as well as consultations with entrepreneurs, investors, senior government officials, and industry experts, this report provides an overview of the conditions necessary for the creation, growth, and survival of gazelles – the ‘gazelle ecosystem’ – and evaluates Canada’s performance in each area. We have found critical weaknesses in Canada’s gazelle ecosystem at two distinct phases of company development: The Traction Stage, when a concept or idea has been proven and product/service development begins; and the Growth Stage, when a business model is validated and the company becomes profitable through sales.

Many Canadian startups fail to make it past the Traction Stage because they lack the necessary human capital – experienced mentors and skilled managers – as well as the necessary connections to networks of needed resources such as early-stage financiers, customers, partners, and suppliers. The few Canadian startups that do survive through this ‘Valley of Death’ tend to fail during the Growth Stage either because they become acquired by larger firms or, more often, because they may have difficulty obtaining the large amounts of capital and building the international channels and professional management teams that are required to take growth to the next level.

An overarching weakness at all stages of company development is Canada’s existing public policy framework, which is biased towards supporting established enterprises and places insufficient focus on promoting successful high growth firms. The potential net benefit to all Canadians of only a small increase in the number of these firms – in terms of job creation and economic growth – provides a compelling case for more effective public policy.

We propose a comprehensive National Strategy for High-Growth Entrepreneurship to address the key impediments to the success of gazelle firms in Canada. Addressing the barriers to the creation, growth and maturation of gazelle companies is complex and will require that federal and provincial governments, the private sector, educational institutions, and others, all take some responsibility for change. Our core set of recommendations focuses on laying the foundations of entrepreneurial excellence in Canada that will, over the long-term, have the greatest impact in strengthening Canada’s gazelle ecosystem. Because of the range of actors who share responsibility for laying these foundations, however, these recommendations may also be the most difficult to implement. Thus, we also propose supporting public policies to build momentum for change.

Key Recommendations: Laying the Foundation for Entrepreneurial Excellence

Launch the Startup Canada Partnership: The centerpiece for a national strategy should be an independent organization with a mission to create and celebrate Canadian high-growth enterprises. Many organizations, both public and private, currently exist to support established businesses in Canada. Too few, however, have the explicit purpose of supporting high-growth entrepreneurship, and those that do tend to be fragmented across regional and sectoral lines. The Startup Canada Partnership, inspired by a similar entity announced recently by President Barack Obama, should be created by federal statute, endowed by both government and industry, and given a broad mandate to design and promote supporting policies and programs as well as collaborate with existing public and private sector organizations across the country and internationally to support the development of high growth enterprises in Canada.

Establish a National Angel Tax Credit: Canadian startups have difficulty accessing the early-stage financing and mentorship required to transition from traction to growth. Angel investors – high net worth individuals who have successfully founded and/or operated one or more companies – are a unique source of early stage risk capital, mentorship, and connections to other needed resources; however, the Canadian market for angel investment is small and inefficient. To address this problem, we recommend a national angel tax credit, funded equally by the federal and provincial governments, and designed to allow each province to target specific industries that are deemed a priority for the creation of clusters. The program would enable angel investors from any province or territory to be eligible for tax credits when investing in any other jurisdiction.

Prepare the Next Generation of Innovation Leaders: A lack of management expertise is a key weakness for Canadian startups. In addition, Canadians are often criticized for lacking the ambition and desire to compete and succeed on a global scale. In both instances, our educational institutions are failing to prepare the next generation of skilled high-growth entrepreneurs. The problem is most acute at the level of Canada's post-secondary institutions, of which only a small fraction promote entrepreneurship education outside of siloed business faculties. Post-secondary institutions should deliver cross-disciplinary courses where engineering and science students learn and work with business students to build their understanding of how to connect a product to customers and markets. Similarly, universities should encourage, or at least permit, faculty to take a leave of absence to join startups, helping them gain practical knowledge that can be shared with students.

Strengthen Evidence-Based Policy and Decision Making: Policy makers and industry associations currently have an incomplete picture of enterprise activity in Canada and lack a solid empirical understanding of the factors that drive successful gazelle companies. Federal and provincial governments, as well as industry associations, must work together to develop data collection systems that will yield more and better information to assist policy makers and industry associations in designing effective policies and programs specific to gazelle companies.

Introduction

"The virtue of a small business is not that it stays small.

The virtue of a small business is that it can grow."

- The Honourable John Manley, P.C., O.C.,

President and CEO, Canadian Council of Chief Executives¹

Prime Minister Stephen Harper recently declared 2011 the 'Year of the Entrepreneur', recognizing Canada's entrepreneurs as the backbone of our economy and our communities. Celebrating the economic and social contributions of entrepreneurs is important, but it should be acknowledged that all forms of entrepreneurship are not equal.

Particular emphasis should be given to the kind of entrepreneurship that contributes disproportionately to Canada's economic and employment growth. High-growth companies – also known as 'gazelles' – are leaders in innovation; they create transformative products and services, often blazing a new trail that fundamentally disrupts traditional markets. These companies start small but quickly grow to become global household names, the likes of Facebook, Microsoft, and Ikea. Canada has created very few innovation-based multinationals, with BlackBerry maker Research In Motion and Cirque du Soleil the exceptions to the rule. In contrast, other countries much smaller in size – such as Sweden, Israel, and Finland – have been very successful in creating gazelles.

As Canada emerges from the Great Recession, we are confronted with the question: How can we ensure the kind of economic growth that will create meaningful jobs and high standards of living for future generations? Within this context, the role of gazelle firms becomes absolutely critical. While publicly celebrating entrepreneurship in 2011 is an important start, this declaration becomes meaningful only if there is a plan for action.

