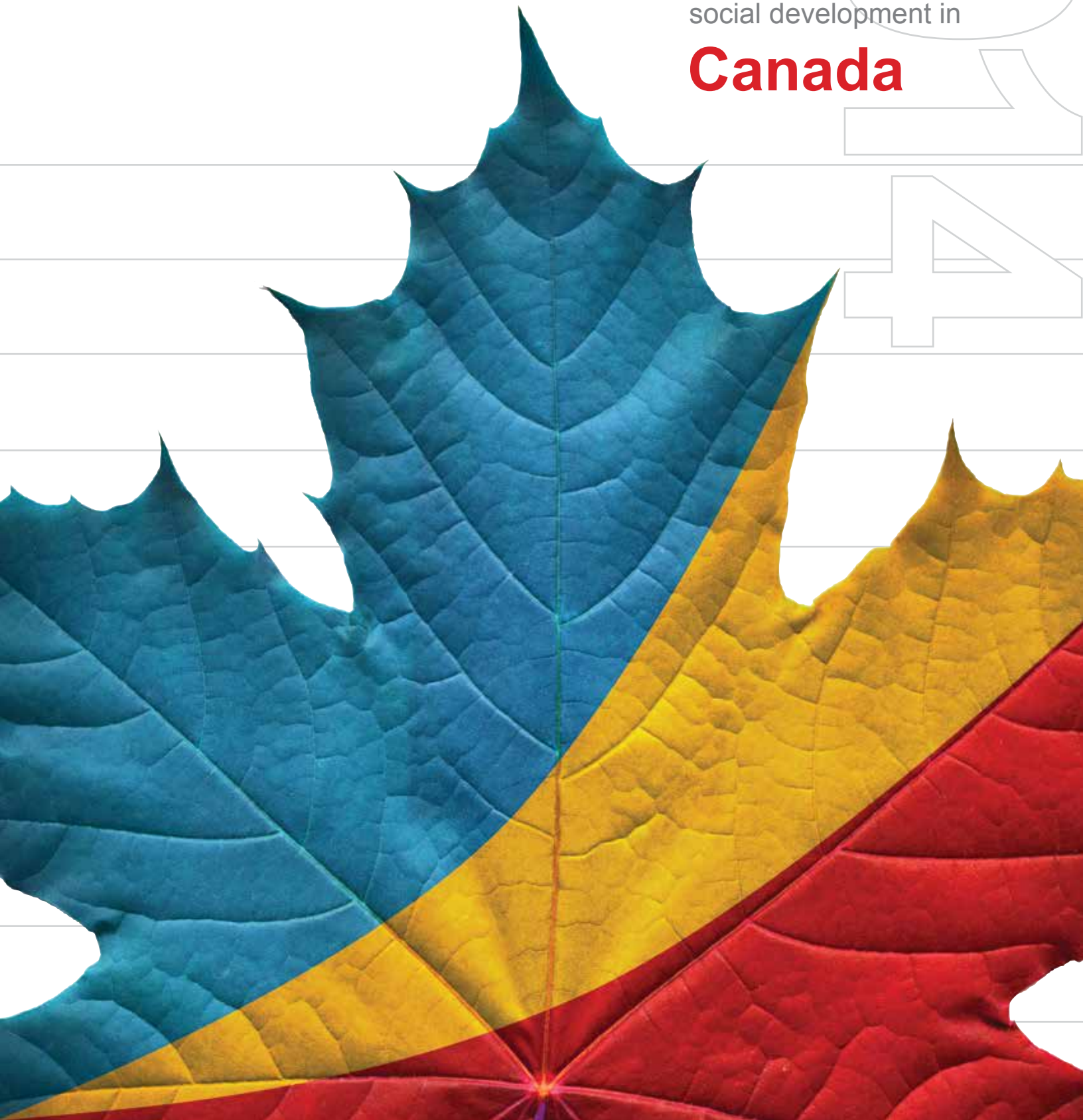
Global Entrepreneurship Monitor

2014

Driving wealth creation & social development in

Canada



2014 GEM CANADA NATIONAL REPORT

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EXECUTIVE SUMMARY

1.1 Why entrepreneurship? This analysis is designed to enhance understanding of innovative and productive entrepreneurship that can promote economic growth, job creation, sustainability, and quality of life. The 'ecology' in which these entrepreneurs operate is probed.

1.2 Why GEM? Participation in GEM brings Canadian data into a rich international context of policies and circumstances. Uniquely, GEM paints a portrait of the individual entrepreneur;*attitudes, activities, and aspirations*. In the second year of renewed Canadian participation, some indications of changes over time can be discussed.

ATTITUDES

2.1 The Canadian environment and culture for entrepreneurship is healthy. Entrepreneurship is seen as a good career for which opportunities exist within the capacities of a large segment of the population. Entrepreneurial success is widely admired. Policy for entrepreneurial culture can be more sophisticated, fostering innovative growth.

ACTIVITY

2.2 *Canada is a leader in early stage entrepreneurial activity with a rate of 13.0, marginally up from 2013*. This rate is just behind the US and equal to Australia. It is well above the remainder of a reference group that includes the G7 plus Singapore.

- Canadian entrepreneurs report opportunity as their motivation much more often than necessity.
- Owner/managers of established business over 3.5 years old represented 9.4% of respondents, also a value higher than other countries except Australia.
- Intrapreneurship (employee entrepreneurship activity, EEA), which leads development of a new activity for a principal employer, is the weak spot in the Canadian profile. Entrepreneurial activity among the currently employed (not self-employed) is 7.0%, Canada's rate is well below the US or Australia. This is consistent with a number of studies from

other points of view that see Canadian firms as weak innovators lacking an innovation oriented strategy.

- Social entrepreneurship, founding organizations or entities with social, cultural, or environmental benefit is significant (8.6% of population). Most of these entrepreneurs are not full time engaged in the social enterprises.
- The stages of entrepreneurship: the entrepreneurial process proceeds in five stages, not necessarily linearly. Canada data are quoted for each as identified in the year's survey. Entrepreneurship begins from intentions (of respondents) to early stage activity. Some become established businesses after 3.5 years, and some close (a loss), and some owners sell to new owners who continue the business (positive outcome). Both are low in comparison to TEA, and in Canada the two exit modes are similarly important. The excess of start-ups over established businesses reminds us of the risks of entrepreneurships.

ASPIRATIONS

2.3 Signals of productive entrepreneurship and innovation are found in a reasonable level of aspirations for growth and frequent reporting of aspirations to introduce new products and to export.

ENTREPRENEURSHIP IN THE ECONOMY

3.1 The new firms are classified in four **sectors**: extractive (e.g. agriculture, mining), transformative (e.g. manufacturing), business oriented services and consumer oriented services. Canada has a lower share of firms in consumer services and a larger share in business oriented services than the reference group of countries. This suggests a sector profile more likely to experience growth and produce innovations.

3.3 New firms oriented to new markets and new products make an up a significant share of TEA, indicating innovative activity. New firms dependent on high or medium technology are not prominent anywhere in the G7. The Canadian numbers are slightly better than Australian and comparable to US numbers.

3.4 Case studies of ambitions for high job growth are reported to illustrate that important, but rare, high impact phenomenon. One of two project growth to the two thousand level.

DEMOGRAPHICS

4.1 The age distribution of Canadian early stage entrepreneurship is similar to the reference countries with a healthy rate of entrepreneurship among the younger cohorts. This year the peak for Canadian entrepreneurship *has moved up to the 45 – 64 age group*. As with other countries, there is a decline in the 55-64 age group. Seniors (not surveyed in other countries) have a low rate, but entrepreneurship does continue to be observed past age seventy. With increase of senior populations, this category should be tracked in future.

4.2 Education attainment of early stage entrepreneur respondents varies moderately from a respectable share in the 'some secondary' to somewhat less for 'secondary diploma'. It *rises with education*, with a peak among those with post graduate experience. It is interesting that the frequency of the established business owner/manager role increased smoothly with increasing education.

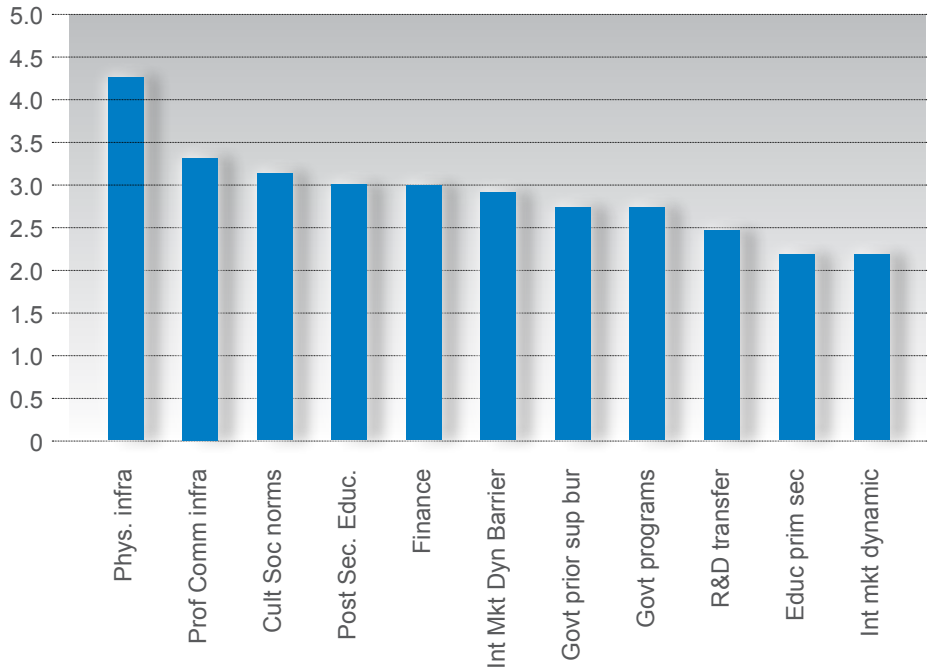
4.3 TEA by gender was mentioned above. The ratio of male to female (a bit more than 3/2) entrepreneurs is little changed from 2013. Sector data show women are more active in consumer related services than men. Initiatives are needed to broaden the opportunities for women. For men the lead sector is business oriented services.

ENTREPRENEURSHIP IN SELECTED PROVINCES

There is significant variation among provinces. Alberta reports the highest TEA and Quebec the highest intrapreneur, EEA, rate.

THE FRAMEWORK CONDITIONS FOR ENTREPRENEURSHIP IN CANADA

The experts surveyed evaluated eighteen themes with four or more statements to apprise in each on a five point scale from 'completely true' (5) to 'completely false' (0). Each statement characterized a condition favourable to entrepreneurship. Scores above three suggest conditions in Canada are acceptable. Scores below three identify problems. Scores for each of the major areas of framework condition are shown in the figure described fully in Chapter 7.



FINAL CONSIDERATIONS

See the recommendations on the following page.

RECOMMENDATIONS

Innovation. The low rate of initiatives by entrepreneurial employees compared to peer countries is the major weakness revealed in the population survey data. This is consistent with studies that suggest larger Canadian firms do not adopt innovation oriented business strategies. As Mazzucato[14]. has shown, transformative innovation requires public sector acceptance of leading risks, as has been done in Canada for oil sands technology and aerospace. In Canada's present circumstances, major government initiatives for the growing Canadian green technology sector are an opportunity at federal and provincial levels.

Women entrepreneurs. Current data suggest no increased share in early stage entrepreneurship by women. Efforts should take into account that sector data suggests there may already be more women entrepreneurs active in consumer oriented services than men. Much of the gender gap may be accounted for by lower rates of entry to sectors other than consumer services. Measures to support women entrepreneurs should remain a high priority. Greater breadth of Government programs, illustrated by the federal Business Development Bank and the regional economic development agencies, need support for their mentoring activities and the capacity to substantially assist scalable initiatives by women entrepreneurs.

Entrepreneurship education. Interest in education for entrepreneurship appears to be growing. Expert opinion is sceptical, and still emphasizes more attention. The population survey indicates a high level of confidence in having the knowledge to start a firm. The attitude data suggests the actions need not be oriented to increasing the attractions of entrepreneurship. Indeed Canada's TEA is high. However, the expressed confidence may reflect lack of education. The low rates of employee entrepreneurship point to the need for a focus on creative entrepreneurial thinking applicable within firms

and in broad social settings, going beyond business education that equates entrepreneurship with new venture start-up.

Culture. As far as willingness to start-up is concerned, Canada has a strong entrepreneurial culture, still experts have concerns. As the recent OECD studies[12,22] show, a relatively small fraction of start-ups account of most of growth and a substantial number of start-ups do not survive. It is hard to pick winners, but as Shane[19] argues it is easier to identify those initiatives without growth aspirations. Support needs to be directed to scalable initiatives.

'NSTEP is a non-profit registered charity that stands for Nutrition Students Teachers Exercising with Parents. Like our name says, our goal is to get students, teachers, AND parents involved in being active and eating healthy, nutritious foods! Our mission is to work with the whole school community to LEARN how to live a healthy, happy life, starting with 'NSTEP EAT WALK LIVE!

Deb Hymers,
BHE (Foods and Nutrition),
DipEd., MBA
Social preneur

1. INTRODUCTION

1.1. WHY ENTREPRENEURSHIP?

CANADA, ENTREPRENEURSHIP AND GEM

The concerns over *growth* and for *employment* that have been expressed in GEM reports over the years are certainly as or more relevant now during a tepid recovery. To these two, we must add concerns about *sustainability* and *quality of life*[1]. Broad and convincing evidence[2] shows that the scope and character of *entrepreneurship* strongly influences all four of these goals for Canada. As was the case in the 2013 report, the results of this GEM survey document the fact that attitudes among a majority of Canadians remain quite favourable to entrepreneurs. It is not necessary to persuade Canadians that entrepreneurship is a good career or that its risks are insurmountable. The focus of policy must be on *quality* growth oriented entrepreneurship that can promote:

- Job creation,
- Sustainability,
- Economic growth,
- ...and, in consequence, Quality of life.

There can be little doubt that the present uncertain economic situation prioritizes implementation of evidence based entrepreneurship policy. As well, future development (its extent and quality) requires attention to a truly Canadian innovation policy. Finally, it is important to acknowledge that in Canada; 'intrapreneurship' initiatives inside our large and medium firms as well as social entrepreneurship to build our communities are a priority too, and may be the weak point.

There can be little doubt that the present uncertain economic situation prioritizes implementation of evidence based entrepreneurship policy. As well, future development (its extent and quality) requires attention to a truly Canadian innovation policy.

THE NATURE AND ROLE OF ENTREPRENEURSHIP

Entrepreneurship is defined in the GEM context as:

> ...*"any attempt at new business or new venture creation, such as self-employment, a new business organisation, or the expansion of an existing business, by an individual, a team of individuals, or an established business"*[3] (p.9).

The GEM definition includes at least the following four areas of activity that Steve Blank calls the 'four pathways' of entrepreneurship[4]:

- Small business
- Scalable business
- Intrapreneurship
- Social entrepreneurship

The first two are treated together in this report with emphasis on the urge to grow. The latter two are treated in separate sections on employee entrepreneurs and social entrepreneurs. The goal all of these processes is creation of *value* as emphasized in an OECD framework[5]. The definition is expansive enough to include the champions of all types of innovation, but a special place is reserved for those entrepreneurs who create new establishments, businesses or other ventures with prospects for growth, job creation, and impact.

It is well known that we live in a knowledge economy. Knowledge is the economic good that does not degrade in use and few organizations can effectively realise the full economic return on all of the knowledge they possess[6]. This leads to the 'spillovers' that, for example, create productive clustering for which the archetype is Silicon Valley. Among the most productive forms of entrepreneurship is turning 'spillover' knowledge into breakthrough new ventures that escape and go beyond the constraint on use of all the knowledge imposed on incumbent large firms who must attend to 'core businesses.

As the influential economist, William Baumol, pointed out[7], there are three types of entrepreneurship; productive, unproductive and destructive. **Productive entrepreneurship** is that which has growth potential and produces significant innovations. It yields growth and quality of life benefit as well as jobs. **Unproductive entrepreneurship** simply re-shuffles the locus of accumulation of money. It includes, for example, opening imitative consumer services businesses. Still, net employment may increase. **Destructive entrepreneurship**, such as criminal inventiveness, is outside the scope of GEM study. There is no rigid line between productive and unproductive types; more realistically, it is a continuum with these as the end points. Nevertheless, the main interest in entrepreneurship

1. INTRODUCTION

Entrepreneurship is a concrete way to engage and enrich our communities.

Raff Paquin, Entrepreneur

study is the productive entrepreneurial process, which is the main driver of long-term transformative growth. Much interest centres on entrepreneurship and innovation. Much innovation analysis has focused attention on R&D and technology. Yet it is clear that not all innovation is derived from technical inventiveness. Think of Starbuck's coffee shops or the introduction of 'Medicare'. In fact, analysis of innovation shows that every success depends in large measure on non-technical social factors. Hall and Martin[8] point out that an innovation must pass *four* hurdles: *technical feasibility, commercial viability, organizational capability*, and *social acceptability* (not in a temporal sequence). They argue that uncertainty increases as we pass along this value-added chain from left to right. An entrepreneurial venture must succeed at each stage. In most cases, the major challenges arise after technical feasibility has been established.

1.2. WHY GEM CANADA?

First and foremost GEM is a global project. Participation in GEM brings Canadian activity into a rich context of data from countries covering a full spectrum of circumstances and policies. The uniqueness of GEM also lies in the focus on the attitudes, aspirations and activity of individual entrepreneurs, now recorded in a 15 year time series of adult population surveys (APS). There is no comparable source of such intimate information. Every entrepreneur is a potential innovator, since all initiatives grow out of some new idea. Most innovation literature offers a firm based perspective. GEM brings the individual initiator back into focus. The latest addition to GEM is questions addresses activity within firms and identifies leaders in developing new activities for a principal employer. This is designated *intrapreneurship, or employee entrepreneurship*. It plays a large role in the creativity and growth of established firms, especially larger ones.

As a complement, the *framework environment* that influences and conditions entrepreneurial activity is assessed through the national panel of experts in the *National Experts Survey* (NES).

