

HOW ENTREPRENEURIAL WAS IRELAND IN 2004?



Global Entrepreneurship Monitor (GEM)

The Irish Annual Report

*Paula Fitzsimons
Colm O'Gorman*

Sponsored by:



How Entrepreneurial was Ireland in 2004?

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The Irish Annual Report

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Executive Summary

The important contribution that Irish entrepreneurs are now making in terms of economic, societal and personal benefits are evident from this review of their activity for 2004. The further potential that they can make is evident from the role that they play and the contributions that they make to wealth and employment creation in other high income countries, such as the United States.

It is against this background that the GEM Irish national team are pleased to present the findings of their 2004 research. The level of entrepreneurial activity in Ireland in 2004 is analysed in depth and is compared to that in other high income countries. It is also tracked over time to detect changes and the early emergence of trends.

The 2004 annual report is more extensive than in previous years and includes an in-depth comparison with Finland, which has been written with the collaboration of the Finnish national team (Section 6).

GEM provides policy makers and others interested in entrepreneurship with a level of detailed information about entrepreneurship that was simply not available previously. We thank our sponsors, Enterprise Ireland and InterTradeIreland, for continuing to make this possible.

The summary results for Ireland in 2004 (Section 1) give an indication of the scale of the activity involved:

- The level of entrepreneurial activity (Total Entrepreneurial Activity Rate or TEA) in Ireland in 2004 is 7.70%.
- Approximately 193,000 individuals in Ireland are actively planning to set up a

new business and are in the process of doing so, or have set up a new business over the 42 months prior to the GEM adult population survey.

- There are almost 2,000 new businesses being started in Ireland every month.
- Over 100,000 new jobs were created in Ireland in 2004 as a result of the entrepreneurial activity of Irish people. These jobs are created throughout the country in a variety of sectors and in new enterprises of different sizes and ambitions.¹
- 13% of all entrepreneurs expect to employ at least 20 people within five years of start-up and one in twenty new firm entrepreneurs already employs 20 or more.
- Of new firm entrepreneurs, four out of every five have already generated some export sales within 42 months of starting their new businesses. Of these 24,000 or 29% currently export more than 50% of their output.
- GEM estimates that informal investment activity in Ireland over the last three years amounts to at least one billion euro. In addition, entrepreneurs have invested at least the same amount themselves in their new businesses.

In each of the last four years GEM research has detected a slight slowing down in the rate of entrepreneurial activity in Ireland. This downward trend continued in 2004, but should not be overstated, as Ireland still remains one of the most entrepreneurially active of the EU countries. While the number of new business owners fell by a smaller

¹ GEM includes within its definition of entrepreneurship all kinds of independent start up activity, including self-employment.

percent, the fall in the number of entrepreneurs is primarily associated with a decline in the numbers of those actively planning to start a new business. Moreover, the percentage of the population that is considering becoming an entrepreneur in the next three years is lower than in many European countries.

These are worrying trends, as it is clear that going forward Ireland will need to maintain, if not increase, the number of entrepreneurs in the country, particularly within Business Services.

Ireland's TEA rate is ranked 7th of the 22 OECD countries² that participated in the GEM project in 2004, and second to Poland among the participating EU member states.³

GEM research demonstrates that the level of entrepreneurial activity varies depending on a country's relative income level. Comparing Ireland with other high income countries, it is apparent that the entrepreneurial activity rate in Ireland is significantly behind that of the most entrepreneurial of the high income countries, namely the US, Australia and New Zealand. Yet these countries actively encourage further increases in their levels of entrepreneurship, as high levels of entrepreneurship are perceived to be positively associated with growth, and with wealth and employment creation.

Section 2 examines the environment for entrepreneurship in Ireland in 2004 and finds much to celebrate and some areas in need of improvement.

Ireland has many positive features which indicate that it is well placed to support more entrepreneurial activity:

- The current and projected growth in the population,
- The age structure of the population,
- A buoyant economy,

- The positive predisposition of individuals in Ireland towards entrepreneurship,
- A positive cultural context in that entrepreneurs and entrepreneurial activity are held in high regard,
- Very positive media coverage within the country,
- Many aspects of government policy that are supportive of entrepreneurs and entrepreneurial activity, for example a pro-business attitude, continuing low interest rates, and a fiscal regime that does not penalize success,
- Government programmes that support entrepreneurs,
- A range of benefits flowing from the strong high-tech FDI presence in the country,
- A highly skilled workforce,
- A vibrant capital city, and
- A growing range of networks and advisors.

Set against these very positive features in the environment, however, are other less positive features, which include the following:

- In particular, the lack of an entrepreneurship policy results in a lack of *stitched up thinking* in and across Departments and development agencies which does not optimise the considerable investment currently being made in this area and hinders the entrepreneur by adding time and cost to his activities.
- The educational sector is not perceived to reinforce the strong entrepreneurial culture, as it inadequately supports entrepreneurship and fails to prepare

² The OECD 22 group consists of (in rank order) New Zealand, Iceland, Australia, United States, Canada, Poland, Ireland, Norway, United Kingdom, France, Greece, Denmark, Spain, Netherlands, Germany, Finland, Italy, Hungary, Portugal, Sweden, Belgium, and Japan.

³ The EU pre-accession Member States that participated in GEM in 2004 were Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden and the UK. Of the new Member States, Hungary and Poland are included.

individuals sufficiently for an entrepreneurial career.

- The clearly identified skills deficit in respect of entrepreneurs is not being tackled in any systematic way.
- The increasing regulatory burden that is flowing from the EU and Government is adding to the cost and difficulties for new firms.
- There are gaps in the information available to entrepreneurs and in their knowledge of where to access the available information
- Specific shortcomings in the development agencies, related to their coordination, the appropriateness of the background and experience of many of their executives, and the time and effort required to access their support, are considered to impose unnecessary difficulties on entrepreneurs.

Other weaknesses within the environment include the following:

- The high cost economy,
- The limited size of the home market,
- Physical infrastructure deficits that impact on international trade,
- Skills gaps in the labour force, and
- Difficulties in accessing finance.

These factors are negatively affecting the time and cost of setting up and running a business in Ireland and are impacting on both competitiveness and profitability.

GEM research illustrates that most entrepreneurs require relatively small amounts of money to start their new business (Section 3). The most important source of this finance is the entrepreneurs own resources, which includes the savings and the personal borrowings of the entrepreneur. In seeking external finance most entrepreneurs will rely on informal investment from family and friends.

There are also a group of entrepreneurs that have more significant financing requirements, amounts which the entrepreneur may typically find difficult to self-finance. These entrepreneurs are more dependent on external finance from informal investors, banks, development agencies, and in a small number of cases, from venture capitalists.

The policy challenge arises as GEM highlights the fact that the availability of funds for new ventures is comparatively low in Ireland. Relative to other countries both the rate of informal investment activity and the overall amounts of informal investment activity are both low. Specifically, GEM suggests the availability of informal investment is particularly low as a percentage of the funding requirements of nascent entrepreneurs.

Furthermore, GEM research suggests that the overall level of formal venture capital activity in Ireland and the individual deal size is relatively low. This finding reflects the view of many of the entrepreneurs consulted. In the view of some of the experts and some venture capitalists consulted, however, the reality is a shortage of investment prospects, rather than a lack of venture capital funds to be invested.

Irish Government policy is particularly focused on encouraging new innovative enterprises that have growth potential and are export oriented (Section 4). This in the main is the focus of the development agencies' supports. GEM suggests that in Ireland there is a much larger group of entrepreneurs currently exhibiting these characteristics than may currently be clients of the development agencies. This is apparent in the large number of new enterprises that have export customers and have aspirations to, or are currently employing more than 20 persons.

The real shortcoming among this group of entrepreneurs appears to be in the lack of balanced entrepreneurial teams, a shortage in the selling, communication and language skills necessary to develop export markets, and a lack of commercial skills among the technically

qualified entrepreneurs on whom Enterprise Ireland, in particular, focuses.

There are also difficulties around the area of technology transfer and the conversion of research into commercially viable new enterprises.

Much of the discussion on growth focuses on the need to have new enterprises aspire to employ more than twenty people within a relatively short time frame. A relatively high proportion of entrepreneurs within Ireland would appear to have this aspiration. There would appear to be a related challenge of a different magnitude. That is to develop a cadre of entrepreneurs with global scale as their objective. In this Ireland is less strong.

The proportion of women who have set up new businesses in Ireland is particularly low relative to the number set up by men and is also low compared to the percentage of women involved in entrepreneurial activity in the most entrepreneurially dynamic of the high income countries (Section 5). For the first time in three years, however, this year GEM detected an increase in the number of women actively considering becoming entrepreneurs.

The personal context of women in Ireland with regard to their perception of opportunities for new commercial enterprise, their perception of their own abilities, and the personal acquaintance with an entrepreneur is considerably weaker than it is for men. Their fear of failure is also higher.

In at least half the cases women are becoming entrepreneurs after being employed part time or having been full time engaged in the home, whereas men more typically are coming from a background of full time paid employment. Women entrepreneurs are often more highly educated than their male counterparts.

Women have less money to invest in their fledgling businesses and are more reliant on external sources, namely the banks and family members for funding. As their enterprises tend to be less growth and export oriented, women entrepreneurs are eligible less often than their male counterparts for funding support from the development agencies.

In many entrepreneurial of the high income countries, for example the US, active measures are being taken to further increase the number of women active as entrepreneurs and to help these to develop sustainable businesses, despite the fact that the number of women entrepreneurs in these countries is already high.

The Irish GEM team consulted 75 leading experts and entrepreneurs during 2004 to ascertain their views about the current ‘ ‘ state of the nation’ ’ with regard to entrepreneurship in Ireland. These experts and entrepreneurs were invited to give their opinion as to what they considered needed to be done to improve the environment for entrepreneurial activity and to encourage more entrepreneurs in Ireland. Their recommendations are detailed in Section 7.

Section 8 sets out the rationale that lies behind the recommendations of the Irish GEM team for Ireland. There is a consistency between what many of the experts and entrepreneurs consulted are recommending and what the Irish GEM team is recommending, having considered not only the results for Ireland but also those available across other high income countries and the findings of GEM research at Global level.

The first recommendation, which calls for the development of a systematic and all embracing review of entrepreneurship policy and supports, would compliment the review which has recently been carried out by the Enterprise Strategy Group, and would focus in particular on entrepreneurial activity within the country. The benefits of a highly thriving entrepreneurial sector are well documented and are being actively embraced by policy makers in many high income countries – even in those which have much higher levels of entrepreneurial activity compared to Ireland.

The EU has emphasized the challenge to coordinate entrepreneurship policy as it embraces very many Ministers, Government Departments and development agencies.

Finland has an interesting model in this regard which could merit further examination.

A comprehensive national policy for entrepreneurship should be developed.

Such a policy would inter alia spell out

- The economic, societal and personal benefits that are targeted through the Government's substantial commitment to this activity and the means by which these will be measured.
- Barriers within the environment that hamper entrepreneurship or add additional costs to entrepreneurs should be identified and lessened or removed, as appropriate.
- The wide range of programmes and other supports currently in place to encourage entrepreneurship (fiscal, educational, financial, and advisory among others), would be reviewed in terms of their effectiveness and efficiency.
- An examination of the manner in which the existing supports are coordinated and structured should be made, at present these range across several Departments and agencies, and proposals made as necessary to further coordinate these in order to improve their efficiency and effectiveness.

In summary, the other recommendations that are being proposed for Ireland by the Irish GEM team are as follows:

- **The skills deficit must be tackled**

There is clearly a skills deficit surrounding entrepreneurship of different types, which needs to be tackled. The initiatives developed must be appropriate to particular groups of entrepreneurs and their needs. (For

example, the skill needs of an entrepreneur starting and developing a micro-enterprise focused on local markets will be quite different to that of an entrepreneur who is starting a knowledge intensive new business, directed primarily at export markets.) This might be carried out within an overall series of educational and training initiatives designed to develop both the required skills and confidence in individuals, through the formal general education system and through entrepreneurial specific initiatives.

- **Finance for new businesses must be made more available**

The availability of pre- and start-up seed capital for different types of business' needs should be reviewed and any gaps in the availability of financing should be addressed. The relative attractiveness for investors of investing in early stage enterprises should also be examined and the risk/reward of such investment made more attractive as necessary.

- **More women must be actively encouraged and supported to become entrepreneurs**

Ireland should seek to learn from the experience of other countries that have successfully supported a higher level of women entrepreneurs. The barriers preventing a greater involvement by women in entrepreneurial activity should be systematically identified and removed.

- **Means of transferring the significant research, technological development and innovation (RTDI) investment, currently being implemented, into new entrepreneurial initiatives should be actively encouraged and any barriers to its transfer should be identified and removed.**

PART ONE

SECTION 1

Level of Entrepreneurial Activity in Ireland in 2004

1.1 Introduction

This section examines in detail the current levels of entrepreneurial activity in Ireland and compares these with those prevailing in a range of other countries – primarily within the EU and across the 22 participating OECD countries. Questions are addressed as to whether Ireland needs more entrepreneurs and if it does whether it is well placed to encourage a higher level of entrepreneurial activity.

1.2 Current Levels of Entrepreneurial Activity in Ireland

The level of entrepreneurial activity (Total Entrepreneurial Activity Rate or TEA) in Ireland in 2004 is 7.70%. That is one in thirteen of the adult population aged between 18 and 65 are either actively planning to start a new business or have recently done so. This means that approximately 193,000 individuals in Ireland are actively planning to set up a new business and are in the process of doing so, or have set up a new business over the 42 months prior to the GEM adult population survey⁴.

One would expect that more people plan to set up a business than in fact do so and GEM research shows this to be the case. There are approximately 110,000 nascent entrepreneurs in the process of starting a new business or actively planning to do so. Typically, nascent entrepreneurs are still in full-time employment. In addition, a further 83,000 new firm

entrepreneurs have started a new business, of which they are the owner-manager, within the previous 42 months. This is the equivalent of almost 2,000 new businesses being started in Ireland every month.

In addition to those starting a new business, GEM research is also able to identify those who have set up new businesses in the past⁵. GEM Ireland estimates that 6.5% (163,000) of the adult population are owner-managers of businesses that are longer established and are still in existence.

In each of the last four years GEM research has detected a slight slowing down of entrepreneurial activity in Ireland (Table 1). This downward trend continued in 2004, but should not be overstated as Ireland still remains one of the most entrepreneurially active of the EU countries. The fall in the number of entrepreneurs is primarily associated with a decline in the numbers of those actively planning to start a new business, while the number of new business owners fell by a much smaller percent.

The fact that the number of those planning to start a new business continues to fall may be expected to have a negative impact on the number of new businesses established in the years ahead.

⁴ The GEM survey of 2,000 adults was conducted in Ireland in the summer of 2004 by Lansdowne Market Research and by IFF Ltd.

⁵ Defined as more than 42 months old.

Table 1: Entrepreneurial Activity in Ireland 2001-2004

Measure of Entrepreneurial Activity ⁶	2001	2002	2003	2004
TEA	12.20%	9.14%	8.10%	7.70%
Nascent Entrepreneurs	7.34%	5.66%	5.10%	4.39%
New Firm Entrepreneurs	4.88%	4.20%	3.76%	3.59%

1.3 How Do Entrepreneurial Activity Levels in Ireland Compare with Other Countries?

Ireland's TEA rate is ranked 7th of the 22 OECD countries⁷ that participated in the GEM project in 2004. Countries that rank higher are New Zealand, Iceland, Australia, US, Canada and Poland (Table 4 at the end of this Section).

Compared to other EU countries that participated in GEM in 2004⁸, Ireland ranked second to Poland and ranks first among the pre-accession EU states (EU (15)). There is a much higher level of entrepreneurship through necessity in Poland (35%), however, than is the case in Ireland (13%). In general, entrepreneurship, which occurs as a positive choice in response to an identified commercial opportunity, is associated more closely with positive economic benefits than is entrepreneurship that is driven by necessity and a lack of choice.

1.4 Is More Entrepreneurial Activity to be Desired?

The answer to this question depends very much on a country's level of national income and relative stage of development, according to GEM research.⁹

If one were to divide the countries involved in the GEM research into three groups based on these criteria one might expect to see the following patterns:

- (i) In developing countries one might expect to have high rates of entrepreneurial activity, motivated to a

large degree by necessity, because of the relatively few alternatives available for paid-employment in those countries.

- (ii) As a country develops, the rate of necessity entrepreneurial activity might be expected to decline, as greater economies of scale become possible. The growth of larger firms is facilitated by better transportation and communications systems and by the emergence of more sophisticated credit markets. The emergence of larger firms means that fewer entrepreneurs can provide more employment to others, thereby lessening the need for a high proportion of the population to make a livelihood through self-employment, as had previously been the case. For countries within this income group, it can therefore be expected that fewer people will need or will want to start new businesses.
- (iii) As a county becomes wealthier and its economy further develops, there is a shift away from larger firms and the importance of entrepreneurial activity increases.

The authors of the GEM 2004 Executive Report explain the reasons why this is the case:

‘ ‘ Virtually all of the (high income) industrialised market economies have experienced a decline in manufacturing during the last thirty years. This leads naturally to downsizing. At the same time there has been a corresponding expansion

⁶ Nascent entrepreneurs and new firm entrepreneurs sum to greater than TEA as individuals who are both nascent and new firm entrepreneurs are only counted once in calculating TEA.

⁷ The OECD 22 group consists of (in rank order) New Zealand, Iceland, Australia, United States, Canada, Poland, Ireland, Norway, United Kingdom, France, Greece, Denmark, Spain, Netherlands, Germany, Finland, Italy, Hungary, Portugal Sweden, Belgium, Japan.

⁸ The EU pre-accession Member States that participated in GEM in 2004 were Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden and the UK. Of the new Member States, Hungary and Poland are included.

⁹ Global Entrepreneurship Monitor, 2004 Executive Report, Zoltan Acs, Pia Arenius, Michael Hay and Maria Minniti, January 2005.

of the business services sector. Service firms tend to be smaller than manufacturing firms: therefore, the average size of firms within a country is likely to decline as well. Moreover, service firms provide more opportunity for entrepreneurship as improvement in information technology, communications . . . make it less expensive and less time consuming for geographically disparate individuals to exchange information and do business' ' .

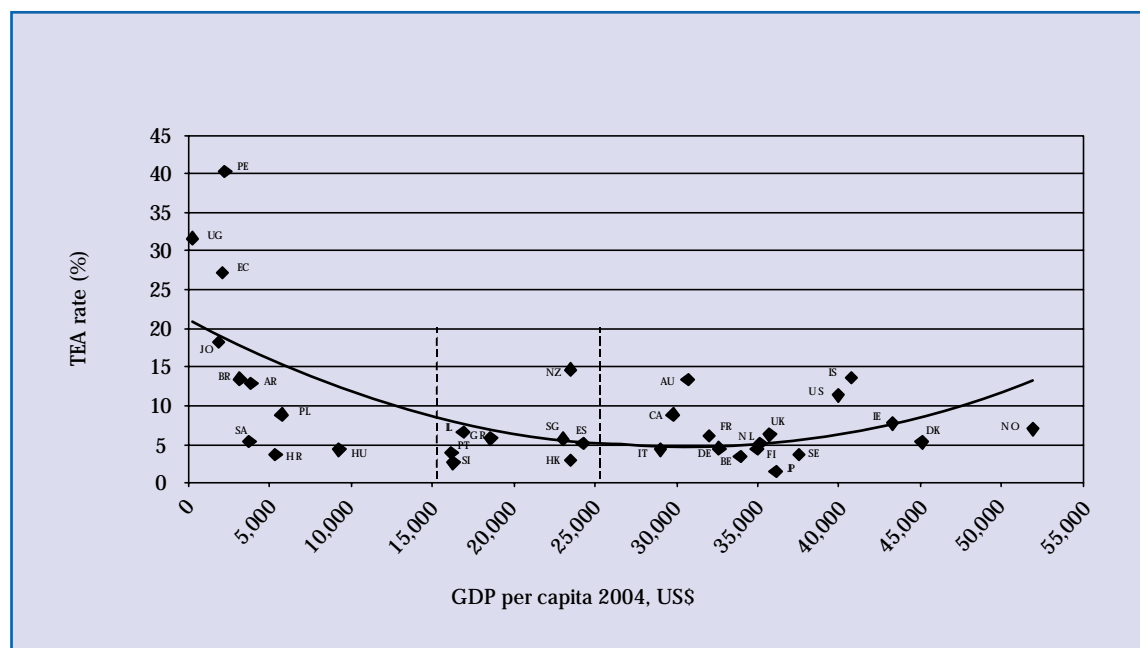
According to this logic, in economies where the business services sector is growing entrepreneurial activity will be positively related to an increase in per capita income. GEM research shows that this in fact to be the case. In high income countries more than half of all entrepreneurial activity is focused on two sectors, namely Business Services and Retail, Hotels and Restaurants.

Figure 1 reproduced from the GEM Executive Report 2004, shows that the rate of entrepreneurship does indeed differ across

countries. Evidence presented in this report demonstrates the existence of a U – shaped relationship between TEA and national income as entrepreneurship is highest in the countries with the lowest national income, declines in the middle income group and begins to increase as the national income level rises (Table 2).

Given this context, it is not surprising that the EU is actively championing entrepreneurship throughout the Member States. The EU Action Plan¹⁰, which is the Commission's blueprint for developing a more entrepreneurial and vibrant community wide environment, lists a range of benefits that it perceives as flowing from entrepreneurial activity: – growth, firm survival, innovation, employment creation, technological change, productivity increases, and exports. It is also perceived by the Commission as a vehicle for personal development and a means of harnessing social cohesion. To these could also be added its contribution to balanced regional development and greater consumer choice.

Figure 1: Total Entrepreneurial Activity 2004 By Economic Development and Fitted Parabolic Trend



Source: 2004 GEM Executive Report (34 countries included).

¹⁰ 'Action Plan: The European agenda for entrepreneurship', EU Commission, March 2004.

Table 2: Income level (GDP per capita)

	Low	Middle	High
Above the curve	Peru: (PE) Uganda: (UG) Ecuador: (EC) India: (IN)*	New Zealand: (NZ)	Canada: (CA) Australia: (AU) Iceland: (IS) United States: (US)
On the curve	Jordan: (JO) Brazil: (BR) Argentina: (AR)	Israel: (IL) Greece: (GR) Singapore: (SG) Spain: (ES)	France: (FR) Germany: (DE) Netherlands: (NL) Belgium: (BE) United Kingdom: (UK) Finland: (FI) Ireland: (IE) Italy: (IT)
Below the curve	Poland: (PO) South Africa: (ZA) Croatia: (HR) Hungary: (HU) China: (CN)*	Slovenia: (SL) Portugal: (PT) Hong Kong: (HK)	Japan: (JP) Sweden: (SE) Denmark: (DK) Norway: (NO)

*Not in 2004 cycle.

1.5 Does Ireland Need More Entrepreneurs?

Irish entrepreneurs contribute on an ongoing basis to employment creation. GEM research estimates that over 110,000 new jobs are created each year in Ireland as a result of the entrepreneurial activity of Irish people. The number of jobs created may vary slightly from year to year but this is the underlying annual figure. These jobs are created throughout the country in a variety of sectors and in new enterprises of different sizes and ambitions.¹¹ Moreover, GEM estimates that informal investment activity in Ireland during the previous three years amounts to 0.67 of one percent of 2004 GDP, or at least one billion euros. In addition, entrepreneurs invest at least this amount themselves in their new businesses.

The underlying assumption of the entrepreneurs and experts consulted as part of the GEM 2004 research was that entrepreneurship made a positive contribution to the economy, as they discussed the environment for entrepreneurship in Ireland and suggested means to strengthen its many positive features, while seeking to alleviate

those factors that are inhibiting its full development.

The experts and entrepreneurs consulted in Ireland as part of GEM research emphasised the need for robust indigenous entrepreneurial activity to balance the country's reliance on a very strong foreign multinational sector (FDI). Among those consulted, entrepreneurship was perceived to have many beneficial features not least of which was the contribution that it made to employment, growth and vibrant local communities.

While Ireland is precisely on the U curve described above in terms of the rate of entrepreneurial activity relative to its income levels (Table 2), in other high income countries like Australia, Canada and the US, the rate of entrepreneurial activity is considerably above Ireland and above what might be expected, given their national income and stage of development. Yet these countries actively encourage further increases in their levels of entrepreneurship, as high levels of entrepreneurship are perceived to be positively associated with growth, and with wealth and employment creation.

GEM research shows that as income levels increase the proportion of new businesses

¹¹ GEM includes within its definition of entrepreneurship all kinds of independent start up activity, including self-employment.

started in Business Services also increases (See Table 5 at the end of this Section). This trend is reflected in the type of businesses that are being set up by entrepreneurs in Ireland. According to GEM research, the sector most favoured by entrepreneurs in Ireland during 2004 was Business Services (22%)¹². The

proportion of entrepreneurs focusing on this sector in Ireland, however, is less than one might expect for a high income country (Table 3).

Accordingly, Ireland will indeed need more entrepreneurs, particularly in Business Services.

Table 3: Sectoral Characteristics of TEA in Ireland in 2004¹³

	Ireland	High Income Countries
Agriculture, forestry, fishing	10%	6%
Mining, construction	10%	7%
Manufacturing	12%	7%
Transportation, communication, utilities	6%	5%
Wholesale, motor vehicle sales and service	5%	5%
Retail, hotel, restaurants	10%	22%
Financial, insurance and real estate	4%	6%
Business services	22%	30%
Health, education, and social services	11%	1%
Consumer services	10%	12%
	100%	100%

1.6 Is Ireland Well Placed to Encourage More People to Become Entrepreneurs?

The short answer is yes. The underlying features of the demographic structure and the personal context of individuals are all highly supportive of entrepreneurship in Ireland. These are very real advantages for Ireland, as they are extremely difficult to replicate, if they are not present within a country.