Strengthening the foundations of Canada's entrepreneurial ecosystem to create the conditions for many more gazelles to emerge and thrive is a complicated task that will require the coordinated efforts of governments, business, educational institutions, and entrepreneurs. The objective of this report is to propose a comprehensive **National Strategy for High Growth Entrepreneurship**.

What is a Gazelle?

Gazelles are very young and innovative companies, found in any sector, that produce consistent and extraordinary growth in the number of employees and revenue generated. According to the Organisation for Economic Cooperation and Development (OECD), gazelles are enterprises up to five years old with average annualized growth in employees greater than 20% per year over a three year period, and with at least ten employees at the beginning of the period.² Gazelle-type innovation is usually, though not invariably, characterized by:

- A steadfast focus on getting prototype products and services to market quickly and a high responsiveness to market feedback;
- A significant demand for early stage growth financing, reflecting the significant associated risk;
- Global aspirations and/or a tendency to operate in high return industries; and
- High intellectual capital, low physical capital.³

Gazelles: Canada's Key to Economic Success

Because of its transformative economic impact, high-growth entrepreneurship is gaining the attention of public policy makers around the world, including most recently, from President Barack Obama.⁴ Below we review the compelling case for why supporting the creation of gazelle firms should be the focus of a new national strategy for Canada's long-term prosperity.

Job Creation: Gazelles are critically important to the Canadian economy because they contribute disproportionately to job creation. Between 1993 and 2003, gazelle firms accounted for only 4% of businesses in Canada, but were responsible for 45% of net jobs created.⁵

Business without Borders: Gazelles are disproportionately internationally focused with strong ties to foreign markets.⁶ As Industry Canada has found, firms engaged in exporting are more likely to be gazelles than firms that do not export, and, firms that export contribute proportionally more to job creation.⁷

Break-through Innovation and Economic Diversification: Gazelle entrepreneurs are radical innovators in terms of their products, processes and markets and are more likely to pursue high-risk, high-reward strategies that established firms tend to shy away from.⁸ Gazelles are also found in all major sectors in Canada, not just high tech.⁹ By creating new markets and industries, gazelles further diversify the Canadian economy and reduce its vulnerability to economic shocks.

Success Begets Success: Entrepreneurs with a successful track record are much more likely to succeed than first time entrepreneurs, as they can more easily attract suppliers of capital, labour, goods and services.¹⁰ Serial entrepreneurs such as Terry Matthews have founded dozens of companies and created great Canadian success stories in Mitel and Newbridge Networks.

Gazelles that succeed in becoming large companies also pave the way for subsequent entrepreneurs to enter the market by eventually becoming 'entrepreneurship academies' or world-class 'anchor' companies - the key companies in a particular market. Employees from these anchor companies often go on to start complementary or competing future gazelles. Research In Motion and Nortel have both played this anchoring role in the Waterloo and Kanata regions respectively.

Finally, successful entrepreneurs and investors who have been involved in gazelle companies are important role models and mentors. Even one success can have a surprisingly stimulating effect on an entrepreneurship ecosystem by igniting the imagination of the public and inspiring imitators.¹¹

Canada's Performance

Canada has much to celebrate when it comes to our entrepreneurial performance. Relative to all OECD countries, we have among the lowest barriers to entrepreneurship,¹² and boast a very high rate of new business creation.¹³ In terms of business survival and growth rates Canada also fares relatively well. Half of Canadian businesses survive their first five years of operation, which is just slightly lower than the United States.¹⁴ Canada's share of growth businesses in the manufacturing sector is also among the best in the world.¹⁵

Canada must build on its existing strengths to generate more businesses that will grow to have the economic impact of a gazelle. Even very small increases in the number of these firms can translate into very significant gains in job creation and economic growth. The greatest gains stand to be made in Canada's service sector, which produces a paucity of gazelle firms.¹⁶ This may be the clearest indication of Canada's struggle to compete in the global economy, in which demand for services and knowledge-intensive activities has become the major driver of global trade growth. Services account, however, for only 12% of Canadian exports, compared to 28% of U.S. exports and 19% of global trade.¹⁷

If Canada is to increase its global competitiveness, its economy will need to move up the global value chain into higher levels of innovation-based production.¹⁸ This will require the creation of more gazelles, which have the ingenuity, speed, ambition and adaptability to find niches in international markets.¹⁹

Determinants of Success: The Gazelle Ecosystem

Entrepreneurship, and in particular high-growth entrepreneurship, is multifaceted and complex; no single source of analysis can capture the exact causes of the creation of gazelle firms. Based on our synthesis of existing research and analysis, we outline below a qualitative overview of the key conditions required for gazelles to thrive.

Networks and Human Capital

1. **Connection to Markets and Customers:** Initial customers who test and give feedback on new products and services provide an early source of revenue and critical information about the customer experience and quality of the product, helping to inform any product or delivery enhancements prior to a large-scale roll-out.
2. **Managerial Expertise:** Strong management skills and systems, while not requisite to starting a new firm, are strong determinants of organizational growth and long-term viability.
3. **Clusters:** Concentrations of high potential and high-growth ventures, in close proximity to universities, think tanks, suppliers and professional associations, establish hubs of activity that become recognized centres of excellence for specific industries.
4. **Startup Incubators and Industry Associations:** Both incubators and industry associations play a key role in forging connections between investors and entrepreneurs and facilitating the dissemination of best practices. Incubators – organizations designed to accelerate growth of new ventures through business support services, mentorship, and education – play an especially critical role in building the skills of both entrepreneurs and investors.