1.3. ENTREPRENEURSHIP, INNOVATION, GROWTH – THE GEM MODEL[9]

The interpretation of entrepreneurship from the central GEM perspective focuses on the individual entrepreneur with personal aspirations, capabilities and opportunities against an alternate perspective focusing on human capital, policy, markets, finance and culture. However, the GEM project regards entrepreneurship as a *process in a complex ecosystem* and examines individual entrepreneurs and ventures in the context of this ecosystem and the social factors that shape the responses of the entrepreneurially oriented. The GEM model of the entrepreneur's ecosystem is shown in Figure 1.1. In the context of the model, Box 1 summarizes the core of the GEM Adult Population Survey (APS)

Conceptual framework of the GEM Adult Population Survey.

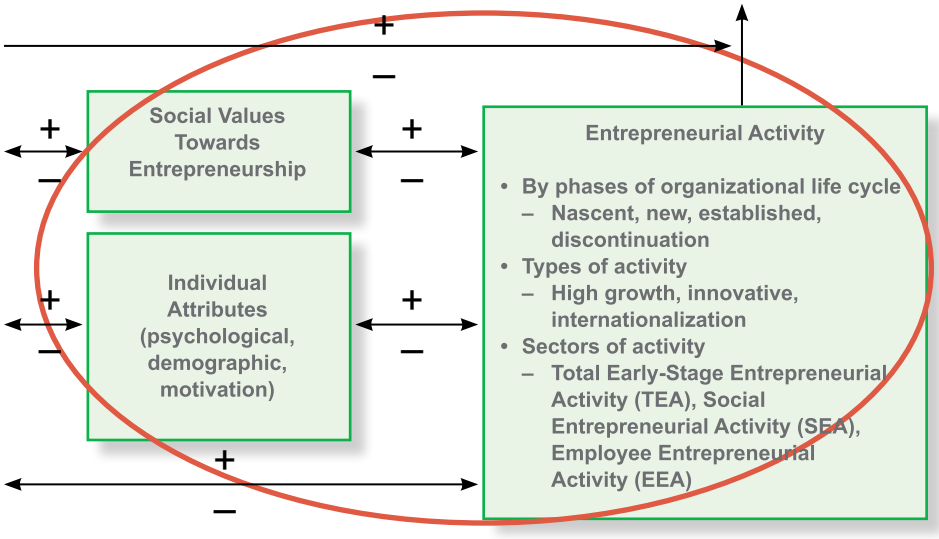
The three components of the GEM Conceptual Framework and the assumed relationships among them are at the heart of the GEM contribution to a better understanding of entrepreneurial energy in any economy. The analysis is based on the following data:

- Individual attributes – which reflect perceptions about opportunities, capabilities to act entrepreneurially, entrepreneurial intentions and fear of failure;
- Social values – which reflect how the society values entrepreneurial behavior, and
- Entrepreneurial indicators – different forms of entrepreneurial activity along the life cycle of a venture

(Source: GEM Global Report 2014)

Social values, individual attributes and entrepreneurial activity
(Source: GEM Global Report 2014).

Figure 1.1 The GEM Model.



GEM classifies economies that participate in the study as *factor driven, efficiency driven*, and *innovation driven*. The categories are derived from the *World Economic Forum (WEF) Global Competitiveness Index* which categorizes three phases of economic development based on GDP per capita, and the export share represented by primary goods. Canada is in the *innovative economy* classification, exhibiting sufficient reliance on business sophistication and innovation despite its engagement with basic resources. Businesses in an innovation driven economy are more knowledge intensive and the service sector figures more prominently in the economy. Entrepreneurship and innovation factors play a more dominant role in the development of these economies, but they still rely on a healthy profile of the basic requirements and efficiency enhancing factors.

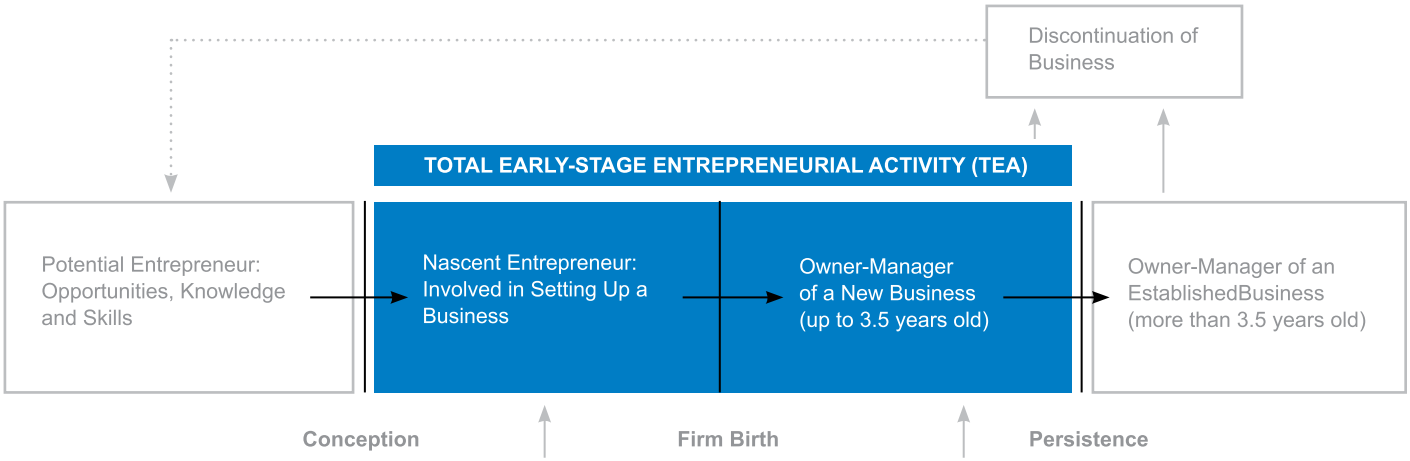
Table 1.1 Social, Cultural, Political, and Economic Context of Entrepreneurship.

	From other available sources	*From GEM National Expert Surveys (NES)*
Economic development phases	National Framework Conditions, based on World Economic Forum pillars for profiling economic development phases	**Entrepreneurial Framework Conditions**
Basic requirements – key to **factor-driven economies**	• Institutions • Infrastructure • Macroeconomic stability • Health and primary education	
Efficiency enhancers – key to **efficiency-driven economies**	• Higher education and training • Goods market efficiency • Labour market efficiency • Financial market sophistication • Technical readiness • Market size	
Innovation and sophistication factors – key to innovation-driven economies	• Business sophistication • Innovation	• Entrepreneurial finance • Education for entrepreneurship • Government policy • Government entrepreneurship programs • R&D transfer • Internal market openness • Physical infrastructure for entrepreneurship • Commercial and legal infrastructure for entrepreneurship • Cultural and social norms

(Source: GEM Global Report, 2014)

Beyond the structural aspects, The GEM model also views *entrepreneurship as a process occurring over different phases* from intention to start, to just starting, to running new or established enterprises, and even to exit and discontinuance (not the same parameter as business failure). Given variable contexts and conditions, it is not inevitable that any one phase leads linearly to the next. Figure 1.2 shows the phases of entrepreneurship. In exploring the early phases, the GEM project assembles data not available from business statistics.

Figure 1.2 The phases of entrepreneurship.



(source: The 2014 GEM Global Report)

1.4. RESEARCH METHODOLOGY AND SCOPE

The GEM project begins by grouping participating countries into three categories identified by the World Economic Forum (WEF). These are factor driven economies, efficiency driven economies and innovation driven economies. The least developed, factor driven, economies deliver the highest rates of entrepreneurship with the largest fraction associated with necessity driven activity, alternatives for earning a living being scarce. The efficiency based economies are intermediate and the innovation based (knowledge) economies exhibit the overall lowest entrepreneurship rates, but with the values dominated by opportunity driven entrepreneurship, where attractive novel economic niches are recognized.

ADULT POPULATION SURVEY (APS)

Using a telephone survey, an independent polling firm randomly selected adults between the ages of 18 and 99. Their responses to a series of detailed questions, phrased in everyday language, that are used throughout the GEM international entrepreneurship project, were solicited from interviewees. These are used to assess entrepreneurial attitudes, activities, and aspirations of the national population. They provide a profile of a representative cross section of the adult populations, balanced for age and gender distribution. For analysis,

the sample is weighted for age and gender to standard Canadian demographic data. Where the sample size in a province was smaller than required for the standard set for statistical significance, provincial samples were augmented in the participating provinces.

NATIONAL EXPERT SURVEY

National Expert survey (NES) themes are specified by GEM: finance, policy, government programs, education and training, technology transfer, support infrastructure, and wider society/culture fields. The questionnaire presented a series of statements reflecting the GEM perspective on conditions supporting entrepreneurship. The experts are asked to estimate the degree to which each is true for Canada. The final section solicits open ended responses, which are coded to nine categories. The questions cover the nine major framework areas:

- Financing, governmental policies,
- Governmental programs,
- Education and training,
- Research and development transfer,
- Commercial infrastructure,
- Internal market openness,
- Physical infrastructure and
- Cultural and social norms.

STANDARD SOCIOECONOMIC DATA

Basic data were obtained from Statistics Canada and OECD publications. Several other international and national agencies also sponsored studies of relevance. These studies are cited in the report where information is drawn from them.

2. THE PRACTICE OF ENTREPRENEURSHIP IN CANADA IN 2014

This entrepreneurial culture shapes the challenges faced by all entrepreneurs, both the crucial productive entrepreneurs and those other entrepreneurs who also contribute to activity and job creation.

The key indicators from the GEM survey probe:

- ***Entrepreneurial Attitudes***
  (How strong is the common perception in the general population of a culture of entrepreneurship?)
- ***Entrepreneurial Activity***
  (How much early stage activity is occurring in the general population?)
- ***Entrepreneurial Aspiration***
  (What do these entrepreneurs seek to achieve?)

The primary indicators for these categories paint a portrait that is unique to the GEM methodology of the individual entrepreneur acting in the community.

2.1. ATTITUDES

ATTITUDES INFLUENCE ENTREPRENEURSHIP

For any policy designed to support highly productive entrepreneurship, *impact is hard to measure*. Yet it is clear that some of the most important policy outcomes depend on attitudes and mind sets in the general population[10]. A key policy goal for all jurisdictions is to foster a *culture of entrepreneurship and innovation through informing, training, and educating*. GEM provides a variety of perspectives on the success of such policy through questions, both to the entire adult population and specifically to the entrepreneurially oriented themselves. This entrepreneurial culture shapes the challenges faced by all entrepreneurs, both the crucial *productive entrepreneurs* and those other entrepreneurs who also contribute to activity and job creation. GEM reports the public perception of entrepreneurs' hopes, struggles and successes.

PERCEPTIONS OF OPPORTUNITY AND CAPACITY IN THE GENERAL ADULT POPULATION

The strength of an entrepreneurial culture is reflected by how optimistic the general population is about entrepreneurship. Four questions appraise the perception of capacity for entrepreneurship. *(Abbreviations used in figures follow each question.)*

Have you met an entrepreneur in the last two years? *(know ent)*

Do you think there is a good opportunity to start a business in the next six months? *(opp 6 mos)*

Do you have the knowledge and skill to start a business? *(know and skill)*

Would fear of failure inhibit you from starting a business? *(fear fail)*

These data are complemented by responses that indicate how entrepreneurs are regarded.

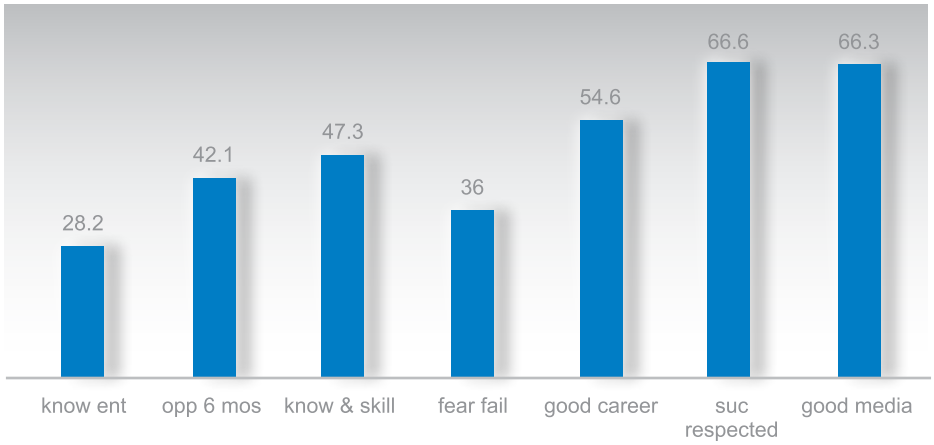
Is entrepreneurship a good career choice? *(good career)*

Are successful entrepreneurs highly regarded? *(suc respected)*

Does entrepreneurship receive good media coverage? *(good media)*

In Figure 2.1 the affirmative answers to these questions are reported for the entire Canadian sample, age 18–99. In Figure 2.2 Canadian public attitudes are compared with a reference group of comparable countries.

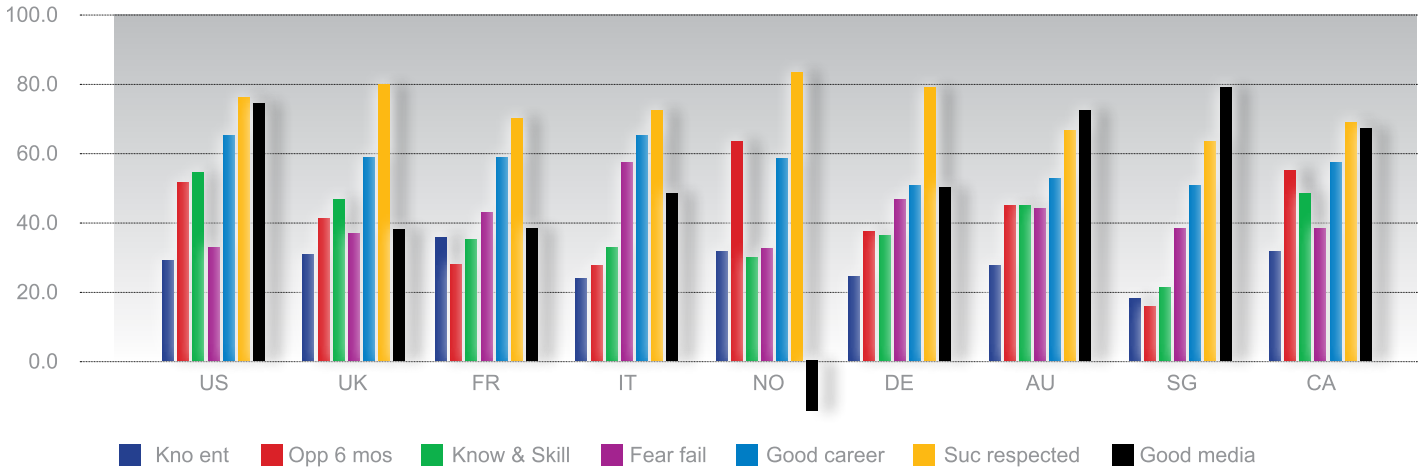
Figure 2.1 Attitudes toward entrepreneurship of the total Canadian pop. age 18 -99.



2. THE PRACTICE OF ENTREPRENEURSHIP IN CANADA IN 2014

The Canadian results can be put in international perspective if attention is restricted to the 18 – 64 age groups used for other countries. The reference group is from the G7 plus Norway (as resource based), Australia, and Singapore (as a next high TEA jurisdiction). Figure 2.2 shows the above variables compared in this group (sample ages 18-64).

Figure 2.2 Attitudes among countries in a broad reference group.



Probably the first aspect to remark is the parallel between Australia and Canada. This will recur below and make Canada – Australia comparisons particularly interesting. Canada compares favourably with the US with somewhat more perception of near term opportunity, but exhibiting somewhat greater inhibition from fear of failure. The perception of a high level of respect for successful entrepreneurs is exhibited across the group. If Canada and the US (followed closely by Australia) are quite confident on all of these measures, Canadians are more optimistic about the short term environment and Americans show more self-confidence. Overall, public perception of entrepreneurship is high these countries.

Seniors' attitudes. Internationally, seniors are excluded. In Canada, seniors aged 65-99 were included (Fig. 2.1). The sample of seniors is over four hundred. The attitudes of seniors toward entrepreneurship were quite positive as shown in Table 2.1.

Table 2.1 Attitudes of seniors

Know entr	Opportunity	SU skills	Fear failure	Good career	Hi status	Good media
17.1	45.9	45.6	21.2	57.7	73.6	75.3

Although seniors know fewer entrepreneurs, they see opportunity similarly to their junior colleagues and have higher confidence in skills and lower fear of failure. They also hold higher opinions of the career.

2.2. ACTIVITY

The *heart* of the GEM survey - the indicators that provide key perspectives on the culture and circumstances of entrepreneurship - are those where action, with its risks, is reported. These identify the ongoing level of early stage start-up activity. Comparisons among countries and trends over time in conjunction with the reports of the expert survey on framework conditions provide the basic information for judging outcomes of policy.

The analysis centres on two measures that are combined to head the tabulations below.

1) The *nascent entrepreneurship rate*, (the percentage of the 18 -99 age population for Canada (or the 18-64 age population in international comparisons) who are currently engaged in setting up a business that has not paid salary, wages or other payments to owners for more than three months.

2) The *new business ownership rate*, percentage of the same pair of age populations who are currently owner-managers of new businesses that have paid wages, salaries or any other payments to owners for more than three months but not more than 42 months.

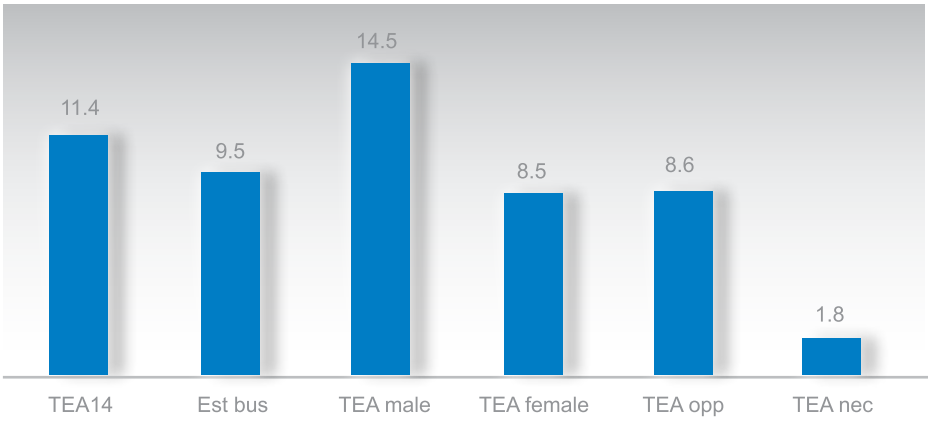
3) These two are combined (counting each individual only once) to yield an overall indicator, *'TEA', the total early stage activity, or the entrepreneurship rate.*

2. THE PRACTICE OF ENTREPRENEURSHIP IN CANADA IN 2014

Understanding of TEA is enriched by analysis of: (1) gender, and (2) opportunity versus necessity as the driver of entrepreneurship. It is also helpful to compare the early stage entrepreneurship rate to the population segment that own or manage an established business in operation for over 42 months. Given the random sample of the population, these respondents will predominately be owners and/or managers of small and medium businesses that represent the next stage for the successful entrepreneurs.