(i) Demographic Structure

In the context of a country's overall demographic structure, GEM has highlighted those key dimensions of demographic structure that have a positive correlation with the rate of entrepreneurial activity. These include:

- Projected population growth (an expanding population leads to an increased demand for goods and services.);
- Inward migration; and

- Age structure (that is the proportion of the working population, male and female, between the ages of 25 and 44).

Over the last decade, the population of Ireland has grown by 10.5% from 3.52 million in 1991 to circa 3.92 million in 2002. Most of the increases took place between 1996 and 2002, during which growth of 8.0% took place. A substantial proportion of this increase in population was due to increased levels of net inward migration, partly as a result of returning migrants who left the country in the 1970's and 1980's. Substantial growth in population is expected in the years ahead, although at a slower pace than in recent years. By 2020, the population is projected to grow by a further 12.8% to 4.4 million based on current trends.

Another key dynamic of demographic change in Ireland has been the increase in the proportion of the population in the 25-44 age group – as entrepreneurial activity rates are

¹² Business Services includes, among others, computer and related activities, and research and development.

¹³ Combining entrepreneurial activity in Ireland for 2004, 2003, and 2002 gives the following sector breakdown: Agriculture, forestry, fishing 5.8%; Mining & Construction 10.8%; Manufacturing 6.8%; Transportation, communication, utilities 8.4%; Wholesale, motor vehicle sales and service 5.5%; Retail, hotel, restaurants 16.6%; Financial, insurance and real estate 2.6%; Business services 21.3%; Health, education, social services 7.1%; and Consumer services 15.0%.

highest among this group for both males and females. The fact that Ireland has almost a quarter of its population in the 20 and 34 age group is very positive as it suggests a good source of potential entrepreneurs going forward.

(ii) The Personal Context of Individuals

GEM research has shown a strong positive correlation between the rate of entrepreneurial activity in a country and the personal context of individuals in that country. To illustrate the personal context, GEM measures the proportion of those that perceive good opportunities to start new businesses, those that believe that they have the skills to start and successfully run new businesses, and those who know recent entrepreneurs within their social network – personal role models as it were. Besides these positive predispositions to entrepreneurial activity, GEM also measures the inhibitors, in particular, the fear of failure.

The number of Irish people who perceive good opportunities to start a new business has increased very significantly over the last year from 33% to 45%. The number of Irish people who know an entrepreneur, who recently set up a new business, is very high at more than one in three of the adult population (41%). The perception of those who believe that they have the necessary skills is showing a very slight improvement¹⁴. These are all positive influences on entrepreneurial activity. Fear of failure would, however, deter 39% of the population from becoming active as entrepreneurs¹⁵. (Table 6 at the end of this Section).

With almost one in two of the Irish population (45%) believing that good opportunities exist to start a new business, Ireland is well placed compared with the other OECD countries that were involved in the GEM research in 2004. Only in New Zealand (55%), Iceland (55%), Australia (51%) and Denmark (49%) are the

adult populations more perceptive of entrepreneurial opportunities.

The number of individuals who perceive that they have the necessary skills to start a new business, while improving in Ireland (48%), is still very much behind the levels evident in New Zealand (66%), Australia (56%), Canada (55%) and the US (54%). It is also marginally behind Greece (54%), the UK (52%) and Poland (50%), but it is very much ahead of many countries in mainland Europe such as Germany (36%), France (33%), and Italy (33%).

The Irish experts and entrepreneurs were increasingly optimistic in terms of their perception of there being plenty of good opportunities for the creation of new businesses. The questionnaire which they completed in 2004 shows a 19% increase in this optimism compared to 2002.

GEM research has shown that fear of failure is less of an inhibitor preventing individuals starting new businesses than might be expected. Certainly the correlations with the positive aspects of an individual's personal context, in terms of the perception of opportunities, belief in personal skills and the presence of role models, are many times more influential on an individual's behaviour.

This is perhaps best illustrated by Japan. There fear of failure is lower than Ireland with just 23% of the population reporting that it would prevent them starting a new business, compared to Ireland's higher rate of 39%. That means that the proportion of those reporting fear of failure as an inhibitor in Japan is one of the lowest of the OECD countries – about the same level as the United States. Yet this does not translate into a high level of entrepreneurial activity. The TEA rate in Japan is just 1.46% (compared to the US rate of 11.33% and Ireland's rate of 7.7%). But along with this low level of fear of failure in Japan go

¹⁴ 41% in 2004 compared to 39% in 2003.

¹⁵ It has been pointed out by one of entrepreneurs, who comes from a small rural community within Ireland, that in his experience the fear of failure is higher among those living within small, communities throughout Ireland than among those living in the more impersonal cities, as the former are more conscious of the opinion, good or bad, of their neighbours.

an extremely low level of opportunity recognition (14%), few believing that they have the necessary personal skills (13%), and just 30% personally knowing another individual who has recently set up a new business.

The personal context of individuals in Ireland is very positive and has improved further during 2004. Added to the positive demographic structure, this gives real substance to the optimism that Ireland is well placed to encourage more people to become entrepreneurs.

Besides the positive features of the demographic profile and personal context of individuals within the country, one in nine Irish adults (10.99%) indicated that they would expect to start a business in the next three years. This is the same rate as was reported in 2003 and slightly lower than the rate in 2002 (13%).

While the numbers indicating that they expect to start a business in the next three years has remained unchanged since last year, it should be noted, however that this indication of intention to get involved in entrepreneurial activity is only half the rate it is in Poland (21.87%) and is also behind other European countries such as France (14.38%), Greece (13.45%), Italy (11.62%) and Sweden (11.73%). Currently, Poland is just ahead of Ireland in terms of entrepreneurial activity and the other European countries are not as entrepreneurial as Ireland is right now. When compared to the very entrepreneurial of the developed countries within the OECD such as Australia (20.21%), Iceland (19.51%), New Zealand (18.59%), the US (13.68%), the level

of entrepreneurial intention among Irish adults is a matter for some concern.

1.7 Policy Implications

In order to further balance the strong FDI presence in the country, and for the range of positive outcomes that are attributed to entrepreneurship in a high income economy, Ireland needs entrepreneurs. Given Ireland's high income status, the proportion of new enterprises in the Business Services being started is low. Accordingly, we need more entrepreneurs in the Business Services sector.

The current and projected growth in the population, the age structure of the population, together with the predisposition of individuals in Ireland towards entrepreneurship is very positive and the current rate of entrepreneurial activity is good compared to other European countries. Compared to the more entrepreneurial of the high income countries, like the US, Australia and New Zealand, however, the rate is less good. Moreover, the trend is downwards, with a decrease evident in the numbers planning new businesses in the last few years. Looking to the future, on the face of it there may appear to be a healthy number of people who are considering entrepreneurial activity in the future. When compared to the position in other countries, however, it is apparent that a lower percentage of the population in Ireland are considering becoming entrepreneurs, than is the case in many European countries. This is a worrying trend, as it is clear that going forward Ireland will need to maintain, if not increase, the number of entrepreneurs in the country, and to increase the number of those active in Business Services.

Table 4: Entrepreneurial Activity (22 OECD Countries)*

	EU Countries											OECD Countries										
	PO	IE	UK	FR	GR	DK	ES	NL	DE	FI	IT	HU	PT	SE	BE	NZ	IS	AU	US	CA	NO	JP
Total Entrepreneurial Activity Tindex (% of adult population)	8.83	7.70	6.25	6.03	5.77	5.31	5.15	5.11	5.07	4.39	4.32	4.29	3.95	3.71	3.47	14.67	13.57	13.38	11.33	8.85	6.98	1.48
	3.92	4.39	3.37	4.85	3.66	2.54	2.08	3.02	3.39	2.66	2.51	2.73	2.18	1.69	2.21	8.39	7.70	8.03	7.47	5.99	4.00	.45
	5.20	3.59	3.09	1.64	2.16	2.81	3.09	2.18	2.21	1.78	2.13	1.56	1.77	2.16	1.36	8.29	6.24	5.80	4.82	3.61	3.28	1.03
Total Owner-Managers (new and established)	13.44	10.10	8.20	3.09	8.70	7.87	10.88	8.27	6.52	9.39	6.86	3.74	9.07	8.19	5.39	17.92	13.58	15.44	10.26	10.66	9.57	5.78
(i) New firm entrepreneurs	5.20	3.59	3.09	1.64	2.16	2.81	3.09	2.18	2.21	1.78	2.13	1.56	1.77	2.16	1.36	8.29	6.24	5.80	4.82	3.61	3.28	1.03
(ii) Established firm entrepreneurs	8.24	6.50	5.11	1.45	6.54	5.06	7.79	6.09	4.31	7.60	4.72	2.18	7.30	6.03	4.03	9.63	7.34	9.64	5.45	7.04	6.29	4.75
Business Closures (previous 12 months)	3.93	1.26	2.04	4.23	2.60	1.98	1.54	1.19	2.06	1.38	2.22	.55	1.19	2.21	.97	4.82	3.07	4.62	2.25	2.25	2.58	.78
Motivation for entrepreneurship																						
(i) To exploit an opportunity	5.71	6.64	5.49	4.55	3.82	4.82	4.53	4.32	3.44	3.50	3.08	2.75	2.96	3.26	2.90	12.31	12.04	10.65	9.53	7.27	5.76	1.11
(ii) Necessity (no better alternatives)	3.11	.99	.63	1.36	1.65	.37	.62	.69	1.48	.33	.33	1.24	.99	.33	.19	2.11	.72	2.48	1.51	1.36	.85	.18

Table 5: The Nature of Entrepreneurial Activity (22 OECD Countries)

Sectoral distribution of entrepreneurial activity (%)	9.04	10.94	4.64	17.33	2.33	4.71	2.26	11.34	3.91	9.51		5.23	.00	15.29	9.05	10.75	11.02	7.15	4.83	3.05	10.05	3.97
Extractive sectors	31.80	30.49	20.18	18.74	26.32	31.06	44.26	30.12	19.82	26.52		30.83	18.30	30.52	19.19	22.26	34.43	26.48	19.15	37.55	24.02	20.35
Transformative sectors	17.87	22.99	35.34	24.46	14.55	31.30	17.08	27.26	35.42	21.49		14.41	11.24	25.30	24.72	31.61	23.28	31.76	24.44	25.48	25.04	37.86
Business services	41.28	35.58	39.85	39.47	56.80	32.93	36.40	31.27	40.84	42.48		49.53	70.46	28.89	47.04	35.38	31.27	34.62	51.57	33.92	40.89	37.82
Consumer services	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%		100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Table 6: Personal Context of Population (22 OECD Countries)

Personally know an entrepreneur (% yes)	48.9	41.3	27.6	41.0	43.5	49.7	26.8	30.9	38.0	36.3	34.9	32.0	37.8	44.2	29.8	43.7	66.0	41.7	35.8	34.1	40.2	29.7
Personally have the skills to start a new business (% yes)	50.1	47.7	51.7	33.1	54.4	40.2	41.4	36.7	35.8	36.1	32.6	21.4	46.3	42.3	38.7	65.9	48.2	55.9	54.3	54.9	41.7	13.5
Personally believe there are good opportunities to start business (% yes)	35.9	45.1	35.9	21.1	29.1	49.2	39.3	38.3	13.2	38.3	25.4	16.6	23.2	40.8	37.5	55.4	55.0	51.2	33.6	44.8	41.2	14.0
Fear of failure would prevent me starting a business (% yes)	43.3	39.1	32.9	50.0	52.5	27.3	50.6	32.1	47.9	41.4	40.2	24.3	42.7	36.0	30.3	27.2	40.2	39.1	21.2	28.8	26.1	22.6
I plan to start a business in the next 12 months (% yes)	21.9	11.0	9.5	14.4	13.4	9.9	5.4	6.5	6.8	5.4	11.6	4.1	3.8	11.7	6.9	18.6	19.5	20.2	13.7	12.4	11.3	1.1

*See Table 2, page 12, for a full list of the country abbreviations used.

SECTION 2

How Supportive of Entrepreneurship is the Environment in Ireland?

2.1 Introduction

Ireland has very strong advantages in terms of its rate of opportunity driven entrepreneurship, its demographic profile and the personal context of the individuals who live in the country. Whether these individuals will be encouraged to start up new businesses will also be influenced by the environment in which they live. This section assesses that environment in terms of (i) the cultural and social norms that prevail, (ii) the government policy and programmes that impact on entrepreneurs, and (iii) external supports for entrepreneurs. These are measured against previous years and compared to other countries.

2.2 How Supportive is the Culture?

2.2.1 Ireland's Entrepreneurial Culture

The prevailing culture is assumed to influence the level of entrepreneurial activity in a country. While difficult to measure, GEM provides a unique cross-country index of whether there is an environment supportive of entrepreneurial activity. This index measures the attitudes of the population in terms of whether entrepreneurship is considered a good career choice, whether successful entrepreneurs are held in high regard and whether there is much media attention devoted to entrepreneurial activity.

Ireland provides one of the most strongly supportive cultural contexts for entrepreneurial

activity in the world¹⁶. Compared to other EU countries, the cultural and social norms within Ireland are the most supportive, and across the 22 OECD countries involved in the GEM research in 2004, Ireland is only marginally behind Canada (Table 7 at the end of this Section).

As one entrepreneur commented: ' *Setting up your own business is an attractive and viable career option and this is a significant strength in the Irish environment* ' ' .

Successful entrepreneurs are perceived to have a very high status by 85% of the Irish adult population. This very high percentage of the adult population that view successful entrepreneurs in this positive light has further increased during 2004 (up from 76% in 2003) and is now the highest among all GEM countries. The next highest is Canada, where the pervasiveness of this perception is a full 8% behind. Moreover, two out of three (66%) of the adult population consider becoming an entrepreneur to be a good career choice, as was the case in 2003.

The Irish media is also perceived by Irish adults to be highly supportive of entrepreneurship and to reflect it in a good light (77%). The percentage of the general public that perceive that the media frequently feature positive stories about entrepreneurs has fallen back during the year (down from 84% in 2003). Compared to other countries, however, it is

¹⁶ One entrepreneur, coming from the area, commented that there is not a vibrant entrepreneurial culture within the Gaeltacht areas, as there is elsewhere in the country. At present, no analysis of the GEM research findings is possible on a regional basis within Ireland, so it is not possible to verify the differences in cultural supports between different areas of the country.

still remarkably high. Interestingly, the views of the Irish experts and entrepreneurs, consulted as part of the GEM research cycle in 2004, are even more positive in this regard. In 2004, as in previous years, the media were perceived by the great majority of experts and entrepreneurs in Ireland (94%) to feature positive stories about entrepreneurs on a regular basis. This level of response was higher than that of other key informants in the other participating OECD countries about their national media. This constructive media interest, in entrepreneurs and their new and growing enterprises, further underpins the positive cultural and social norms surrounding entrepreneurship in the country.

The entrepreneurs and experts consulted also highlighted the very positive manner in which culture contributes to supporting a dynamic environment in Ireland. Their view in this regard has been consistently positive over the last four years. When one compares the responses to questions about culture in the questionnaires, completed by the Irish experts and entrepreneurs, with the responses given by experts and entrepreneurs across the OECD countries involved in GEM¹⁷, the relative strength of the supporting culture in Ireland is even more in evidence. For example, only in the US were the experts and entrepreneurs consulted more positive in their view that the national culture is highly supportive of entrepreneurs and entrepreneurial endeavour across a range of measures.

When asked to highlight the three most important strengths that help further entrepreneurship development in Ireland, the Irish experts and entrepreneurs cited the supporting culture three times more frequently than they mentioned government policy, which they mentioned most often after cultural supports.

They drew particular attention to the increasing number of role models and the prevalent pro business/pro entrepreneurship culture.

One entrepreneur summed it up in these words: ‘ ‘ *People think of entrepreneurs as dynamic, smart and cool! Being an entrepreneur increases a professional’s career and personal value and is seen as being a positive innovative trait – whether their entrepreneurial venture is successful or not.* ’ ’

The Irish character, which is perceived to be hardworking, intelligent and competitive, was also seen as a national asset. One entrepreneur, who also has a company in the States, commented that in his experience Irish people are very committed and are prepared to work very hard. In his opinion, the work ethic of Irish employees is far higher than that which prevails in the US.

A young, well-educated, English speaking population that has been exposed to global influences with a ‘ ‘ can do, will do’’ attitude, and a desire to accumulate wealth quickly, further reinforces this advantage. The flair of the Irish for networking and the range of highly developed informal networks were also remarked on in a positive light. The success of the economy in recent years is also perceived to have lifted public confidence and has contributed to a high positive profile for Ireland internationally and a great openness to things Irish. One Irish serial entrepreneur cautioned, however, that the ‘ ‘ *Irish cardás*’ he called it, can be over played: ‘ ‘ *Realistically, we have very few global and well-known indigenous companies – being Irish in an Asian context means next to nothing.* ’ ’

One expert summed up the pervasive positive culture within the country towards entrepreneurship as follows: ‘ ‘ *There is a general consensus that entrepreneurship is a good thing and to be encouraged. This attitude is pervasive in the public sector, among politicians and is widespread among the public. It is particularly directed at those starting up new businesses.* ’ ’

An environment supportive to this extent does not exist in many other countries and is a real

¹⁷ Eighteen of the 22 OECD countries involved in GEM research were included in this comparison as the responses from experts and entrepreneurs in France, Italy, Sweden and the UK were not available.

competitive advantage for Ireland. In fact, in many countries there is a real concern about the lack of supporting cultural norms, and initiatives are being taken to try to bring about change in this regard¹⁸. Policy makers in Europe, for example, have advocated the need to develop ‘entrepreneurial mindsets’¹⁹ that are supportive of entrepreneurship, in order to increase entrepreneurial activity. Cultural supports of this kind are already well developed in Ireland.

A note of caution was made by several experts and entrepreneurs, however, who pointed out that the culture favouring entrepreneurship in Ireland is less strong in practise when students or school leavers for that matter, come to make their career choices. The conservatism of their parents in guiding their children’s career choice was also felt to be a factor in this regard. Many of the brightest school leavers choose to follow the professions, as is evident from the very high points needed for entry to the healthcare and legal third level courses. As one expert explained: the ‘ ‘high economic rents’ in these non entrepreneurial areas attract high calibre graduates and the effect is twofold: (i) the high fees that they subsequently charge has a knock on effect on the increasing costs faced by entrepreneurial businesses and (ii) those same businesses are left without the best and the brightest in the land.

2.2.2 *Is the Educational Sector Supportive of Entrepreneurship?*

The education system is an important influencer of personal attitudes. Entrepreneurs and experts consulted during the 2004 research cycle, however, complained of a lack of ‘ ‘stitched up thinking’ between the Department of Enterprise, Trade and Employment and the Department of Education and Science. It was considered that there was no developed strategy to expose students at all levels to the concept of entrepreneurship. ‘ ‘People in Ireland become entrepreneurs,

despite the education system,’ one entrepreneur commented.

In 2004 there was no improvement in the experts’ and entrepreneurs’ low opinion of the contribution of the educational sector towards the nurturing of the personal qualities of creativity, self sufficiency and personal initiatives on the part of primary and secondary children or of the attention paid to entrepreneurship at these levels. Third level and continuing education was perceived to be slightly better in this regard, but not significantly so.

The case was put by one expert that the orientation of the great majority of students at third level within the technical and science faculties is not towards entrepreneurship or even towards working in Irish companies; it is much more focused on obtaining employment in foreign multinational companies. This he considered was as a result of many interconnected factors and was reinforced through course content and the implicit culture within the relevant departments as to what constitutes success.

There was a general feeling among several of the entrepreneurs and experts consulted that the educational system does not understand the dynamics of helping people to be entrepreneurial. They commented that children’s natural entrepreneurial flair is not encouraged and developed and that there was little exposure for children, through the school system, to concepts related to enterprise and entrepreneurship, no opening of their minds to the idea of self sufficiency, no nurturing of entrepreneurial tendencies.

The *start your own business/mini company* module that many students take in transition year, however, was mentioned by several of the experts and entrepreneurs consulted as being particularly good. It was considered, however, that the downside was that there was no follow through to this module and, as it is

¹⁸ This is also a high priority in Northern Ireland.

¹⁹ ‘ ‘Action Plan: The European agenda for entrepreneurship’’, EU Commission, March 2004.

part of transition year, which is considered somewhat frivolous, it is not perceived to be part of the more *serious* work that students return to in 5th year.

In their comments, several entrepreneurs and experts drew particular attention to this lack of involvement by the educational sector in preparing students for the opportunities offered by an entrepreneurial career or even in developing within students an appetite for entrepreneurship as a legitimate career option. Those who expressed a view believed that there was a general lack of exposure to entrepreneurial influence at school and university level, with too much focus on the narrow points system. The result, they believed, was often a lack of knowledge as to what was involved in starting a business.

2.3 How Supportive are Government Policy and Programmes?

2.3.1 Government Policy

The experts and entrepreneurs consulted saw many positive features in the Irish Government's policy and mentioned in particular the continuation of low business taxes, including low capital gains on exit, that lend certainty to the net rewards of success.

In the words of one entrepreneur consulted: ‘ ‘ At 12.5% the corporate tax rate is a considerable strength in encouraging Irish entrepreneurial activity. It allows companies to reinvest profits without having to give large portions of it away first. This factor motivates both entrepreneurs and investors.’ ’

There was a general belief that there was a reasonable pro business environment and that it was generally easy to set up a new business in Ireland.

Compared to other participating OECD countries, across a range of measures, Ireland's experts and entrepreneurs were second only to those in Finland in their positive perception of the supportiveness of government policy. This positive perception of the Irish experts and entrepreneurs has been maintained over the last three years.

A well developed responsiveness, on the part of the government and the public sector to tackling identified barriers that emerge from time to time that inhibit entrepreneurial development, was also seen to be very helpful. As one key informant explained: ‘ ‘ *The informal ‘listening’ structures are well developed, and informal networks are pervasive.*’ The difficulties which the escalating cost of insurance was placing on small businesses, was cited as a case in point, as the government had reacted to the situation in a positive manner and measures had been and were being taken to alleviate the situation. Despite these measures, one or two entrepreneurs still cited insurance costs as a factor limiting the development of entrepreneurship within the country.

Other Government initiatives that were welcomed were those aimed at developing a knowledge economy, with the establishment of Science Foundation Ireland and the appointment of an independent Chief Science Advisor.

The Revenue Commissioners' Seed Capital Scheme was cited by one entrepreneur as ‘ ‘ *the most significant and useful funding scheme.*’ He praised it for being both effective and efficient.

It was also pointed out by those consulted that certain government actions can create opportunities for entrepreneurial activity. One example given was the setting up of TG4 (the Irish language TV station) which has created opportunities for new businesses that are availed of by many new entrepreneurs.

It was also suggested that another area in which the government can act as a catalyst to generate entrepreneurial activity was in terms of supporting Fáilte Ireland to meet its ambitious target for 10 million tourists to visit Ireland each year. If met, this will create opportunities for entrepreneurs throughout the country as extra accommodation, leisure and catering/restaurant capacity will be required.

There were considered, however, to be several areas in which the Government policy was less facilitating of entrepreneurship.

By far the most frequently mentioned was the issue of business and legal regulation and the time and cost involved in complying with the growing volume of regulation. This was perceived to be a significant burden. One entrepreneur complained of the need to pay significant amounts in professional fees to keep abreast of the latest developments, ‘ ‘ *the amount of advice needed has increased at such a rate that fees have increased ten fold over the last few years. The need to protect people is necessary, but it should be possible in a less bureaucratic and costly way*’. Another complained specifically about the extent and diversity of regulation that impacts on entrepreneurs in the food sector.

One expert explained that the escalating burden of regulation on new and small companies was emanating from different departments and that the EU itself is a major source of additional regulation. He suggested that those designing the regulations are insufficiently aware of their negative impact and the ‘ ‘ *paperwork burden* that these were imposing on entrepreneurs and small business owners.

There is a general belief by experts who know this system, however, that this is not intentional, as there is a general feeling of goodwill towards entrepreneurs and those who start new businesses and an interest in reducing the burden on entrepreneurs and on start up companies. One entrepreneur went so far as to state that ‘ ‘ *the permission culture in the application of regulation provides the single biggest barrier to entry*’.

Some were of the view that there were some gaps/overlaps in policy and programme delivery with many actions taking place in different departments, all of which appeared not be aware of each other, not co-ordinated and not focused in the same direction. The result was duplication and inefficiency.

The recently increased responsibilities applying to non – executive directors were also perceived to be a major barrier to a young and developing firm gaining access to highly

competent and experienced individuals, through Board membership, to compliment the skills of its management. Several of those consulted mentioned this as a major issue. A concrete example given of the consequence of these more onerous responsibilities is that when a VC invests, and then takes a seat on the board of a new company, it has not only financial but now new legal risks, through the actions of its nominated director(s).

PSRI was complained of as a hidden cost on employment, as it contributes to very high employee costs and was acting as a disincentive to creating additional employment. One entrepreneur also complained of the cost to an employer of meeting maternity and parental leave costs. In her view these are also very high. She explained that despite their having paid their PRSI relative to their income, the highest rate of compensation from the State, for women on maternity leave, is €250 per week. An employer of women, who earn more than this, will often feel the need to make up the difference. This particular entrepreneur said that she had to budget to have 10% of the workforce on maternity leave at any one time.