Financing

1. **Availability of Equity Capital:** Strong gazelle ecosystems require investors who are willing to invest at all stages of gazelle growth.
2. **Foreign Investors:** As gazelle firms look for export opportunities, foreign investors can help expand a startup's network in foreign markets as well as provide needed capital.²⁰
3. **Other Sources of Financing:** Other sources of financing include a banking system that allows gazelles to finance using their receivables or future tax credits as collateral and government programs that reduce exposure to customer risk internationally.

Public Policy Framework

1. **Tax Policy:** Tax policy can provide important incentives for investors and businesses to set their sights on gazelles.
2. **Public Support for Research and Development (R&D):** The extent to which R&D is encouraged, either directly through government spending or indirectly through tax incentives, contributes to emerging innovations on which gazelles can be built.

3. **Government Procurement:** As a significant procurer of technologies and services, government can be an important early customer to startups, helping a gazelle scale quickly.
4. **Gazelle-Friendly Regulations:** For example, legal systems that respect property rights, including intellectual property, can also help to create an environment that is conducive to the creation of gazelles.

Socio-Cultural Values

1. **Entrepreneurial Culture:** A culture that promotes a career in entrepreneurship and that tolerates mistakes, 'honourable' failure and risk-taking will create more startups and potential gazelles.
2. **Political Leadership:** Political leaders that advocate for entrepreneurship are important champions for the regulatory needs of gazelles.
3. **Visible Successes:** Successful entrepreneurs and the legends of their success inspire youth and future entrepreneurs.

The Gazelle Lifecycle: How Canada Performs

In order to evaluate Canada's performance, it is also important to consider the various phases through which a startup must pass in order to be characterized as a gazelle:

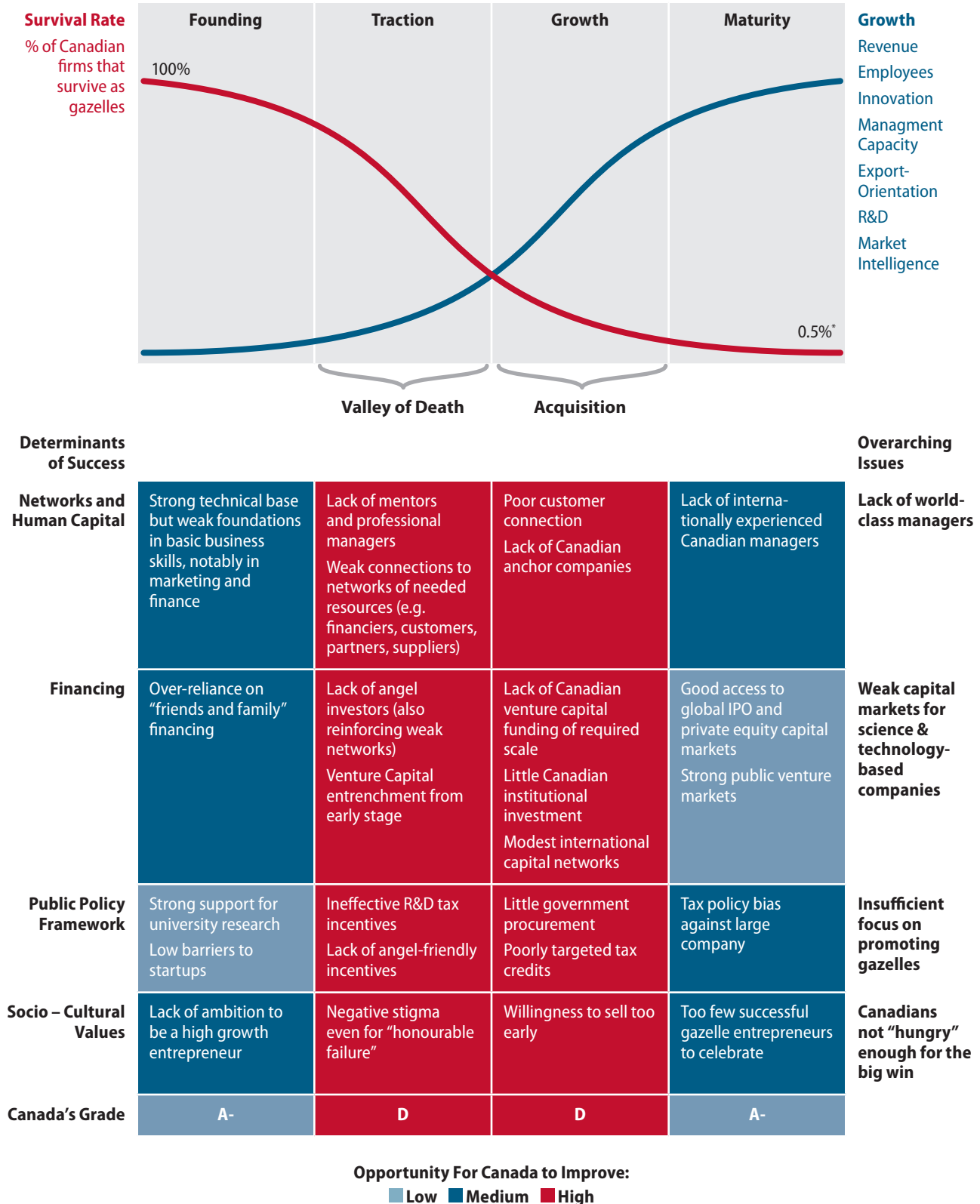
1. The **Founding Stage** spans from the launch of a company to when its first demonstration product is created. During this stage, startups are funded by friends and family, or personal lines of credit.
2. In the **Traction Stage** the company refines its product. Financing during this period is provided primarily by angel investors (high net worth individuals, typically entrepreneurs who have successfully founded and/or operated one or more companies themselves) and venture capital funds (independently managed, dedicated pools of capital).
3. In the **Growth Stage**, the business model is validated. To achieve growth during this stage, a company requires significant amounts capital from larger financial institutions, professional management expertise, and access to markets.
4. At the **Maturity Stage**, growth rates stabilize and the gazelle becomes a large, likely international company.