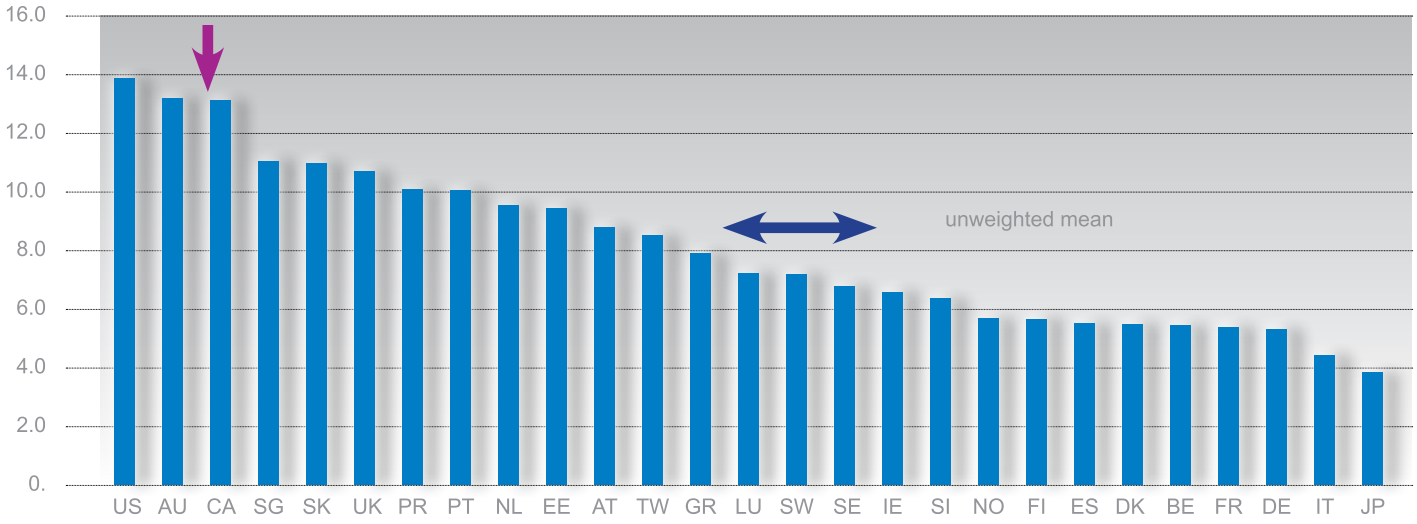
Figure 2.3 shows the Canadian data for the 18–99 population age group surveyed in the Canada survey. The TEA is composed of *nascent entrepreneurship* (9.9%) and *new businesses* (4.8%) with no double counting, expressed as a percent of the population. *TEA14* represents this year's result and Estbus represents the respondents in the survey who do own/manage businesses over 42 months old. Opportunity vs. necessity records answer to the question of the primary motivation. Was the activity stimulated by recognition of an opportunity or was it from lack of an alternative?

Figure 2.3 Total 2014 entrepreneurial activity in Canada (% of pop. - ages 18 – 99) with breakdown by gender and opportunity vs necessity driven.



Globally, where does Canada's TEA stand? The quick answer is that Canada is now very much at the top among innovation driven economies. The US has been a clear leader in recent years. With Canada's return to the GEM survey last year, we now find Australia and Canada in a virtual tie as close second to the US. An overall international perspective is shown in Figure 2.4 that shows TEA values for other countries in the innovation driven economy group[1]. In all international comparisons, the population considered covers the 18–64 age range surveyed in other countries. (We see that this rate is higher at 13% than the rate when seniors are included (i.e. 11.4%). The younger population is more active. (Details on age as a variable appear below.)

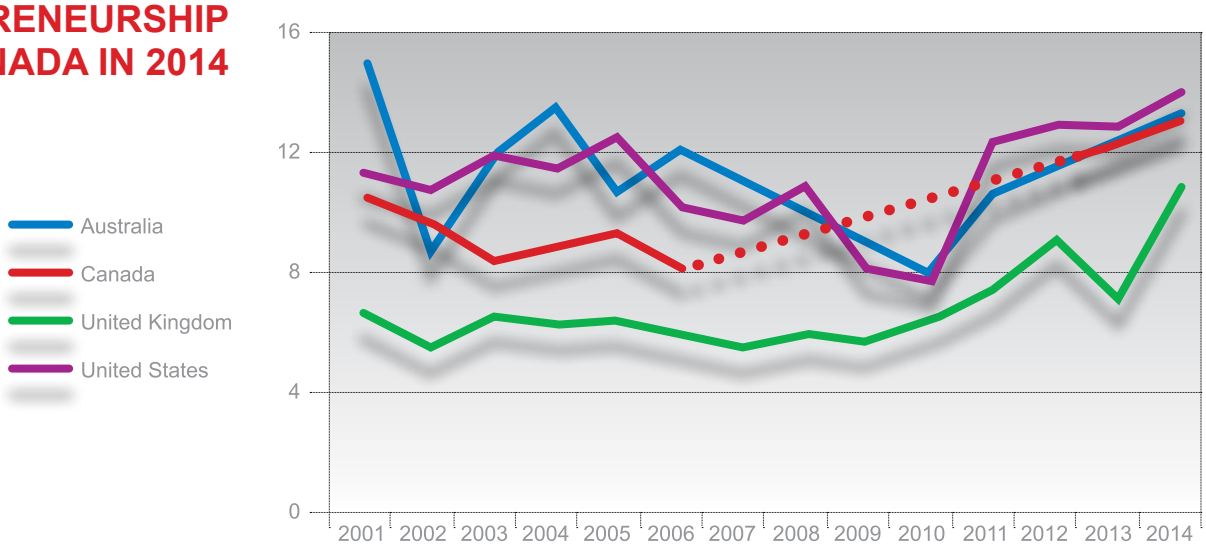
Figure 2.4 TEA values for economies[1] in the 'innovation driven' category (18 – 64).



Values of TEA do evolve over time. In part these will follow changes in business climates but such a model would oversimplify. For countries like Canada, levels of TEA have been rising in the last few years. The trends from 2001 to 2014 are shown in Figure 2.5 for Canada in comparison to the US, UK, and Australia. Of course, the interpolation of Canada data over the 2006 to 2013 gap is the most simplistic model – linear.

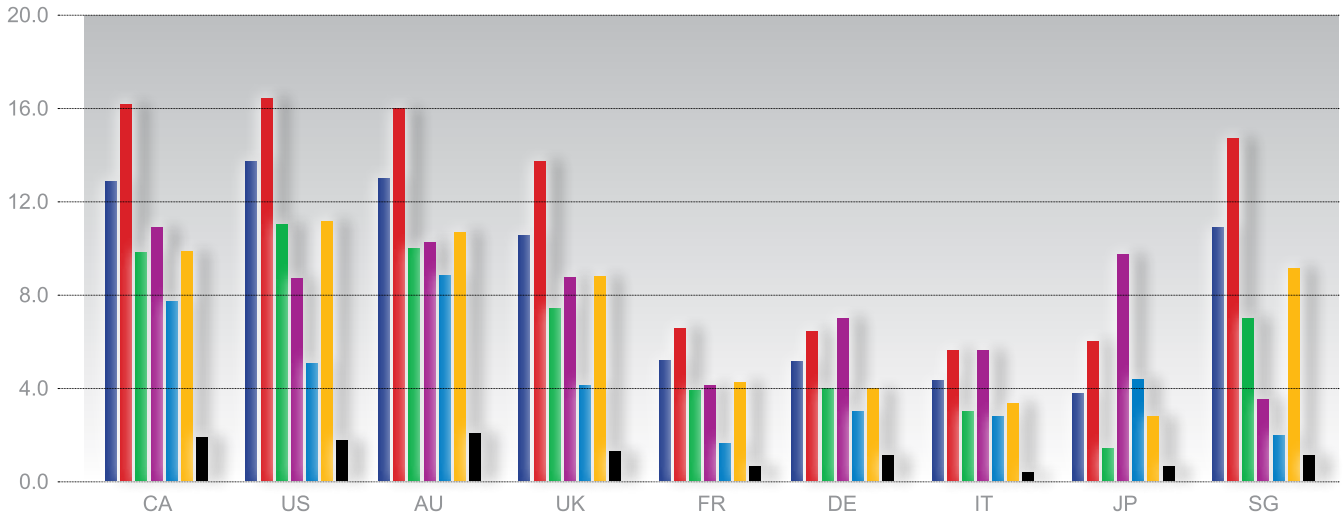
1 A few cases of countries with an admixture of other characteristics are omitted.

Figure 2.5 Selected TEA trends from 2001 t0 2014 (18 – 64).



The US continues as a clear leader and we find Australia and Canada in a virtual tie as close second to the US. A useful way of placing Canada in an international context is to place it in the context of the G7 leading economies. In addition to the G7, Canada has a 'near twin' (as will be seen in several parameters below) in Australia. In addition, Singapore is an interesting high TEA economy presenting some contrasts. (Other resource based economies such as Norway do not reveal many parallels to Canada.) Elaborated activity data for this reference set of countries are summarized in Figure 2. 6.

Figure 2.6 TEA Values for reference economies and Canada (18 – 64)



	CA	US	AU	UK	FR	DE	IT	JP	SG
TEA14	13.0	13.8	13.1	10.7	5.3	5.3	4.4	3.8	11.0
TEA14mal	16.2	16.5	16.1	13.8	6.7	6.5	5.7	6.1	14.8
TEA14fem	9.9	11.2	10.1	7.5	4.0	4.0	3.1	1.5	7.2
EB_14mal	11.0	8.8	10.3	8.8	4.2	7.1	5.7	9.8	3.7
EB_14fem	7.8	5.2	9.0	4.2	1.7	3.1	2.9	4.5	2.1
TEA14opp	10.0	11.3	10.8	8.9	4.4	4.0	3.5	2.9	9.2
TEA14nec	2.0	1.9	2.2	1.4	0.9	1.2	0.6	0.7	1.2

2. THE PRACTICE OF ENTREPRENEURSHIP IN CANADA IN 2014

The present Canadian TEA rate of 13.0% of the 18-64 population represents an increase of just less than one percent from the rate of 12.2% in the 2013 survey. The US experienced a similar increase. The fairly stable 2013 to 2014 results compare to the 8% found in the last full pre-2013 Canada report from 2003. A key observation in 2003 was that the women's entrepreneurship rate was only half that of men it is now nearly 2/3 (as it was in 2013). The women's share is similar in Australia but slightly higher in the US. TEA is reported to be motivated by opportunity more than necessity by a factor of about five, as it is in Australia. The US ratio is larger, where it was smaller last year. (The errors in small necessity rates render the ratios uncertain.)

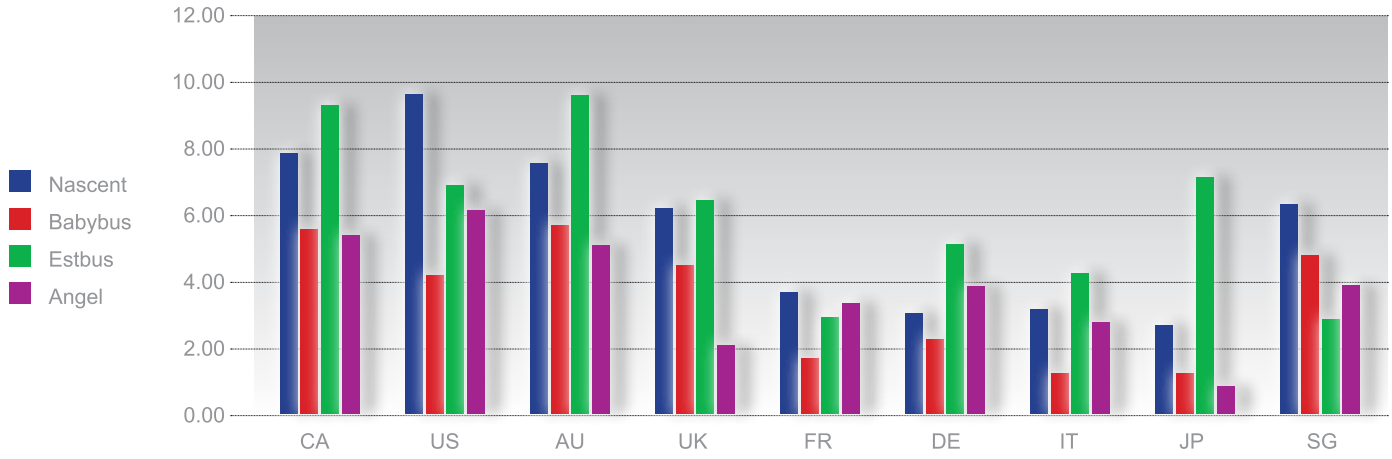
The TEA from the US, Canada, Australia and the UK invite comparison to the Continental economies, Germany (DE), France (FR) and Italy (IT). Some European commentators have suggested a divide between the more neo-liberal economic policies of the US, Canada, Australia

2. THE PRACTICE OF ENTREPRENEURSHIP IN CANADA IN 2014

and the UK compared to those of the continental countries. If this is valid, the data suggest a more neo-liberal economic culture is more favourable to the individual entrepreneur, but clear evidence is lacking to show this links to better overall economic performance[2].

Further important parameters of the analysis of overall activity include data about established businesses (those in business more than 42 months), about how TEA breaks down into its two components of nascent activity (start-up in the past year) and new business (those in operation but under 42 months old – 'Babybus'), and about the extent of informal investment in new businesses (here called angel investment) , a crucial ingredient for start-up – this rate is dominated by the key family and friends investors. Data for Canada and the reference group are shown in Figure 2.7.

Figure 2.7 TEA components, nascent venture, and 'baby business'; with established businesses and informal investment rates.



We see that among the two TEA components: start-ups (nascent) of the current year outnumber the young firms (babybus) that have operated for less than 3.5 yrs. The data for established businesses (Estbus) are seen to be systematically below the sum (TEA) of early stage values recorded above in Figure 2.7.

Informal investors (Angels) are those who have made a personal investment in the last two years. It is significantly less than TEA rates.

2 A possible alternative explanatory factor was noted in 2013. It was the women's entrepreneurship rate, but 2014 data do not support this

These are predominately the small investors belonging to the critical friends and family supporters of start-up.

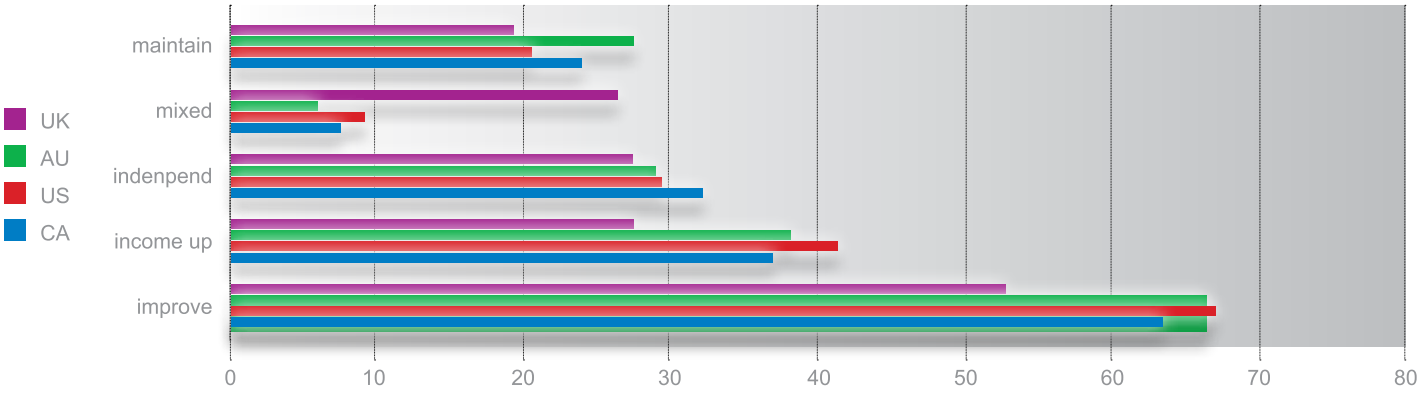
It is interesting that the established business rates in Canada and Australia are larger than the US rate. As well, the ratio of nascent activity to young firms is smaller for Australia and Canada than the US. All this may suggest more efficient survival across the first transitions.

The lower values for established businesses (representative of outcomes of past entrepreneurship) reminds us of the precarious character of entrepreneurial activity. Of course the established businesses reported here reflect start-up over a number of years. A 2014 OECD policy paper on start-up firm dynamics[12] provides data on the fate of start-up firms after three years. Canadian data for end years 2004, 2007, and 2010 indicate 22 – 24% not reported (inactive), 62 – 65% in the same size category (e.g. 0 – 9 employees) and 4 or 5% growing out of their initial size category in those first three years. .

Tracking the relation between start-up phases and established business has some bearing on churn in firm dynamics. For example, the high established business rate in the context of low TEA in Japan suggests a stable environment. If this is correct, it suggests a higher churn rate in the US compared to Canada and Australia. The important informal investor rate is higher in the US than in Canada or Australia. The numbers involved are small and these differences may not be significant, but it is clear that these rates are higher than those for Europe or Japan.

A final issue informing the drivers of activity concerns motives for entrepreneurial activity. This is complex. Much entrepreneurship relates directly to the relation of the entrepreneur to the specific attractions of the new activity. The one area susceptible to questions addressed to all entrepreneurs centres on the economic motives and the question of independence. Figure 2.8 shows percentage of entrepreneurs (TEA) who identify maintaining income (maintain), have motives mixed between opportunity and necessity (mixed), increasing income (income up), increased independence (independ) and improvement in one of various dimensions (improve).

Figure 2.8 Motives for entrepreneurial activity.