It was considered by several entrepreneurs that there is a significant information gap facing the start up venture. A concrete example given was the Revenue Commissioners’ Seed Capital Scheme, which is perceived to be extremely helpful and efficient, but very few start-ups know about its availability.²⁰

The tendering system was also cited as a means by which the Government could support new and growing companies. Several experts perceived the scheme as being open and fair. Several entrepreneurs, however, queried whether there was in fact transparency in the awarding of contracts and considered that it was difficult for a new business to break into the system.

2.3.2 How Supportive is Europe?

In addition to Irish government policy, EU policy has an impact on the context for

²⁰ The entrepreneur who gave this example recommended that this scheme should be for genuine entrepreneurs. He considered that the loophole discovered and exploited by property developers was detrimental to the working of this *beneficial fund*. He suggested that developers could claim each new build as a new venture and that they could therefore claim back their taxes under the Revenue Seed Capital Scheme – both depleting the fund and depriving other potential fund raisers from much needed seed capital. In his view serial property developers should not be seen as start up entrepreneurs, as they were in a different league altogether and should be treated as such.

entrepreneurship in Member States. The EU Commission has spelt out its commitment to entrepreneurship in the Green Paper ‘ ‘ Entrepreneurship in Europe’’, which it published in January 2003 and in the subsequent Action Plan, which the Commission published in March 2004. Experts in Ireland consulted during the 2004 GEM research cycle were not wholly convinced by the Commission's approach and complained of a lack of *stitched up thinking* on its part. The view was expressed that despite paying lip service to the importance of entrepreneurship and the importance of having a vibrant SME sector, the EU itself puts some barriers in the way of this happening.

The point was also made that the EU Commission, by having an undue focus on State Aid rules, is making it more difficult for national governments to nurture and support entrepreneurial activities. It was also considered that the regulatory burden coming from Europe is increasing all the time.

An example was cited to illustrate this point: for an SME, wishing to avail itself of EU funding under any of the Framework Programmes, the whole process is extremely complex and is both costly and time consuming. Moreover, there is a lack of proportionality in the approach adopted by the EU, in that it can be as difficult to get €100,000 funding, as it is to get several million. Hence, the approach favours the larger firms, as the relative effort is less for the larger amount sought.

It was also pointed out that the EU has allocated a significant amount of money for the development of new areas of technology through its framework programmes, for example nanotechnology. It is, however, extremely difficult for a small or young company to have access to these funds. Moreover, the entrepreneurial young firm is effectively excluded from influencing the roadmaps, which direct such investment, leaving the larger developed companies in

prime position to avail themselves of the available funding.

All of these factors were perceived as running somewhat counter to the Commission's espoused policy of nurturing entrepreneurship and developing small companies.

2.3.3 Irish Government Programmes

The Irish Government's support programmes, across a range of measures, were seen in a more positive light by the Irish experts and entrepreneurs consulted compared to the other participating OECD countries. Their views placed Ireland second only to Iceland in this regard. The Irish experts and entrepreneurs have maintained a consistent position in their views in this area over the last three years.

In particular, they commented on the fact that there was a comprehensive State support system available for the different types of entrepreneurs: but they were less positive in their view on the effectiveness of government programmes and displayed a slight deterioration in their view in this regard²¹.

Within the existing structures designed to support entrepreneurs, several experts and entrepreneurs pointed out shortcomings. There were three areas in particular that they considered to be in need of definite improvement. They are as follows:

(i) **The Coordination of the State Agencies**

Many experts and entrepreneurs consulted cited the plethora of organisations and delivery mechanisms in the area of State support to new ventures. These were perceived by many to be fragmented leading to duplication/overlap and inefficiencies.

One entrepreneur summed up the sentiment expressed by many: ‘ ‘ *There are more people making a living out of enterprise development than were trying to start a new business*’ .’

²¹ It should be pointed out that experts and entrepreneurs from none of the participating countries, even the most entrepreneurial, were particularly positive in their views about the effectiveness of government programmes.

Another entrepreneur felt that ‘ ‘ Despite the array of agencies, potential entrepreneurs can still fall between stools, finding themselves sent from Billy to Jack with no support available to them.’ ’

Another entrepreneur commented ‘ ‘ The support agencies are fragmented and services are not widely known or understood’ ’.

Another entrepreneur complained ‘ ‘ There is a critical lack of centralised help and information in the Irish enterprise development arena. There is nobody to phone to ask for example what funding is available? What state support is available? What do I need to do to get it?’ ’

(ii) Agency Executives

Another concern related to the background and experience of those staff implementing the government programmes. The executives were perceived to be coming from a public sector background rather than from the world of business: with the result that they understood the needs of the system more than they understood the needs of specialised technology based businesses and entrepreneurship. It was felt that as a result of these executives’ bias, schemes became moribund in rules, with the rules becoming all important and flexible thinking being in short supply. It was felt that a redress of this balance was needed.

(iii) Bureaucracy

Several entrepreneurs commented on the time and effort involved in obtaining funding from the development agencies.

‘ ‘ The financial assistance Enterprise Ireland makes available to start ups is extremely useful. Unfortunately, there is an extraordinarily complex application procedure that can take a very long time.’ ’

‘ ‘ The funding when it was granted came

after an arduous three-year process. At this point, while not being irrelevant, it could have been made twice over if the time committed had been focused on selling more.’ ’

‘ ‘ There is certain amount of bureaucratic red tape to be broken through in any search for help, assistance or funding. For example, the BES scheme demands approval from Enterprise Ireland or a County Enterprise Board but will not accept approval from other state funded schemes.’ ’

‘ ‘ Development agencies are incoherent and too bureaucratic. Their processes take too long’ ’.

One entrepreneur, however, commented that in his experience ‘ ‘ Government support in terms of grants has been very beneficial and largely without the bureaucratic difficulties that some firms complain of . . . In our experience government grants have come speedily, on time and with the minimum fuss’ ’.²²

2.4 Are Other Elements in the Environment Supportive?

2.4.1 Strengths in the Environment

The experts and entrepreneurs consulted pointed to the strength of the economy and the general growth in disposable incomes as continuing to provide many opportunities for new businesses, particularly in locally traded services. It was considered that there was a general awareness that competition benefits everyone and consequently there was support for new businesses. The willingness of Irish consumers to shop around and to entertain new ideas, products and services was also seen as contributing to an opportunity rich environment. The continuing low interest rate regime was also perceived to be very positive.

The experts and entrepreneurs consulted also considered the fact that more jobs were

²² In this entrepreneur’s opinion in many cases the difficulty arises when entrepreneurs and new firms do not have the necessary documentation ready and are slow to meet the requirements themselves. He considers that it is important that entrepreneurs see the need to facilitate the grant requirements, i.e. *give them what they ask for straight off*. By doing so, he believes that they will speed up the process considerably by aiding a mutually agreeable grant application procedure.

available in the economy to be supportive of opportunity entrepreneurship, as it lessened the risk of leaving a secure job to start a new business.

The high instance of technology based multinational companies was considered by those consulted to provide sub supply opportunities and exposure for young Irish companies to international markets. The fact that Ireland has a strong high technology base that is being further developed was also perceived to be strength, as was the critical mass of *technically savvy* people which had emerged in recent years.

When asked to nominate positive features in the Irish environment that facilitated entrepreneurial activity several experts and entrepreneurs alike made reference to the fact that Ireland has a highly skilled, high-quality workforce.

‘ ‘ There is a critical mass of technically savvy people. Particularly in the software side, there are a significant number of people with good experience.’ ’

‘ ‘ Ireland boasts a very industry savvy workforce. They have general ‘ all-rounder’ skill sets. The country is also attracting some very talented international workers and this is further improving the skilled workforce available to companies starting up in Ireland.’ ’

Dublin was also praised by several entrepreneurs who considered it an attractive city in which to do business. In the words of one, it is *‘ ‘ an attractive, vibrant, business-friendly capital city.’* It was considered that a lot had been made out of a relatively small city with a small population (roughly the size of Birmingham for example) and that Dublin now conveyed a cosmopolitan and enterprising front to the international community. The down side was the congestion and the threat to its relative attractiveness posed by price inflation.

One of the experts consulted suggested that in fact the urban congestion and high cost of housing, which are viewed as the negative consequences of the Celtic Tiger, may in fact have a surprising positive side. They may lead many to choose an alternative lifestyle, which in turn may lead those who would not normally consider self employment to do so.²³ Similarly, one expert in the food area, consulted by the GEM team, suggested that many people setting up as artisan food producers are relatively wealthy people aged in their 40s who are making a life style choice to move to a rural area.

The views of the experts and entrepreneurs consulted placed Ireland second only to Norway, across the other participating OECD countries, in their view that good professional legal and accounting services were relatively easy to obtain for new and growing firms. This positive view has been consistently maintained by the Irish experts and entrepreneurs consulted over the last three years. Several of the entrepreneurs consulted, however, commented that professional fees were too high.

It was also considered that the *‘ ‘ knowledge infrastructure’*, in terms of experienced advisors being available to assist and advice young companies, has greatly improved, as there are now more individuals, with the appropriate skills and experience, within the country and many of these are willing to share their knowledge with the next generation of entrepreneurs. Many sources of help and advice are available to potential entrepreneurs.

The growing range of networks/networking available for entrepreneurs of all types and at all stages of development was also seen as a positive recent development. One example given was the forum provided by the Ernst & Young’s Entrepreneur of the Year. It was considered that this was good for creating a positive profile of Irish entrepreneurs.

²³ Indeed while this comment was made during an interview conducted in 2004, an ad for a national newspaper, which is currently running on the radio, features a man who has decided to opt out, move to Kilkenny and, having bought a bus and a *limo*, has become self employed driving tourists around. It is clear that he is much happier in his new lifestyle.

Several entrepreneurs, while recognising the limitations of Ireland's small size, also saw the positive implications of this. One entrepreneur commented: ' *Ireland's primary strength is its small size. This makes it easier for the entrepreneur to get to know the investment community and to network with potential funding bodies.*' Another commented that Ireland is small enough in scope to deploy a national marketing strategy and to do this at a lower cost than would be possible in larger markets.

Ireland's location was also perceived to be an additional strength, ideally located as it is to service the UK, continental Europe and the US markets.

2.4.2 Difficulties in the Environment

Access and availability of finance is the area cited most frequently as restricting entrepreneurship development in Ireland by the experts and entrepreneurs consulted during the 2004 GEM research cycle and this was perceived to be more difficult in 2004 than it was in 2002 (See Section 3 New Venture Financing).

It was recognised by all consulted that Ireland is now a high cost economy and many highlighted the impact of this on the costs of setting up and running a new business in Ireland and on the relative competitiveness of its operation. In particular, they commented on the rising costs for insurance, labour and workspace. Some pointed out that the increased costs in running a business have risen faster than have the prices that can be charged and this has led to diminished profitability.

The small size of the domestic market was referred to again and again by the experts and entrepreneurs consulted when they were asked to comment on significant factors that limit entrepreneurial activity in the country. A consequence of the size of the market they pointed out was that entrepreneurship was either at the micro enterprise level or needed to be internationally trading from a very early stage of its development in order to obtain

scale. The latter presents particular financial, language and know-how challenges to young companies, which do not have to be faced by other young companies that are located within a much larger home market.

A further compounding of this necessity to export was the experts and entrepreneurs' perception that there is a general lack of sales, marketing and foreign language skills in Ireland. This was remarked upon repeatedly by the experts and entrepreneurs consulted. They considered that this was detrimental to Irish firms who, through necessity, must look to international markets.

With regard to deficiencies in physical infrastructure, these are well known and have been well documented. There was a slight improvement in the view of the experts and entrepreneurs consulted with regard to the present state of the physical infrastructure and its impact upon entrepreneurs and their new businesses, but their opinion is that deficiencies still abound. In 2004, the main area of concern that was highlighted by the experts and entrepreneurs was the roads/transport system, which negatively affects the time and cost of doing business. There was a general belief that infrastructure that helps business 'to get off the island' needs to be developed.

The increasing availability of incubation centres was noted as a positive development.

There was general agreement that hiring the right people is critical for a new company. Several of those consulted made reference to the fact that Ireland has a high standard of education and this lends itself to providing small companies with skilled, well-trained staff. One entrepreneur commented, however, that it was increasingly difficult to find, in Ireland, the skill set he needed for his company. As a result, he currently has seventeen nationalities represented among his 100 plus staff.

It was considered that Ireland, and Dublin in particular, was an attractive place to live and this would help to attract a foreign workforce where needed to fill a skills gap or to build a multicultural company. A concern was expressed, however, that racism in Ireland is a

potentially serious threat to the creation of multicultural and internationally relevant Irish organisations and that the very high cost of living would be a disincentive to attracting workers from overseas to live here.

2.5 Policy Implications

Given the need to encourage more entrepreneurial activity, particularly in Business Services, an environment supportive of entrepreneurs and entrepreneurial activity is important. Ireland has a positive cultural context in that entrepreneurs and entrepreneurial activity is held in high regard and receives very positive media coverage within the country. Furthermore, many aspects of government policy are supportive of entrepreneurs and of entrepreneurial activity. In particular the pro-business attitude of the Government, a buoyant economy, continuing low interest rates, a fiscal regime that does not penalize success, and government programmes that support entrepreneurs are all strong contributors to a positive environment. Added to this are other strengths in the environment – a range of benefits flowing from the strong high tech FDI presence in the country, a highly skilled workforce, a vibrant capital city, and a growing range of networks and advisors.

Set against these very positive features in the environment, however, are other less positive

features. In particular, the educational sector is not perceived to reinforce the strong entrepreneurial culture as it fails to recognize the importance of entrepreneurship or to adequately prepare individuals for an entrepreneurial career. While government policy is seen as supportive, the increasing regulatory burden that is flowing from the EU and Government are adding to the cost and difficulties for new firms.

In terms of Government Programmes targeted at entrepreneurs there are gaps in the information available to entrepreneurs and in their knowledge of where to access the available information, together with specific shortcomings in the development agencies related to their coordination, the appropriateness of the background and experience of many of their executives, and the time and effort required to access their support. These are considered to impose unnecessary difficulties on entrepreneurs.

Other aspects of the environment that cause difficulties for entrepreneurs are related to the high cost economy, the limited size of the home market, physical infrastructure deficits that impact on international trade, skills gaps in the labour force, and difficulties in accessing finance. These factors are negatively affecting the cost of setting up and running a business in Ireland and are impacting on both competitiveness and profitability.

Table 7: Cultural Context for Entrepreneurial Activity (22 OECD Countries)*

	EU Countries											OECD Countries										
	PO	IE	UK	FR	GR	DK	ES	NL	DE	FI	IT	HU	PT	SE	BE	NZ	IS	AU	US	CA	NO	JP
GEM Culture Index (1 low to 3 high)	1.60	2.27	1.82	1.67	1.80	1.78	1.68	2.06	1.77	1.97	1.94	1.49	1.61	1.69	1.75	2.05	2.08	1.85	1.81	2.30	1.69	1.37
(i) Entrepreneurship is considered a good career choice (% yes)	65.24	65.59	54.29	59.94	66.45	50.18	71.76	80.70	53.79	38.43	76.61	55.39	64.19	53.26	70.57	61.58	62.00	56.58	57.82	73.80	57.97	28.08
(ii) Successful entrepreneurs are held in high regard (% yes)	58.12	84.99	71.25	70.02	72.97	72.76	58.62	67.35	71.38	86.87	65.97	56.99	60.84	61.68	68.53	68.54	67.42	69.71	62.86	77.30	65.92	55.55
(iii) There is a lot of media attention to entrepreneurs (% yes)	36.38	76.62	55.35	36.42	42.16	55.06	38.65	58.92	52.74	72.70	54.99	35.22	35.04	53.99	40.12	77.63	79.21	59.84	59.12	79.36	68.09	51.40

*See Table 2, page 12, for a full list of the country abbreviations used.

SECTION 3

New Venture Finance

3.1 Introduction

This section examines the financing needs of Irish entrepreneurs and their new businesses and the sources of this finance in Ireland. It draws on both the results of the adult population survey and the opinion of the experts and entrepreneurs consulted during the GEM 2004 research cycle. It examines these findings in relation to the findings of the 2004 GEM Financing Report authored by Professor Bill Bygrave with Dr. Stephen Hunt²⁴.

3.2 Financing a New Business in Ireland

In Ireland, the average cost for a start-up appears relatively high at €116,000²⁵. This average may give a distorted figure, however, as seventy percent of all start-ups require less than this amount (Table 8). The authors of the 2004 GEM Financing Report estimate that for all the GEM nations combined, the average amount needed to start a business is €60,100 and, as expected, more is needed for an

opportunity-pulled venture (€65,200) than a necessity-pushed one (€27,400).

To give a clearer picture of the financing requirements of Irish entrepreneurs, these have been divided into three groups depending upon the anticipated level of their finance requirements (Table 8).

The majority of entrepreneurs planning new businesses in Ireland typically require relatively small amounts of money to start their new businesses (Table 8). Seventy percent of nascent entrepreneurs expect to start with less than €112,000. One in four entrepreneurs (24%), however, anticipates that their new business will need nearly three hundred thousand euro (€290,000) at the initial stages and a further one in twelve (6%) will need millions to start. This means that of the 110,000 nascent entrepreneurs planning new business at present, over 33,000 anticipate needing to find more than €290,000 to fund their new business.

Table 8: Profile of Irish Entrepreneurs' Start-up Funding Requirements²⁶

Range of start-up financing required	Less than €112,000	€112,000- €1,112,000	Greater than €1,112,000 ²⁷
Percentage of entrepreneurs to whom this range of funding applies	70%	24%	6%
Average amount needed	€17,100	€291,500	€3,920,000

3.2.1 Where Do the Entrepreneurs Expect to Raise this Money?

As the authors of the GEM Financing Report point out most of the initial money comes

from the founders of the businesses themselves and what are referred to as informal investors – family, friends, neighbours, work colleagues, and strangers; some comes from lending

²⁴ Global Entrepreneurship Monitor 2004 Financing Report, W Bygrave with S Hunt, Babson College and London Business School.

²⁵ Several outliers are excluded.

²⁶ 2004, 2003 and 2002 data combined.

²⁷ There are very few entrepreneurs in this category.

institutions, primarily banks; and, in very rare instances, from formal investment by venture capitalists.

The importance of the entrepreneurs' own contribution to their financing needs is particularly evident among those entrepreneurs who anticipate their start-up financing requirements to be less than €112,000. When entrepreneurs anticipate that they will need start-up funds of more than this amount, the proportion of the finance that they anticipate

contributing themselves diminishes. Accordingly, the larger start-ups are more reliant on external sources to meet their financing requirements (Table 9).

At the global level, Professor Bygrave and Dr. Hunt have concluded that the businesses that need the most start-up capital are those started with the intent to grow and hire employees. It is this group that is particularly prized by Irish policy makers who are focused on developing high growth potential new businesses in Ireland.

Table 9: Profile of Irish Entrepreneurs' Sources of Funding

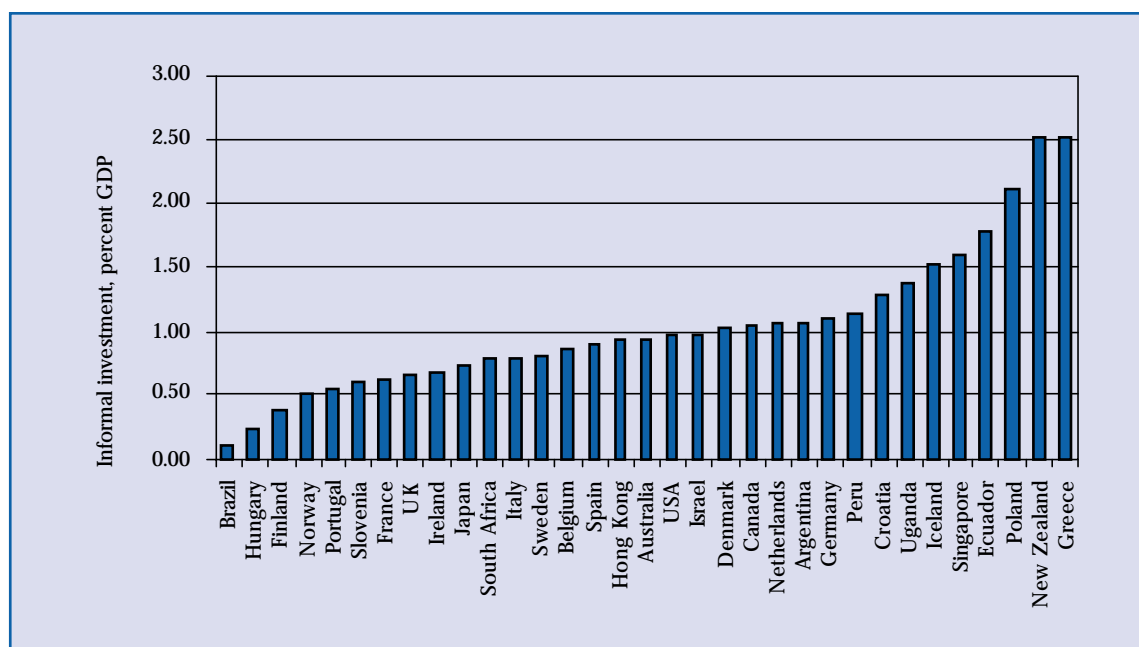
Range of start-up financing required	Less than €112,000	€112,000- €1,112,000	Greater than €1,112,000
Average amount needed in each category	€17,100	€291,500	€3,920,000
Average amount of entrepreneurs' funds to be invested in the start-up in each category	€12,200	€107,700	€1,333,000
Average amount to be sourced from other sources	€4,900	€183,800	€2,587,000
Average percentage to be sourced from other sources	29%	63%	66%

3.3 The Suppliers of Finance: Informal Investors, Banks, Venture Capitalists

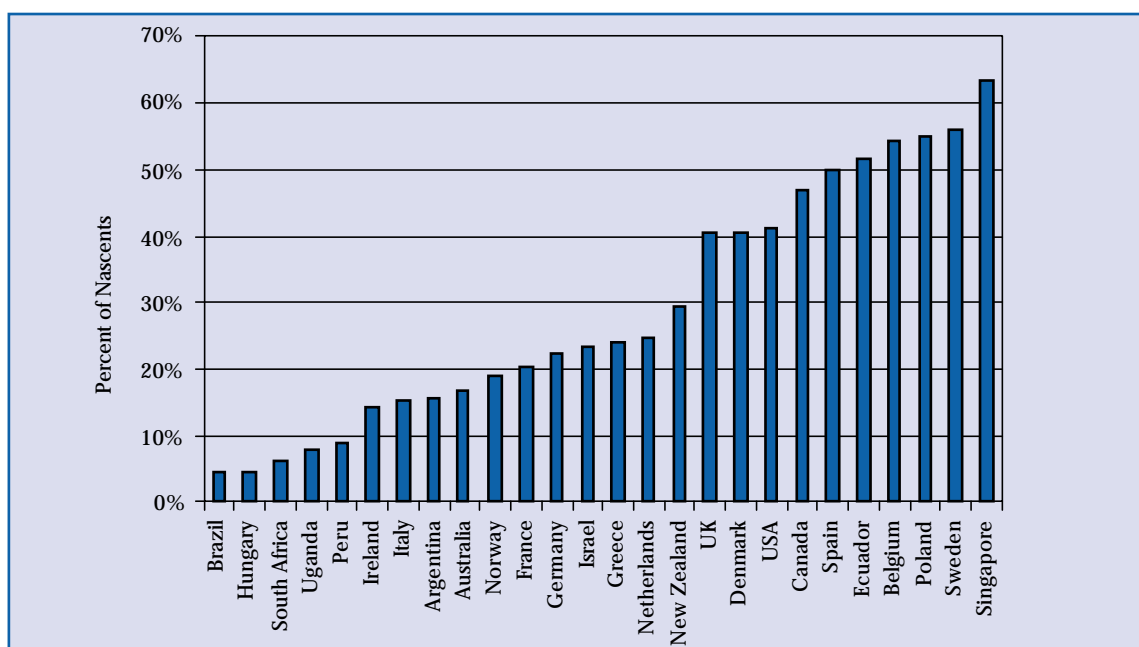
3.3.1 Informal Investors

In Ireland in 2004, just over two out of every hundred adults (2.28%) have, in the past three years, personally provided funds for a new business started by someone else (excluding any purchase of stocks or mutual funds). This rate of involvement as informal investors, while higher than in the UK (1.37%), is low and places Ireland 16th in this regard across the 22 OECD countries involved in GEM. The rate of informal investment among the adult population in New Zealand and the US, for example, is almost twice what it is in Ireland and in Iceland it is twice that again (Table 10 at the end of this Section).

The GEM Financing Report 2004 has shown the great importance that informal investors make to the financing of new businesses. The total amount of informal venture capital invested in new businesses dominates the amount of formal venture capital invested in new businesses in all GEM countries. The low level of informal investment activity means that the overall amount of funds available to new businesses in Ireland is comparatively low (Figure 2). Given the high rate of entrepreneurial activity in Ireland and the importance of informal investors, particularly in the early stages of a new business, this is an area that may need attention if sufficient funds are to be available to support the rate of entrepreneurial activity in the country.

Figure 2: Informal Investment as a Percent of GDP

Source: 2004 GEM Financing Report (33 countries included).

Figure 3: Percent of Nascent Businesses that Could Be Funded with Available Informal Investment

Source: 2004 GEM Financing Report (26 countries included).

Comparing the availability of informal investment to the external funding requirements of nascent entrepreneurs suggests that there is a funding deficit in the terms of informal investment in Ireland (Figure 3).