Many Canadian startups fail to make the transition from the Traction Stage to the Growth Stage. This transition point is commonly known as the 'Valley of Death'; the high-risk, pre-commercialization phase of new ventures, between initial funding of R&D and just before a company is large enough to attract financing from institutional or industry investors. While the Valley of Death is often associated with a shortage of financial risk capital, the connections, managerial skills, and experience of all individuals involved are equally critical to the success of the firm at this stage. Angel investors, in particular, play a crucial function not just by injecting needed cash into fledgling businesses, but also by providing management advice and mentorship to entrepreneurs, opening their networks of potential partners, customers and employers, and signaling the potential of the business to the venture capital industry and later stage investors.²¹

For the small number of Canadian startups that make it past the Valley of Death, most fail to move beyond the Growth Stage, either because they become acquired by larger firms prior to an initial public offering or because they may have difficulty obtaining the large amounts of capital and building the international channels, customer base and partnerships that are required to take growth to the next level. While acquisition in itself is not a problem and can have positive spin-offs, Canada loses the opportunity to retain headquarters with associated R&D functions and corporate expertise that can, in turn, create clusters and attractive jobs. Indeed, Canada has very few large public companies that have succeeded through all stages of the gazelle lifecycle.

To understand Canada's performance, we have mapped the four stages of growth of new ventures against the four critical dimensions of the entrepreneurial ecosystem. Based on this analysis we have identified the most critical barriers to the creation, growth, and maturation of gazelles in Canada.

The Gazelle Lifecycle: How Canada Performs



*Proportion of Gazelle firms in Canada (by employment) in 2006. Chris Parsley and Sonja Djukic, *The State of Entrepreneurship in Canada* (Ottawa: Industry Canada, 2010), p. 9

Networks and Human Capital

Missing Connections: Entrepreneurs' level of connectedness to key players in the business ecosystem is a critical determinant of their ability to overcome the barriers they face as they strive to grow their business. While regional and local clusters are important, so too are links to leading global clusters such as Silicon Valley that provide world-class connections to technology, customers, financiers, and potential employees.

Canada has many 'accelerators' or 'incubators', both publicly and privately run, that provide a combination of connectivity, seed funding, mentorship, and a workplace for startups. These entities exist at local and regional levels (such as MaRS Discovery District in Toronto) or with a particular sector focus (Wavefront in Vancouver for wireless and new media companies). While these organizations play an important connectivity role, Canada's accelerators and incubators are a fragmented system of players of varying size and quality. This can create challenges for smaller clusters trying to make global connections, and for diffusing knowledge and best practices across regions and sectors in Canada. We have also found in our interviews that Canadian companies are less well-networked with key international clusters.

Canada has been very slow to engage our expatriate community of entrepreneurs and investors that operate beyond our borders in world leading clusters. Recently, Canada's Department of Foreign Affairs and International Trade has partnered with successful Canadian entrepreneurs living and working in the Silicon Valley to establish C100, a non-profit organization that provides mentorship and connections to fledgling entrepreneurs in Canada. However, more needs to be done.

Shortage of Skilled and Experienced Business Managers: According to Dr. Ilse Treurnicht, CEO of MaRS Discovery District, one of Canada's largest startup incubators, growing companies has less to do with technology than managerial resources. "Some days, it feels like we're in the HR business. We see companies with rich technology assets and talent... [but to grow] they're looking for their first business development person."²² Companies that have strong managerial systems in place – be they financial, human resources, or strategic planning – have been found to grow three times faster within their first five years; moreover growth of firms that lack these systems tends to stagnate at around the 50 employee mark.²³

While Canadian businesses have similar access to scientific and engineering talent relative to our international competitors, our potential managers have far less business training and formal education.²⁴ In comparison to the United States, we produce more degrees per capita at the Bachelor and PhD levels in science and engineering, however, we trail in awarding business degrees at all levels.²⁵ In our discussions with investors and industry experts, we also heard that Canada's managers simply lack the experience of working in business in other countries, and, most importantly, by learning from past startup failures and trying again.

Financing

Early-Stage Funding Gap: While venture capital has traditionally been the main source of risk capital for startups, there is an emerging consensus that the Canadian venture capital industry is in crisis. Fundraising and disbursements have declined markedly to mid-1990s levels from peaks in the early 2000s.²⁶ As an indicator of the lack of venture capital available in Canada, Canadian startups are raising only about 40% of the amount raised by comparable U.S. startups.²⁷ Canadian venture capital funds are also retrenching to invest in later stage companies that have proven technologies and markets, and therefore, less risk. Past initiatives such as retail investor-focused labour-sponsored funds have also distorted the Canadian investment market. Private venture capital funds found themselves competing against these tax-advantaged funds that were often mandated to invest even when market conditions were poor. As a result, many Canadian venture capital funds headed south of the border, further diminishing Canada's pool of investors.²⁸

This has left a financing gap for early stage companies in Canada who must increasingly rely on informal investment from individual angel investors, friends and family. However, Canada has underdeveloped mechanisms

for connecting angel investors to early stage companies, making current markets for seed and early-stage funding, inefficient and imperfect.²⁹

Lack of Sophistication and Connectedness of Canadian Financiers: In the United States, venture capital is known to drive the early adoption of strong managerial systems, but in Canada our venture capital industry is failing to play this role and is underperforming as a result. Canadian returns are consistently significantly lower than those of their counterparts in the United States.³⁰ As the Business Development Bank of Canada (BDC) reported during its 2010 legislative review, its venture capital activities have lost between \$20 million and \$100 million in each of the past five years as a result of funds being managed by inexperienced general partners with few international connections.³¹ During our consultations, we heard that another reason for the poor performance of Canada's venture capital industry is a shortage of experienced angel investors who can act as vital screeners of venture capital deal flow.