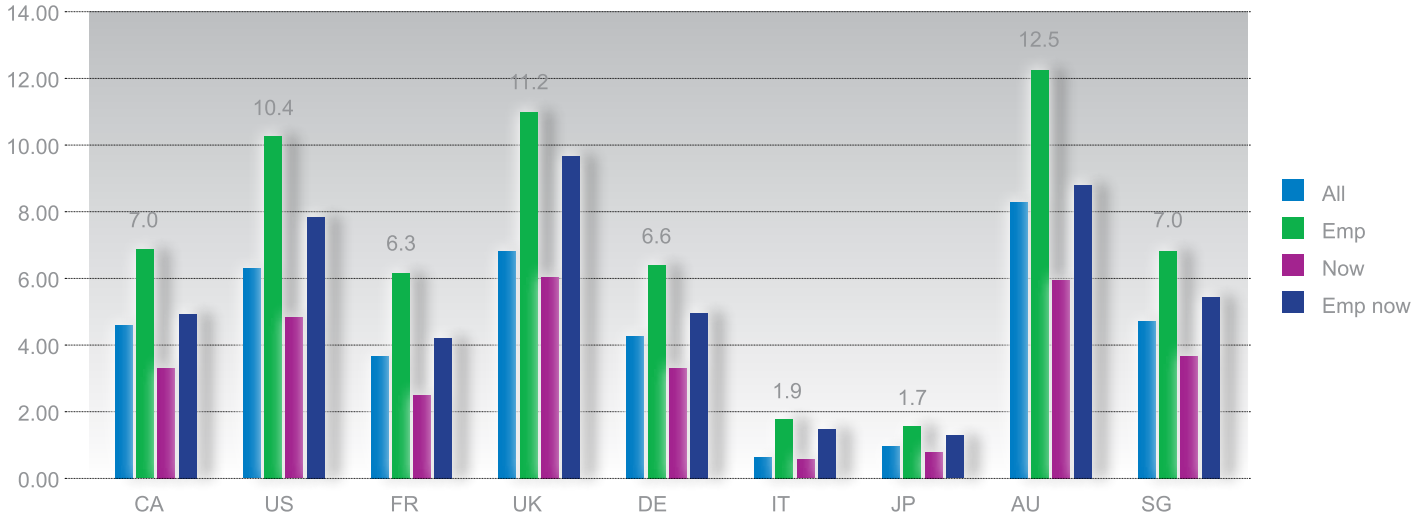
2. THE PRACTICE OF ENTREPRENEURSHIP IN CANADA IN 2014

The generalized question around improvement drew agreement from the highest percentage of entrepreneurs considered in these culturally related comparators to Canada. The UK is lower than the other three. Income increase is preferred over independence in all countries except the UK. Canada also appears stronger on independence. Mixed motives were not an important response except in the UK. These motive data provide little insight as to which entrepreneurs are looking toward innovation or job growth, the scalable productive entrepreneurship most highly prized.

Intrapreneurship – entrepreneurial employees

GEM has also recently introduced measurement of the parallel to entrepreneurship that occurs within existing organizations, new ventures created by employees for their principal employer – 'intrapreneurship'. Parallel to TEA the index is entrepreneurial employee activity, EEA.

Figures 2.9 Intrapreneurship, EEA, percentages of the total survey population and of those employed.



2. THE PRACTICE OF ENTREPRENEURSHIP IN CANADA IN 2014

The survey items are based around questions that ask about development of new activities for your main employer over the last three years. Figure 2.9 shows data for percentage of respondents who: (1) report taking a leading role in such development over the three year period (All), (2) limiting the population to those who are now employed (Emp) – not self-employed or unemployed, and (3) those who report this leading role going on currently (Now), and (4) those employed and active now (Emp. now) Leading countries are the UK, the US and Australia in the same reference group as used for TEA comparisons. Canada's rates are near half of its TEA rates and similar to France, Germany and Singapore rather than the leaders. If the activity data suggest no lack of an entrepreneurship culture in Canada, *the EEA data suggest intrapreneurship as the problem area.*

Leadership (the individual entrepreneurial act) is not the only role in firm innovation. In larger companies projects commonly involve teams. As well, the transition from nascent to young firms has an analogy in bringing a new idea for an activity in a larger firm to implementation. Some more detailed data on intrapreneurship are shown in Table 2.2. The table first shows what percent of respondents report participation in developing a new activity within the last three years. (A caution, the respondent sample is only about 70% of the sample population for the

TEA rate and even smaller numbers answered sub-questions.). Next the percentage reporting that the activity is proceeding now is listed. The fraction generating the idea ('intrapreneurs') is noted. The ratio of leadership roles to support roles is reported next and finally the extent of participation in carrying the new activity forward to implementation (the parallel to 'baby business' status) is recorded. Each of these is presented in the context of the relevant number of responses. Note that the base level of involvement in, 19.5% of 1453, or 283 innovation participants in all roles, does compare favourably with the respondents classified as TEA contributors.

Table 2.2 Intrapreneurial activity.

	New 3 yr.	New now	idea 3yr	lead/sup	implement
# of Responses	1453	195	194	Lead/support	195
% yes or ratio	19.5	67.7	85.1	43%/48%	69.7

The problem of innovation in Canadian firms

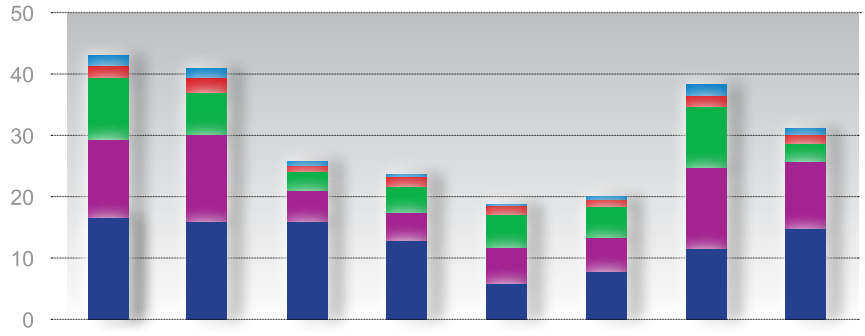
The results for the EEA rate confirm once more a widely remarked concern in Canada – a failure of innovation and its relation to lagging productivity. Both innovative activity and the adoption of 'embedded innovation' in the form of the adoption of the latest technology are weak. A detailed analysis of the problem appeared in 2009 from an Expert Panel of the Council of Canadian Academies[13]: *Innovation and Business Strategy: Why Canada Falls Short*. Interestingly, the panel identifies business strategy as a major source of weakness. It is clear that innovation in Canada needs stimulation. A direction is suggested by the influential work of Mazzucato[14] who has shown the importance of government initiative, and acceptance of the major risks, in transformative innovation. For example she identifies major government programs critically contributing at several stages to the eleven transformative technologies that, exploited together, achieved the smart phone. In Canada an example of this approach was seen in the government programs that supported the development of the technology leading to exploitation of the oil sands. At present Canada has an emerging healthy green technology sector. Active government stimulus is a promising approach to inducing more innovation oriented industry strategies.

Stages of Entrepreneurship.

The GEM model sees the life cycle of entrepreneurship as comprising four stages: *intention, early stage and new firm, established business and discontinuance* (see introduction.) A 'snapshot' of the relationships among the phases emerges from looking at the activity in the successive phases that were identified in the current year surveys. Five survey variables from the four stages are instructive. Three of these are new here to this report: *Intent* (a rather nebulous stage), and two variables for discontinuance - a positive outcome, *exit*, when the owner sells or transfers to a new owner and a *negative* one, *discontinuance*, where the business closes.

- The ***intention*** variable asks for intentions to start a business in the next three years (intent).
- The ***early stage*** can be represented by the TEA variable (TEA).
- ***Established business*** is measured as those reporting ownership of a business that has been in operation for more than 42 months with income (EB).
- ***Discontinuance*** is measured in two variables: (i) owner exit with business closure (Disc) and (ii) owner exit with continuance of the business by others (Exit).

Figure 2.10 The stages of entrepreneurial activity (% of pop.) in the reference countries.



	CA	US	FR	IT	NO	DE	AU	SGI
Exit	2.0	1.5	0.9	0.5	0.4	0.7	1.7	0.9
Disc	2.1	2.5	0.9	1.6	1.5	1.0	2.1	1.5
EB	9.5	6.9	2.9	4.3	5.4	5.2	9.6	2.9
TEA	13.0	13.8	5.3	4.4	5.7	5.3	13.1	11.0
Intent	16.7	16.2	16.0	13.2	6.2	8.3	11.8	15.0

2. THE PRACTICE OF ENTREPRENEURSHIP IN CANADA IN 2014

Each of these variables is calculated on the basis of the % of the 18-64 population in 2014 that is active in that stage. Figure 2.10 presents the successive phases from intention to either closing or transfer to new owners. (Of course, these are different businesses at each stage so no answer in the stages of a country column came from the same interviewees.) The lesser variation from country to country of the established business rate again underlines the volatility of early entrepreneurship.

It is qualitatively clear that entrepreneurial intentions and early stage activity exceed the steady-state value of operating businesses and the exit rates remind us of the relatively high churn rate for small businesses. Canada, along with the United States France and Singapore, display a high rate of intention and early stage activity, suggesting that an encouraging climate exists for the aspiring entrepreneur, but these high rates of intention do not appear along with relatively high rates in other phases as seen for the UK, Germany and, especially, Japan. This suggests that raising the ratio of surviving established business (compared to early stage activity) could be a policy goal for Canada, the US, and Australia. The indication is that a climate presenting additional difficulties for young firms may exist in these countries.

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The five year survival rate for small firms has been reported by Statistics Canada at approximately 50% over several years of data. A recent OECD study of firm dynamics12. reports that Canadian 'micro' firms three years after formation (start-dates 2001, 2004, 2007). A rough similarity between the ratios of established businesses surveyed to start-ups of this year seems to be reasonably consistent with the survival and growth rates data. (The OECD data is based on firm registries and supporting statistical agency data, in contrast to the GEM individual interview data.)

2.3 ASPIRATIONS

A final key aspect of early stage entrepreneurship is the entrepreneur's aspirations. This has a great deal to do with the potential for impact *on innovation and employment*, i.e. on the question of *productive* entrepreneurship. Three areas explore the ambitious intentions for the new businesses intending growth: what fraction expects substantial job growth, what fraction will produce *new products and expand markets*, and what fraction *will export*.

Jobs. Is the new business creating jobs now, or expected to create jobs in its first five years? Questions probed include the number of jobs created and the overall expectation for the next five years, Basic Canadian data appear in Table 2.3. Two further questions are used for some comparisons of Canadian performance: the number expecting more than 10 jobs and 50% growth in the first five years, and the number expecting job growth greater than 19 jobs within the five years.

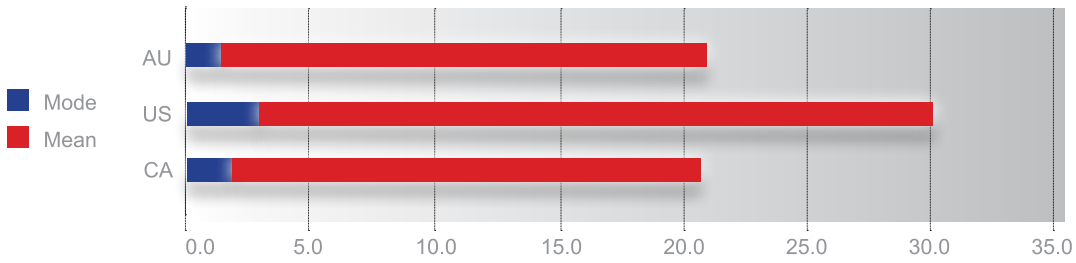
Table 2.3 Job creation, now or within five years.

Jobs created as % of TEA	None	1-5	6-19	20 or more
Currently	31.4	54.6	9.2	4.8
After 5 years expectation	15.4	46.9	20.6	16.7

The data clearly reflect some growth aspirations among a majority of the new firms. Of course, spectacular entrepreneurial successes are a small fraction of total entrepreneurship. It may be interesting to note that 5 among 258 respondents even aspire (realistically or not) to job growth to one thousand or more employees (<2% of the responding entrepreneur population). High job growth issues will be further discussed in the next Chapter.

International comparison of Canadian performance in Figure 2.11 compare Canada to the US and Australia on two high aspiration metrics. The first, blue, identifies firms expecting to grow to 20 or more employees in five years. The second, red, identifies those that expect to reach at least 10 employees accompanied by 50% or more business growth.

Figure 2.11 Comparison of total high 5 year job growth aspirations.



The US entrepreneurs show greater job growth aspirations than the Canadian or Australian (perhaps a consequence of the larger economy). The numbers of new firms expecting to grow to 20 or more jobs is small in all three cases and comparisons are uncertain, but the incidence of expectation of exceeding ten employees accompanying 50% growth is clearly greater in the US. If we relate the job results to the total respondent population (age 18 -64), the entrepreneurs aspiring to creation of any jobs are 10.1% of the population in Canada, 11.5% in the US and 9.6% in Australia.

New markets and new products. New products and new markets are two among Schumpeter's (1911 - engl. transl. 1934)[16] five types of innovation identified in his classic work founding innovation theory. Innovations are often characterized as new to: the world, a country, a firm, or a market. The GEM survey considers novelty in the market most directly and combines this with interest in market expansion. Questions in the survey addressed to entrepreneurs ask:

1 Is the product offered by few or no other firms?
2 Is the product new to all or some customers?
3 More precisely, is the product new to all, some, or no customers.

Table 2.3 Product, market novelty

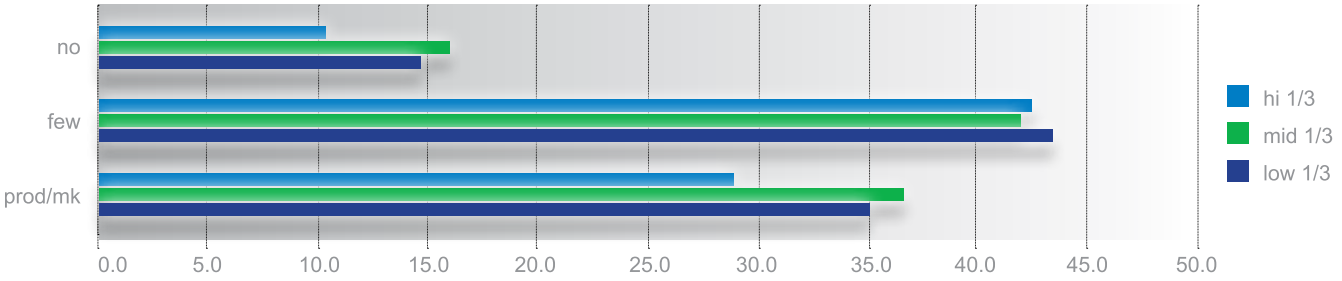
1. No/few other firms offer	2. New to all/ some customers	3a. New to all customers	3b. New to some customers	3c. New to no customers
58.3	48.8	18.5	30.6	51.2

Over half of the entrepreneurs have aspirations to expand markets or offer products new to their customers (i.e. market).

A small number of EEA (*entrepreneurial employees*) also answered questions about new products and market expansion. No significant difference from the TEA population was detectable.

Again a useful international bench mark is to compare key variables to results for the US and Australia. Reading from bottom to top are percentages of entrepreneurs reporting a new *product/new market combination*, ones reporting few businesses offering the same product and no businesses offering the same product (i.e. a fully novel product). The case of many businesses offering the same product is not reported.

Figure 2.12 Comparison of Canada to the US and Australia with respect to uniqueness (no or few competitors) of products and whether there is a novel product/market combination.

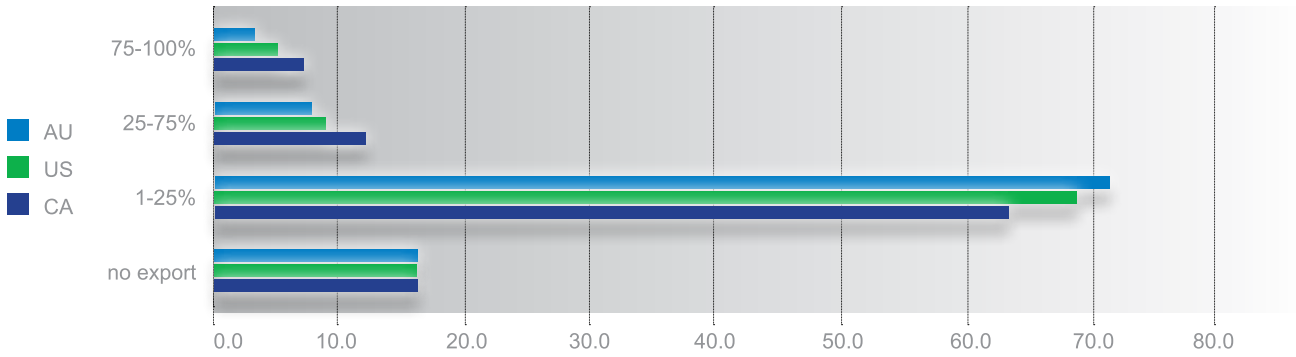


It is consistent with the observation that opportunity is much the more common motivation for entrepreneurship than necessity in these countries that a great many of the ventures have found specific niches of their own in markets. They are innovating in varying degrees. The US appears to lead with Canada close and Australia somewhat behind.

2. THE PRACTICE OF ENTREPRENEURSHIP IN CANADA IN 2014

Export. Export activity is a desirable contribution to the export oriented Canadian economy. Market scale and geography are important variables influencing export orientation. Canada's position as a resource strong US neighbour is distinct from all other countries in the reference group. Nevertheless continuing the comparison with the US and Australia may offer some insights. In Canada, 16.5% of reporting entrepreneurs expect no customers outside Canada. Of the remaining eighty-three percent *63.7%* estimate export customers between 1% and 25%. A final twenty-seven percent are export oriented with *19.8%* reporting export accounting for between 25% and 75% of customers, and *7.4%* export intensive firms reporting outside Canada customers as between 75% and 100% of total customers (Figure 2.13). A small number of *EEA (entrepreneurial employee)* respondents responded to export questions. No significant differences from the TEA population could be detected.

Figure 2.13 Percentage share of customers outside the country.



Failure to export at all (no foreign customers) seems evenly distributed over the three countries and modest levels of export orientation dominate in all. Canada, however, seems to lead in export oriented ventures, quite possibly as a consequence of its unique geopolitical positon. In studies of Canadian clusters in high technology, it is common to find even small firms have few local customers[17,18], in large measure because the knowledge base is global. It is interesting to note a significant correlation between start-ups looking to export and new technology and a suggestive quite weak correlation between start-up export orientation and job expectations.