In Ireland, the average amount invested by an informal investor is €51,200, with a median of €11,600 suggesting that a small number of informal investors are investing large amounts. This suggests that for those entrepreneurs seeking smaller amounts of money (less than €112,000) who are successful in accessing informal investment will have adequate funds with which to start their new business. However, those requiring larger amounts of money will need to access funds from several informal investors to meet their funding gap.

One expert suggested that the reason that there was a lack of informal investment from family and friends was simply that the money had gone into property overseas. Others put the shortage of private investors down to the fact that the Irish are still a risk adverse population, compared to the US for example.

3.3.2 The Banking System

The views of the key informants on the banks in supporting entrepreneurship varied widely from positive to very negative and seemed to reflect the individual's personal experience.

Some of those consulted felt that the banking system had become more supportive and that the banks could be supportive once a relationship was established with a particular bank manager. Those entrepreneurs who use franchising as an entry to entrepreneurship mentioned that they found a welcome from the banks that was not accorded to them by the development agencies.

Others cited specific weakness, particularly in the area of risk adverseness and the need for personal guarantees. One entrepreneur felt that policy makers and state agencies should discourage entrepreneurs from personally securing loans.

One CEB manager, very experienced in the interaction of the micro enterprise sector with the banking system, gave this view:

‘ ‘ Banks are now much more open to supporting micro enterprises especially when security is available. Manufacturing would be a case in point, as it has tangible assets. There are bankers on the boards of the CEBs and they are, accordingly, more aware of the needs of micro enterprises.

The availability of finance for new and growing enterprises that do not have security or tangible assets remains a problem. Accordingly, enterprises have difficulty in securing finance for their working capital needs and in most cases retained earnings are the primary source of working capital. This becomes a barrier to growth as a company can only grow as fast as its retained earnings allow.’ ’

One experienced entrepreneur, who had great support from her local bank branch manager when she was starting out, considered the fact that all lending decisions are now centralised within the banking sector to be a negative development from the entrepreneur's point of view. She regrets the local manager's loss of discretion — ‘ ‘ Particularly for someone starting out who just needs a few bob’ ’.

3.3.3 Formal Venture Capital

In the GEM 2004 Financing Report, the point is made that only a very small proportion of new start-up enterprises meet their financing needs from VC funds. Given the high growth orientation of many Irish entrepreneurs and the focus of the Irish government policy on developing new enterprises with significant growth potential, the availability of VC funds becomes more of an issue than may be the case at global level.

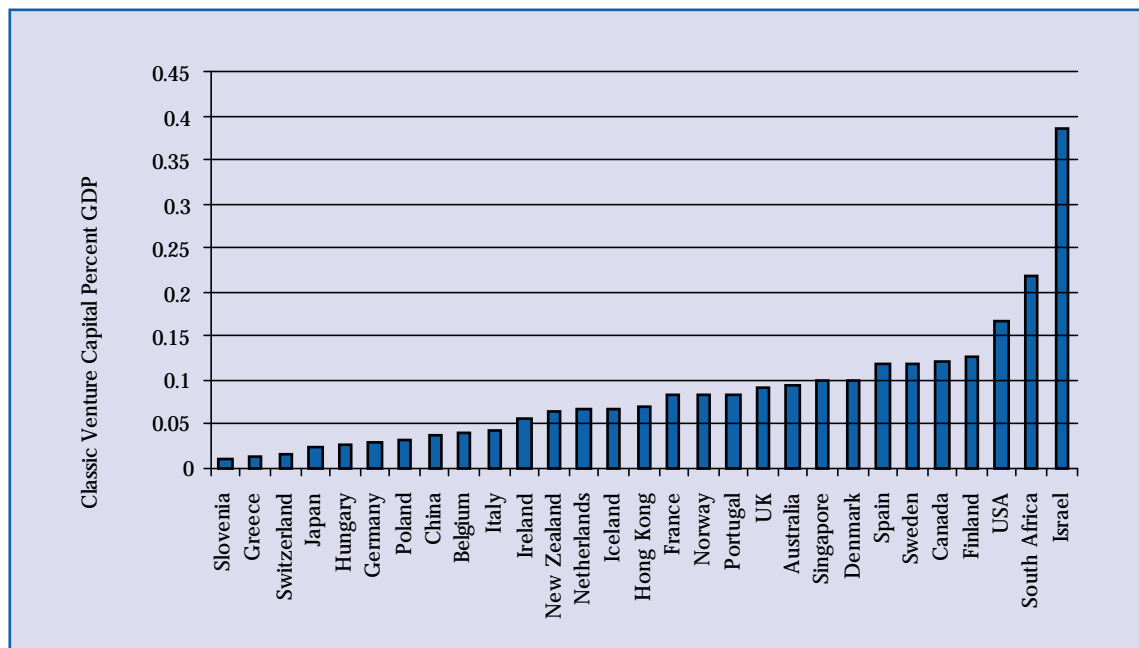
There is relatively little formal venture capital activity in Ireland (Figure 4).

Furthermore the GEM Financing Report suggests that the average deal size for venture capitalists are low in nearly all developed countries when compared to the US (for

example, €10 million in the US compared to €1.5 million in other G7 countries and €0.7 million in Ireland). Ireland scores particularly poorly in this international comparison, ranking twenty fourth of twenty six GEM countries.

This means that Irish entrepreneurs that receive venture capital funds may have to compete with US entrepreneurs who have received, on average, fourteen times more funding.

Figure 4: Classic Venture Capital as a Percent of GDP



Source: 2004 GEM Financing Report (29 countries included).

In commenting on the venture capital sector within Ireland there were a range of views on the part of the experts and entrepreneurs consulted.

The following are examples of positive comments that were made in this regard:

‘ ‘ The existence of a strong VC sector, which did not exist 10 years ago, helps to create a much improved environment. By and large there are good people in the VCs.’ ’

‘ ‘ Appropriate VC funding is available to those business concepts with merit and which will be profitable to VC stakeholders.’ ’

‘ ‘ Irish VC’ s have funds to invest in good projects. They have a depth of expertise and knowledge which is helpful to the companies they invest in. Government grants in the areas where they are available

(for example software development) are also well managed, do not take excessively long to process and can be applied for without too much difficulty.’ ’

‘ ‘ A venture capital market has emerged and developed in Ireland. Enterprise Ireland has been an important primer in this. Notwithstanding this, the VC market in the US is much more developed – for example, if Ireland is in its third round of VC funding, the US is probably in its 13th!’ ’

One entrepreneur speaking from personal experience commented: *‘ ‘ Venture Capital services in Ireland are good. They are willing to fund early stage companies before they have customers and a steady revenue stream. They also allow a period of time where they will advise and assist a start up to reach a further developmental stage more appropriate to venture capital funding.’ ’*

There were also a range of less positive views expressed which encompassed the level of the funds, a perceived conservative bias and shortcomings in the background and experience of its executives.

‘ ‘ The level of capital available in Ireland is too small, for example the biggest investment for one Irish VC in a single company is €3.5 million. This would be peanuts in the US.’ ’

‘ ‘ The VC community is seriously conservative in their approach to start up investment — it seems like on one hand they want to be in Venture Capital but on the other also want the protection of non venture capital investors like the banks.’ ’

‘ ‘ The recent performance in the VC market (i.e. a lack of exits) has meant that valuations are depressed and therefore it is harder to get early stage money.’ ’

With regard to the executives of the VCs active in Ireland, one serial entrepreneur contrasted them in a negative light relative to their US counterparts:

‘ ‘ In the US, the partners in venture capital firms tend to be experienced industry players often with start up experience themselves. In Ireland, they all come from accounting and banking backgrounds — this is not the right background at all. VC partners need to have had P&L responsibilities in another firm. They need to have a REAL understanding of how a business runs.’ ’

A first time entrepreneur, leading a campus company in the Life Sciences sector, considered that the expertise relevant to new leading edge companies in the sector was missing from the investment community:

‘ ‘ The biggest weakness in terms of an entrepreneurial environment in Ireland, and particularly detrimental to the area of Life Sciences, is that the Irish investment community lacks critical expertise or the ability to assess high technology projects effectively and successfully.’ ’

He added that he found this lack of know how and expertise to be particularly baffling in view of the purported policy emphasis in Ireland toward high tech sectors.

Another, who extended his comments also to the staff of Enterprise Ireland, considered that many of the VCs are staffed by ‘mechanics’ (i.e. those with accountancy experience), and felt that they lacked sector/market expertise, and were therefore not good at growing companies.

Another entrepreneur, commenting on the availability of VC funding outside of Ireland, emphasised the continuing importance of local providers:

‘ ‘ There is a European perspective to funding and a number of Irish start ups look abroad for investment because the Irish investment community is so small. For the most part, however, international VCs want Irish firms to have a local player sitting on the board of management. For this reason the small number of Irish VCs and Enterprise Ireland are very important to Irish start ups, despite their various failings.’ ’

One VC expert suggested that the regions would benefit from an additional supply of venture capital. He believes there to be sufficient supply in Dublin. He argued that increased ‘supply’ of capital would lead to increased demand for capital. He pointed out, however, that the reality is that it is harder to get entrepreneurs and projects that meet the requirements of a venture capital investor in the regions than it is in Dublin.

3.4 Is there Sufficient Finance Available for New and Growing Businesses?

The above analysis suggests that there is insufficient finance available in Ireland for new and growing businesses. The key informants opinions, reflected in the 2004 questionnaire, clearly illustrate that access and availability of finance is the one area that has shown a distinct deterioration in their estimation over

the last three years. This is particularly marked in terms of equity investment from both private individuals (other than the founders) and from the VCs. The situation with regard to debt financing is not perceived to have changed significantly over the last three years.

In 2004, in all instances the entrepreneurs consulted were more negative in their perception on the availability of funding available to new and growing firms from all sources, than were the experts, who tended to be more non-committal. The entrepreneurs felt that there was insufficient equity funding available, stemming from a shortage of funding available from informal investors and from VC investment. They also felt that there was a shortage of debt financing available. The experts shared their view that there were very few IPOs and that by and large it was not a means used by growing Irish companies to raise finance.

As can be seen from these comments, early stage funding was even more of a major issue than it had been previously. These views need to be considered, however, in the context in which they were made.

In the 2004 Budget the Government announced its intention to extend the BES and Seed Capital schemes and this was considered a necessary and welcome development. Subsequently, the EU Commission decided that this proposal would have to be examined further, indicating that these schemes should perhaps be considered as State Aids. As a result, at the time when the questionnaires were completed by the experts and entrepreneurs, new BES certification was on hold or deferred and entrepreneurs, seeking to finance their new ventures, did not have this option. This situation was further exacerbated by the fact that although money was available from the VCs, it was being directed towards second and subsequent funding rounds. This situation, it was considered could be made

even worse, if the funds invested by VCs in recent years do not make a return²⁸.

Since then the BES and Seed Capital Relief schemes have received clearance from the EU and are now operating again, something which has been warmly welcomed by experts, entrepreneurs and Enterprise Ireland alike. Over the last six months in particular, the seed and Venture funds have also become more active in considering investments in earlier stage companies reflecting, one expert believes, their confidence in an improvement in the general market conditions and in particular the belief that early stage companies are more likely to be in a position to secure sales from customers than 12 months previously. The issue of funds making a return, however, still continues to be an important factor in ensuring funds are successful in securing new funds for investment.

Notwithstanding the easing of the situation since the EU approval of the BES and Seed Capital Relief schemes, the comments of some of those consulted are still relevant in terms of their view that the BES fund is capped too low.

As one serial entrepreneur explained:

‘ ‘ To build a company of the relevant size you need substantial funds. Currently in Ireland there is simply not enough seed capital available to build a truly international commercially viable firm. Let us say there are five entrepreneurs wishing to start up a HPSU²⁹. Between them they might be able to raise about € 90,000 in personal start up funds – this will never be enough to set up a realistically large-scale firm with enough R&D and exporting expertise.’ ’

He continued:

‘ ‘ One of Ireland’s key international strengths is the quality of its technology and software sector. New software ventures need significant amounts of

²⁸ According to Enterprise Ireland, €395 million is to have been invested by the VCs between 2001 and 2006, leveraged by the investment of €98 million by EI.

²⁹ High Potential Start-Up (HPSU) is the term given by Enterprise Ireland to those early stage firms that it supports.

capital to fund R&D and export related expenditure. It is a significant obstacle to entrepreneurship to withhold funding at this critical development stage.' '

The point was made by one expert that it was difficult for an individual, or even a group of individuals, to accumulate the necessary capital to start a business:

' ' The Celtic tiger has led to a consumption culture with a high level of debt. Savings and investments by ' ' Joe public' ' are not at a level where many could invest in a new business without borrowing.' '

Another entrepreneur, believing that there are a great many gaps in the Irish funding environment, explained his point as follows:

These gaps come under two primary headings:

- a. *Early stage: There is a Catch 22 situation faced by many very early stage firms in Ireland, particularly firms in the technology sectors where a high level of R&D may be required prior to production. In order to attract investors in the current investment market, the new firm must be able to show evidence of reference customers and a healthy sales pipeline. To have customers they must have a fully functional product developed. There is, however, no investment available for this early stage development period. This means that the entrepreneur must raise the money from personal funds and must shoulder the burden of risk entirely.*
- b. *Later stages of development: funding is somewhat easier to come by, however, the level of bureaucracy and the amount of paperwork and lag-time required for these funding processes means that it is as easy to raise €10,000 as it is to raise €10 million.*

Several entrepreneurs made the point that raising finance is a time consuming process and that this meant that they were spending less time than they should be on developing the business.

Not all experts and entrepreneurs consulted were so pessimistic, however, and there was a contrary view, expressed by a minority, that good projects would have no difficulty in finding funding. One expert argued that the assumption that 'funding is always the problem' is wrong. He argued that many projects and many entrepreneurs don't merit institutional investment.

Similarly another expert, while conceding that there may be a shortage of early stage funding, believed this case to be overstated:

' ' Access to finance is often used as a red herring. While it is true that really small amounts of money, €2,000- €5,000, are in short supply (and only available from First Step), that there is no pervasiveness of informal investors, as there would be in the States, because there is no depth of wealth in the country for ' casual' (rather than informal) investment, and the banks are risk adverse as are the VCs. However, shortage of finance is often used as an excuse — good projects will get funded. Often the projects are simply not thought through carefully enough.' '

Another expert made a similar point:

' ' A primary weakness is the level of funding. However, the ' core problem' is more the lack of good enough propositions. Where there is a sound and profitable propositions the funds will be made available from somewhere. Currently there are not enough good projects to fund.' '

Another expert in giving his opinion of the strengths in the environment for entrepreneurship in Ireland clearly stated his view that availability of capital for start up businesses was one such strength. In particular,

he mentioned venture capital, the BES scheme, CEBs, and Enterprise Ireland:

‘ ‘ The number of early stage seed and venture funds established in recent years is a definite strength. There is now a range of funds available to entrepreneurs – particularly entrepreneurs with projects that have growth potential.’ ’

One serial entrepreneur, who compared the situation in Ireland unfavourably with that in Northern Ireland, stated that he would consider starting another business in Northern Ireland, but not in Ireland:

‘ ‘ There is considerably more flexibility in funding in Northern Ireland at the moment. And there is a lot less emphasis on EU rules and constraints which makes all the difference – even if there is still a disparity between the Euro and the £.’ ’

It is interesting, but perhaps not surprising, to note that it is the entrepreneurs in the main who are complaining about a shortage of early stage funding and outlining difficulties in accessing it, while it is experts who are more confident that there is adequate funding available, and that the key issue is more a shortage of good projects.

Several of the experts made the case that while there may be some problems with regard to the availability of funding for new and developing businesses; the greater problem lay in the nature of the new enterprises themselves. The question then arises as to whether there is an access gap in terms of the ability of new companies to tap into monies that it is argued are available.

One expert claimed that in fact there is a management/experience gap on the part of the entrepreneurs. Specifically he suggested that entrepreneurs are not investor ready and are poor at doing ‘basic due diligence’ of their own ideas. This comment underpins the views expressed by many of the crucial need to find ways in which connections can be made between experienced managers and less commercially experienced entrepreneurs in

order to build balanced start-up teams from solo entrepreneurs.

Several entrepreneurs claimed a lack of knowledge of where to go to source finance that they needed. In the words of one who believed that there is a funding gap of between €25,000 and €250,000 – ‘ ‘ It is difficult to access finance and there is ‘mistiness’ around where finance should be got’.’

Finally, several entrepreneurs commented on the effects of prior entrepreneurial failure on the ability to subsequently raise finance. One commented that:

‘ ‘ There is still a stigma attached to failure, it is certainly not the badge of honour here that it is in the US. The agencies, VCs, banks etc all want to be associated with absolute success’.’

One spoke at length of the consequences of failure:

‘ ‘ A further complication in the Irish context is the stigma of failure. While we can wax lyrical about an entrepreneurial culture, the pressure and responsibility that the funding arena forces on an entrepreneur means that failure, rather than being simply a concern, is a very real, very stressful, usually financially crippling experience. The Irish banking system does not take risks on high risk start ups, the seed funding available to any start up is too small even for the recognised best in their field, and most entrepreneurs will gamble their own financial security on their new company and this is a disaster if the firm cannot become viable quickly enough. It is also a serious risk for any employee joining a new venture.’ ’

This entrepreneur/business angel gave a concrete example of having hired five employees for a new venture he had invested in. These five had previously been involved in a new venture that had become bankrupt. Three of the five had lost their houses as a result of the bankruptcy and were currently

living with their wives and children in their parents' homes. It is an unenviable situation, he said, and one for which he believed Irish society had little sympathy.

3.5 Policy Implications

The GEM research suggests that for most entrepreneurs they will require relatively small amounts of money to start their new business. The most important source of this finance is the entrepreneurs' own resources – which includes the savings and the personal borrowings of the entrepreneur. In seeking external finance most entrepreneurs will rely on informal investment from family and friends.

There are also a group of entrepreneurs that have more significant financing requirements, amounts which the entrepreneur may typically find difficult to self-finance. These entrepreneurs are more dependent on external finance from informal investors, banks, development agencies, and in a small number of cases, from venture capitalists.

The policy challenge arises as GEM research suggests that the availability of funds for new ventures is comparatively low in Ireland. While one might expect entrepreneurs to encounter some difficulties in accessing finance, GEM research suggests that relative to other countries both the rate of informal investment activity and the overall amounts of informal investment activity are comparatively low. Specifically, GEM research suggests the availability of informal investment is particularly low as a percentage of the funding requirements of nascent entrepreneurs.

Furthermore, GEM research suggests that the overall level of formal venture capital activity in Ireland and the individual deal size is relatively low. In the view of some of the experts and some venture capitalists this reflects insufficient investment prospects rather than a lack of venture capital funds to be invested.

Accordingly, there are challenges to increase the number of informal investors in the country, to increase the level of venture funds available and the quality and preparedness of entrepreneurs seeking funding.

Table 10: Informal Investment Activity (22 OECD Countries)*

	EU Countries											OECD Countries										
	PO	IE	UK	FR	GR	DK	ES	NL	DE	FI	IT	HU	PT	SE	BE	NZ	IS	AU	US	CA	NO	JP
Informal Venture Capital Activity (% of population)	3.93	2.28	1.37	4.93	2.65	2.92	2.55	1.31	2.69	2.07	2.99	2.16	.93	2.43	1.64	4.83	8.80	2.73	4.34	2.72	4.31	.32
Expected returns (investors)																						
(i) Informal investors that expect to get back at least own investment (%)	84%	89%	71%	63%	73%	86%	73%	75%	73%	70%	19%	74%	79%	56%	67%	86%	62%	82%	79%	66%	n/a	85%
(ii) Informal investors that expect a profit (%)	40%	41%	36%	55%	52%	48%	32%	34%	26%	41%	15%	20%	37%	47%	47%	66%	52%	40%	72%	55%	n/a	51%
Expected returns (entrepreneurs)																						
(i) Nascent entrepreneurs that expect to get back at least own investment (%)	100%	93%	99%	94%	100%	100%	100%	94%	96%	100%	57%	96%	87%	95%	92%	92%	95%	91%	92%	96%	97%	100%
(ii) Nascent entrepreneurs that expect a profit (%)	75%	82%	87%	77%	93%	81%	86%	88%	83%	75%	51%	87%	69%	87%	61%	89%	86%	84%	89%	93%	80%	100%

*See Table 2, page 12, for a full list of the country abbreviations used.

SECTION 4

How Growth Orientated are New Irish Ventures?

4.1 Introduction

The focus of Irish enterprise policy is on providing an environment in which it is relatively easy and rewarding to set up a new business and within that to concentrate particularly on supporting those enterprises which it is considered will provide the best return for the State's investment, namely knowledge based, growth orientated, and internationally trading businesses.

GEM research provides data to estimate relative growth and export orientation and provides some measures to estimate the relative innovativeness of the new businesses being started.

4.2 Are Irish Entrepreneurs Growth Orientated?

Entrepreneurs in Ireland are no different to those in all other countries involved in the GEM research. Regardless of relative wealth of the country, about two thirds of all new ventures around the world expect to employ no more than 2 people within five years of the survey. In terms of those that expect to create any employment, 76% of all Irish entrepreneurs expect to create some employment, which is the same as the average for OECD countries (76%), though higher than the EU average (72%) (Table 15 at the end of this Section)

Entrepreneurs with growth potential are typically considered to be those that will employ at least 20 people within five years of start-up. According to GEM research, 13% of Irish entrepreneurs have high growth

aspirations. This is the lower than in 2003, when 15% of entrepreneurs had high growth expectations. The differences are probably explained in terms of the decline in the level of entrepreneurial activity among males in Ireland between 2003 and 2004 as male entrepreneurs tend to be more growth orientated.

An examination of the number of jobs already created, by those who have started new enterprises in the 42 months prior to the survey, indicates that over 4.3% already employ 20 or more.³⁰ This is a considerable achievement as it means that over 75,000 new jobs have been created by approximately 3,800 high growth new firms in this relatively short timeframe.

Given this level of actual and anticipated employment expectation, it is clear that a relatively high proportion of Irish entrepreneurs have growth aspirations and that the number of new jobs, which may be expected to flow from these new enterprises, will be considerable.

All size is relative. This is very obvious from the comments of the experts and entrepreneurs consulted, who commented on the limited horizons of Irish entrepreneurs. Several of the Irish entrepreneurs and experts consulted, when asked to nominate a specific weakness that limited the entrepreneurial environment within Ireland, commented in particular on there being a shortage of businesses that have sufficient scale potential. It should be pointed out that the *scale* that was being referred to in these comments related to the development of

³⁰ The equivalent figure in 2003 was 6%.

very significant international and global players. This point was made in a variety of ways. While some of those consulted just pointed to the lack of scale, others were more specific in explaining their viewpoint.

One commented on the situation in terms of a lack of ambition:

‘ ‘ In general the goals of Irish and many European entrepreneurs lack ambition and they tend to be limited in their aspirations. There appears to be an inability to conceive of opportunities in terms of scale, as is the case in the United States.’ ’

Another, also focusing on a lack of ambition, believed that this shortcoming was not confined to the entrepreneurs alone:

‘ ‘ An additional cultural weakness is that there is a tendency in this country to ‘ ‘ think small’ ’. There is a need for more forethought and vision among Irish entrepreneurs and the Irish investment community.’ ’

Another explained it in terms of risk aversion as well as a lack of imagination:

‘ ‘ There is an over awareness of and sensitivity to risk and most individuals involved in start ups fail to imagine greater things. This might explain the lack of a serious Irish global heavyweight company. Irish companies succeed quite well in getting to a certain stage and then they sell out quickly. They do not envisage a bigger future for their company.’ ’

One seasoned manager, who had crossed the divide from management of a foreign multinational in Ireland to running a high technology, entrepreneurial company, directed his comments more to the fact that EI is prepared to fund several small new companies in the same space, for example in the photonics area, rather than trying in a proactive way to get these small companies to pool their limited resources: *‘ ‘ In specific areas*

where there is activity and strength, there is much fragmentation and there has been no pro-active merging of companies, to build critical mass’ ’.

The consequence was that there were in fact very few truly global Irish companies, despite the fact that Ireland's policy is directed at developing high growth, internationally trading companies. One entrepreneur explained this situation not merely in terms of a lack of vision, but rather a lack of the necessary skills and know-how:

‘ ‘ Entrepreneurs and their firms lack management expertise/experience at product management/product branding/building markets (as opposed to product development which is strong). Product management involves developing one product into a suite of products – US firms are good at this and therefore they grow. A consequence of this is that Irish firms are unable to grow beyond €5 million in revenue. This is a very expensive resource for start-ups, but they need to get it early.’ ’

This inability to bridge the management/skills gap may be due to a lack of financial resources on the part of the young Irish company. As one entrepreneur pointed out *‘ ‘ US ventures get much larger funding and they can attract key management and CEOs with the skills and experience to commercialise the technology’ ’* (He cited an example of a new company in Ireland with excellent technology looking to raise €3 million, while a US firm with similar, and arguably weaker technology, recently raised \$45 million).³¹

Another expert spelt out the reality: *‘ ‘ To build a company of the relevant size you need substantial funds.’ ’*

One serial entrepreneur also linked the lack of achievement of scale to a shortage of significant seed capital:

‘ ‘ Currently in Ireland there is simply not enough seed capital available to build a

³¹ This point is confirmed by Professor Bill Bygrave. As is pointed out in Section 3 *New Venture Financing*, the GEM Financing Report suggests that the average deal size for venture capitalists are low in nearly all developed countries when compared to the US (for example, €10 million in the US compared to €1.5 million in other G7 countries and €0.7 million in Ireland). Ireland scores particularly poorly in this international comparison, ranking twenty fourth of twenty six GEM countries. This means that Irish entrepreneurs that receive venture capital funds may have to compete with US entrepreneurs who have received, on average, fourteen times more funding.

truly international commercially viable firm.' '

4.3 Are Irish Entrepreneurs Export Oriented?

The small size of the domestic market was referred to again and again by the experts and entrepreneurs consulted when they were asked to comment on significant factors that limit entrepreneurial activity in the country. A consequence of the size of the market they pointed out was that entrepreneurship was either at the micro enterprise level or needed to be internationally trading from a very early stage of its development in order to obtain scale.