Public Policy Framework

University Research 'Push': Canadians excel at fundamental research but struggle to leverage their results to create businesses that mature to become world-class.³² With the exception of Sweden, Canada invests more as a percentage of its economy in university research than any other OECD country.³³ This reflects Canada's adoption of a 'push' strategy based on the implicit assumption that research alone is enough to create gazelles, while ignoring a 'pull' strategy that addresses a market need. Without the latter, Canada's investment in research is failing to produce commercial returns.

Ineffective Incentives for Business R&D: Government supports private sector R&D in two ways: indirectly through tax incentives and directly through funding. The federal Scientific Research and Experimental Development (SR&ED) tax credit program accounts for approximately 90% of Canada's support for business R&D at \$4.5 billion annually. The SR&ED program provides refundable tax credits of 35% for the first \$3 million of qualified R&D expenditures for Canadian Controlled Private Corporations (CCPCs) and 20% for expenditures beyond \$3 million, and 20% for expenditures by non-CCPCs. While the program is popular amongst entrepreneurs, there is growing concern that its application and administration by the Canada Revenue Agency have become too restrictive and susceptible to gaming.³⁴ For instance, because the program does not require researchers to meet specific commercialization criteria, firms are incentivized to define as much of their activities as possible as R&D, even in cases where this work does little to produce new innovations.³⁵ Furthermore, innovative companies with any significant foreign investment or management receive a much smaller refund than small CCPCs.

Canada spends far less proportionally on direct support for business R&D than the United States, where about 80% of such expenditures are direct.³⁶ The Canadian government provides limited funding for R&D for firms with less than 500 employees through the Industrial Research Assistance Program (IRAP). IRAP is administered by the National Research Council (NRC) and, in addition to financial support for R&D activities, provides advice, networking and partnerships through NRC Industry Technology Advisors (ITAs). Its total annual budget is about \$150 million, of which just under 50% is earmarked for R&D activities. In comparison to the SR&ED program, IRAP is accepted to be highly successful; from 2002 through 2009, \$1.4 billion in investment is estimated to have yielded \$11 billion in returns.³⁷

Insufficient Government Purchasing Incentives: Given its procurement needs, government can also play a catalytic role in the establishment of gazelles. A government procurement contract can give a startup the early revenue and scale it needs to make its product or services commercially viable. Governments in Canada – usually citing the constraints imposed by trade treaties – have been reluctant to design trade – compliant procurement policies that favour early-stage Canadian companies. All too often, contracts for tender will go to American or European technology goliaths who sub-contract to their non-Canadian partners.

Socio-Cultural Values

Low Ambition: A common theme throughout our consultations was that Canada lacks the entrepreneurial culture necessary for high-growth firms to succeed. We heard frequently that Canadian businesses are missing the hunger and ambition to compete on a global scale; they avoid risk and rarely look beyond the very accessible U.S. market. The Expert Panel on Business Innovation concluded that it is the imprint of Canada's economic history, and not the innate capabilities of our business people, that explains this lack of ambition: "attitudes... have been shaped over a very long time by the particular circumstances of Canada's economy."³⁸

A contributing factor is that entrepreneurial ambition is not cultivated among Canadian youth. Canada's education systems are designed to prepare students to be productive employees rather than create their own jobs as successful entrepreneurs. This tendency is most prominently displayed at the post-secondary level. In a recent survey conducted by Industry Canada, less than 30% of colleges and universities surveyed identified the promotion of entrepreneurship as an institutional objective.³⁹ In addition, more than 40% of institutions had no connections to investors, limiting the financing opportunities available to student-run startups. The survey found that lack of investment was not reflective of student demand; students expressed high levels of interest in receiving support from their institutions to engage in early-stage entrepreneurship opportunities. However, learning about and engaging in entrepreneurial activities continues to be confined largely to business schools at a majority of Canadian post-secondary institutions, leaving those students in other faculties with little understanding of the commercial potential of their expertise.⁴⁰

Strengthening Canada's Gazelle Ecosystem: A National Strategy for High-Growth Entrepreneurship

The factors that lead to the creation, growth, and maturation of gazelles are many and complex. There is no silver bullet. Furthermore, strengthening the above areas of weakness in Canada's gazelle ecosystem will require actions on the part of many actors, including federal and provincial governments, businesses, investors, industry associations, and educational institutions.

Any strategy involves two key considerations: impact and feasibility. The initiatives with the greatest impact in strengthening high-growth entrepreneurship will be those that mobilize collaborative action. We also acknowledge, however, that these initiatives will be the most difficult to implement.

With this in mind, we present below three sets of recommendations to advance a National Strategy for High-Growth Entrepreneurship. The first set comprises the foundational elements of a national strategy that will have the greatest impact over the long-term in creating more gazelle firms in Canada. To build momentum for these foundational recommendations, the second set identifies 'low-hanging fruit' that could be more easily implemented in the short-term. Finally, the third set presents additional supporting recommendations. We acknowledge that these recommendations will require further analysis in terms of design, implementation and cost effectiveness. While some new public sector spending will be required to implement this strategy, the long-term net benefit to Canada in terms of jobs, economic growth, and consequently, tax revenue, should provide a compelling justification for public investment.