3. ENTREPRENEURS IN THE ECONOMY

This chapter expands on issues that emerged in discussion of aspirations. The key policy concern is the extent to which entrepreneurship modifies the economic climate: jobs, innovation, growth and sustainability.

How can economic impact be predicted? *Baumol's* categories distinguish productive from non-productive initiatives where the first are seen as economically creative and the second simply re-arranging the distribution of economic benefits. Clearly, the productive category is closely tied to innovation. The total entrepreneurship measures do not give indications of the degree to which a given effort has productive content. (It was noted above that the less 'productive' may still have positive aspects, as for example, in job creation, and, in any case, trying something new is the first step in innovation.) However, Shane[19], in an award winning paper, shows that 'non-productive' entrepreneurship may even be negative, e.g. for growth when too much local competition is generated. He recommends that policy instruments be carefully designed to focus start-up support on those new businesses that have clear growth plans.

"Policy makers should stop subsidizing the formation of the typical start-up and focus on the subset of businesses with growth potential"[19].

Alexander[20] introduced a second distinction: "*A portion of the economic effort in a city is supported by non-local demands. But these city people in turn have need for local services, thus a second urban function is … that which caters to the [local] needs.*" The first category is a key driver of regional growth and is associated much more strongly with sectors other than consumer services. It is commonly assumed that the transformative sector (manufacturing, etc.) offers greater opportunity to 'productive' entrepreneurs. The innovation literature has recently emphasized the role of knowledge intensive business services, KIBS[21], which suggests *business services* may be an important sector for innovative opportunities.

3. ENTREPRENEURS IN THE ECONOMY

Job creation and export propensity are central parts of analysis of economic impact, for which some main point were treated in the aspirations discussion that recorded entrepreneurs predictions. This chapter begins with the analysis of the sector distribution of entrepreneurial effort.

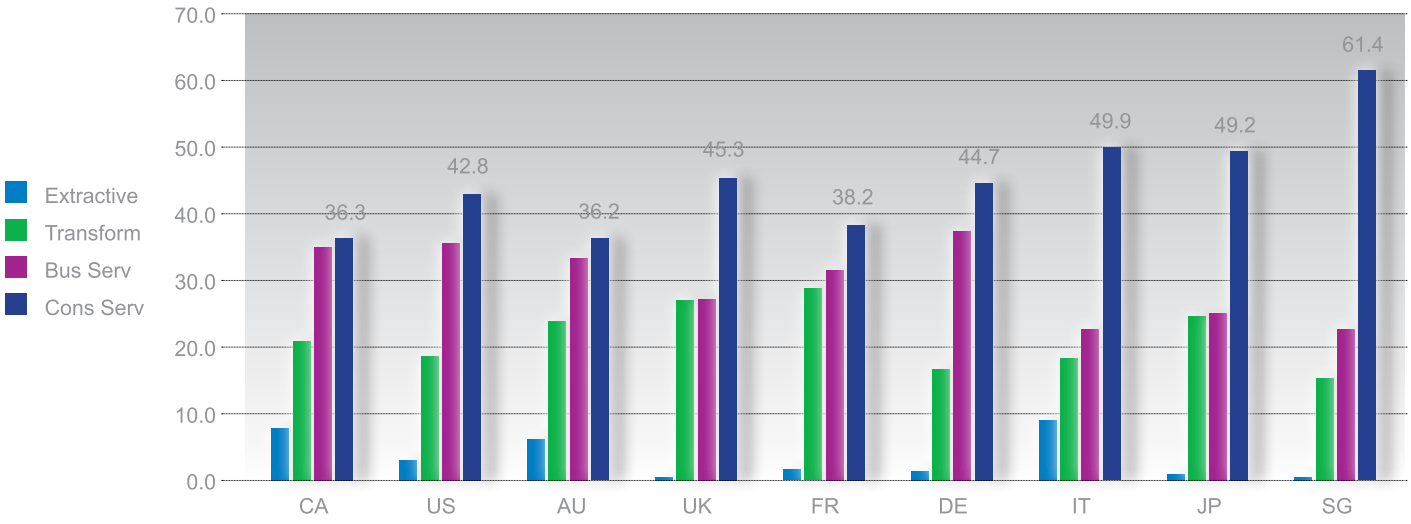
3.1 SECTORS

GEM data offer indicators through cataloguing the limited number of initiatives into four sectors:

- ***Extractive (e.g. mining, agriculture),***
- ***Transformative (e.g. manufacturing),***
- ***Business oriented services,***
- ***Consumer oriented services.***

The distribution among these sectors (Figure 3.1) offers insight into the sort of economic development that can result from entrepreneurial activity.

Figure 3.1 2014 Distribution (as % of TEA) of initiatives over four sectors.

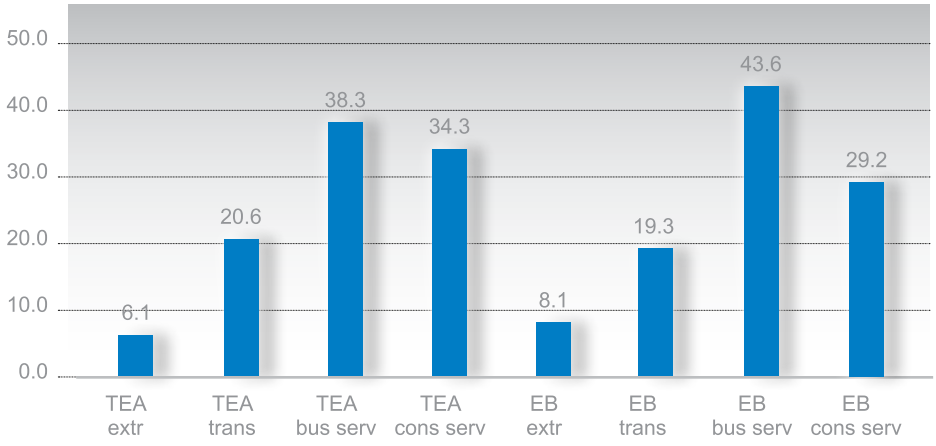


The 2014 distribution over sectors for the reference group of countries is shown in Figure 3.1. This group underlines the leading role of consumer services in entrepreneurial activity. The 'non-local' (Alexander[20]) market sectors most likely to generate highly productive innovations do not lead. The notable cases with a lower share of consumer orientation are Canada and Australia (with France).

Germany (DE) and the US (known for manufacturing) are high in business oriented services but not transformative sectors. Canada and Australia are also strong in business oriented services.

In 2013 the business oriented services sector in Canada commanded 42.6% of TEA initiatives. The large drop to <35 may reflect the small number of response that comprise sub-categories of TEA. The TEA number is 273 for 2014. Since there in not expected to be such large changes in entrepreneurial behavior over one year, and there is essentially no chance of significant overlap of respondents from 2013 to 2014. It may be useful to pool the TEA respondents of the two years to produce a sample of nearly 600 entrepreneurs. Figure 3.2 shows the sector distribution for the pooled 2014 and 2013 TEA populations. These are compared to the established business (EB) respondents. (Cursory examination of the data on distribution of employee numbers indicates the expected dominance of both TEA and EB by small enterprises.)

Figure 3.2 Distribution over sectors by percent of TEA or EB respondents. (2013 and 2014 pooled responses)



A relevant reference point for interpretation of the TEA data is the sectorial distribution of established businesses identified by owner/managers who were encountered in the surveys. The EB data offer some insight into prospects for the new initiatives (although EBs may represent a range of ages and economic circumstances at founding).

The pooled data suggest that business oriented services are the leading sector for both new initiatives and established small businesses responding in this random sample of the adult population. The increase in business services share and decrease in consumer oriented services share in the EB population compared to the TEA population suggests higher survival rates in business services.

The low level of extractive sector entrepreneurial activity is surprising. The expected importance of extractive industries in Canada is better exhibited by the established businesses. It is probable that the high fraction of business oriented services includes new small businesses serving extractive industries. This is evident in an "oil and gas" centre such as Calgary where a large fraction of business services serve the core cluster, especially in knowledge oriented services.

A subset of respondents in the **EEA (entrepreneurial employee)** population answered the sector question. The distribution is not significantly different from the TEA population except for a small, possibly significant, increase in the share of business services.

3.2 TECHNOLOGY

The share of TEA active in high or medium technology sectors is also often assumed to be an indicator linked to innovation and growth ambitions. The percentage of TEA reporting such high or medium technology (OECD definitions) is:

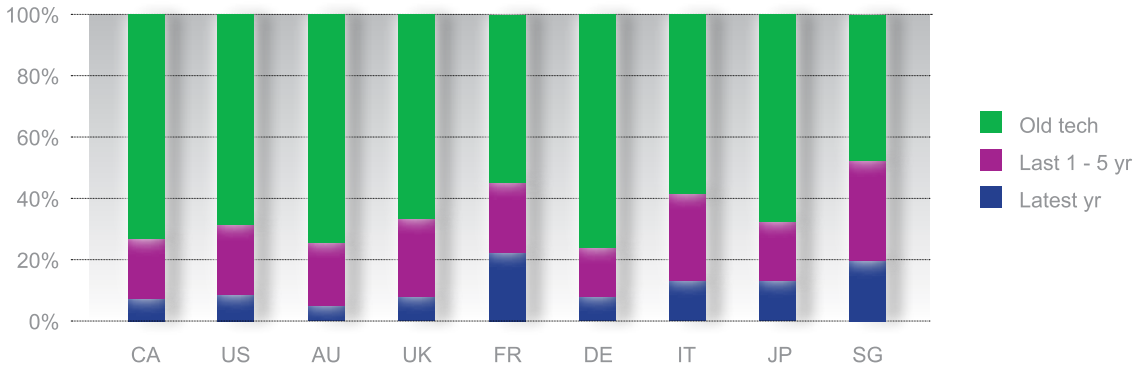
Table 3.1 High or medium technology sector (OECD def.)

CA	US	AU	UK	FR	DE	IT	JP	SG
5.7	9.4	11.1	8.9	11.3	6.8	5.9	7	5.6

As with business services, Canada's reported participation is lower than in 2013. The pattern here does not have obvious interpretations and reflects small numbers of entrepreneurial initiatives and high uncertainty in all cases. Probably a better indicator for innovation related to technology is the question of the novelty of the technology used in the new initiatives. Here three categories are probed. Does

technology used include technology novel in the last year (latest yr.), introduced in the last 1-5 years (last 1-5 yr.) or older than 5 years (old tech).

Figure 3.3 Percent of entrepreneurs using recent vs older technology.



Clearly the majority of entrepreneurs do not report a critical dependence on new technologies. The data suggest leadership from Singapore, which has probably supported this with policy directions. France reports a strikingly high level of use of the latest technology. Of course, industrial structure is expected to influence this factor, but no simple interpretation of the trends suggests itself. Notice the similarly low levels in Canada and Australia.

3.3 HIGH LEVEL JOB CREATION

High levels of job creation have direct impact on the economy. Various studies show firms have their greatest impact on employment in phases of high growth. Data supports the contention that high growth decreases in likelihood with the age of a firm[22]. Yet small firms, as noted above[12], make a major contribution to employment losses.

The basic data about high job growth were reported in the aspirations section above. A closer reading of the Canadian data is given here. Note that the number of Canadian respondents answering the questions placing them in the category, TEA2014, was 273. The international comparisons (Figure 2.8) are based on percentages of respondents to each question. The raw Canadian data, which can be accessed for

this report, reveal that there is a significant variation in response rates for the job questions. It is instructive to consider the actual numbers of positive respondents to each question. Only 6 of the TEA2014 entrepreneurs reported current employment above 20, but the overall response rate to this question was low. There were good overall response rates to the same questions posed to established business owner/managers and 23 reported employment above 20. There was also a good response rate to the question asking for expected employment levels in five years. Forty one TEA2014 entrepreneurs anticipated job levels above 20 within five years. As might be expected, the firms enjoying still higher growth in their early years is a small specialized fraction. Case study approaches have been used to analyze the characteristics of selected examples of successful growth. In contrast, the comprehensive population coverage of the GEM Adult Population Survey provides perspectives on the overall frequency and aspirations for impact of this category of entrepreneurship.

As a small 'case study' from these interviews, Table 3.2 collects the five highest current job numbers reported and job numbers anticipated within five years by entrepreneurs in either start-up phase or owners/managers of young businesses (TEA). Firms represented by numbers in two adjacent columns may be different ones. In the anticipation for five years, two entrepreneurs projected 1000 employees. What these cases illustrate is that the population includes a small but significant percentage, hard to identify in a broad survey, that have aspirations to create high impact on employment. They are found among a more easily characterized population of entrepreneurs with modest job growth ambitions. The numbers underline Shane's[19] recommendation that public policy be carefully designed to selectively support initiatives with clear growth aspirations rather that provide blanket support for entrepreneurship. High growth projections by established businesses are shown. This shows that growth expectation is much higher for start –ups.

Table 3.2 Individual cases of High Job Numbers (illustrating maximal ambition).

Ordinal	In Start-up phase	Start-up by yr. 5	EB Owner/Mgr by yr. 5	EB Owner/Mgr
5	20	500	100	150
4	35	1000	180	200
3	200	1500	200	300
2		7000	450	1500
1		8672	2800	3000

A recent OECD study of firm dynamics[12] reports that Canadian 'micro' firms three years after formation (start-dates 2001, 2004, 2007), if inactive (about 30% of firms), contribute about -35% to employment (loss), but those stable in a size class (about 65% of firms) contribute about +20% to employment (gain) and those growing into a larger size class (about 5% of firms) contribute about +40% to employment (gain). That is, the major contribution to employment comes from a rather small set of firms. Further GEM data on this point appears in the next section.) The Canadian established business rate captures firms started more than 3.5 years ago, but also over a number of years before.

Jeff Desjardins has coined the term 'Narwhals'[23] for Canadian start-ups founded since 1999 that have achieved a billion dollar valuation. Four were identified. The disappointing feature is that the average employment reported is less than 330. Apparently, market value alone is not a comprehensive impact indicator.

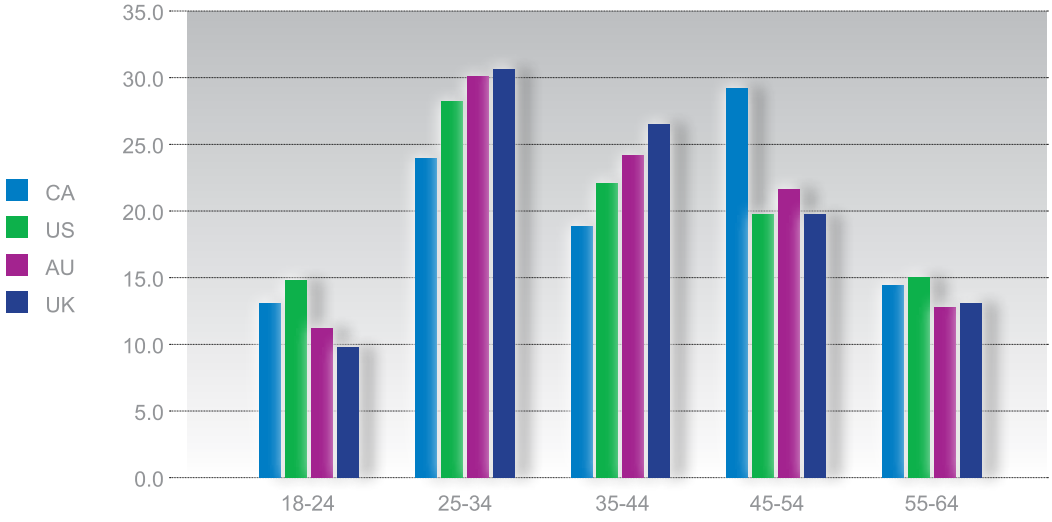
4. ENTREPRENEURSHIP DEMOGRAPHICS

4.1. AGE

The GEM adult population survey addresses the working age population from 18 to 64. In the international comparisons, seniors are excluded. The population is segmented into five ranges: 18-24, 25-34, 35-44, 45-54, and 55-64. Age distributions of TEA 'entrepreneurship' in selected countries are collected in Figure 4.1. All show strong entrepreneurial engagement among the younger work force, with participation showing a peak in the 25-34 age group. (It is interesting that this is the peak age group reported for MIT graduate entrepreneurs in a 2009 study[24].) Canada has a peak of activity in the 45-54 age group (which was not observed last year). The decline in rate in the older 55-64 decade is common to all countries.

The Canadian data differ from 2013 data in rate changes of 2-3% of entrepreneurs. The changes are an increase in activity in the 18-24 age group and the 45-54 age group with a similar drop in the 25-34 age group. The changes may reflect trends but with only one year of data it is difficult to reject fluctuations as an explanation.

Figure 4.1 TEA entrepreneurial activity rates (%) in each age group in the 18-64, population.



An alternative view is what percentage of the total entrepreneurship is associated with each age group. This is shown in Table 4.1.

Table 4.1 Share of total national TEA in each age group

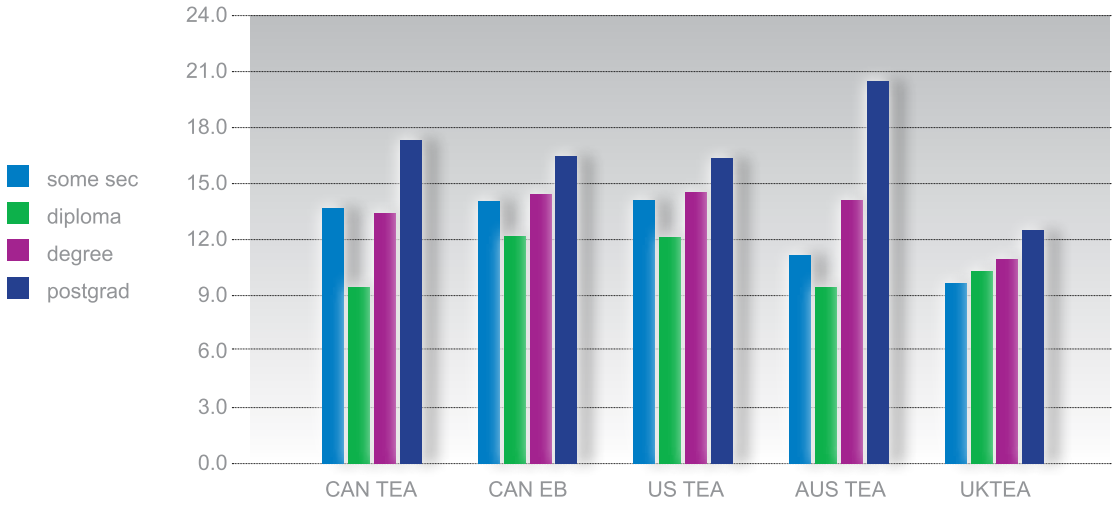
	18 - 24	25 - 34	35 - 44	45 - 54	55 - 64
CA	13.0	24.1	18.9	29.4	14.5
US	14.9	28.3	22.2	19.6	15.1
AU	11.1	30.2	24.3	21.7	12.8
UK	9.8	30.9	26.6	19.7	13.0

Seniors are not covered in international data, but the Canadian APS included respondents to age 99. This provided a final sample of 453 seniors that yielded positive responses for a TEA of 4.3%, extending the downward trend from the 55-64 group. This group divided ~3/2 male/female with most reporting opportunity rather than necessity. Approximately 10% anticipate more than five employees and at least 50% growth in five years. Over one third of these entrepreneurs are over 70. The TEA rate for seniors is significantly higher than that found in 2013 with a similar gender distribution. The numbers for high job growth are smaller, but this result is of doubtful statistical significance. With changing conditions for seniors, it will be important to continue to monitor this group and the sample size is already satisfactory.