This is the backdrop in which the question is posed – are Irish entrepreneurs export oriented?³² In a country with a larger home market this question would not be as important or as indicative of a new business wishing to build scale. In larger, more populous countries significant scale can be obtained through a concentration on the home market, given its size – this is not the case in Ireland.

According to GEM research, the desire to export is well developed among Irish entrepreneurs. More than two in every three expect to have at least some exports (67% of entrepreneurs) while about one in every four (26%) expect to have more than a quarter of their customers in export markets (Table 11).

Table 11: Percent of Customers in International Markets (All entrepreneurs)

% of Customers in International Markets	% of Entrepreneurs
None	33
1-24%	41
25-74%	14
75-100%	12
Total	100

GEM 2004 research data

Of new firm entrepreneurs, that is those that have already set up new businesses in the 42 months prior to the GEM survey, four out of

every five have some exports, while 29% currently export more than 50% of their output (Table 12).

Table 12: Percent of customers in international markets (New firm entrepreneurs)

% of Customers in International Markets	% of Entrepreneurs
None	19
1-24%	51
25-74%	19
75-100%	11
Total	100

GEM 2004 research data

The implication of this finding is that almost 30% or over 27,000 of new firm entrepreneurs have already more than 25% of their customers in export markets within 42 months of starting their new businesses. According to

GEM data for Ireland, the most active of the new firm exporting entrepreneurs (those with more than 25% of their output exported) when compared with those with a little or no export orientation, are not statistically different across

³² GEM measures exports in terms of the percentage of customers in international markets.

a range of measures. This suggests that export orientation is not confined to entrepreneurs operating in particular sectors and that the individual differences between entrepreneurs in terms of their age, gender and educational attainment levels are not significant.

GEM research at Global level clearly demonstrates that in high income countries start-ups are more export focused (Table 13).

Table 13: Export Characteristics by Country Income Level³³

% of Customers in International Markets	Low Income Countries	Middle Income countries	High Income Countries	
None	44%	18%	37%	100%
1-25%	27%	18%	55%	100%
26-50%	25%	22%	53%	100%
51-100%	21%	22%	57%	100%

Compared to other countries, Irish entrepreneurs are quite international in their orientation. Using a measure of having greater than 50% of sales outside of the country, Ireland (14%) leads Europe (9.7%) and the OECD (9.8%) (Table 15 at the end of this Section).

While the size of the Irish home market was perceived to offer additional challenges to entrepreneurs that wished to grow their business, several of those consulted pointed out that Ireland's location was a strength – ideally located as it is to service the UK, continental Europe and the US markets.

4.4 How Innovative are Irish Entrepreneurs?

Innovation is highly prized within high income countries. Ireland is no exception. Innovation can take place within existing organisations and institutions as well as within new enterprises. While it could be argued that all new businesses that survive contain some degree of innovation, otherwise they would not survive, very few new entrepreneurs are highly innovative in terms of their use of new technology or the development of new markets. Most new enterprises in fact are not innovative in the usual meaning of that term, as they are based on existing technology and focused on meeting existing market needs.

GEM researchers recognise that it is very difficult to measure the degree of innovativeness within new enterprises. To arrive at some common measure of innovativeness that can be compared across all participating countries, GEM measures the degree of innovativeness of entrepreneurs in terms of a market expansion index that is based on three factors:

- (i) The extent of market innovation involved in the entrepreneurial effort;
- (ii) The newness of the technology or procedures required for the product or service; and
- (iii) Whether there are competing products/services.

The index is scored from 1 to 4, 1 is no market expansion, 2 is little market expansion, 3 is some market expansion, and 4 is maximum market expansion. Not surprisingly, most entrepreneurial activity involves little market expansion. Across the OECD countries³⁴ 57% of all entrepreneurs are classified as no market expansion. At the other extreme only 3% of all entrepreneurs in the GEM OECD countries are classified as being engaged in maximum market expansion (Table 15 at the end of this Section).

Irish entrepreneurs are more innovative than OECD entrepreneurs. 55% of Irish

³³ Low income countries have a per capita GDP up to \$10,000. High income countries have a GDP per capita of over \$25,000.

³⁴ 21 countries included as comparative figures were not available for New Zealand.

entrepreneurs consider that there is a minimum degree of market expansion in their new venture (compared to 43% for GEM OECD countries). The main difference occurs among entrepreneurs that have little market expansion, 41% in Ireland versus 29% in GEM OECD countries. Ireland is similar to OECD countries in that very few entrepreneurs

believe that they are engaged in maximum market expansion activities (3%), or indeed, some market expansion (11%). However, while the percentage of entrepreneurs with some or maximum market expansion is low (14% in Ireland), the actual number of entrepreneurs is high, 27,000 in Ireland (Table 14).

Table 14: Market Expansion in Ireland and the OECD Average

	Ireland	OECD average ³⁵
No market expansion	45%	57%
Little market expansion	41%	29%
Some market expansion	11%	11%
Maximum market expansion	3%	3%

Many of those consulted as experts and entrepreneurs as part of the Irish GEM research in 2004 have in-depth experience and well developed views about the challenges facing Ireland in its efforts to increase the number of new businesses that contain significant innovation.

There is almost an assumption among them that highly innovative new enterprises will be based in the main on ICT or bio medical/life sciences technology sectors in which SFI funding to third level research is being concentrated. The fact that this funding is providing a much needed boost to third level research and the training of scientists and technical postgraduates, that are the backbone of innovative companies, was also welcomed by the experts and entrepreneurs.

There is a belief that Ireland has strengths in a small number of technology sectors in which the technology is world-class.

Several of those consulted cited the *dynamic* ICT sector, in particular, as a very big strength for Irish entrepreneurship. The development of this sector in Ireland benefited enormously from the presence of large multinational companies, which provided the training in advanced technology and world class systems that empowered some of Ireland's innovative

entrepreneurs. The companies themselves also provided the initial market for many young Irish high-tech companies.

It is also considered that opportunities are beginning to present themselves in the Life Sciences sector and that raising funds by new companies in this sector has become easier.

Science Foundation Ireland (SFI) was specifically mentioned in this connection by one entrepreneur ' ' *as a fantastic bulwark for Life Sciences in Ireland; it is attracting researchers and creating the right ingredients for entrepreneurship. It also has had an impact in encouraging Irish universities who have now started to go in the right direction in terms of helping their staff and students commercialise their research.* ' '

Another entrepreneur, who is setting up a new company in this sector, while optimistic about the possibilities presented cautioned: ' ' *Ireland does not have the same depth in R&D investment in Life Sciences as we have in ICT. While the ICT sector has had success in attracting foreign investment and multinational R&D facilities, this needs to be done now in the Life Sciences sector.* ' This entrepreneur spoke of having visited a Life Sciences 'campus' in Denmark, Medicom Valley. This was created specifically for spin offs from the local

³⁵ Average across the 22 countries involved in GEM research in 2004.

pharmaceutical and healthcare companies located in this region in Denmark. According to this key informant this initiative kick-started a huge burst of entrepreneurial activity as those employees, who had the researching skills and wanted to start out on their own, had the facilities to do so and the help sitting on their doorstep.

He pointed out that the Life Sciences sector is not traditionally an indigenous Irish sector and that there are very few home players. He suggested that there needed to be more Irish players in this space and that this in turn would encourage more start ups. He believed that increased start up activity would undoubtedly be encouraged through the provision of more and better seed funding. He noted that, while there has been a welcome pick up in private investment in this area, the stark reality was that one of the difficulties in the Life Sciences area is the length of time it takes to bring the research through to commercialisation, and the associated difficulty for entrepreneurs in this sector to find funding to sustain the project and the researchers over this extended period. He pointed out that the length of the development cycle is not unique to projects being promoted in this sector in Ireland, indicating that this development time is universal to all companies in the Life Sciences, where product development requires a considerable number of trials and tests.

In the comments of the experts and entrepreneurs consulted it is clear that it is expected that much of the technology on which the innovative new businesses would be based is expected to flow from the universities and other third level colleges on the back of the significant SFI funding that is going into third level research. They welcomed the increased investment in and focus on research but many still considered that it was still below a critical mass. More importantly perhaps, one expert expressed a critical view with regard to the focus of the research: ‘ ‘ *There is a lack of global product view (intelligence) when undertaking this research.* ’ ’

Many also spoke of concerns about technology transfer out of the third level sector. ‘ ‘ *The university sector is still not good at commercialising technology* ’ was a remark frequently repeated.

One entrepreneur attributed this shortcoming to a shortage of funding: ‘ ‘ *The technology transfer activities in third level colleges do not have the level of funding or exposure that they would need if they were to be highly effective.* ’ ’

Another commented that the rate of spin-out from research in Irish Universities is still quite poor, believing that there is still nowhere near the critical mass of technology transfer activity that there should be. He did concede, however, that the situation has improved in the last number of years. This entrepreneur gave Queen’s University in Northern Ireland as an example of a university that successfully commercialises research.

One serial entrepreneur/business angel was critical of the universities being of the view that the universities get too much of the available funding, and are too demanding in their dealings with their campus companies and in negotiating licences.

‘ ‘ *Universities are getting too much of the funding, taking too much (in equity terms) from their campus companies and are too slow to commercialise R&D anyway.* ’ ’

He considered that there is some merit to the idea of taking some of the research money currently being ploughed into the university system and putting it into early stage companies instead. ‘ ‘ *There have been a lot of positive things happening in the university technology transfer space, but the strategy outlined above would put the money immediately into serious truly commercial technology/research there at the point of sale.* ’ ’

He pointed out that other countries, which Ireland wishes to emulate, have had breaks that this country hasn’t enjoyed – the US and Israel were cited in particular as both having a significant defence budget, which has rolled over to commercial technologies very easily. In terms of benchmarking best practice, this serial

entrepreneur would use Israel as a benchmark for equity investment and the US for university spinouts.

He compared the US and Irish universities in terms of their technology transfer practices and greatly favoured the practices in the US. *‘ ‘ US universities take a realistic royalty fee from their campus companies unlike Irish universities, which currently put way too much emphasis on owning equity in IP and so on.’* He also felt that the Irish universities were not helping the cause as *‘ ‘ at the moment there is a tendency toward creating extraordinarily complex share structures in campus companies with universities, founders, brothers and sisters and everybody involved in ownership. No experienced CEO/management team is going to want to take on board this zoo of stakeholders!’* He commented that he had personally turned down the chance to invest in a number of seriously viable tech companies for this reason.

Another entrepreneur in the Life Sciences area also found fault with both the equity structure and the general academic structure in Irish universities, as he believed that these were not conducive to entrepreneurship and created extra problems for academics trying to behave entrepreneurially. He explained that these problems occur in two important ways:

- (i) The amount of equity demanded by Irish universities appears to be somewhat arbitrarily decided. The normal equity stake required he said is 15% and this entrepreneur has been told by a number of potential investors and members of the investment community that this is simply too high to be tenable for most investors.
- (ii) Moreover, and possibly more detrimental, the academic career structure favours the traditional research approach and values academic publications over commercial product or prototype development.

Patenting was highlighted as a very real problem for campus companies, as according

to several entrepreneurs who have been through the process, it takes a lot of time and financial investment to organize, register and protect patents.

4.5 Do Irish Entrepreneurs Have the Required Skills?

Many of those promoting knowledge based, internationally trading new businesses tend to be coming from technical backgrounds. There was a general belief among those consulted that these new entrepreneurs tend to be poorly prepared for the range of issues with which they will have to deal in running a sophisticated new and growing business.

‘ ‘ There is a definite shortage of experienced entrepreneurs for technology based start ups’ ’

‘ ‘ There is a tenable deficit in general experience amongst younger entrepreneurs, who may have creative business ideas, but do not necessarily have the right experience to bring a new company forward.’ ’

One entrepreneur explained the reasons behind this situation:

‘ ‘ While Ireland has a well skilled workforce, we lack a critical number of experienced people willing to be involved in new ventures at an early stage. There is a knowledge gap in the market at the moment. We have well qualified business thinkers, MBAs and so on, with absolutely no technical know how and we have very highly skilled technical professionals with no business skills whatsoever. There is a need for experienced executives who will understand the needs of the market, the technical development needs of the company and the basic business know how to seamlessly put the elements of a viable business together.’ ’

Very many commented on their belief that the general management capabilities of the entrepreneurs leading knowledge-based start-ups were low and several specified particular failings in terms of lack of experience in selling on international markets. The reality is a lack of

well-balanced entrepreneurial teams and this was highlighted by many as a critical issue.

The ideal then is to build a balanced team to compensate for the shortcomings in the nature of the experience and know how of the owner manager. One experienced entrepreneur explained what was required:

‘ ‘ Technical teams must have commercial savvy. There should be a project manager, a technology person and a strong sales person, capable of making cold calls, getting orders and closing deals.’ ’

But, as several of those consulted explained, this may be easier said than done.

‘ ‘ For the young entrepreneur building an experienced team is difficult and there are not enough experienced executives willing to take a risk on managing a small start up.’ ’

‘ ‘ It is hard to find the ‘ class of person’ willing to take a salary cut, take a risk on a new venture and not spend the kind of money on perks they may be used to in large corporations.’ ’

‘ ‘ It is very difficult to find qualified graduates who have meaningful experience (5 years plus).’ ’

‘ ‘ At present, in certain instances, this capability needs to be ‘ ‘ imported’ ’ from the main target markets, as it is not available in sufficient numbers within the country. There is a real difficulty, however, in attracting the right calibre of managers into Ireland, as the cost of living and the cost of accommodation here is relatively higher than elsewhere. This makes the challenge to fill the skills gap even more difficult.’ ’

In addition to the other challenges facing an entrepreneur in a technology based new business, the entrepreneur in Ireland must face the additional challenge of needing to export at an early stage of development. As one

expert pointed out this presents particular financial, language and know-how challenges to young companies, which do not have to be faced by other young companies that are located within a much larger home market.

Against this need, however, the experts’ and entrepreneurs’ perception that there is a general lack of sales, marketing and foreign language skills in Ireland is not good news. This perception was remarked upon repeatedly by the experts and entrepreneurs consulted.

‘ ‘ There is a lack of export sales skills (not marketing) extending from direct sales right through to channel development’ ’

‘ ‘ Irish entrepreneurs lack presentation and critical communication skills requisite for raising funds and selling in export markets. This is particularly detrimental in the US market where entrepreneurs are typically over-confident, strident and able to sell, present and hold their own in any presentation context.’ ’

‘ ‘ The US is the largest market for Irish ICT companies and yet it is difficult to get good professionals in the US to work for a small Irish company.’ ’³⁶

The general shortcomings outlined above have not been tackled in any systematic way. As one expert pointed out:

‘ ‘ There is no single national approach towards management development and the IMF³⁷ has not fully met the need for the development of a strong cadre of managers to strengthen Irish companies.’ ’

The Enterprise Strategy Group recognised the pressure to find overseas customers and the importance of this activity to an increasing number of entrepreneurs and suggested that a dedicated structure, Export Ireland, be established within Enterprise Ireland to

‘ ‘ develop a more focused approach to export

³⁶ For this reason, this CEO believes that making an acquisition in the US is a good strategy and one that his company has successfully followed.

³⁷ Irish Management Institute.

*market intelligence and promotional activities.*³⁸

On the positive side, the entrepreneurs and experts consulted referred to far greater numbers of role models in this area than were present in the past and a willingness on the part of many of these to invest both their time (as mentors/coaches and/or as directors) and their money (as angel investors) back into young Irish companies.

A word of caution was introduced by several of those consulted, however. They referred to the new non-executive director regulations as ‘ ‘ putting further strain on this area

4.6 Policy Implications

Irish Government policy is particularly focused on encouraging new innovative enterprises that have growth potential and are export oriented. This in the main is the focus of the development agencies' supports. GEM research suggests that in Ireland there is a much larger group of entrepreneurs currently exhibiting these characteristics than are currently clients of the development agencies: particularly in the number of new enterprises that have export customers and have

aspirations to or are currently employing more than 20 persons. These firms are already exporting and between them are substantial employers.

The real shortcoming appears to be in the lack of balanced entrepreneurial teams, a shortage in the selling, communication and language skills necessary to develop export markets, and a lack of commercial skills among the technically qualified entrepreneurs to whom Enterprise Ireland, in particular, focuses. This would appear to be a skills deficit.

There are also difficulties around the area of technology transfer and the conversion of research into commercially viable new enterprises.

Much of the discussion on growth focuses on the need to have new enterprises aspire to employ more than twenty people within a relatively short time frame. A relatively high proportion of entrepreneurs within Ireland would appear to have this aspiration. There would appear to be a related challenge of a different magnitude. That is to develop a cadre of entrepreneurs with global scale as their objective. In this, Ireland is not so strong.

³⁸ Ahead of the Curve, Ireland's Place in the Global Economy, Enterprise Strategy Group, July 2004.

Table 15: Employment Growth, Internationalisation, and Market Expansion (22 OECD Countries)*

	EU Countries											OECD Countries										
	PO	IE	UK	FR	GR	DK	ES	NL	DE	FI	IT	HU	PT	SE	BE	NZ	IS	AU	US	CA	NO	JP
Expected employment growth (T-index: % of adult population)																						
Any employment growth	7.18	5.85	4.58	4.50	2.80	3.75	4.60	3.87	3.69	3.21	2.81	2.99	2.13	2.79	2.66	12.12	11.13	8.92	8.05	6.88	5.38	1.23
Internationalisation																						
Greater than 50% of sales expected outside country (T-index: % of adult population)	.42	1.08	.75	.39	.61	.35	.31	.55	.27	.44	.91	.30	.21	.31	.60	2.09	1.79	1.24	1.17	1.65	.29	.00
Percentage of all entrepreneurs expect 50% of sales outside country	5%	14%	12%	6%	11%	7%	6%	11%	5%	10%	21%	7%	5%	8%	17%	14%	13%	9%	10%	19%	4%	0%
Market expansion index (T-index: % of adult population)																						
(i) No market expansion	5.66	3.47	3.26	3.41	2.48	2.50	3.75	3.08	2.96	3.06	2.06	2.26	2.67	2.28	2.08	2.06	6.91	7.08	6.85	4.24	3.89	1.07
(ii) Little market expansion	1.92	3.15	1.77	1.38	1.74	2.09	1.00	1.52	1.21	1.05	2.06	.78	1.06	.86	.78	2.16	3.43	4.69	3.01	3.46	2.15	.32
(iii) Some market expansion	.94	.83	.88	.98	1.04	.47	.29	.32	.75	.28	.03	1.22	.22	.28	.47	1.17	2.00	1.23	1.10	.87	.68	.09
(iv) High market expansion	.30	.25	.34	.26	.51	.26	.11	.19	.15	.00	.00	.03	.00	.26	.15	.21	1.23	.38	.37	.28	.27	.00
Total Entrepreneurial Activity	8.83	7.70	6.25	6.03	5.77	5.31	5.15	5.11	5.07	4.39	4.32	4.29	3.95	3.71	3.47	14.67	13.57	13.38	11.33	8.85	6.98	1.48

*See Table 2, page 12, for a full list of the country abbreviations used.

SECTION 5

Women and Entrepreneurship

5.1 The Number of Women Entrepreneurs in Ireland Increases

Since 2001, the Irish GEM team has been highlighting each year the relatively low number of women involved in entrepreneurial activity in Ireland. In 2004, however, the first signs of an improvement in the number of women active as entrepreneurs were detected by GEM research, as there was a significant improvement in the number of women becoming involved in entrepreneurial activity in Ireland in 2004 compared to the previous year (5% compared with 3.7%). While the overall level of women's involvement in entrepreneurial activity in Ireland is still low, the trend is encouraging. In 2004, one in every three entrepreneurs was a woman, compared with one in every four the previous year. The latest GEM research shows that one in every twenty women in Ireland aged between 18 and 64 are active as entrepreneurs. This compares with one in every ten men. In other words, of the 193,000 individuals engaged in current entrepreneurial activity in Ireland, over 64,000 of these are women. (See Table 22 at the end of this Section).

The increase in the number of women entrepreneurs, which is shown up in the latest figures, is primarily due to the increase in the number of women who are actively planning new businesses (3.44% in 2004 compared with 2.54% in 2003) rather than being due to an increase in the number of those who have

recently established new businesses (1.88% compared with 1.53%).

The trend is most pronounced when the gender balance among the Irish nascent entrepreneurs³⁹ is compared to the number of new firm entrepreneurs.⁴⁰ The gender ratio of those *planning* new businesses between men and women is accordingly much closer at 1.5:1, than it is for those who have recently started new businesses (2.8:1).

This increase that GEM's adult population survey has detected in the number of women planning new businesses is the first increase of this nature that has been found in the last three years. GEM will continue to monitor this trend and will be able to indicate whether this first indicator of an increased interest by women in entrepreneurial activity translates into a greater number of new businesses set up by women.

This greater involvement by women in entrepreneurial activity has contributed to an improved gender balance. This improvement is not all positive, however, as it was also brought about through the fact that there has been a decline in the number of entrepreneurially active men, particularly among those planning new businesses (5.35% down from 7.66% in 2003).

5.2 How Does this Level of Activity Compare with Other Countries?

Ireland now has one of the highest percentages of women active in

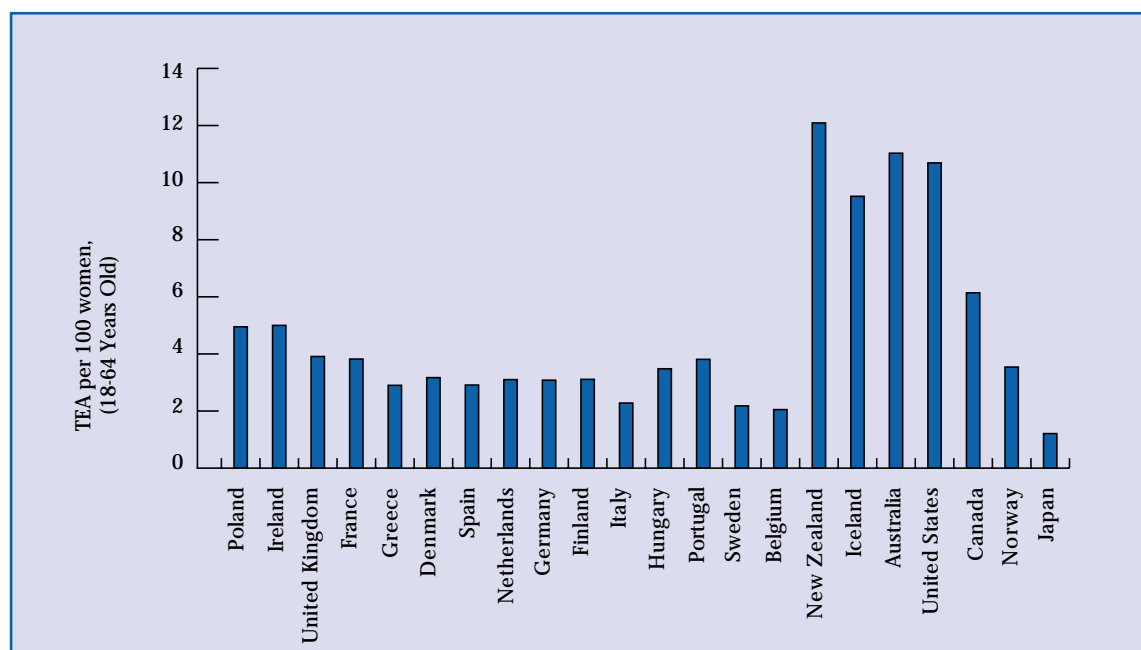
³⁹ 5.35% of men aged between 18 and 64 and 3.44% of women in the same age categories have taken some action towards creating a new business in the last year, expect to own a share of the business they are starting and the new businesses being created have not paid any wages or salaries for more than three months.

⁴⁰ 5.31% of men and 1.88% of women aged between 18 and 64 have set up a new business, of which they are the owner-manager, and which has paid wages or salaries for more than 3 months but less than 42 months.

entrepreneurial activity across Europe, compared to 2003 when the level of women

entrepreneurs in Ireland was at the European average (Figure 5).

Figure 5: Women TEA 2004 (22 OECD Countries)



Women in Ireland, however, are involved in entrepreneurial activity at less than half the rate of women in the US, Australia, and New Zealand, and are sixth among the 22 OECD countries involved in GEM research in 2004⁴¹ (Table 22 at the end of this Section).

In every country involved in GEM research, men are more active in entrepreneurship than are women. The relative rate of entrepreneurial activity between women and men in the high-income countries highlights the fact that the most entrepreneurial countries are those in which the gender representation in entrepreneurial activity is most finely balanced.

With women representing one in three entrepreneurs, Ireland is on a par with the entrepreneurial gender balance in the high-income countries. On this measure Ireland ranks tenth when compared to the OECD countries participating in GEM in 2004.

This figure, however, masks the fact that if one focuses on those women who have actually started new businesses in the last 42 months, Ireland's relative position slips to 17th position out of the 22 OECD countries involved in the research.

The reason for this is that the relative number of women who have started new businesses in Ireland is low and the figures only improve when those thinking about starting a new business are factored in. If the focus is on the relative position of Irish women just in terms of those planning to start a new business, the position of Ireland moves into 5th position.