Core Recommendations: Laying the Foundations of Excellence

Launch the Startup Canada Partnership: The centerpiece of a national strategy should be the creation of an independent organization that can design and promote the policies and programs necessary to support gazelle entrepreneurship. President Barack Obama recently launched a similar organization as a central pillar of his National Innovation Strategy for achieving sustainable growth and quality jobs in the United States. If Canada is serious about adopting the vision advocated in this report, a central enabler that connects the fragmented and siloed system of public and private sector organizations that support startup companies will be essential.

The Government of Canada should seek out partners from the private sector to establish, by federal statute, the Startup Canada Partnership, an independent, non-profit organization with a mission to:

Increase the number of gazelle firms in Canada, celebrate excellence in entrepreneurship as a core determinant of Canada's long-term prosperity, and enable more individuals and regions to build world-class Canadian companies.

To achieve these goals, the organization should be given a broad mandate to focus its activities on:

1. **Research and Advocacy** – Build a strong understanding of the drivers of high-growth entrepreneurship in Canada and globally through ongoing research of local and international trends and achievements, and assessments of particular gazelle-related programs and investments, and benchmark Canadian businesses to global best practices on a sector-by-sector basis.
2. **Training and Education** – Based on best practice research, develop and disseminate programs to incubators, accelerators and universities that are designed to educate researchers, entrepreneurs and investors on commercialization of university-based research and acceleration of new venture growth; and provide mentorship programs for ambitious entrepreneurs and investors.
3. **Innovation through Collaboration** – Look for opportunities to connect universities, business people, investors, and governments across Canada and internationally to expand connections with global markets, customers, and business partners.

A critical success-factor of the Startup Canada Partnership will be in the innovativeness of the organization's design. Its independence from government and business will be central, however the remit of its activities, and its ultimate accountability, should be to both.

Establish National Angel Tax Credits: To encourage more and 'smarter' early-stage risk capital, we recommend a national angel tax credit, modeled after the venture capital program (VCP) in the province of British Columbia, which has generated very positive returns in job creation and tax revenue.⁴¹ Eligible corporations that seek investment apply to receive a tax credit allocation, and are then able to provide investors a 30% refundable tax credit post-investment. The total tax credit allocation is capped at various levels across industries and the credits are provided on a first-come first-served basis.

The provincial nature of this program poses limitations; British Columbia-based investors cannot receive the same benefits if they invest in companies outside of the province, nor can British Columbia-based companies use the program to attract investors from elsewhere. A national program with cooperation from the provinces and the federal government would enlarge the number of investors and companies that benefit, as well as encourage more far reaching networks to come together. The program should be funded equally by the federal and provincial governments, and designed to allow each province to target specific industries that are deemed a priority for the creation of clusters. Through agreement between the provinces, Canadian residents from any jurisdiction would be eligible for tax credits when investing in any other jurisdiction.

Prepare the Next Generation of Innovation Leaders: Students in post-secondary institutions – particularly in engineering and sciences faculties – should be exposed to entrepreneurship education, as well as build their understanding of basic marketing and venture finance. Post-secondary institutions should deliver cross-disciplinary courses where engineering and science students, in particular, learn and work with business students to build their understanding of markets and product development. This will reciprocally make business students more aware of science and technology and thus help to overcome the management gap in Canada's startups and create a management class that is more science and technology literate. Similarly, universities should encourage, or at least allow, faculty to take a leave of absence to join startups, helping them gain practical knowledge that can be shared with students. While universities would incur the cost of lost teaching time, they would benefit by attracting high-caliber faculty whose teaching would be enhanced by this practical experience. Government could also reimburse universities for some portion of the cost of lost teaching time through grants analogous to those currently being offered to graduate students through the Natural Sciences and Engineering Research Council of Canada (NSERC).

We also recommend the incorporation of finance and entrepreneurship curricula in secondary schools. This foundational knowledge would equip youth with improved financial literacy, build their understanding of markets and commercialization, and increase their exposure to entrepreneurship as a viable career option.

Strengthen Evidence-Based Policy and Decision Making: Federal and provincial governments, as well as industry, must work together to obtain a better picture of enterprise activity in Canada and to understand the factors that lead to high-growth entrepreneurship. Even though entrepreneurial activity occurs in Canadian firms of all sizes, there is a dearth of entrepreneurial-related data on large firms. Empirical knowledge of Canadian entrepreneurship is limited largely to firms with fewer than 250 employees.⁴² We have also discovered through our research that there is limited data on venture-backed and angel-backed firms. Through improved data collection, government can better target specific programs for gazelles as opposed to startups more generally, as well as evaluate the efficacy of its current programs.

Building Momentum

Encourage government procurement: The United States governments' Small Business Innovation Research (SBIR) program requires that major government departments set aside 2.5% of their internal R&D funding for contracts with qualifying U.S. startups through a competitive process for development of new technology-based solutions to address government needs. On average, SBIR companies account for nearly a quarter of all U.S. R&D 100 Award winners each year.⁴³ Until recently, Canada had no similar program, but in 2010 the government announced, on a pilot basis, the \$40 million Canadian Innovation Commercialization Program (CICP) which will target procurement of pre-commercialization technologies from the environment, safety and security, health, and enabling technologies sectors. This is an important first step, but much more needs to be done; provincial and territorial governments should also be encouraged to institute similar policies, particularly in the knowledge-intensive sectors of health and education.