4.2. EDUCATION

Educational attainment is a variable that is best benchmarked by comparing similar systems since cultural factors play a large role. Data are reported here for Canada, the US, Australia, and the UK in Figure 4.2. The data for Canada are compared to the educational attainments of owner/managers of Canadian established businesses as *a reference point* then international comparisons are given.

Figure 4.2 TEA rate (% pop.) by educational attainment compared to education reported by Canadian established business owners.



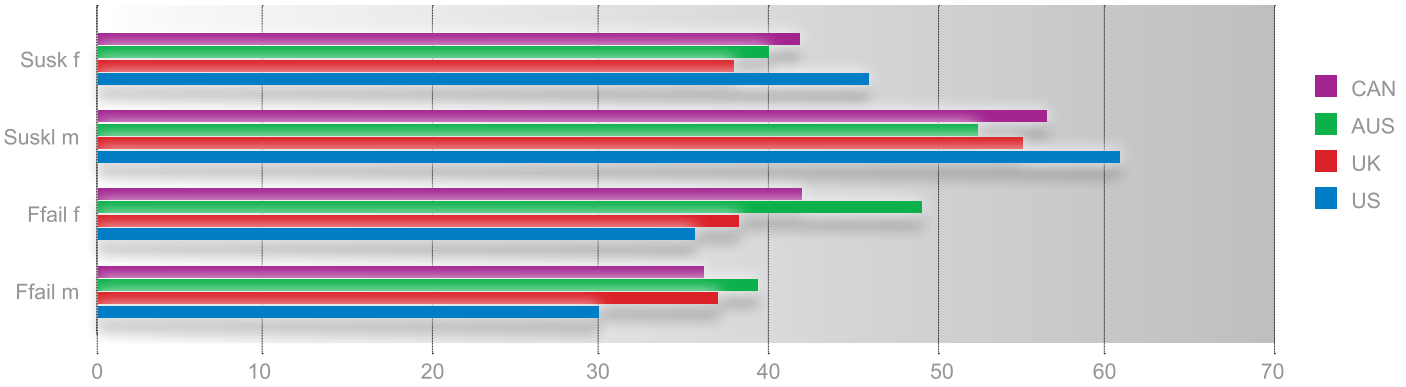
Patterns are similar among these countries. At the minimal education level there is a significant rate of entrepreneurial activity. (It should be noted the number of respondents at this educational level is small). In contrast to 2013 rates, this first level outpaces entrepreneurship among secondary graduates, but not holders of a post-secondary qualification. Starting from holders of secondary diplomas, entrepreneurship is uniformly more common as education level rises to a post-secondary qualification, then to post graduate experience. This common pattern indicates importance of knowledge and skills. Australia stands out in TEA among those with post-graduate experience suggesting an edge in areas where highly specialized skills and knowledge are important. Once again Canada and Australia are generally similar.

An interesting point is that the educational pattern among owners of established businesses parallels educational attainment patterns of the new entrepreneurs.

4.3. GENDER

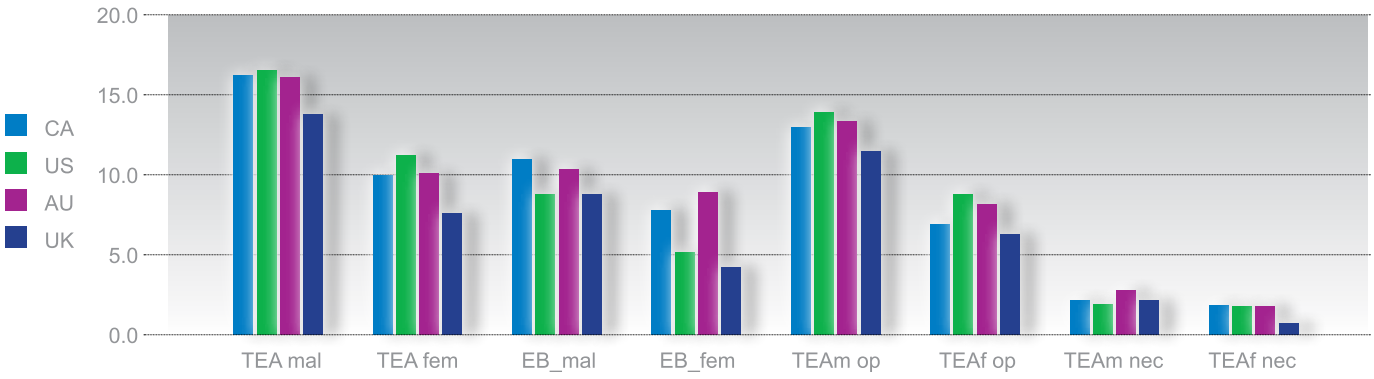
Confidence. Most of the general population attitudes towards entrepreneurship reported above show little variation between male and female respondents. However, differences of significance do arise with respect to the perception of having needed skills and knowledge (Suskl), and the question of a barrier posed by fear of failure (Ffail). Women express somewhat less confidence in skills and a somewhat higher fear of failure. Comparisons among Canada, the US, Australia, and the UK are shown in Figure 4.3. (In Fig 4.3, f and m designate female and male. The sample covers the 18 -64 age range)

Figure 4.3 Confidence about starting a business by gender (% of pop.).



The male-female rates of early stage entrepreneurship were noted above (and are repeated here in a larger context). In most countries the TEA reported by males is higher than that reported by females, although the ratios vary widely among developing countries. The ratios vary less among culturally similar countries such that detailed comparison is meaningful. The figure compares Canada to the US, Australia and the UK. As well, it is quite interesting to compare the gender ratios for early stage efforts to those found among the owners/ managers of *established businesses* (EB, business life >3.5 years) which are presented next to Canadian TEA in the figure. The gender ratio is approximately 3/2, a bit lower for the UK. This is little changed from 2013.

Figure 4.4 TEA by gender and necessity vs opportunity. Canadian EB rates are compared.



Gender and economic factors: business sector, job aspirations, technology. Further exploration of gender roles raises questions of economic sector participation, job growth aspirations and use of technology. Table 4.2 shows percentage of entrepreneurs active in each of the four sectors mentioned above, reports whether or not newer technology is important and presents the percentage with high growth and job expectations within five years. (Abbreviations follow parallel analyses in earlier sections.)

Table 4.2. Gender patterns in sectors, use of technology, and in growth aspirations.

	Extract	Transform	Bus Serv	Cons Serv	New Tech Tech	jobs >=10 5yr	jobs >19 5 yr
Female %	6.5	13.9	25.9	53.7	7.3	15.5	0.9
Male %	7.4	25.1	40.6	26.9	8.9	21.7	2.4

The distribution over business sectors of initiatives does show significant gender differences. Female entrepreneurs are less well represented in the transformative (e.g. Manufacturing) sector and business services sector, while they are much more prominent in the consumer services sector. Does this last difference relate to lower job growth aspirations expressed by the female entrepreneurs?

It can be said that there is no more than a marginal difference in the propensity to use contemporary technology.

5. SOCIAL ENTREPRENEURSHIP

Beyond the 'for profit' economy there is a great deal of entrepreneurship in the formation of organizations and initiatives that are oriented toward social, environmental cultural or community goals. The entrepreneurs who initiate or manage such activities make a major contribution to quality of life1, and beyond this intrinsic merit, play a significant role in the environment for productive economic growth. For example there is substantial research supporting the idea that quality of life and cultural richness, function as talent attractors, and play an important role in the economic success of cities. Social entrepreneurship is an important topic in its own right for contributions to key goals of sustainability and quality of life but it also contributes to framework conditions for commercial entrepreneurship.

Table 5.1 provides a first look at the prevalence and structure of social entrepreneurship activity.

Table 5.1 Social entrepreneurship activity

	SE activity 3yr	This In Last 12 months	Manager F/T	Manage P/T	Don't Manage	It's my Daily Job	It's a P/T Job	It's Outside my job
%Yes	8.6	70.5	23.1	55.1	14.1	11.8	26.6	52.9

The table shows that 8.6 percent of respondents are currently engaged in start-up or management (or ownership) of a social activity. Seventy-one percent of those active indicate start-up efforts occurred in the last year, in some cases for a second activity. Management roles vary as seen in the next three columns and the majority do not have this activity as a part of their 'daily job'. Fully a quarter work in the activity part time and only a minority report it as their daily job. Of the respondents, 28% reported that the activity, organization or initiative had provided service or received external funding for more than 3 months compared to 61% answering 'no'.

The majority of specific services identified were focused in a specific community and some were for profit businesses with a 'social' goal. Most of the activities were small, but had growth aspirations.

5. SOCIAL ENTREPRENEURSHIP

Table 5.2 shows data on the small current numbers of 'workers' (Work now), not necessarily employees and the distribution of this work to volunteers and part time workers. (An individual worker may fit in more than one category.) The last column shows anticipated numbers of workers in five years. The mode (most commonly reported number of workers) and maximum (Max case – There is only a single example of this number in each column) are shown. Unfortunately, not all social entrepreneurs responded to these questions about workers. The maximum number of responses was only 43.

Table 5.2 Numbers of workers

	Work now	Volunteer	Part time	in 5 years.
Mode	5	4	3	20
Max	1000	700	100	2500

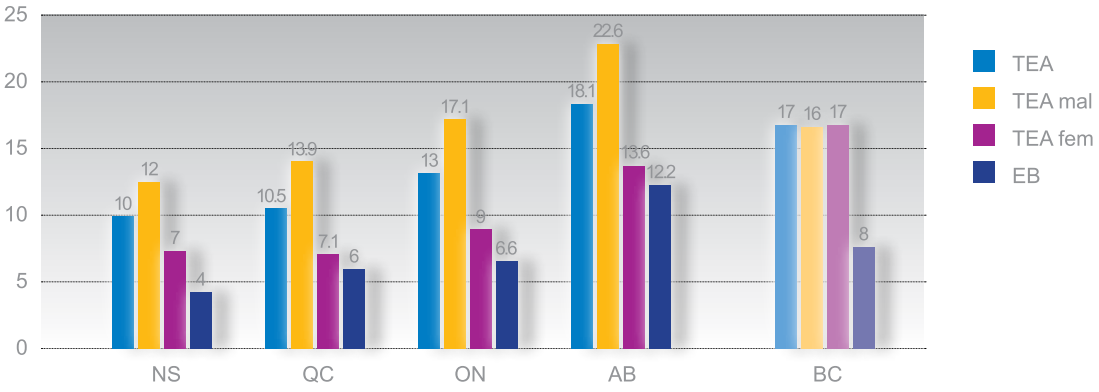
Fifty three percent report that income to support these activities will come, at least in part from sale of goods or charges for services. Forty four percent of respondents report 100% of activity income from these sales/charges. Only 14% report 20% or less of total income from such business activity. Respondents were asked to assign points to impact in the areas of the economic, social or environmental value of the activities. The median for economic value was 44 points, social value 35 points and environmental value 15 points. An economic focus is clearly present among the activities encountered. There is some concern that the economic focus of the majority of questions in the GEM survey may have influenced the interpretation of the concept of social entrepreneurship.

Measuring impacts of social initiatives is important in the multidimensional domain of social entrepreneurship. Impact of the activities was being measured in 13% of the reported cases, plans to measure existed in 34% of cases and 43% had no plans to measure impact.

6. ENTREPRENEURSHIP BY PROVINCE

An important characteristic of Canada is that it is a nation of regions. Economic structure, culture and geography vary widely. Consequently, an analysis of Canada cannot be complete without some comparative data for provinces. Figure 7.1 shows the early stage entrepreneurship rates (TEA) for the five provinces where the number of entrepreneurs identified in the survey was sufficient. The number of significant figures is adjusted for error estimates. This sample includes one from Atlantic Canada, two large central Canadian provinces (one French speaking and one English speaking) and two large Western provinces (one an interior resource economy and one a coastal resource economy.) The figure shows overall TEA values and the rates of male and female entrepreneurship. The percentage of established businesses (> 3.5 yr. old) is given as a reference point. Alberta, with its oil/gas as lead industry, has the highest rates followed by BC with the remarkable characteristic of effective gender parity. (There was a small imbalance, male > female, in the 2013 data.) The manufacturing centre, Ontario, is at the national average. Quebec, also a manufacturing centre, and Nova Scotia, a maritime province, are somewhat below that average.

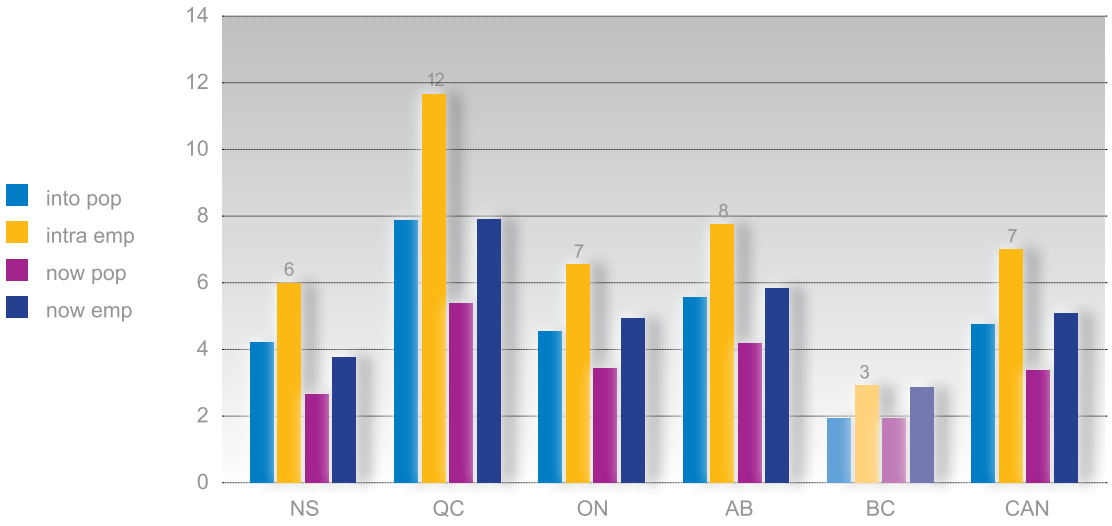
Figure 6.1 Early stage entrepreneurship (TEA %) by province.



6. ENTREPRENEURSHIP BY PROVINCE

Turning attention to entrepreneurial employees (EEA) – the intrapreneurs – a different picture emerges. The survey items are based around questions that ask about development of new activities for your main employer over the last three years. Figure 6.2 shows data for percentage of respondents who: (1) report taking a leading role in such development over a three year period (pop), (2) limiting the population to those who are presently employed (emp) – not self-employed or unemployed, and (3) those who report this leading role going on now (now), and (4) those now employed and active now (emp. now). The two rates (%) based on the currently employed population are probably the most revealing. Here the industrial base economies show greater relative strength with Quebec a leader. Quebec is known for some technologically advanced sectors, e.g. aerospace. Alberta, with its rapid recent economic growth, is still high, while Ontario and Nova Scotia report competitive rates. As with TEA, the largest province, Ontario, is at the national average. The national Canadian data complete the figure for comparison.

Figure 6.2 Intrapreneurship (EEA) by province.



7. FRAMEWORK FOR THE CANADIAN ENTREPRENEURSHIP ENVIRONMENT: NES

The Canadian framework conditions that create the environment for entrepreneurship are probed by the National Experts Survey (NES). Forty-two experts from nine professional perspectives responded to a series of *statements* used in the global NES study. These statements express GEM formulations of circumstances favourable to entrepreneurship. The experts identify how *favourable* conditions in Canada are by rating the statements on a five point scale:

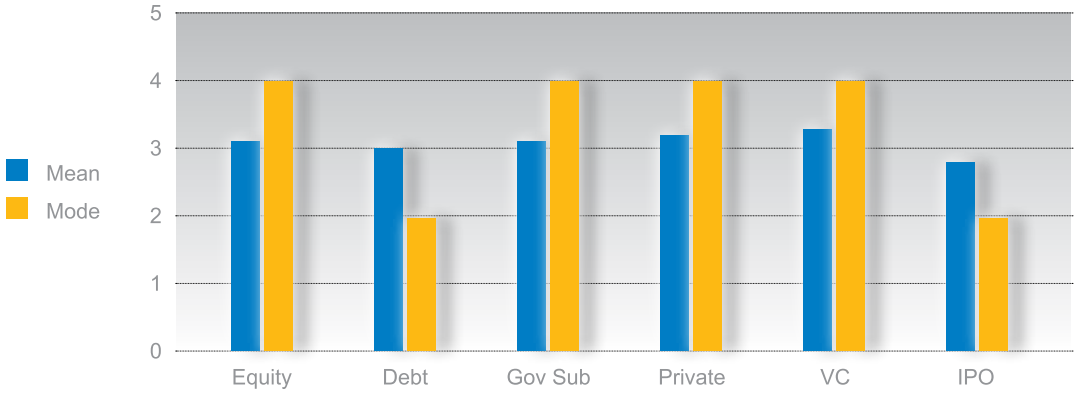
1. 'completely false',
2. 'partially false',
3. 'neither true nor false',
4. 'partially true',
5. 'completely true'.