When compared to the most entrepreneurial of the high income countries – US, Australia and New Zealand – it is apparent that in these countries the gap between the rate of involvement of men and women in entrepreneurial activity is much more closely balanced – for every 100 male entrepreneurs in the US, there are 89 women entrepreneurs

⁴¹ The other OECD countries ahead of Ireland are Canada (8.85%) and Poland (8.83%).

and in Australia and New Zealand there are 70. In Ireland, however, there are only 48 women entrepreneurs for every 100 male entrepreneurs.

Interestingly, GEM research shows that in the less entrepreneurial but high-income Nordic countries there are proportionally fewer women involved in entrepreneurial activity than might be expected. Only in Finland (54:100) is the balance ahead of Ireland.⁴²

5.3 Who are the Irish Women Entrepreneurs?

Women entrepreneurs in Ireland are on

average older than their male counterparts.⁴³ They are less likely to be in full-time employment prior to start-up and are more likely to be in part-time employment or to be engaged full time in the home.⁴⁴

Irish women tend to be well educated, with over half having had some third level education and 20% with post-graduate education⁴⁵. In fact, women are more likely to have a higher level of education than men entrepreneurs. For example, 51% of women, as against 42% of men, have some third level education while a further 20% of women, and 12% of men, have some post graduate education (Table 16).

Table 16: Educational Attainment Levels of Men and Women Entrepreneurs

Educational Attainment Categories	Men	Women
Some Secondary	16.2%	7.8%
Completed Second Level Schooling	32.3%	21.9%
Post Leaving Cert. Studies	39.5%	50.8%
Post Graduate Experience	12.0%	19.5%

Irish women are equally likely to start their new businesses alone, as to start as part of a small entrepreneurial team. This is also the case for men.

5.3.1 What Types of Businesses are they Starting?

Women and men start businesses in different

sectors. Women most frequently start businesses in the Health, Educational, Social Services sector, the Consumer Services sector, and the Retail, Hotel, Restaurants sector. Men most frequently start businesses in the Business Services sector, the Construction and Mining sector, and the Manufacturing sector (Table 17).

Table 17: Sectoral Breakdown of New Enterprises by Gender

	Men	Women
Agriculture, forestry, fishing	10.2%	10.4%
Mining, construction	12.9%	4.0%
Manufacturing	12.2%	10.0%
Transportation, communication, utilities	7.6%	1.8%
Wholesale, motor vehicle sales and service	6.2%	3.4%
Retail, hotel, restaurants	8.2%	15.1%
Financial, insurance and real estate	5.0%	
Business services	25.4%	13.4%
Health, education, and social services	5.3%	25.2%
Consumer services	7.1%	16.7%
	100%	100%

⁴² Denmark 43:100, Sweden 42:100 and Norway 33: 100.

⁴³ 38 years for women compared to 34 years of age for men.

⁴⁴ 58% for women compared to 79% for men.

⁴⁵ 2004, 2003 and 2002 data combined.

5.4 Growth Aspirations

From the GEM research it is clear that the majority of entrepreneurs in Ireland, as elsewhere, have little growth aspirations for their new venture. This general trend is true in terms of Irish entrepreneurs of either gender. A closer look at the figures will reveal, however,

that the growth aspirations of Irish women entrepreneurs are considerably less than they are for Irish men entrepreneurs (Table 18). Having said that, there are over 5,500 Irish women entrepreneurs, who have the aspiration to employ more than 20 people within the next five years.

Table 18: Employment Expectations of Irish Entrepreneurs in Five Years Time

	No jobs	1-5 jobs	6-19 jobs	20 or more jobs
Male	11.9%	33.7%	39.9%	14.5%
Female	33.6%	38.0%	19.8%	8.7%

Given that exporting is almost synonymous with growth, given the size of the Irish home market, it is perhaps not surprising that just as

less women entrepreneurs have growth ambitions, so too have fewer women ambitions to trade internationally (Table 19).

Table 19: Percent of Customers in International Markets by Gender

Percentage of Customers in International Markets	Men	Women
None	29.8%	40.2%
1-24%	35.7%	51.5%
25-74%	19.1%	3.5%
75-100%	15.5%	4.8%

5.5 Women Entrepreneurs and Finance⁴⁶

In terms of exploring the topic of access and availability of finance, the entrepreneurs may be divided into three categories on the basis of the amount of money that they consider necessary to start the new businesses that they are actively planning:

- (i) Those that need less than €112,000 to start their new business
- (ii) Those that need between €112, 000 and €1,112,000, and
- (iii) Those that estimate that they will need more than €1,112,000.

The great majority of entrepreneurs expect to need much less than €112,000. In fact 70% of all entrepreneurs fall into this category. The

majority of these are women (77% compared with 69% of men). It is in the financing requirement for funds of between €112,000 and €1,112,000 that the greatest difference between men and women is to be found (17% for women and 27% for men) (Table 20).

Of those that need less than €112,000, Irish women entrepreneurs expect that they will need €15,800 (Table 20). They intend to finance just over half of this amount themselves, in terms of both equity investments and loans to the new business. (€8,100 or 51%) Male entrepreneurs planning new businesses requiring less than €112,000 expect on average to need €17,700 and expect to be able to provide €11,000 or 62% of their needs from own funds. This means that women entrepreneurs need to find more of the financing requirement of their new business from external sources.

⁴⁶ The figures in this section are recorded in euros and then converted to US dollars for the calculations to facilitate international comparisons. Following the comparison, they have been reconverted to euros based on average € to \$ exchange rates (1.12 € to 1\$).

Table 20: New Venture Funding Requirements by Gender

Funding Size Category	Small (0-112,000)		Large (112,000-1,112,000)	
	Men	Women	Men	Women
Average Required Funding	€17,700	€15,800	€282,000	€327,300
Average Planned Personal Investment	€11,000	€8,100	€98,100	€141,700

Irish entrepreneurs expect to use Banks/Other Financial Institutions, Close Family members and Government Programmes in financing their new businesses. Women entrepreneurs expect to depend on Close Family more than men (Table 21).

This is perhaps not surprising as more women are becoming entrepreneurs having worked part time or having been engaged full time in the home, than is the case for men.

Accordingly, they tend to have less networks that can help them fund their new business – for example only 30% of women compared to 45% of men report personally knowing a recent entrepreneur and it is previous entrepreneurs that are often active as informal investors in other people's businesses. Women are also less likely to be starting growth and export new businesses and so would be less likely to qualify for the funds of the development agencies.

Table 21: Sources of Finance by Gender⁴⁷

Sources of Financing	Men	Women
Close Family	20.45%	42.86%
Other Relatives, Kin	6.82%	6.89%
Work Colleague	15.9%	3.45%
Employer	8.05%	3.45%
Friends/Neighbours	9.09%	3.45%
Banks/Other Financial Institutions	48.24%	57.14%
Government Programmes	36.36%	20.69%
Other	12.79%	13.79%

5.6 Personal Context of Women Entrepreneurs

GEM research suggests that personal context is an important predictor of likely entrepreneurial activity. In the Irish population women have a less favourable personal context, in terms of entrepreneurial activity, than men. Women are less likely to perceive opportunities (37% for women compared to 48% for men). Women are less likely to perceive that they have the necessary skills to start and run a new business (37% for women compared to 52% for men). Women are also less likely to personally know an entrepreneur (30% for women compared to

45% for men): that is they are less likely to have an entrepreneurial role model. In terms of whether fear of failure would prevent start-up activity, women report slightly higher levels than men (39% for women compared to 33% for men) – though GEM research suggests this factor is less important in determining entrepreneurial behaviour. Given this less favourable personal context, the low level of entrepreneurial activity reported by women in Ireland is not surprising.

GEM suggests that 11% of the Irish population plan to start a new business in the next three

⁴⁷ More than one source may be used (2003 and 2002 data).

years. Of these, two thirds are male (67%) and only one third (33%) are women. This might suggest that Ireland's low level of female entrepreneurial activity (compared to males) may continue in future years.

5.7 Views of the Irish Key Informants

When questioned specifically about the issue, the average response of the 75 entrepreneurs and experts, consulted as part of the GEM 2004 research cycle, suggested that while women have the same level of knowledge and skills as men to start a new business, they may not be exposed to as many good opportunities as men to start a new businesses.⁴⁸ There is also a general consensus that there are insufficient supports available to women to facilitate their continuing to work after they have a child.

One highly successful woman entrepreneur raised the issue of the high cost of child care as she perceived it to be a barrier to women becoming active as entrepreneurs and business owners. The point that she was making was that because the cost of childcare is so high you need to be sure of a very high income just to make these payments. Her recommendation in this area was that childcare costs should be tackled perhaps through allowing these to be offset against personal income tax.

Another entrepreneur raised the point that there is a great shortage of female entrepreneur role models. She believed that the women in the economy who are running successful businesses should be profiled to a greater degree, even if they are not operating in the new technology sectors. She also believed that more encouragement and support needed to be given at the schools level to open up the minds of young women to the possibilities that entrepreneurship can offer and to build their confidence that it was a real career option for them to consider in the future. In this connection it is interesting to note the results of the 2004 Canadian GEM

research which clearly shows the influence that teachers can have on their students' subsequent decisions regarding entrepreneurial activity—the finding is that among those whose former teachers often spoke about entrepreneurship, there is a greater belief in their capacity and competence to create a business. This follows through in influencing positively the number that have started new businesses or intend to do so.

5.8 Policy Implications

The proportion of women who have set up new businesses in Ireland is particularly low relative to the number set up by men and is also low compared to the percentage of women involved in entrepreneurial activity in the most entrepreneurially dynamic of the high income countries. For the first time in three years, this year GEM detected an increase in the number of women actively considering becoming entrepreneurs.

The personal context of women in Ireland with regard to their perception of opportunities for new commercial enterprise, their perception of their own abilities, and the personal acquaintance with an entrepreneur is considerably weaker than it is for men. Their fear of failure is also higher. This is despite the fact that the women entrepreneurs are often more highly educated than their male counterparts.

In at least half the cases women are becoming entrepreneurs after being employed part time or having been full time engaged in the home, whereas men more typically are coming from a background of full time paid employment.

Women have less money to invest in their fledgling businesses and are more reliant on external sources, namely the banks and family members for funding. As their enterprises tend to be less growth and export oriented, women entrepreneurs are eligible less often than their male counterparts for funding support from the development agencies.

⁴⁸ This view of the experts and entrepreneurs confirms the findings of the GEM adult population survey report in paragraph 5.6 with regard to the lower level of perception by women of opportunities for new ventures.

In the most entrepreneurial of the high income countries, namely the US, Australia and New Zealand, active measures are being taken to further increase the number of women active as entrepreneurs and to help these to develop sustainable businesses, despite the fact that the number of women entrepreneurs in these countries is already high.

Ireland has a small pool of highly educated women who aspire to be entrepreneurs. Whether they decide to follow through on their aspiration will depend on a number of factors, including the availability and cost of

quality childcare. The challenge is to provide these potential women entrepreneurs with the information, skills and access to networks and finance that they need and the confidence not only to start, but to successfully grow new enterprises.

For the future, the challenge is to increase the number of women active as entrepreneurs, to provide women with role models that they can relate to, practical supports and training, and a belief that an entrepreneurial career may be a real option and one that might suit their circumstances.

Table 22: Entrepreneurial Activity by Gender (22 OECD Countries)

	EU Countries											OECD Countries										
	PO	IE	UK	FR	GR	DK	ES	NL	DE	FI	IT	HU	PT	SE	BE	NZa	IS	AU	US	CA	NO	JP
Total Entrepreneurial Activity (T-index: % of adult population)																						
	12.75	10.40	8.54	8.25	8.65	7.41	7.38	7.07	7.00	5.65	6.32	5.13	4.10	5.19	4.88	17.23	17.51	15.70	11.98	11.53	10.32	1.74
(i) Males																						
(ii) Females	4.95	5.00	3.91	3.82	2.90	3.17	2.91	3.10	3.08	3.11	2.28	3.48	3.81	2.18	2.05	12.09	9.52	11.03	10.69	6.14	3.54	1.21
Nascent Entrepreneurs																						
	6.10	5.35	4.33	6.61	5.45	3.41	3.06	3.75	4.72	3.77	3.49	3.31	2.36	2.40	3.03	10.51	10.41	8.85	8.15	7.51	5.92	.67
(i) Males																						
(ii) Females	1.77	3.44	2.39	3.10	1.89	1.67	1.09	2.28	2.01	1.52	1.51	2.18	2.01	.97	1.38	6.26	4.92	7.19	6.81	4.45	2.03	.22
New Firm Entrepreneurs (new business less than 42 months old)																						
	7.15	5.31	4.51	1.93	3.32	4.00	4.36	3.47	3.07	1.97	3.28	1.83	1.73	3.03	1.95	9.57	7.46	7.19	5.06	5.36	5.00	1.07
(i) Males																						
(ii) Females	3.28	1.88	1.64	1.35	1.01	1.59	1.82	.86	1.32	1.59	.97	1.30	1.80	1.26	.75	7.00	5.00	4.39	4.58	1.85	1.51	.99
Gender Ratios																						
	.39	.48	.46	.46	.33	.43	.39	.44	.44	.55	.36	.68	.93	.42	.42	.70	.54	.70	.89	.53	.34	.69
(i) Ratio female/male T-index																						
(ii) Ratio female/male nascent entrepreneurs	.29	.64	.55	.47	.35	.49	.36	.61	.43	.40	.43	.66	.85	.40	.46	.60	.47	.81	.84	.59	.34	.33
(iii) Ratio female/male new firm entrepreneurs	.46	.35	.36	.70	.30	.40	.42	.25	.43	.81	.30	.71	1.04	.42	.39	.73	.67	.61	.91	.35	.30	.92

^aSee Table 2, page 12, for a full list of the country abbreviations used.

PART TWO

SECTION 6

Finland and Ireland: A GEM Insight

6.1 Introduction

The GEM project provides an opportunity to understand entrepreneurship within a country to a greater depth than was previously possible and to monitor changes and detect trends within the environment, which impact on entrepreneurial activity. GEM also provides a framework to benchmark the performance of a country against a range of other countries at similar income levels, which allows policy makers to assess relative performance.

One of the other great attractions of GEM is the fact that it provides a systematic way of comparing between and across nations, not only for benchmarking purposes, but as a means for individual countries to learn from each other.

Last year through the collaboration of the GEM teams from both parts of the island, together with the co-operation of InterTradeIreland, Enterprise Ireland and Invest Northern Ireland, a report *Entrepreneurship on the Island of Ireland* was produced. The intention of this report was to provide policy makers and others interested in entrepreneurship with valuable insights into the current state of entrepreneurship on the island of Ireland and with an understanding of the dynamics which promote and inhibit entrepreneurial activity. In this way, to provide a means of learning from each other's experience.

This report was very warmly received and it has been followed up during the year with in-depth discussions and interactive workshops with interested parties throughout the island. A second report with further insight into

entrepreneurial activity throughout the island will be produced by the GEM teams in Ireland and Northern Ireland later this year.

Given the success of the all island initiative last year, which sees it continue again this year, the Irish GEM team have decided to incorporate a comparison with another country into its annual report this year. The country chosen this year is Finland.

We wish to thank Dr. Pia Arenius, National Co-ordinator of the Finnish GEM national team for her willing collaboration in this initiative.

6.2 Finland

We chose Finland for comparison, as Ireland and Finland are similar in that both are small, very open, high growth economies. While Finland extends over four times the land area of Ireland, the population numbers in each country in the 18-64 age group and labour force are relatively similar. Both countries enjoy strong exports and a positive balance of payments. The two countries have received international attention as a result of a series of regenerative policy strategies over the last twenty years that resulted in remarkable transformations of their respective national economies.

There are many similarities between Ireland and Finland in terms of industrial policy. Both countries have a focus on developing a dynamic knowledge based economy and on maintaining international competitiveness⁴⁹. In Finland, the competition policy of the new

⁴⁹ World Competitiveness Scoreboard ranks Finland 8th (previously 3rd) while Ireland is ranked 10th (previously 11th).

government emphasises innovation, knowledge and entrepreneurship.

Ireland and Finland, however, have experienced quite different development trajectories. Ireland has been very successful in attracting foreign direct investment and this has been a major contributor to growth. Finland has had to rely more on its own resources to build a strong base on which future growth might take place. In this regard Nokia has played a critical role in that it has been the main driver of ICT, which in a decade has come to dominate the Finnish economic landscape⁵⁰.

International evidence suggests that entrepreneurial activity plays an important role in dynamic knowledge-intensive regional and national economies. Furthermore, research suggests that in high-income economies entrepreneurial activity in knowledge intensive sectors such as Business Services will be critical to future economic growth.

Not surprisingly, therefore, the government in Ireland and in Finland seek to create environments that are supportive of the emergence of a high number of innovative high growth export orientated new ventures, and one that allows these firms to grow rapidly. Both countries are focusing on similar technologies – information technology, telecommunications, and biotechnology/life sciences – and are focusing on maximizing the creation of new commercial ventures in these sectors through the commercialisation of research being developed within the third level colleges. In seeking to encourage such entrepreneurial activity, policy makers in both countries have identified the importance of a vibrant venture capital industry.

6.2.1 Innovation

Finland has deliberately embraced policies of investment in science and technology and the

promotion of technology transfer. Finland spends nearly 6.6% of national GDP on information and communication technology (compared to 4.6% in Ireland)⁵¹. The public sector in Finland invested 1.04% of GDP in R&D in 2004. Business invested 2.37% of GDP in R&D in the same year. Combined this represents an investment in R&D which is nearly 3.5% of GDP, roughly €5 billion⁵².

Specifically, Finnish government policy has targeted innovation as a primary pursuit for universities, industry and government research agencies. Finland is now number one in the world for innovation.⁵³ Finland also comes first in a Eurostat survey of EU countries in terms of sales of 'new to market' products (Ireland hardly features in comparison). This position continues to be reinforced by Finnish government support and policy emphasis.

In comparison, according to Forfás, Irish performance in Research & Development has suffered from years of under-resourcing that has resulted in a fragmentation, lack of collaboration and a distinct lack of critical mass⁵⁴. For example, Ireland's public sector invested 0.35% of GDP in R&D in 2004, with the business sector investing 0.80% of GDP – a total of 1.15% of GDP. This is lower than the EU average of 1.93% and significantly lower than Finland's expenditure. In terms of GNP⁵⁵, gross expenditure on R&D in Ireland was 1.39%. It is obvious that in terms of this measure Ireland's comparative expenditure on R&D is still very low.

In 2002, the European Council agreed a target for research intensity of 3% of GDP to be achieved by 2010. It was mandated that two-thirds of this target should come from the private sector. At 1.39% of GDP last year, Ireland has considerable progress to make to

⁵⁰ The broadly defined Finnish ICT cluster consists of some 6,000 firms. Of these, about 300 are first-tier subcontractors of Nokia.

⁵¹ Trendchart for Innovation, Eurostat. The figures given 'ICT expenditures as a % of national GDP'. ICT expenditure is defined as 'Total expenditure on information and communication technology (ICT) – including office machines, data processing equipment, data communication equipment, and telecommunications equipment, plus related software and telecom services. This figure is not R&D spend.

⁵² Eurostat, Trendchart Innovation Scoreboard 2004.

⁵³ Innovation Scoreboard.

⁵⁴ Forfás, R&D in Ireland at a Glance, 2004.

⁵⁵ 'Ahead of the Curve' argues the case that GNP is a better measure of economic performance in Ireland's case, as do many economic commentators.

meet this target⁵⁶. On the positive side, Ireland ranks second in terms of the number of science and engineering students graduating from its universities (Finland ranks fourth).⁵⁷

6.2.2 *Entrepreneurship Policy*

Economic policy in Finland includes making 'Finland among Europe's leading countries in terms of operating conditions for entrepreneurship'⁵⁸. The motivation for developing a specific entrepreneurship policy was to ensure that resources are dedicated to achieving this objective and to ensure that there is horizontal cooperation across different government departments in meeting this objective. The policy specifically recognizes that this objective requires inputs from various government departments.

The *Entrepreneurship Policy Programme* sets out five sub-areas for specific attention. These are as follows⁵⁹:

- Entrepreneurship education and training and counselling
- Business start-ups, growth and globalisation of enterprises
- Taxes and payments affecting entrepreneurial activity
- Entrepreneurship in the regions
- Legislation affecting enterprise and the functioning of the market

For each of these sub-areas the Finnish government has set specific targets and action plans. The Finnish government has also set a number of indicators for evaluating the effectiveness of these policies aimed at developing entrepreneurship. Specifically it sets out the following indicators⁶⁰:

- Development of the number of enterprises

- Turnover of enterprises (entries and exits)
- Number of entrepreneurs
- Growth of entrepreneurial activity: development of personnel, net sales and value-added
- Attitudes towards and motivation for entrepreneurship (to be measured by the results of the GEM annual survey)
- Share of female entrepreneurs of the company stock
- Growth entrepreneurship indicator

6.2.3 *The Venture Capital Industry*

The Irish and Finnish Governments share a view about the importance of the venture capital sector in underpinning their entrepreneurship development strategies and both perceive market failures in early stage areas and are prepared to intervene as necessary to correct these.

Writing in the FVCA 2004 Yearbook, Pertti Valtonen of the Finnish Ministry of Trade and Industry, explains that venture capital has become an essential instrument to convert R&D results, new technology and entrepreneurial knowledge into new growth companies. He comments that although the supply of venture capital has increased very strongly in Finland during the last ten years, an international comparison reveals that Finland represents only the average in Europe, when measured by the size of the venture capital market per capita. He points out, however, that Finland scores at the top of international competitiveness indicators such as technology innovation infrastructure and R&D investments. He believes that this indicates that the potential demand for venture capital could be bigger than what the supply of capital shows. He indicates that the Finnish government is committed to finding out the way to remove

⁵⁶ Enterprise Strategy Group, *Ahead of the Curve*, 2004.

⁵⁷ Innovation Scoreboard – Trendchart.

⁵⁸ *Entrepreneurship Policy Programme*, Ministry of Trade and Industry, Finland, 2004.

⁵⁹ *Entrepreneurship Policy Programme*, Ministry of Trade and Industry, Finland, 2004 (page 3).

⁶⁰ *Entrepreneurship Policy Programme*, Ministry of Trade and Industry, Finland, 2004 (page 8).

any obstacles that exist to the further growth of venture capital within the country and to directly intervene in those areas, where the market is not functioning very well. He indicates that at present this is the case in the area of seed and start-up financing because of the risks attached to investment at such an early stage. A lack of equity financing to early stage companies would be disastrous, he believes, as it would cause ‘ *several generations of emerging growth start-ups to fade away without proper seed financing adequate for early-stage development of a company.* ’

The Finnish Government kick-started the private equity sector with the foundation of Sitra in 1991. Since then, Finnish private equity and the venture capital market has experienced significant growth in terms of both investors and operations. Today, the private sector accounts for most of the investment (89%) and Sitra has pulled back as ‘market failure’ is no longer considered an issue. Sitra now concentrates on the newly emerging areas of market failure, namely seed financing, regional development and sectors less favoured by the private VC companies, such as biotechnology.

The private equity industry has established itself as an essential part of the Finnish financial markets. The annual volume of investment by the members of Finnish Venture Capital Association (FVCA) grew tenfold between 1995 and 2000. The highest figure so far, €397 million, was reached in 2000, whereas 2003 saw the highest level of exits (at cost), at €231 million. The Finnish private equity community is currently comprised of 46 private equity management companies. Nearly all of these are Finnish companies, as due to obstacles in taxation, the share of private venture fund investments from abroad in Finland is close to zero.

Some of the funds are specialized in early stage venture capital, some in the later stage,

and some in buy-outs. Venture capital investments in the ICT and biotechnology sectors have played an important role and they reached their peak so far in 2000, when their share of the total investment volume was 51%. Buyouts have constantly received a substantial part of annual investments and in 2003 their share was 42%.⁶¹ A total of €206m of capital was raised by Finnish private equity firms in 2003, dramatically below the record of €814m raised in 2002, according to the Finnish Venture Capital Association (FVCA). Finnish private equity firms made 435 investments in 252 portfolio companies in the same period. The total amount invested was €328m, which represents a 16% decrease from the previous year.

6.2.4 The Educational Sector

The Department of Education in Finland takes a very active role in endorsing entrepreneurship⁶². In 2004, a national entrepreneurship project was started with the aim of increasing regional cooperation between businesses, schools and teachers. The Finnish Education system has taken a holistic approach to the encouragement and promotion of entrepreneurship⁶³. As such, education initiatives cover the spectrum of educational levels concentrating on inculcating an entrepreneurial culture and on conferring the necessary skills and business know how to students at all stages within the educational system. The approach is as follows: primary schools emphasise entrepreneurial attitudes and values; secondary schools concentrate on the knowledge and skills associated with entrepreneurship; and third-level institutes focus on developing managerial and entrepreneurial skills.

6.3 Entrepreneurship in Ireland and Finland: GEM Data

An essential component of a knowledge economy is a vibrant entrepreneurial sector. Both countries are committed to making this a

⁶¹ KARI RYTKÖNEN, Chairman, Finnish Venture Capital Association, foreword to Finnish Venture Capital Association (FVCA) 2004 Yearbook.

⁶² Fortin, Paul A. ‘La Culture Entrepreneuriale un Antidote a la Pauvrete’ La Fondation de l’Entrepreneurship Canada 2002.

⁶³ Fortin, Paul A. ‘La Culture Entrepreneuriale un Antidote a la Pauvrete’ La Fondation de l’Entrepreneurship Canada 2002 p.138.

reality. The question arises as to what GEM can reveal about Ireland's and Finland's ability to encourage and support knowledge intensive entrepreneurial activity and whether Ireland can learn from Finland in this regard.