Improve Incentives for Commercialization of R&D: As a means of improving the effectiveness of government support for commercialization of R&D, we recommend that the federal government shift the relative funding bias for the Scientific Research and Experimental Development (SR&ED) tax credits in favour of increasing support for the Industrial Research Assistance Program (IRAP). Specifically, we recommend investigating a reduction in the percentage level of tax credits for SR&ED and an increase the absolute level of funding for IRAP. In order to contain SR&ED expenditures, we also recommend the consideration of a commercialization criterion to ensure that R&D is being conducted with the intention of generating profits from innovation. Finally, as long as research is being conducted in Canada, eligibility for the SR&ED program should be broadened to public and private companies irrespective of their beneficial ownership to avoid penalizing Canadian companies that decide to seek foreign investment.

Strengthen Canada's Expatriate Networks: There is an even greater role for the Department of Foreign Affairs and International Trade in linking expatriate communities in other world-class centres of entrepreneurship such as Boston to entrepreneur and investor networks in Canada. We must make it easy for our successful expatriates to be introduced to top-quality potential gazelles and encourage them to join the boards of Canadian startups. Our trade missions must also focus on the local cluster networks and expand connectivity.

Supporting Actions

Attract the World's Best Managers: As this report has shown, a persistent shortage of management talent is hampering the success of potential gazelles in Canada. Canada needs to open its borders to the top entrepreneurial management. We recommend the adoption of a High-Tech Manager Temporary Foreign Worker Program modeled after the Foreign Information Technology Specialists Temporary Foreign Worker Program, which was in place from 1997 to 2010, and eased barriers for Canadian employers to hire foreign IT specialists. While Citizenship and Immigration Canada recently deemed this technical skills gap to be filled, we recommend that it revive the program, but with a different objective: closing the management skills gap in our economy. Specifically, we propose a program targeted at project management, product development, business development, and sales and marketing managers. Canada should also look to the United Kingdom, which has experimented with a policy whereby MBA graduates from top business schools around the world are eligible for resident-track visas.

Broadening Canada's Base of Venture Capital: In addition to investments in privately managed venture capital funds, such as those by the Government of Ontario and the BDC, the Government of Canada should invest strategically in foreign venture capital funds in order to encourage foreign capital and broaden the networks of Canadian entrepreneurs and investors. This model has worked well in various countries, most notably in Israel where its Yozma Program helped to build a sophisticated venture capital industry in only a decade. The Program created special incentives to attract foreign venture capital funds with world-class investment expertise and networks to Israel. The supply of capital, expertise, and networks grew substantially; today Israel is an international high-tech success story.⁴⁴ This approach is already working well on a provincial scale in Canada. The B.C. Renaissance Capital Fund launched by the Province of British Columbia has committed capital to seven venture capital fund managers based in the United States and Canada that have over \$2 billion in capital under management for investment.

Conclusions

Entrepreneurship in Canada is both strong and worth celebrating in 2011. However, Canada is falling far short of realizing its entrepreneurial potential. We need more enterprises that are sufficiently innovative and ambitious to compete on a global scale and bring sustainable economic and job growth to Canada. Governments and business must work together in developing and delivering a **National Strategy for High-Growth Entrepreneurship** that will create much more favourable conditions for the emergence of Canadian gazelles.

In order to move forward, Canada's political leaders must make high-growth entrepreneurship a priority that spans long after the Year of the Entrepreneur. Our entrepreneurs that have attained global success must also serve as public champions and role models for a new generation of ambitious young Canadians. Most importantly, acceptance of 'honourable' failures must be encouraged. Enlarging the pool of startups with gazelle-ambitions will invariably increase in the number of new ventures that do not survive. The learning that can come from these failures, however, should be celebrated as the hallmark of a well-developed entrepreneurial culture.

The creation of more and better jobs for our citizens, the realization of innovations that can solve 21st century challenges, and igniting the imagination of future entrepreneurial leaders – these are the opportunities that lay before Canada. Turning this vision into reality will ensure Canada's long-term prosperity and the quality of life of future generations.

References:

- 1 John Manley, *Dialogue on High-Growth Entrepreneurship in Canada* (Action Canada: Toronto, 14 January 2011).
- 2 Organization for Economic Cooperation and Development (OECD) *Measuring Entrepreneurship: A Collection of Indicators 2009 Edition* (Paris: OECD-Eurostat Entrepreneurship Indicators Programme, 2009), p. 30. (<http://www.oecd.org/dataoecd/43/50/44068449.pdf>)
- 3 Meyers Norris Penny LLP, *Financing Global Gazelles* (Ottawa: Industry Canada, 2006). (http://www.strategis.ic.gc.ca/epic/internet/insme_fdi-prf_pme.nsf/en/01969e.html)
- 4 Startup America Partnership (<http://www.startupamericapartnership.org>)
- 5 Chris Parsley and David Halabisky, *Profile of Growth Firms: A Summary of Industry Canada Research* (Ottawa: Industry Canada, 2008), p.1. (http://www.ic.gc.ca/eic/site/sbrp-rppe.nsf/eng/h_rd02278.html)
- 6 Meyers Norris Penny LLP, *Financing Global Gazelles*, p.1.
- 7 David Halabisky, *Exporting Matters: Job Creation Performance of Exporters, 1993–2002, Further Results from the Growth Firms Project* (Ottawa: Industry Canada, 2005). (http://www.ic.gc.ca/eic/site/sbrp-rppe.nsf/eng/h_rd01638.html)
- 8 Josh Lerner, *Boulevard of Broken Dreams: Why Public Efforts to Boost Entrepreneurship and Venture Capital Have Failed and What to Do About It* (New Jersey: Princeton University Press, 2009), p. 48.
- 9 Parsley and Halabisky, *Profile of Growth Firms*, p.1.
- 10 Paul A. Gompers, Anna Kovner, Josh Lerner and David S. Scharfstein, *Performance Persistence in Entrepreneurship* (Harvard Business School Working Paper 09-028, 2008). (<http://www.hbs.edu/research/pdf/09-028.pdf>)
- 11 Daniel J. Isenberg, *The Big Idea: How to Start an Entrepreneurial Revolution*, Harvard Business Review (June 2010), p. 45.
- 12 OECD, *Measuring Entrepreneurship* (2009), p. 51.
- 13 Ibid., p. 19.
- 14 Chris Parsley and Sonja Djukic, *The State of Entrepreneurship in Canada* (Ottawa: Industry Canada, 2010), p. 14. (www.ic.gc.ca/sbresearch). Lack of data across countries precludes further comparative analysis of survival rates over one year.
- 15 OECD, *Measuring Entrepreneurship* (2009), pp. 29, 31.
- 16 Ibid.
- 17 2007 figures from the World Trade Organization (<http://stat.wto.org>), cited in Anne Park Shannon *Some Plain Talk About Canada's International Trade* (Ottawa: Conference Board of Canada, June 2010), p. 4. (<http://www.e-library.ca>)
- 18 For a discussion of global value chains see OECD, *Moving Up the Value Chain: Staying Competitive in the Global Economy* (Paris: 2007). (<http://www.oecd.org/dataoecd/24/35/38558080.pdf>)
- 19 Louis Theriault, *SMEs Thinking International? Now Is A Good Time* (Conference Board of Canada: Hot Topics in Economics, May 2007). (<http://www.conferenceboard.ca>)
- 20 Lerner, *Boulevard of Broken Dreams*, p. 17.
- 21 Allan Riding, Judith Madill, and George H. Haines, *Practices and Patterns of Informal Investors* (Ottawa: Industry Canada, 2001). (http://www.strategis.ic.gc.ca/epic/internet/insme_fdi-prf_pme.nsf/en/00133e.html)
- 22 Dr. Ilse Treurnicht, *Dialogue on High-Growth Entrepreneurship in Canada* (Action Canada: Toronto, 14 January 2011).
- 23 Brett Martin and Thanos Papadimitriou, "Are You the Bottleneck in Your Organization?" *Harvard Business Review Blog*, 8 December 2009. (http://blogs.hbr.org/cs/2009/12/are_you_the_bottleneck_in_your.html#)
- 24 Roger Martin and James Milway, *Strengthening Management Prosperity* (Institute for Competitiveness and Prosperity, May 2007), p. 5. (http://www.competeprosper.ca/images/uploads/ManagementPaper_May07.pdf)
- 25 Ibid., p. 15.
- 26 Thomson Reuters and Canadian's Venture Capital and Private Equity Association (CVCA) *Canada's Venture Capital Industry in 2009*, p. 3. (http://www.cvca.ca/files/Downloads/Final_English_Q4_2009_VC_Data_Deck.pdf)
- 27 Ibid.
- 28 Lerner, *Boulevard of Broken Dreams*, pp. 121-122.
- 29 Bruce Gitelman, *Solving the Precommercialization Gap in Canada* (Toronto: National Angel Capital Organisation) Submitted to Industry Canada's Expert Panel on Commercialization National, August 2005.
- 30 Giles Duruflé, *The Drivers of Canadian Venture Capital Performance*, (CVCA, 2006). (http://www.cvca.ca/files/Full_Report5.pdf)
- 31 The Honourable Michael A. Meighen, The Honourable Céline Hervieux-Payette, P.C., *Ten-year Statutory Review of the Business Development Bank of Canada: Report of The Standing Senate Committee on Banking, Trade and Commerce* (Ottawa: The Senate of Canada, December 2010), p.34. (<http://www.parl.gc.ca/40/3/parlbus/commbus/senate/com-e/bank-e/rep-e/rep07dec10-e.pdf>)
- 32 The Expert Panel on Business Innovation, *Innovation and Business Strategy: Why Canada Falls Short*, (Ottawa: Council of Canadian Academies, 2009).
- 33 Kevin Lynch, "Innovation is our hidden deficit" *The Globe and Mail*, 10 March 2010.
- 34 Barrie McKenna "Dubious claims diminish R&D tax credit" *The Globe and Mail*, 6 February 2011.
- 35 The Expert Panel on Business Innovation, p. 157.
- 36 OECD, *OECD Science, Technology and Industry Outlook 2010, Canada Country Note*, (Paris, 2011). (<http://www.oecd.org/dataoecd/30/60/46663788.pdf>)
- 37 Brendan Reding, *The NRC Industrial Research Assistance Program (NRC-IRAP)* Presentation to the Enterprise Region Summit, Moose Jaw, SK, (National Research Council, February 2010).
- 38 The Expert Panel on Business Innovation, p.174.
- 39 Chris Parsley and Manique Weerasinghe *The Teaching and Practice of Entrepreneurship within Canadian Higher Education Institutions* (Ottawa: Industry Canada, December 2010). (www.ic.gc.ca/eic/site/sbrp-rppe.nsf/eng/h_rd02541.html)
- 40 Dr. Douglas H. Barber, *Dialogue on High-Growth Entrepreneurship in Canada* (Action Canada: Toronto, 14 January 2011).
- 41 Thomas Hellmann and Paul Schure *An Evaluation of the Venture Capital Program in British Columbia*, (British Columbia: Ministry of Small Business, Technology and Economic Development, June 2010).
- 42 Parsley and Djukic, *The State of Entrepreneurship in Canada*, p. 3.
- 43 Fred Block and Matthew R. Keller, *Where Do Innovations Come From? Transformations in the U.S. National Innovation System, 1970–2006* (Washington: The Information Technology & Innovation Foundation, July 2008), p. 15. (http://www.itif.org/files/Where_do_innovations_come_from.pdf)
- 44 Lerner, *Boulevard of Broken Dreams*, ch. 7.

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