These are coded on the 1-5 scale. Discussion here will focus on the *means* that assume a quasi-continuous underlying variable. Mean scores above 3 indicate *some agreement* with the statements. An alternative view is given by the modes that identify the evaluation of the statement given by the *largest number* of experts, a convergent group within the panel. The survey has been carefully validated for quantitative significance and international comparability. Finally, the experts provided open ended comments that were coded into categories.

7.1 FINANCE

Availability of finance is, of course, critical. The population survey has provided one possibly positive sign, the relatively high incidence of informal investing. However this needs to be put in the context of the combination of *equity, debt, and government subsidy IPOs and venture capital*. Questions to experts asked whether each of these was *sufficient* to Canadian needs. The score of 3 represents neither true nor false where 1 represents completely false and 5 completely true. The mean gives insight on balance of opinion and the mode emphasizes where a major group is converging. Finance question scores are summarized in Figure 7.1.

Figure 7.1 Sufficiency of Financial Sources.



7. FRAMEWORK FOR THE CANADIAN ENTREPRENEURSHIP ENVIRONMENT: NES

In comparison to last year, expert opinion is more positive. Means are near neutral to slightly positive. Only in the case of Debt and IPO funding did the largest number of experts make 2 the mode. There is some doubt as to whether IPO funding is important to first stage new firms. The conclusions here should probably be interpreted with an eye to analysis in the EY G20 Entrepreneurship Barometer[26] which finds Canada among the most favourable countries for finance, with the cost of starting a business dropping by a factor of two in recent years.
Data from the population survey (APS) includes evidence about 'business angels' who have contributed in the last three years to a venture not their own and not via share or mutual fund purchase. The participation rate in Canada was 5.5% which compares to 6.1% in the US and 5.1% in Australia (within standard error of each other). The UK rate was 2.1 %. These contributions would lie in the private category. Eighty-six such angels were found in the Canada survey. The median investment was $15,000 and ten of the 85 invested between $25,000 and $1 million. About 40% had family connections to the entrepreneur ('friends and family money'). This picture of angel investing seems consistent with the expert appraisal of the status of private investment.

7.2 GOVERNMENT POLICY AND PROGRAMS

Government policies were probed on five aspects:

- that government policies (e.g. procurement) consistently *favour new* firms,

- that the *support* of new and growing firms is a *national*, federal government, high priority,
- that *support* for new and growing firms are a high priority for *local government*,
- that new firms can get required permits and licences in about a week (*timeliness*),
- that the amount of *taxes* is NOT a burden for new and growing firms.
- Taxes and other regulations are applied in a predictable and *consistent* fashion.

Means and modes on the 1-5 scale, 1- completely false, 5 - completely true, are shown in Figure 7.2 along with data on government programs.

Scores generally lean to the negative side. Only consistency of regulation receives a mean score tending toward 'partially true'. For priority given by local governments, in the Canadian context either provincial and municipal or both, to new firms receives a mode of 4, 'partially true', despite a slightly negative mean, reflecting a split opinion. The experts believe policies such as procurement do not consistently favour new and growing firms. Issuing permits and licenses is not seen as timely (in contrast to conclusions drawn in EY[26].). This connects to an ongoing government conversation in Canada about reduction of 'red tape'. Experts feel reduction should continue. As to tax levels, the mean near neutral with a mode of 1 identifies a split of opinion. Nineteen respondents chose a degree of 'false' and fourteen chose a degree of 'true'. The split did not depend on province.

Government policies were probed for six characteristics:

- a wide range of services for new and growing firms can be obtained through a single agency,
- science parks and incubators provide effective support,
- an adequate number of program for new and growing firms,
- people working in government agencies are competent and effective in provision of support to new and growing firms,
- those needing government help for a new and growing business can find what they need and,
- programs supporting new and growing firms are effective.

7. FRAMEWORK FOR THE CANADIAN ENTREPRENEURSHIP ENVIRONMENT: NES

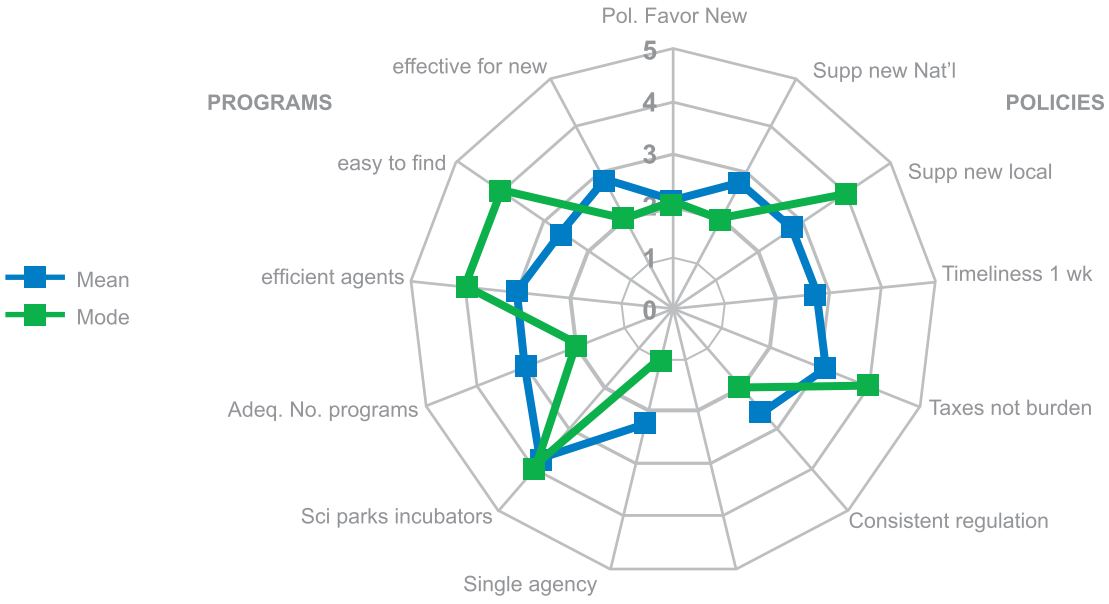
The experts believe policies such as procurement do not consistently favour new and growing firms.

7. FRAMEWORK FOR THE CANADIAN ENTREPRENEURSHIP ENVIRONMENT: NES

Provision of effective support for science parks and *incubators* is rated 'partially true' (4) by the largest number (with a mean of 3.7). Government workers (*agents*) are similarly judged (mode 4) 'competent and effective in supporting new and growing firms' (mean only 3). The statement, 'there are an adequate *number of government programs* for new and growing firms drew a positive score last year, but here falls to a neutral mean (3) and a negative mode (2). The question of satisfying needs draws a low mean and a higher mode indicating a significant split of opinions.

It is worth noting here that the recent Federal Budget offers new support for small firms in the form of reducing tax rates over the next few years from 11% to 9% . As well, expanded activity of the Business Development Bank of Canada (BDC) is foreseen. The BDC plays an important role in helping Canadian small and medium-sized enterprises grow and become more competitive, innovate, increase their efficiency and explore new markets, at home and abroad.

Figure 7.2 Government policy and programs.



7.3 EDUCATION AND TRAINING

The statements presented to experts look to issues about education and training as appropriate to each level. For the primary and secondary levels the initial issues are *encouragement of creativity self-sufficiency and initiative*. The mean score tends to neutral (2.7) with a positive mode. This is recognized as a commitment of school systems to independence and creativity. At later stages, introduction to *market economic principles* is added. The mean score falls to 2.2 or 'partially false'. Finally, adequate secondary schools attention to *entrepreneurship and new firm formation* is suggested and the score falls to 2.1 with the most frequent response (mode) at 'false' (1). *Clearly, Canadian school systems are not meeting the expectations GEM proposes in any area beyond basic creative attitudes, self-sufficiency, and initiative*. However, these three are central personal characteristics that may require more early and continuing attention than do the specific skills. The core characteristics may provide a good base for development of entrepreneurial thinking.

At the post-secondary level a distinction is drawn between college and university programs in general and business and management education. In the broad domains the statement is that preparation is *adequate for starting up and growing new firms*. The mean score has risen from 2.4 last year to 3.0 and the most common scoring (mode) is now 4, tending toward 'partially true'. A similar statement directed to business and management education receives a slightly better mean score of 3.3 (mode = 4). Finally, the statement directed toward professional, continuing and vocational education, draws a mean score of 3.1. It is notable that, in contrast to last year, over 10% of responses found this positive statement about post-secondary preparation 'completely true' (5).

The standards set by the phrasing of GEM propositions indicate that low scores require increased focus on entrepreneurial thinking and entrepreneurship in primary and secondary education, but the experts appear to recognize the significant new initiatives arising in post-secondary institutions.

Clearly, Canadian school systems are not meeting the expectations GEM proposes in any area beyond basic creative attitudes, self-sufficiency, and initiative.

7. FRAMEWORK FOR THE CANADIAN ENTREPRENEURSHIP ENVIRONMENT: NES

Expert opinion is clear that improvements are necessary, but it seems important to go beyond the coverage of the GEM propositions. *Policy for entrepreneurship education must be entrepreneurship for innovation. Moreover it must recognize the importance of social entrepreneurship, and 'intrapreneurship', entrepreneurial employees within firms. (This last a weak point for Canada according to the intrapreneurship(EEA) statistics reported above,)*

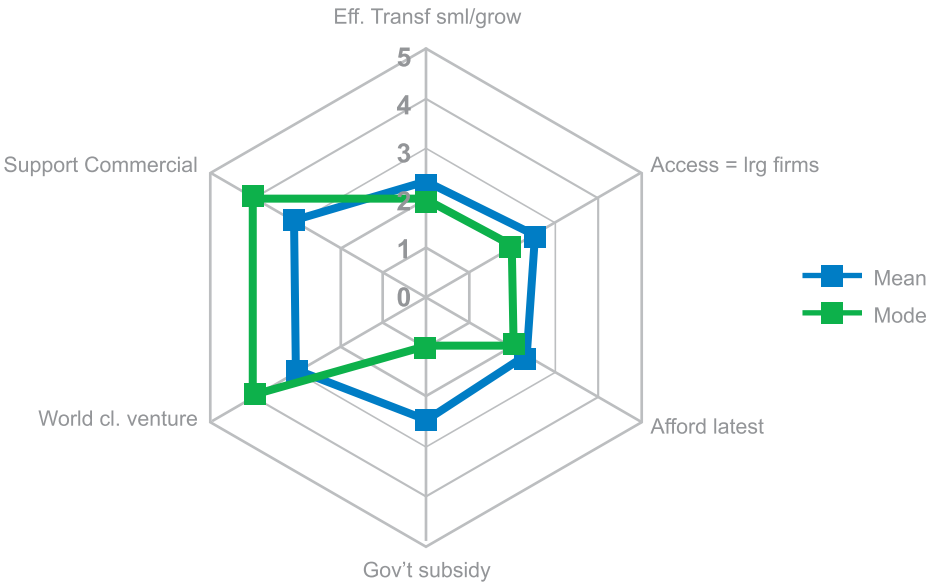
7.4 R&D TRANSFER

R&D transfer policies were probed on five aspects with five assertions:

- New Science &Technology (S&T) and other knowledge are efficiently transferred from universities and public research centres to new and growing firms;
- Growing firms have just as much access to new research and technology as large established firms;
- New and growing firms can afford latest technology;
- There are adequate government subsidies for new and growing firms to acquire technology;
- The S&T base efficiently supports the creation of world-class new technology based ventures in at least one area;
- There is good support available for engineers and scientists to have their ideas commercialized.

The data in Figure 7.3 show significantly negative reactions with respect to the first four of these propositions. Both public research centres and larger firms are not judged efficient it at making new research and technology available to small and growing firms, nor is the government subsidizing access. These results are consistent with the low level of use of the latest technology by entrepreneurs surveyed (see Chap. 3). There is more optimism about Canada's capacity to support a world class technology firm and for Canadian scientists and engineers to commercialize.

Figure 7.3 R & D Transfer.



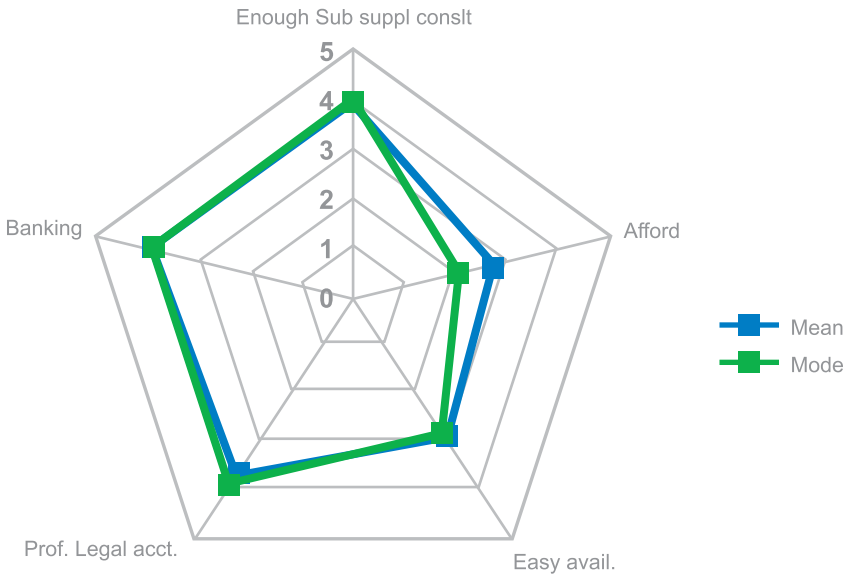
7.5 COMMERCIAL AND SERVICE INFRASTRUCTURE, MARKET OPERATION

In the important area of services and infrastructure, five needs are addressed:

- Subcontractors, suppliers, consultants -
  - There are enough,
  - Small and growing firms can afford them,
  - It is easy for small and growing firms to get these support services;
- It is easy for small and growing firms to get good professional legal and accounting;
- It is easy for small and growing firms to get good banking.

Experts give positive responses to supply of subcontractors, etc., legal and accounting, and banking services. There is less confidence about ease of access to subcontractors, suppliers and consultants and their affordability, results parallel to last years'. These probably reflect the common lack of resources facing a start-up.

Figure 7.4 Access to commercial services.

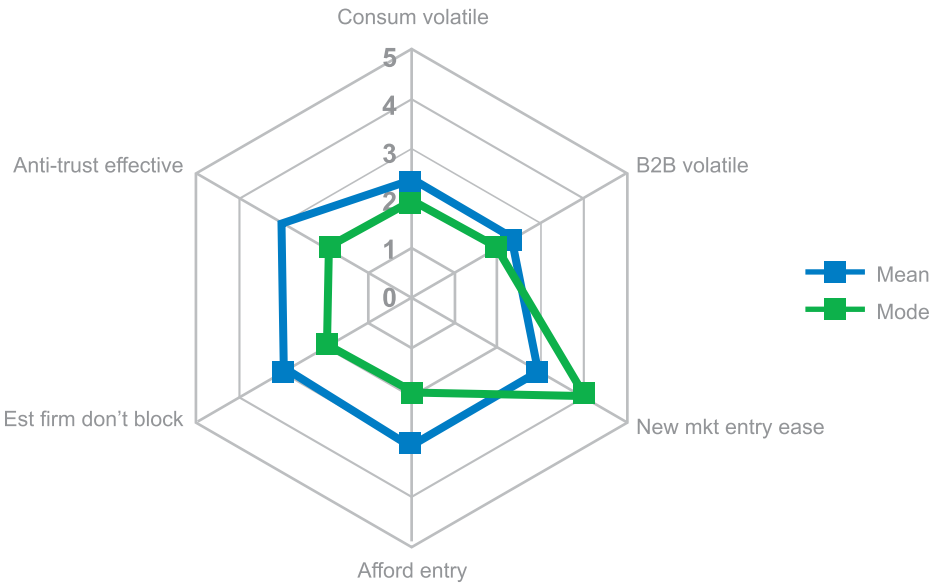


7.6 MARKET DYNAMICS

Market structures and market access are major framework factors influencing new firms that include volatility, ease and cost of entry to new markets, barriers from established firms, and the status of anti-trust (competition) legislation. Dynamics are covered in terms of market year to year change (volatility) for both consumer markets and business to business – B2B - markets. Entry involves ease and cost of entry to new markets. Barriers are those erected by established firms and those prevented by anti-trust protection. The expert evaluations are summarized in Figure 7.5. Markets are seen as moderately flexible and open, with cost of entry and established firm resistance seen as limiting. These reflect only small shifts from last year, with a slight increase in ease of entry and a lower score for consumer volatility.

This is again an interesting disagreement with data from the EY G20 Entrepreneurship Barometer[26]. that finds Canadian cost of entry low and reports a recent sharp decline. Canadian anti-trust protection is seen as marginally adequate.

Figure 7.5 Market dynamics for new and growing firms.



7.7 PHYSICAL INFRASTRUCTURE

Physical infrastructure for new and growing firms is appraised by the experts' views of five statements:

- Physical infrastructures provides good support;
- It is not too expensive to access good communication (phone, internet, etc.);
- A new firm can get access to communication (iPhone, etc.) in about a week;
- New and growing firms can afford basic utilities (gas, water, electricity, etc.);
- New and growing firms can get good access to basic utilities.

Similarly to last year, this is the most favourably rated area. All of these were found largely true in the Canadian environment with means of 4.2 except good access to utilities at 4.3 modes reached 5 for utility affordability and access for new and growing firms. This is an area of strength with evaluation higher than last year's good rankings. But the survey did not directly address whether it is easy to access leading edge communication technology and that may lie behind some of the reservations expressed.

7.8 CULTURAL AND SOCIAL NORMS

The fundamentals of Canadian national culture are regarded as reasonably favourable. Three statements command a reasonable degree of assent:

- Canadian culture is highly supportive of individual success achieved through personal effort;
- Canadian culture emphasizes self-sufficiency, autonomy and personal initiative;
- Canadian culture encourages creativity and innovativeness.

For these, mean scores decline from 3.6 for the first to 3.3 then to 3.0 for the third. The mode is 4 (partially true) for the first two and 2 (partially false) for the third (creativity and innovativeness). The fourth proposition is:

- Canadian culture encourages entrepreneurship and entrepreneurial risk taking.

It receives a more positive score with a mean of 3.3 and mode at 4, with a mode at 2, 'partially true'. The final proposition in this group proposes that:

- In Canadian culture, responsibility for managing his or her own affairs lies with the individual (rather than the collective).