6.3.1 Levels of Entrepreneurial Activity

Total Entrepreneurial Activity in Ireland is 75% higher than it is in Finland (Table 23). In terms of TEA, Ireland is ranked 2nd in the EU⁶⁴ and 7th among the OECD countries⁶⁵ that participated

in GEM in 2004, while Finland is ranked 10th among the EU and 16th in the OECD group.

GEM estimates that in 2004 the number of nascent and new firm entrepreneurs in Ireland was 193,000 while in Finland it was 144,000. The difference in the actual number of entrepreneurs in each country is much smaller than the difference in TEA rate, as Finland has a larger population. In both countries, entrepreneurship is a positive choice with entrepreneurs responding to perceived opportunities for new ventures.

Table 23: Comparison of Entrepreneurial Activity Finland and Ireland 2004

	Ireland	Finland	Ireland relative to Finland
Total Entrepreneurial Activity T-index (% of adult population)	7.70	4.39	+75%
(i) Nascent entrepreneurs	4.39	2.66	+65%
(ii) New firm entrepreneurs (new business less than 42 months old)	3.59	1.78	+101%
Total Owner-Managers (new and established)	10.10	9.39	+8%
(i) New firm entrepreneurs (new business less than 42 months old)	3.59	1.78	+101%
(ii) Owner-managers (business more than 42 months old)	6.50	7.60	-14%
Business Closures (previous 12 months)	1.26	1.38	-9%
Motivation for Entrepreneurship			
(i) To exploit an opportunity	6.64	3.50	+90%
(ii) Necessity (no better alternatives)	.99	.33	+203%
Future Entrepreneurial Activity			
I plan to start a business in the next 12 months (% yes)	11.0	5.4	+104%

Since 2001, the level of entrepreneurial activity has varied in both countries and both have a lower level of entrepreneurial activity in 2004 than was experienced in 2001 (Table 24). Entrepreneurial activity in Ireland has declined

by four and a half percentage points, while Finland has declined by three and one third percentage points. Ireland is now at a similar rate of entrepreneurial activity as Finland had in 2001.

Table 24: TEA Rate in Finland and Ireland 2001-2004

	2001	2002	2003	2004
TEA Ireland	12.2%	9.1%	8.1%	7.7%
TEA Finland	7.7%	4.6%	6.9%	4.4%

⁶⁴ 15 EU countries participated in GEM 2004, 13 of the established member states and two of the newer members, namely Hungary and Poland.

⁶⁵ The OECD 22 group consists of (in rank order) New Zealand, Iceland, Australia, United States, Canada, Poland, Ireland, Norway, United Kingdom, France, Greece, Denmark, Spain, Netherlands, Germany, Finland, Italy, Hungary, Portugal Sweden, Belgium, Japan.

In terms of future intentions to engage in entrepreneurial activity 11% of Irish adults indicate that they intend becoming active as entrepreneurs over the three next years, compared to just over 5% of Finns.

6.3.2 Entrepreneurial Activity in Different Sectors

In terms of the type of entrepreneurial activity in Ireland and Finland, both appear to have significant differences relative to other high income countries. In particular, both countries are low in Business Services and in Retail, Hotels and Restaurants (Table 25).

Table 25: Sectoral Characteristics of TEA in Ireland and Finland and High Income Countries

	Ireland (2004)	Finland (2004)	High Income Countries
Agriculture, forestry, fishing	10%	19%	6%
Mining, construction	10%	6%	7%
Manufacturing	12%	8%	7%
Transportation, communication, utilities	6%	9%	5%
Wholesale, motor vehicle sales and service	5%	7%	5%
Retail, hotel, restaurants	10%	10%	22%
Financial, insurance and real estate	4%	1%	6%
Business services	22%	14%	30%
Health, education, and social services	11%	7%	1%
Consumer services	10%	19%	12%
	100%	100%	100%

6.3.3 Personal Context of Population

GEM argues that personal context is an important predictor of entrepreneurial activity. In particular, (i) the ability of individuals to perceive good commercial opportunities for new businesses within their environment, (ii) their personal belief in their skills to successfully start and run a business, together

with (iii) their acquaintance with others who themselves have recently become an entrepreneur are all seen to be positively correlated with entrepreneurial activity. In each of these factors Irish adults are more positive than Finnish adults. A similar number of Finns and Irish assert that fear of failure would inhibit them from becoming an entrepreneur (41% for Finland, 39% for Ireland)⁶⁶ (Table 26).

Table 26: Personal Context of Population in Ireland and Finland

	Ireland	Finland	Ireland relative to Finland
Personally know an entrepreneur (% yes)	41.3	36.3	14%
Personally have the skills to start a new business (% yes)	47.7	36.1	32%
Personally believe there are good opportunities to start business (% yes)	45.1	38.3	18%
Fear of failure would prevent me starting a business (% yes)	39.1	41.4	-6%

6.3.4 Cultural Context for Entrepreneurial Activity

Personal context is reinforced by the cultural and social norms that prevail in a country.

Entrepreneurs have the highest status in Finland and Ireland across all the OECD countries, with 87% and 85% of adults holding them in high regard. Similarly in both countries

⁶⁶ GEM research has shown that the positive factors outlined in the table above have more influence on an individual's behaviour than has fear of failure.

almost three quarters of the adult population (73% and 77% respectively) report seeing positive stories about entrepreneurship in their media on a regular basis. In Ireland, however, a

much higher proportion of the population would consider becoming an entrepreneur a good career choice (66%), than is the case in Finland (38%) (Table 27).

Table 27: Cultural Context for Entrepreneurial Activity in Ireland and Finland

	Ireland	Finland	Ireland relative to Finland
GEM Culture Index (1 low to 3 high)	2.27	1.97	+15%
(i) Entrepreneurship is considered a good career choice (% yes)	66	38	+71%
(ii) Successful entrepreneurs are held in high regard (% yes)	85	87	-2%
(iii) There is a lot of media attention to entrepreneurs (% yes)	77	73	+5%

6.3.5 Access to Finance

Entrepreneurs in Ireland and Finland expect to need broadly similar amounts of money at start-up.

GEM research shows that in 2004 Ireland and Finland were on a level par with regard to the amount of informal venture capital available to entrepreneurs. Just over 2% of adults in both countries are actively involved as informal investors in start up ventures (2.28% in Ireland and 2.07% in Finland). This is a relatively low level. The countries are also similar in that neither has developed Business Angel networks to any extent.⁶⁷ However, estimated total informal investments in Ireland are .67 of one percent of GDP, compared to .36 of one percent of GDP in Finland. This suggests that there is a greater absolute amount of informal investment activity in Ireland.

The experts and entrepreneurs consulted in both countries indicated clearly that there is insufficient funding available from private individuals, other than the founders, for new and growing firms. The key informants in Ireland considered that there was a lack of relative attractiveness of such investment in terms of the risk/reward balance. The situation is somewhat similar in Finland. Noting the low level of informal investment, the FVCA in its 2004 Yearbook highlights the fact that this deprives young companies not only of much

needed capital, but of the benefit of the experience that such business angels can bring. They comment:

‘ ‘ It is not a question of a lack of wealthy people able to make private investments, but it is the question of missing proper incentives to do that. And what is noteworthy, the business experience needed for the growth, brought by business angels to business start-ups, might be more important than the capital’ .’

In terms of formal venture capital, GEM estimates that .057 of one percent of GDP is invested in Ireland. In comparison, GEM estimates that .126 of one percent of GDP in Finland is invested as formal venture capital, suggesting that Finland has a more developed venture capital market.

In terms of formal venture capital, GEM research suggests that the average amount invested per company is higher in Finland than it is in Ireland. The figure for Finland is €1,085,800 compared to €732,000 in Ireland. However, in comparison, the amount per company in the US is nearly €10 million.

6.3.6 Growth, Exports and Innovation

In terms of those that expect to create any employment, 76% of all Irish entrepreneurs and 71% of all Finnish entrepreneurs expect to

⁶⁷ Benchmarking Business Angels, Final Report, November 2002, Enterprise Directorate General, European Commission.

create some employment within the next five years. (The average for OECD countries is 76% and the EU average is 72%). However 13% of Irish entrepreneurs expect to employ at least 20 people within five years of start-up, while there are no Finnish entrepreneurs in the GEM dataset who expect to employ 20 or more employees (Table 28).

An examination of the number of jobs already created, by those who have started new enterprises in the 42 months prior to the survey, indicates that over 4.3% of Irish new firm entrepreneurs already employ 20 or more. There are no Finnish entrepreneurs in the GEM dataset who employ 20 or more employees.

Given the relatively small size of the Irish and Finnish domestic market, there is a common pressure on entrepreneurs in both countries to exploit export market opportunities at an early stage of their development, if they wish to grow their new businesses.

In Ireland more than two in every three entrepreneurs (67%) expect to have at least

some exports, while about one in every four (26%) expect to have more than a quarter of their customers in export markets. In Finland, one third of entrepreneurs (35%) expect to have at least some exports, while about one in four (28%) expect to have more than a quarter of their customers in export markets.

Of new firm entrepreneurs, that is those that have already set up new businesses in the 42 months prior to the GEM survey, four out of every five Irish entrepreneurs have some overseas customers, while 29% currently have more than half of their customers in export markets. In Finland, only one in five (19%) new firm entrepreneurs have some exports, while 8% have more than half of their customers in export markets.

In terms of the innovativeness of entrepreneurial activity, Irish entrepreneurs appear to be more innovative, with 55% of all Irish entrepreneurs expecting to have at least a 'little' innovation⁶⁸. In comparison, only 30% of Finnish entrepreneurs expect to have at least a 'little' innovation.

Table 28: Employment Growth, Internationalisation and Market Expansion: Ireland and Finland

	Ireland	Finland	Ireland relative to Finland
Expected employment growth			
(i) Any employment growth (T-index: % of adult population)	5.85	3.21	+82%
(ii) Percentage of all entrepreneurs expecting any employment growth	76%	73%	+4%
Internationalisation			
(i) Greater than 50% of customers expected outside country (T-index: % of adult population)	1.08	.44	+145%
(ii) Percentage of all entrepreneurs expect 50% of customers outside country	14%	10%	+40%
Market expansion index (% of all entrepreneurs)			
(i) No market expansion	45%	70%	-36%
(ii) Little market expansion	41%	24%	+71%
(iii) Some market expansion	11%	6%	+83%
(iv) High market expansion	3%	0%	

⁶⁸ See Section 4.4 for an explanation of how innovation is measured in GEM.

6.3.7 Women Entrepreneurship

In both Ireland and Finland, as in every one of the OECD countries, there are more men than women within the adult population who are engaged in entrepreneurial activity. In overall terms, the gender balance in entrepreneurial activity between the two countries is broadly similar with Finland having the slight edge.

However, when one looks at the gender balance of those planning new businesses (nascent entrepreneurs) compared to those who have already recently started businesses (new firm entrepreneurs), a different picture emerges. It is clear that the gender balance in Finland is much more even among those who have recently started new businesses, than is the case in Ireland (Table 29).

Table 29: Female Entrepreneurial Activity in Ireland and Finland

	Ireland	Finland	Ireland relative to Finland
Total Entrepreneurial Activity (T-index: % of adult population)			
(i) Males	10.40	5.65	+84%
(ii) Females	5.00	3.11	+61%
Nascent Entrepreneurs			
(i) Males	5.35	3.77	+42%
(ii) Females	3.44	1.52	+126%
New Firm Entrepreneurs (new business less than 42 months old)			
(i) Males	5.31	1.97	+169%
(ii) Females	1.88	1.59	+18%
Gender Ratios			
(i) Ratio female/male T-index	.48	.55	-13%
(ii) Ratio female/male nascent entrepreneurs	.64	.40	+60%
(iii) Ratio female/male new firm entrepreneurs	.35	.81	-56%

The entrepreneurs and experts consulted as part of the GEM research in both countries were asked a range of questions to ascertain if they considered that women had equal opportunities and supports as men to become entrepreneurs. The Finnish key informants responded more positively to each of these questions than did their Irish counterparts.⁶⁹ Most marked was the difference in their opinion as to the relative childcare supports available for women in their respective countries to facilitate their continuing to work after the birth of a child. This is not surprising as in Finland the childcare support facilities are considered to be among the best in the world and in Ireland their inadequacy is often a cause for complaint. In fact, one of the Irish key informants consulted as part of the 2004 GEM

research cycle, highlighted the issue of expensive childcare as a particular barrier preventing more women from becoming entrepreneurs.

6.4 Comparing Ireland and Finland

Overall, Finland's innovation and invention record is superior to Ireland's in terms of R&D spend, patent registration and other measures. GEM data suggests, however, that Ireland has continuing higher levels of entrepreneurial activity and a more supportive culture. GEM data suggests that there are differences between Ireland and Finland in the following areas:

(i) Levels of Entrepreneurial Activity

- Ireland has a higher level of entrepreneurial activity.

⁶⁹ In fact across the OECD countries, only in Iceland did the key informants respond more positively than those in Finland to this set of questions.

- The gender balance between male and female entrepreneurs is more balanced in Finland, and the experts in Finland consider the environment supportive of women entrepreneurs.

(ii) Future Entrepreneurial Activity

- Ireland may be better placed in terms of future entrepreneurial activity as the personal context of Irish adults is more positive toward entrepreneurial activity and indeed more Irish adults expect to start new businesses in the coming year.
- The cultural context for entrepreneurial activity is supportive in many ways in both Ireland and Finland, however, a much higher percentage of Irish adults consider entrepreneurial activity as a desirable career choice.

(iii) Growth, Exports, and Innovation

- Both Ireland and Finland appear to have low levels of entrepreneurial activity in two sectors, Business Services and Retail, Hotel and Restaurants, when compared to other high-income countries.
- A higher percentage of Irish entrepreneurs expect to achieve high growth and to export. Indeed, a higher percentage of Irish new firm entrepreneurs have already realised such ambitions. Irish entrepreneurs also consider their new ventures more innovative.

(iv) Availability of Finance

- Both Finland and Ireland have low levels of informal investment activity among the adult population. Not surprisingly, given the lower level of entrepreneurial activity in Finland, total informal investment as a percentage of

GDP is much lower in Finland than it is in Ireland.

- In terms of formal venture capital Finland appears to be better than Ireland in terms of the amount invested and in terms of the average amount invested per company.

Therefore, the major challenge for Finland is to increase the level of entrepreneurship within the country in order to turn its high level of innovativeness into new commercial ventures. For Ireland, the challenge is to develop a means of increasing the level of applied research and innovativeness, so that the entrepreneurial strengths, already apparent within the country, may be further strengthened by being married to a high degree of innovation.

In terms of achieving Ireland's policy objectives, it appears that Ireland could benefit from exploring several aspects of Finland's policy. Ireland seeks to develop a knowledge economy — an area in which Finland appears to be further advanced than Ireland. In terms of specific entrepreneurial policies, Finland has adopted a specific entrepreneurship policy programme, which is coordinated across Ministries, Government Departments and development agencies. This programme sets specific targets for entrepreneurial activity and for aspects of the entrepreneurial environment. Successful interventions by the Finnish government to develop the venture capital market, which is considerably larger than that in Ireland, could usefully inform current Irish policy on supports for the Irish venture capital market. If, as the experts in Ireland suggest, the education system does not support entrepreneurship, Irish policy makers could explore the deliberate policy interventions adopted at each level of the educational system in recent years in Finland. Finally, given the higher proportion of new firms that are started by women in Finland compared to Ireland, Ireland might also benefit from exploring the environment for female entrepreneurs in Finland and investigating the policy interventions, if any, that have supported their setting up new businesses.

PART THREE

SECTION 7

Recommendations of the Experts and Entrepreneurs Consulted

7.1 Introduction

The Irish GEM team consulted 75 leading experts and entrepreneurs during 2004 to ascertain their views about the current ‘ ‘ state of the nation’’ with regard to entrepreneurship in Ireland. These experts and entrepreneurs were interviewed individually for the first time by a member of the GEM team in 2004, or had been interviewed as part of GEM research in a previous year. All completed detailed questionnaires and were invited to give their opinion as to what they considered needed to be done to improve the environment for entrepreneurial activity and to encourage more entrepreneurs in Ireland.

As in previous years, about one third of those interviewed were successful entrepreneurs from a variety of sectors. Some were recent entrepreneurs, others had been involved in entrepreneurial activities for some time and they included several serial entrepreneurs. The experts included senior government officials, development and support agency executives, private sector providers of advice, supports and finance to new enterprises, academics and those involved in the transfer of research and technology from third level colleges to commercial enterprises.

Very many of the experts and entrepreneurs consulted as part of the GEM 2004 research cycle put forward suggestions as to ways in which the environment in Ireland for entrepreneurship could be further improved. Their suggestions have been grouped under various headings for ease of reading, but are otherwise presented as they were given to

members of the GEM research team, without editorial comment. In some instances, the experts and entrepreneurs gave detailed commentary on their suggestion. In other instances they summed their thoughts more succinctly.

Those who made these recommendations have extensive knowledge and experience in entrepreneurship in Ireland. They have given considerable thought to ways in which the environment can be made even more attractive for entrepreneurs and a spirit of entrepreneurship nurtured throughout the country. Their suggestions are worthy of serious consideration.

7.2 Government Policy

- There should be a dedicated Minister for Entrepreneurship, whose remit is across the relevant Departments. The Minister's brief would be very focused on creating a culture and a climate that fosters and encourages a wide range of entrepreneurial activity.
- Appoint a junior Minister for Enterprise, whose sole job is nurturing a level of start-ups on a par with the US.
- A more structured approach is needed to ensure that all actions on the part of government are co-ordinated, reducing in-efficiency and duplication where this might arise.
- The recommended approach is not to seek a greater number of new enterprises being started within the

country, but to increase the ‘ ‘ quality’ of the new ventures started through management and team development, with a higher proportion of the new start-ups developing over time into companies of considerable scale.

- Similar resources/support/effort should be invested in encouraging start-up businesses, as is currently invested in attracting overseas companies to base their operations here.
- Bring US best practice entrepreneurship policy model to Ireland.
- Reduce the indirect tax on employment
- Tackle childcare costs, perhaps through allowing these to be offset against personal income tax.
- All post offices should have on-line access
- Pre-enterprise initiatives may need to be taken in certain circumstances to kick start entrepreneurial activity, for example, to build an educational software cluster in the Gaelteacht.
- A major campaign should be initiated on an all island basis to promote entrepreneurship – not only of the high potential type, but also in areas of disadvantage.
- Ireland should look towards Israel as a potential benchmark in terms of their enterprise development policies. Admittedly, Ireland does not have the benefit of a large defence budget which in Israel helps fund considerable R&D, but we can take heed of their progressive policy toward creating more employment in the indigenous sector than in the MNC sector.
- A serious concerted approach must be taken to combating racism in Ireland. Our government must undertake a serious and concerted anti-racism campaign. This campaign must highlight the importance of building a multicultural Ireland not only in a social

context, but also for the well being of our firms on the international arena. Illustrating the benefits in the light of economics may have more of an impact on those who are still racially cynical in Ireland today.

- Concentrate on building up and supporting the Irish Life Sciences sector.
- At the moment Ireland needs to focus resources on the Life Sciences area. We have had good ICT training and excellent software development skills for some time now. It is critical for universities and school leavers to bypass the traditional career professions and move toward these new burgeoning skills and career areas. There needs to be a Media Lab model for the Life Sciences with a focus on the ‘ new IT’: pharmaceuticals, genomics, drug delivery and intellectual property protection, patenting etc. This is where the opportunity is at the moment and Ireland could really have a huge impact in this industry if we redirect some of our resources to support activity in this area.
- There is a need for more incubator space for small sized start ups and new legislation to tackle the current leasing environment for SMEs. Current office rentals are often prohibitively expensive.
- The O’Driscoll Report must be implemented NOW.

7.2.1 Regulation

- An Advocate for Entrepreneurs and Small Businesses is needed to bring about a reduction in the burden of regulation.
- The company law environment for small companies should be simplified.
- It should be easier and quicker to get the necessary permission for licensing, planning etc
- The bureaucratic requirements for small businesses should be reduced.

- There should be less red tape.
- Bureaucracy needs to be streamlined. Companies below 10 employees, for example, should be exempt from much of the peripheral and less essential bureaucracy.
- Reduce legislation and red tape.
- Continue efforts to reduce the regulatory burden.

7.2.2 *Purchasing*

- At national level in particular, but also at EU Commission level, there should be a positive orientation, through public procurement policies, towards the purchasing of goods and services from SMEs, as is the case in the United States.
- Assist new growing firms to secure public sector contracts — currently it is very difficult for newcomers to break into this market — it is easier to enter overseas public sector markets.
- Better access for entrepreneurs to government procurement contracts is required.
- Government agencies should buy a percentage of their services and goods from start up young companies.

7.2.3 *Fiscal*

- There should be a simple tax based funding mechanism for ‘garage type start-ups’. Essentially the suggestion is that there should be a ‘seed capital refund scheme’ that could be widely used by entrepreneurs.
- Give tax incentives to entrepreneurs to encourage them to further grow their businesses. For example, there could be an incentive for each job created over a specific number or for turnover beyond a particular figure.

- There should be more tax based incentives for new rural based businesses.
- Continue tax incentives for seed capital investment by entrepreneurs.
- Encourage informal investment — currently most surplus money is going into overseas property.
- Tax breaks could go some way in addressing current funding difficulties. Breaks could be given to investors in seed capital funds.
- Tax incentives for personal / angel investors willing to invest in VC funds would go some way toward helping to fill the gap in early stage funding.
- There is a need for more tax incentives for individuals and companies to invest at a pre-seed level at start-ups. Extend the BES scheme and make it easier for start ups to access.
- The risk/reward for investing in early stage businesses must be appropriate given the returns available from other investments, such as property.
- Introduce a start up period where for a limited time all state taxes, and in particular local taxes, are set aside for start ups.
- Reduce the tax liabilities of start up companies.
- Provide better tax incentives to encourage employees to break out of ‘safe’ employment.
- Taxation policies should take indigenous companies into account. The recent tax credits allowed for in the budget were worthless to Irish companies. They were aimed solely at attracting MNC R&D activities. In order to build sustainable entrepreneurship and economic competitiveness, policies need to favour the development of indigenous enterprise.

- Create incentives for entrepreneurship. There seems to be little incentive at the moment to motivate an employed person to become self-employed and start a new venture. A simple initiative on the part of the government to reduce or cut tax burdens on start-ups could go a long way to encourage more entrepreneurial activity.

7.3 Government Programmes

- The Country Enterprise Boards and EI should be amalgamated.
- There should be one agency for entrepreneurs, which should be strong both at national and local level.
- Collapse all grant/state support into one entity, there is too much confusion over who helps who.
- Coordinate and centralize development agencies and their efforts. It would be very beneficial to create better coordination between the enterprise development agencies, their services and the funds they make available. A specific recommendation could include creating a list of every single fund that is available to start ups including information on who the funds are targeted to, and what must be done to win the funding. It is critical that this information is given impartially.
- Lessen complexity inherent in development agency bureaucracy. These agencies and services must endeavour to be less complex. At the moment there are a large number of different agencies with varied service offerings. To add to this complexity, the process that small companies under severe time constraint must go through to apply and secure funding is nothing short of ludicrous. It renders these initiatives significantly less effective than they could be.
- Resource the existing ‘ structure’ for delivering support to entrepreneurs. Specifically, the existing structures need:
 - A better defined remit (to include a broader range of activity)
 - More funds
 - Appropriately skilled personnel
 - To include a focus on micro-finance.
- Provide support through tax breaks or direct financial assistance to help entrepreneurs support themselves for the first two years of start up, so that they can concentrate on getting the business developed.
- Fast track new companies through government entrepreneurial schemes.
- There needs to be more people with enterprise experience involved as executives in the development agencies.
- Soft supports should be made available to a greater number of entrepreneurs so that they are exposed to guidance, mentoring and made to feel proud of what they are trying to achieve. They should be helped to nurture and develop the kernel of a good idea.
- State subsidies should be ‘ ‘ no strings attached”, should not be capped and should be focused on ‘ ‘ winners”. There should be substantially more ‘ ‘ free” state subsidies. Worked from whichever angle, but freeing start-ups from financial obligations and unwieldy stakeholders. The current subsidies given to technology firms should absolutely not be capped. If this means giving to fewer firms then so be it. The government and state agencies critically need to start ‘ ‘ picking winners”.
- The development agencies should not try to ‘ ‘ pick winners”. It could be considerably detrimental to the Irish entrepreneurial environment if state agencies began to ‘ ‘ pick winners” by offering greater amounts of funding to fewer companies. Picking winners is an inexact science more comparable to gambling than to effective prediction.

Experienced people can usually predict if a company's business concept is completely unworkable or valid on a theoretical level. Whether these theoretically valid concepts will be successful or not is impossible to predict. Often success stories encompass elements of chance, accident, timing, luck, hard work and good execution. Biased thinking on the part of funding and state assistance agencies could be drastic and result in missed opportunities on both sides.