The mean is 3.3 and the mode is 4. A clear split of opinion leads to a small margin for 'partly true over 'partly false' with a few completely true responses. This split probably reveals a well- known fault line in Canadian politics.

The work-life relationship is a second dimension of the social environment. Do social, political and cultural conditions in Canada allow harmonization of personal and working life? Experts are divided (mean 2.7). The idea that labour regulations support this is supported (mean 3.0).

The related dimensions are whether entrepreneurs' work and personal life compares favourably to non-entrepreneurs. The expert diagnosis is affirmative (means, 3.8 and 3.2).

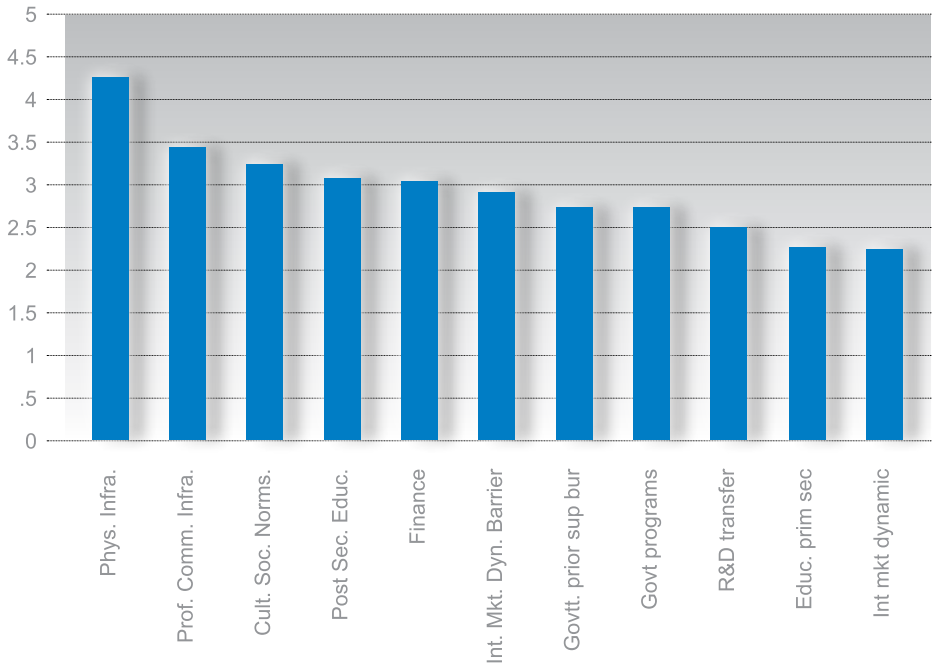
7.9 MEAN EXPERT OVERALL RATINGS OF THE AREAS OF FRAMEWORK CONDITIONS

Beyond the expert appraisal of the detailed framework condition issues the entrepreneurs face; it is useful to take an overview of the areas and their relative ratings. GEM defines twelve groupings of framework conditions (variables in the above sections) for establishing this profile. The grouped variables are as follows:

- Financial
- Gov't policies - concrete
- Gov't policies – priority, bureaucracy
- Gov't programs
- Education and training – primary, secondary
- Education and training – post-secondary, vocational
- R&D transfer
- Professional & commercial infrastructure
- Internal market dynamics – summary
- Internal market dynamics – barriers
- Physical infrastructure
- Cultural and social norms (for entrepreneurship)

The ordering of means for these grouped variables are shown in Figure 7.6. As was the case last year, the highest rated framework condition in Canada is physical infrastructure for the young and growing firms. This is followed by professional and commercial infrastructure, cultural and social norms and post-secondary education for entrepreneurship, and finance as the ones above the totally neutral score of 3.0. This represents improvement of the ratings for both post-secondary education and finance compared to opinion last year. As was the case last year, both R&D transfer and Primary and secondary education for entrepreneurship are ranked low.

Figure 7.6 Mean expert rankings of framework condition variables.

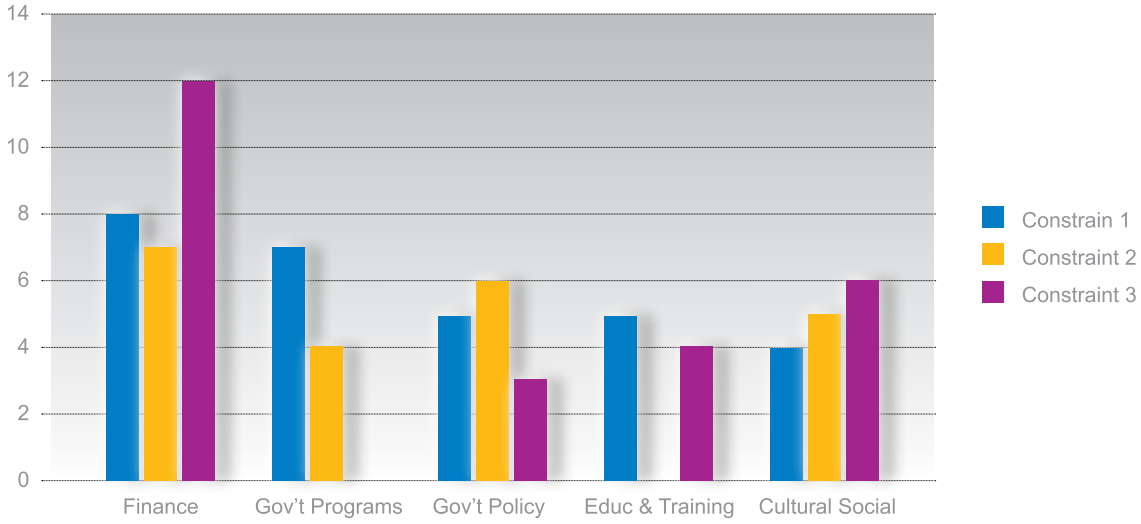


7.10 OPEN-ENDED COMMENT: CONSTRAINTS, FACILITATING FACTORS AND RECOMMENDATIONS.

After completing the structured questions, NES expert respondents were asked to provide open-ended comments identifying constraints entrepreneurs face, *facilitating factors* supporting entrepreneurship, and their own *recommendations* for modification of framework conditions. A wide variety of ideas emerged. Their richness cannot be represented here, but the responses were coded as fitting one of fourteen topics and the areas of concern can be recognized in the frequency of mention of each of these topics. In each case, experts were asked to give three ideas in a priority order of first in importance to third. A relatively small number of topics dominated these responses.

In the case of constraints on entrepreneurs, five of the fourteen were multiply represented. Figure 7.7 presents the number of incidences of each of these. Despite relatively positive comments above about finance available for entrepreneurs, twenty nine comments identified financial constraints, more of these as the third priority of the expert. Much of the government role was seen as constraining in twenty two responses, evenly divided between policy and programs. Limits on education and training drew nine comments at first and third priority. Finally the cultural and social norms faced by entrepreneurs were as limiting by fifteen, in contrast to the very positive climate reported in the APS attitudes survey.

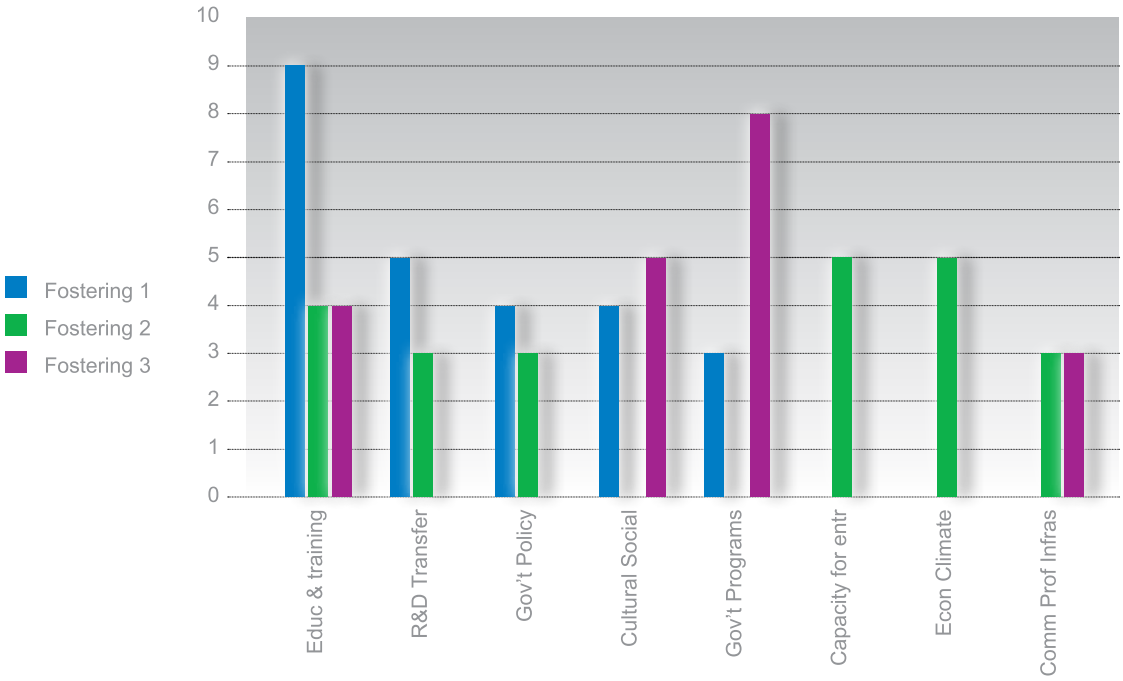
Figure 7.7 Framework conditions seen by experts as constraining.



7. FRAMEWORK FOR THE CANADIAN ENTREPRENEURSHIP ENVIRONMENT: NES

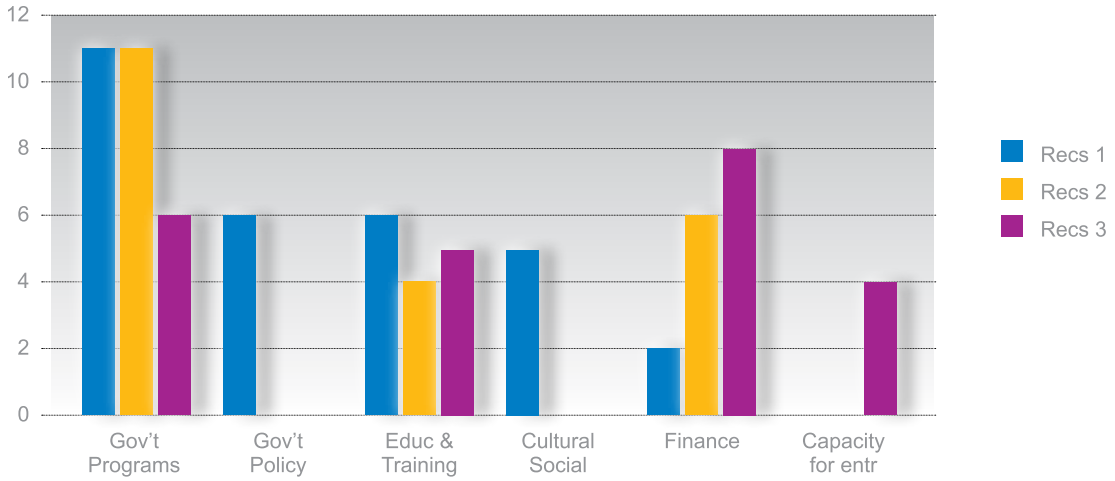
Figure 7.8 presents the contrasting situation of framework conditions that foster entrepreneurship in one way or another. Education and training, R&D transfer, both government policies and programs, and the cultural and social climate were seen as areas where conditions could foster entrepreneurship. None of these were areas where the present conditions were highly rated above. Finding good aspects in the detailed open comments probably reflects the importance experts attach to the areas. The remaining three were capacity for entrepreneurship, the economic climate (understandable in 2014), and commercial and professional infrastructure (which was rated positively above).

Figure 7.8 Framework conditions fostering entrepreneurship.



Expert recommendations for policy and action were focused in six areas, all mentioned above in constraints and/or fostering factors. Not surprisingly, recommendations directed to government, policy and programs, led the list. The next area of emphasis was recommendations related to education and training. Sixteen recommendations related to finance were proposed and a few related to the cultural and social norms, and to capacity for entrepreneurship completing the list of prominent areas of recommendation. Data are shown in Figure 7.9.

Figure 7.9 Main areas of expert recommendations.



Finally, it may be worth noting that with thirty-six experts and fourteen areas each expert had the opportunity (not always exercised) to touch upon almost eight areas in responses to each of the three questions. Overall, this supported the rich variety of comment.

8. CONCLUSIONS AND IMPLICATIONS

CULTURE

In common with reference countries, the APS data continue to demonstrate wide public recognition of the opportunities for entrepreneurship, and the capacity (in contrast to expert opinion) to undertake ventures. Entrepreneurship is seen as a good career choice and success delivers high social status. There is little reason for policy to further encourage an overall culture of entrepreneurship. Rather attention should be directed to high impact ,quality initiatives encouraging productive entrepreneurship and innovation.

ACTIVITY

In common with the other leaders, the US and Australia, 2014 data indicate a small, but possibly significant, increase in TEA. This overall level is perhaps as high as is needed in a developed market economy. However, the TEA includes a higher number of nascent entrepreneurs than new businesses. The TEA is strongly reflecting the highest risk most vulnerable phase.

FINANCE

Expert opinion suggests that the framework conditions surrounding finance are somewhat improved. However, ratings are not high and expert identify finance constraints in open ended comment. Finance remains an important area for policy development, especially in a fluid era with the emergence of such phenomena as crowd financing through social media.

GOVERNMENT POLICY

Experts offer a variety of suggestions. Perhaps the most important aspect for policy is assimilation of the consequences of the recent research[27] showing that governments play a crucial role in accepting the early phase risks of transformative innovation. For example, programs at all levels could promote the rapidly emerging green technology industry in Canada as a transformative sector.

EDUCATION

The Canadian education systems, from the earliest levels, are suitably creativity oriented, but lacking in specific basic economic education and introduction to entrepreneurship itself. Encouragement to entrepreneurship education is a recognized need. An improving expert appraisal at the post-secondary level may reflect a stirring across Canada to improve university level entrepreneurship education. However, it is important to realize the overall goals of public policy: jobs, growth, sustainability and quality of life. Entrepreneurship education must orient attitudes toward 'productive entrepreneurship' (Baumol) and innovation. As Shane[19] has shown, the simple act of entrepreneurship does not produce positive economic outcomes in many cases. The weakness of employee entrepreneurship (EEA) emphasizes the broad significance of entrepreneurial thinking. Thus, the goal for education is fostering an *entrepreneurial attitude* supporting productive entrepreneurship whether in founding innovative firms, engaging in social entrepreneurship or the entrepreneurial recognition of innovative opportunities in employment contexts and cultivating skills to develop them. At the post-secondary level this recommends interdisciplinary initiatives.

INNOVATION

There is a measure of innovation in every entrepreneurial act, an opportunity has been recognized. However, substantial innovation is not commonly achieved by firms that remain small. A key indicator is growth aspiration. It emerged above that a significant number of new initiatives intend job growth, but large job growth is rare and conclusions based on the small number of respondents with high growth ambitions are anecdotal at best. Some cases in the data with high growth ambitions were described above. Beyond this a good share of TEA respondents indicated products or processes new to all or most customers. The sector distribution with lesser emphasis on consumer services (the area where counterproductive entrepreneurship[13].is most likely to arise) than the comparable countries suggests activity in areas favourable for innovation, especially including the "knowledge intensive business services" (KIBS) sector. The negative aspect is the

8. CONCLUSIONS AND IMPLICATIONS

The Canadian education systems, from the earliest levels, are suitably creativity oriented, but lacking in specific basic economic education and introduction to entrepreneurship itself.

8. CONCLUSIONS AND IMPLICATIONS

comparatively low level of entrepreneurial employee activity (EEA). A key document on innovation in Canada was published in 2013[28] by the Ottawa based Institute for Science and Public Policy. Developed by a group led by Richard Hawkins, it was circulated for endorsement by the majority of leading innovation scholars in Canada. It argues for uniquely Canadian innovation policy noting:

> *"We should remember Canada's great achievements as an innovative society. Canada became an agricultural superpower out of soil that Captain Palliser concluded would never grow anything. The streets of Quebec gave birth to the Cirque du Soleil, making Canada, of all places, the hub of a global multi-billion dollar circus arts industry. The humble snowmobile gave rise to one of the largest civil aviation and public transport clusters in the world. Canada is one of the world's largest exporters of English and French language media content. It has a thriving biotech sector. It manufactures oils out of [both] sand and seeds."*

The document reminds us that innovation is not by any means technology dominated. It also points out the merits of policy focus on Canada's geopolitical-economic ecosystem. This should favour policy attention to initiatives that are 'sticky' to the environment and not simply the internationally 'hottest' areas.

RESEARCH AND DEVELOPMENT

Basic R&D is strong as the Council of Canadian Academies study, The State of Science and Technology in Canada[29], shows:

> *With less than 0.5 per cent of the world's population, Canada produces 4.1 per cent of the world's research papers and nearly 5 per cent of the world's most frequently cited papers.*

However, Industry Canada's Science Technology and Innovation Council[30] takes a more pessimistic view suggesting Canada is 'treading water' with major concerns for business performance of Research and Development (BERD) as a share of GDP and business investment in Information and Communications Technologies. The NES experts are aware of both of these views and generally give a consistent appraisal of the entrepreneurial situation. Their main points would recommend action to make science and technology knowledge more readily available to small growth firms.

CULTURE AND SOCIAL NORMS

There is a curious split. The survey of the general population seems quite positive about the opportunities, whether entrepreneurship is a good career, and how it is treated in the media. Nevertheless, some experts express significant reservations while others see aspects of culture as facilitating factors. This is, perhaps, best understood in distinguishing types of activity. The positive public attitude is probably a mix of the sense of opportunity to start a small (local?) business and admiration of the highly successful 'celebrity entrepreneurs. In contrast, expert opinion is more concerned about the climate of support for a middle ground entrepreneur who is creative even if not spectacular. Perhaps the best answer to this dichotomy is the recommendation from Shane[19]. That governments sharpen their focus on scalable, growth oriented initiatives.

8. CONCLUSIONS AND IMPLICATIONS

NOTES

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Although GEM data were used in the preparation of this report, their interpretation and use are the sole responsibility of the authors and the GEM Canada team.

In addition to the 2014 GEM Canada report, there will be provincial reports published for Alberta, Ontario, Quebec and Nova Scotia. These will be available at www.gemcanada.org in due course.

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