- State agencies must help entrepreneurs find strong management teams – the IDA already has many of the contacts and networks. These must be used to attract CEOs and those with commercialisation skills into Irish technology firms.
- Get the IDA started on centring European sales centres out of Ireland.
- Encourage US start ups to set up their European HQs in Ireland.
- Enterprise agencies must ‘ ‘ nurture’ new enterprises by becoming an intelligent sounding board for potential and new entrepreneurs. At present, this role is confined by the main development agency to very small number of companies.
- EI's focus in terms of high potential start-ups (HPSUs) should be in bringing entrepreneurs and companies together in order to have a smaller number of companies, but each with the critical ingredients needed for longer term success and growth, rather than the fragmentation, with the existence of many very small companies in similar areas, that exists at present.
- Any beneficiary of grants should be asked to allocate time for new entrants.
- More sponsored incubators are needed.
- Steps should be taken to tackle the growing problem regarding the office rental environment and a general lack of subsidized incubator and office facilities for start-ups and SMEs. It is very difficult in Ireland to find offices to let on short-term leases with many office leases stretching to 20 years and beyond.
- Come up with a integrated set of seed capital incentives.
- Commission a report 2020 outlining the needs and wants of the Irish public in the year 2020 – try to anticipate the changing needs before they happen.
- Strengthen advice/support structures to assist people go the entrepreneurship route – with particular reference to developing Internet based support.
- The government needs to promote small companies that have already started up in Ireland, as well as looking for ways to encourage more people to behave entrepreneurially.
- Provide mentors for young entrepreneurs. The provision of a ‘ ‘ guardian angel’ or mentoring figure would go a long way to help these ‘ young’ entrepreneurs, who often have the passion for business but lack the realism and experience needed to keep it and themselves going. These individuals are difficult to find and need to be prepared to spend significant time, sometimes altruistically, with start up ventures.

7.3.1 *Enterprise Ireland*

- Enterprise Ireland should be only 10% of its current size. (Those executives that are surplus to its needs should be encouraged to work for companies to get experience. If necessary, their services should be offered free.)
- EI's focus in terms of financial assistance should be in giving seed capital on a different basis to that available from the VCs, i.e. by being prepared to look for a return in the much longer term.

- The VCs have more knowledge than EI, and should be left as the main appraiser of projects.

7.3.2 CEBs

- Each County Enterprise Board should be given a role in local economic development – for example in the development of centres of excellence in their areas. They should be given the resources to truly build clusters and not have their role limited as at present. For example, Kilkenny should be developed as a creative centre and the educational requirements that go with a development of this nature established in the city (for example, an outreach programme from the Dun Laoghaire Institute of Art and Design or NACD, similar to furniture design in Letterfrack). But the vision and resources to develop a centre of this nature is either not vested in any organisation or if it is, that organisation is not active enough. The CEBs should be empowered to take up this role and given the necessary resources to carry it out.
- The CEBs should be able to raise private funds locally to match public funds (mini First Step) One would obviously have to be careful not to compete with the mainstream financial institutions, but the model that is in Northern Ireland and in the border counties with regard to County Enterprise Funds should provide an example of what could usefully be done throughout the rest of the island.
- There should be greater accountability on the part of the CEBs, with fresh blood being introduced at CEO and board level in the CEBs.

7.3.3 R&D Support

- Increased R&D support should be made available.

- There should be more R&D funding for existing businesses to help them to develop and grow.

7.3.4 Information

- Create a database of support services regardless of type of business/geographical location. Information should be made highly accessible to entrepreneurs of all types, regardless of whether they will be clients of the development agencies.

7.3.5 Building Scale

- Proactive activity is needed to encourage a merging and consolidation among small emerging firms in order to build larger firms of scale.
- Development agencies need to focus on building scale. From nine months after start up or thereabouts, the businesses need substantial finance and need to be partnered with overseas businesses, if they are to really grow.
- Policy makers should leverage the FDI base in Ireland for early stage indigenous companies. This will not necessarily be in terms of direct sales to FDIs, but rather the FDIs should be mined for opportunities for co-development in sales and marketing, providing access to contacts, etc. This type of leverage should help indigenous companies develop scale.

7.3.6 Sources of New Entrepreneurs

- Particular groups should be targeted for exposure to the idea of starting their own business, and they should be provided with the necessary skill based training as required e.g. MBA students, construction workers during their apprenticeships etc.
- The number of MBA students and other experienced professionals who are introduced to the concept of starting

their own business should be increased.⁷⁰

- A structured programme should be introduced which would allow executives to take paid leave from the banks, large companies etc in order to go off and explore the possibility of becoming entrepreneurs. This takes time and energy. This type of programme would have many ‘ ‘ failures”, i.e. executives who subsequently returned to their previous employment without having set up a new business, but the experience in itself should be worthwhile when they returned to their ‘ ‘ day job”. There would of course also be successes; with new businesses being created that would not otherwise see the light of day.
- Encourage successful Irish people overseas to return home to start businesses.
- Encourage spin offs and MBOs from foreign multinationals.

7.4 Education

- Increase the focus on entrepreneurship within the education system at all levels.
- More could be done in the Education and Training area to increase the awareness of entrepreneurship among the young of all levels. Best practise in this area needs to be rolled out generally and throughout the country.
- Entrepreneurship awareness and training must be adopted as an integral part of the Education system at all levels; it is too late to introduce this concept at graduation or among post graduates. There should be in service training for primary school teachers in

this area, entrepreneurs should be brought into the classroom, kids should be encouraged to interpret their own experiences, and learning enterprise should be made fun.

- Ensure greater exposure to enterprise education at all levels. (The ‘ ‘ Go for it” campaign in Northern Ireland works extremely well).
- Develop a ‘ ‘ can do” attitude to a greater extent within society through positive reinforcement of the concept at all stages of the education system.
- The national business incubation association should work with EI to assist in designing an educational format for schools.
- Introduce ‘ ‘ real” enterprise education into schools.
- Introduce changes in the second level education system to encourage risk taking and responsibility (e.g. projects, fieldwork, student councils, etc).
- Develop second level courses to encourage innovation and enterprise.
- Transition year ‘ ‘ start your own business” modules may need to be approached with a greater degree of professional input (marketing accounting and financial) if projects are to translate from the relatively safe school environment to the real world of business.
- There is a need to expose more technical and science students to an understanding of market and commercial requirements.
- There is no reason that women should not become good entrepreneurs and be more involved in entrepreneurship.

⁷⁰The expert, who made this point, indicated that such people are often at a juncture in their career when they are looking for a change of direction, and have accumulated the knowledge, skills and experience that would make them potentially good candidates for successful entrepreneurial endeavour. For those of them who may consider that theirs are management rather than entrepreneurial skills and that they lack the ‘ ‘ good idea” around which to build a new business, they should be encouraged to consider the challenges and opportunities for significant career advancement offered by employment in small Irish companies, as part of the team supporting the original founder. This is another route into entrepreneurship, as these successful managers may find themselves part owners of the new business that they helped to build.

More support and encouragement is needed to achieve this outcome and this needs to start early within the schools.

- Switch at least part of the excessive funding for ‘ ‘ research’ to basic undergraduate education, which is currently starved of funds and to management development. It is imperative that the basic human infrastructure of the country is preserved.
- Several experts interviewed welcomed the various initiatives that had been taken to encourage young people to take science, engineering and other technical education. Such initiatives they felt should be continued and if possible further expanded.
- The quality and number of scientifically qualified people in the Irish workforce needs to be drastically improved very soon. There is an explicit need for a larger supply of knowledge workers in the Sciences. Currently science is seen as uninteresting, too difficult and most detrimentally ‘ NERDY’! At open days all over the country there are bespectacled physics students trying to market their course to school leavers. They need to have role models, successful entrepreneurs at these stands; the Bill Gates of Ireland standing there to say ‘ I studied Biochemistry/Physics/Computer Science . . . or whatever . . . and look where it got me’. ‘ ‘ Science needs to be marketed as more avant garde!’
- The number of graduate students in technical studies should be increased.
- Start to deliver a coherent set of intellectual property, business foundation and entrepreneurial studies modules to all undergraduates and post grads taking technical studies. One way in which this could be achieved would be through the introduction of a module(s) into the undergraduate curriculum, which would require the students to develop a new product and

to focus not only on its technical sophistication, but also on its market and commercial requirements. Ideally this project work would be carried out within multi discipline teams.

- Encourage a wider demographic of entrepreneurship, including social entrepreneurship at school/college/community level.
- Strengthen exposure to entrepreneurship challenges/opportunities at second level education.
- The re-organisation and refocusing of those parts of the education system (principally the third level sector) that trains those for the food industry is needed – the perception of traditional ‘ home economics’ colleges as compared to ‘ university’ qualifications, is a case in point. The general education system needs to educate people more fully about food production and food supply.
- Include a commercial aspect to degree courses, possibly involving a year internship for credit in the middle of the programme. Many of the problems with the entrepreneurial environment at the moment surround training and skills. In degree courses students could be encouraged to take a year’s commercial experience as part of their degree. Instead of Erasmus for example a student could take an academic year for credit in an internship position in a company in order to learn commercial real life skills that will help them take a more pragmatic and reasonable approach to starting up their own business when they graduate.

7.5 Training

- Make some agency responsible for management development – none has assumed responsibility to date.
- More practical entrepreneurship training should be available.

- Educate entrepreneurs about international/export markets and provide greater supports for them to enter markets new markets. Information and supports of this nature should be highly accessible to a wide range of entrepreneurs.
- Greater management development programmes should be made available for entrepreneurs. Specifically development in sales, in executive development, and in making entrepreneurs ‘ investor ready’.
- Increase the level of management training within companies, particularly in the area of sales.
- There is a need for the entrepreneur to understand the ‘ ‘ mindset” of the investor. The investors’ expectations are often not fully understood; often there is a reluctance to reduce equity; and often unrealistic valuations are placed on the fledgling venture’s worth by its owners. EI ran an ‘ ‘ Investor ready” pilot programme, and there is a need for more initiatives of this type.
- Support for entrepreneurs should focus on building management capability. At present this is available to a very limited number of entrepreneurs on the Enterprise Platform Programme.
- Make the giving of financial support contingent up on the recipient attending an appropriate course.
- Attendance at start your own business type courses should attract accreditation, which should be taken into account by the financial institutions and State agencies.
- Consider the notion of an entrepreneurial ‘ ‘ boot camp” for kids. (These run successfully in the US).
- The third level colleges, particularly the Institutes of Technology, should be more active in local areas.
- Entrepreneurship skills should be incorporated as part of third level degree courses.
- Entrepreneurship courses should be developed with overseas modules.
- The universities in particular, and the Institutes of Technology to a lesser extent, should provide entrepreneurs/management development courses for new entrants and expanding entrepreneurs. These should be tailored to the needs of entrepreneurs – and not the educational establishments concerned.
- In very small tourism related operations there is a need to build market expertise, for example, small operators would not be familiar with using the web to offer on-line bookings.
- Funding should be made available for training academics/ researchers in business start up skills.
- In addition to presentation and sales skills Irish entrepreneurs also need to be better trained in Business Planning.
- Procedures should be put in place to guide academics in the ‘ ‘ nuts & bolts” of business. For example the ‘ how to’ of investment proposals, business plans, financial management etc. A ‘ tool box’ of templates and basic business advice should be provided in a ‘ ‘ start up pack”. This could be provided by EI or the Department of Trade and Enterprise on the web. Anywhere, just somewhere easy to access and well marketed.
- Training and education should be provided in responsible business practice. There are a number of unethical business practices at large and few business figures willing to act in an ethically responsible manner in this environment. It is the responsibility of government to allow for training and education in responsible management and ethical business practice.

- Presentation and communication skills need to be improved through specialist training programmes, EI/state agency and university degree courses. It is vital that initiatives be taken to improve the presenting and selling skills of Irish entrepreneurs. Sales expertise is a critical weakness in the Irish entrepreneurial environment and needs to be addressed. Irish entrepreneurs need to be better trained to deliver the all-important elevator pitch and to be more confident, coherent and sensible in their approach to both fundraising and selling.

7.6 Finance

- Increase the amount of early stage risk finance (equity) available.
- Provide more early stage seed finance.
- In order to ensure that the necessary finance is available, Enterprise Ireland will have to continue to intervene in areas of market failure.
- The banks need to become more engaged with entrepreneurs and be prepared to reinvest some of their considerable profit in early stage investments, in which there is a possibility that they might lose money.
- The banks should make finance available to new enterprises, if the development agencies do.
- Increase the availability of micro finance through loan guarantee schemes.
- Get financial institutions engaged in supporting entrepreneurs. They could treat such activity as 'marketing' expenditure. The banks could outsource this activity to, for example, First Step, which could process applications, manage repayments, but do it under the bank brand.
- The VCs need to open up further to embrace innovative, future technologies which will be important in ten years time. Ireland needs to stay ahead of the game in order to remain competitive. In the UK Venture Capital companies and other funding bodies tend to have a very strong technical expertise among their executives. This way they are more able to assess companies in the Life Sciences area. The obvious corollary to this is that it is easier to get funding for good innovative commercial technologies there than in Ireland. Currently Irish VCs are open to diagnostic or more applied Life Science technologies.
- A more cost efficient means should be found to address the requirements at each round of funding. At present 10% of the amount raised goes in professional fees. Greater competition should be introduced in this area, with perhaps the business being put out to tender.
- More venture capital funding should be made available.
- More incentives need to be put in place to encourage more angel investment in Ireland.
- Policy makers and state agencies should do more to encourage angel investors. One specific idea which might benefit this space would be to create an angel investor friendly introductory or facilitation mechanism, wherein potential investors and new companies could be introduced or matched by an independent organisation. If this facilitator was state affiliated potential investors might be more likely to trust the validity of the introductions. A further initiative that could be taken involves publishing a centralized list of Irish individuals who are interested in receiving investment proposals from high potential start ups. Often young entrepreneurs, without the necessary network, will not know of the individuals already involved in angel investment activity.
- Early stage funding needs to incorporate feedback loops and

encourage responsibility in start up behaviour and more proactive visionary funding by the investment community. It is important not to strangle a new company with funding criteria but equally a new company should act on its responsibility to stake holders from the first seed capital they receive to the multi million \$ venture capital deal/or lucrative IPO they may end up with. Currently there is investment available at some stages of development and not at all in others. For this reason, funding should be awarded initially by the State and then by other investment agents where incremental success or milestones have been achieved. This way investment will be contingent on short term goals and will not impact the entrepreneur's freedom to be flexible and build a new company which responds to the markets. Investment gaps should close over as the new venture continues to prove itself worthy.

7.7 Commercialising Research

- With the significantly increased investment in research in 3rd level, there is a need for a much more sophisticated approach to transferring research out of the third level sector. Up to now there has been an expectation that the academic would become an entrepreneur and that was the only way of exploiting the technology. This approach has had limited success to date. It may not have been the best approach, however, as it presupposed that the academic had the necessary skills to successfully start and grow a technically sophisticated business. This may not have been the case. Moreover, this approach did not recognise the fact that there was an opportunity cost involved in taking the academic away from research in which he had proven skills, into a commercial area where his skills were at best unproven. There is a need for the third level colleges to reward the academics

in their midst, who develop research that has the potential to be commercially exploited, in a way that allows them to retain the academics, while allowing the technology to be commercialised and to make a return both to the academic and to the college.

- There should be a stronger focus in the universities on commercialising research. Universities need to consider commercialisation of research through start-ups as a logical extension of research activity. Specifically, the Irish universities could learn from the experiences of universities in the US in this regard.
- Greater support should be made available to commercialise research being carried out in the universities.
- Develop strong TT offices and entrepreneurship programmes at third level.
- R&D needs to be commercially viable in 18 months tops. That means quickening the pace, funding ‘ ‘ cutting edge’’ research and improving the level of commercial awareness among academics in universities. There is a serious level of commercial management in US 3rd level colleges e.g. Stanford/Harvard and MIT. These are the kind of commercial/management skills and awareness that we need to be encouraging in academic institutions in Ireland.
- Provide resources to scan third level colleges for commercially important technologies.

7.8 Media

- Feed interesting case studies to national press, women's magazines and afternoon magazine TV shows. Success inspires confidence and possible ‘ ‘ me too’’ initiatives.
- Improve the profile of Irish entrepreneurs and create role models

to encourage and motivate potential entrepreneurs and graduates to start up.

- There is a need for more entrepreneurial role models in the Irish media, in books and on television. The Irish population needs to be further encouraged to think of entrepreneurship as a valid and lucrative career option. There is a need for a strong and successful Irish indigenous company to help existing entrepreneurs to ‘ ‘ think big” and envision BIGGER futures for their start-ups.
- Communicate better the national importance of entrepreneurship.
- Trumpet more success stories — and not just Dublin based i.e. educate the system.
- Put more resources into marketing the opportunities present in the Life Sciences industry. There is a huge opportunity for Irish entrepreneurs in Life Sciences. At the moment the EU framework funds have €90 billion in funds for R&D. Still very few Irish companies are involved. These opportunities need to be better marketed! Nobody knows the possibilities and most entrepreneurs are still venturing in the ICT space. There is a misrepresentation of Life Sciences in the media and many people are afraid of the R&D costs, the lag time involved etc. There are not really that many industries that Ireland could really make an impact in due to our small size and population but this industry is one in which we could become global players — Tell Everyone!
- There is a need in Ireland for a ‘ ‘ success story” in the Life Sciences sector. This would jump-start all elements of the entrepreneurship cycle. It would open up investment in Life Sciences, encourage graduates to behave entrepreneurially and encourage academics to look toward commercializing their research.

7.9 Networks/Forums

- The government could initiate a number of different forums to bring various parties involved in the venture creation process together. In this way opportunities could ignite themselves. Potential entrepreneurs with the skills, but no business idea, could be exposed to those with ideas. Such an initiative allows combinations of people with different skills, visions and technical knowledge to meet and put a viable business together. By creating this brainstorming environment for parties to meet we would have the perfect opportunity to put the facilities for providing practical advice and assistance where these entrepreneurs can avail of them immediately. Entrepreneurship necessitates speed, rapid reactions and fast paced proactive behaviour. The state agencies and government policies aimed at promoting entrepreneurship need to acknowledge this dynamic. Mostly state services follow a few paces behind entrepreneurs. The type of initiative described above would facilitate entrepreneurship by providing exactly the kind of diverse environment needed and having the relevant advice and information sources there when they are needed.
- Create forums to introduce combinations of individuals who will spark ideas and ignite opportunities together. Use this opportunity to provide on the spot advice and information.
- There is a move recently towards including entrepreneurship in university syllabi, more than this, however, needs to be done to improve the profile of entrepreneurship in this country. The state agencies and even individuals who have experience of starting up firms need to create forums where information can be exchanged and practical advice can be given.

- Develop entrepreneurial networks free of ‘ ‘ agency’ interference, i.e. where entrepreneurs can share experiences, contacts and ideas without government agencies pushing the agenda.

7.10 Other

- Exit mechanisms should be developed, at both local and national level, whereby established businesses can be sold on as a going concern to another potential entrepreneur.
- Introduce more flexibility into the labour market.
- The fact that Ireland is now a net contributor within the EU presents Ireland with an opportunity to have a greater influence on policy and the manner in which the available funds are used. Ireland should use this influence to redirect the balance in favour of the SMEs and away from larger firms, where it is at present.
- There is a need to find ways of making connections between experienced managers and entrepreneurs in order to build balanced start-up teams from solo entrepreneurs.
- Create recognition of social dimension to entrepreneurship and the link of social to economic.
- Create an appreciation of the latent abilities of people who are at present excluded from mainstream society.
- Reduce insurance costs.
- Provide access for entrepreneurs to expert reviews/feedback of their start up plans. This may require State funding to deal with affordability.
- An A-Z manual for those wishing to become a small food producer should be written and made available.
- An entrepreneur’s portal should be developed which would provide a brokerage service — ideas/seeking business partners etc. Model on myhome.ie. (sales, advice and information) e.g. myownbusiness.ie (offers, requests, advice and information).

SECTION 8

Conclusion and Policy Implications

8.1 Introduction

This section briefly examines the GEM findings for 2004 for Ireland. This examination forms the context in which the recommendations have been developed by the GEM team. These are designed to strengthen and further support entrepreneurship so that Ireland may fully reap the economic, societal and personal benefits that can flow from optimizing the country's full entrepreneurship potential.

8.2 Entrepreneurship in Ireland

8.2.1 Does Entrepreneurship Matter?

Ireland aspires to be a high income, internationally competitive, knowledge-based economy. Entrepreneurs are essential to realizing this objective. Entrepreneurial activity is critical to competitiveness and GEM suggests that as economies get wealthier entrepreneurship becomes a key driver of economic growth. Furthermore, entrepreneurial activity is a critical mechanism through which new knowledge is exploited in the marketplace. Such entrepreneurial activity may help attract higher value FDI to Ireland.

Therefore, creating an environment supportive of entrepreneurial activity and supporting entrepreneurs should be an important component of Ireland's industrial development strategy. In addition to the important contribution of entrepreneurship to economic growth in high income economies there are a number of other benefits of entrepreneurial activity. These include contributions to wealth creation, innovation, competitiveness, regional development, consumer choice, personal development and social cohesion.

8.2.2 Does Ireland Need More Entrepreneurs?

GEM suggests that Ireland needs more entrepreneurs. While the rate of entrepreneurial activity in Ireland is favourable when compared to European economies, it is much less favourable when compared to the US economy. Furthermore, the rate has decreased in recent years.

GEM suggests that, as well as creating a generally supportive environment Ireland should seek to increase entrepreneurial activity in three key areas.

- (i) **The Business Services Sector.** High-income economies appear to have a much higher level of entrepreneurial activity in Business Services sectors than is the case in Ireland. Such activities are more likely to be associated with increased economic growth.
- (ii) **Commercialising R&D.** As part of its strategy to build a knowledge economy, the Irish government has committed to funding research in the third-level education sector. To maximize the economic benefits of such research, entrepreneurs will need to commercialize the outputs of such research and bring these to the market.
- (iii) **Women entrepreneurs.** Compared to other high-income economies Ireland has a relatively low level of female entrepreneurship. While the overall level of activity is low in Ireland, female entrepreneurs are found across all sectors of economic activity.

8.2.3 *Are Irish Entrepreneurs Starting High Growth and Export Orientated New Firms?*

Supports for entrepreneurs in Ireland have emphasised what are referred to as *High Potential Start-ups*. These firms are considered to be innovative and to have the potential to grow rapidly in international markets. Typically they are in newer sectors of the economy such as ICT and biotechnology. Such firms have been the focus of policy because of the contribution they can make to economic growth and because it is assumed there are a number of market failures that impact on the emergence of firms of this kind.

GEM suggests that there is a much larger cohort of Irish firms that are growth orientated and export orientated than are typically supported by Irish development agencies. That is, supports, while appropriately targeted at high growth firms, are perhaps targeted too narrowly at a subset of all growth-orientated entrepreneurs.

GEM suggests there are many entrepreneurs who achieve some growth in that they employ more than twenty people. Few, however, attain real scale when compared to international competitors. In the opinions of the experts and the entrepreneurs, this inability to attain scale reflects a skills deficit. Entrepreneurs and their new firms often lack the skills to build sales in international markets and to grow the business.

Furthermore, GEM suggests that there are a number of deficiencies in government programmes targeted at entrepreneurs. These are a lack of coordination of the efforts of separate State agencies, a lack of market or sector experience among agency executives, and too much agency bureaucracy.

8.2.4 *Why are Women Less Active as Entrepreneurs?*

There is a pool of well-educated women that are considering starting new businesses. However, women in Ireland are relatively less active as entrepreneurs. In particular there appears to be a much lower number of

women who have recently set-up a business. Why is this the case?

GEM suggests that the reasons for this may be the personal context of women in the Irish population. Compared to Irish men, women are much less likely to perceive opportunities, have much lower perceptions of having the required knowledge, skills and experience necessary to start a business, and are much less likely to have an entrepreneurial role model (in that they are less likely to personally know an entrepreneur who has recently started a new business).

GEM also suggests that women have less money to invest in their new businesses and are more dependent on personal family members for investment. Added to this, women entrepreneurs are less likely to have recently been engaged in fulltime employment. Presumably fulltime employment provides access to market opportunities and to networks of contacts.

8.2.5 *Is Ireland Well Placed to Encourage More People to Become Entrepreneurs?*

GEM research suggests that there are many aspects of the environment in Ireland that are supportive of entrepreneurial activity. In particular, it suggests that there is a very positive cultural context for entrepreneurial activity – one of the best in the world. GEM research also suggests that Irish adults in general have a personal context that is positively associated with entrepreneurial activity. The current and projected growth in the Irish population and the age structure of the Irish population suggest that Ireland should be able to increase its rate of entrepreneurial activity.

Moreover many aspects of current government policy and of the macro-economic context in Ireland are supportive of entrepreneurs.

8.2.6 *What are the Weaknesses in the Environment for Entrepreneurs?*

There appear to be a number of factors that should cause some concern. These include:

(i) Access and Availability of Finance

While entrepreneurs typically find it difficult to access finance in all countries, GEM research suggests that the availability of funds for entrepreneurs in Ireland is low. Specifically GEM research suggests that there is a relatively low level of informal investment activity among Irish adults. It also suggests that the availability of informal investment is particularly low as a percentage of the funding requirements of all nascent entrepreneurs. For most entrepreneurs such investment is the most important external source of finance after their own personal investment (both savings and borrowings). International evidence suggests that many high growth firms rely on such funding during their early stages of development.

GEM research suggests that there are a large number of entrepreneurs expecting to need in excess of €300,000. Such entrepreneurs may need to access funds from Business Angels and, for a small number of entrepreneurs, from venture capitalists. The formal venture capital market in Ireland is relatively small. The amounts invested in firms are also relatively small, particularly when compared to US firms⁷¹. However, the view of many venture capitalists is that there is a shortage of attractive investment prospects rather than a shortage of venture capital.

(ii) The increasing regulatory burden on entrepreneurs, stemming both from Irish government policy and EU policies.**(iii) Many Irish adults perceive that they lack the knowledge, skills and experience required to start a new business.** This is an important aspect of personal context that is associated with entrepreneurial activity. Many experts and entrepreneurs suggested that the educational sector does not recognize the importance of entrepreneurship or

does not prepare individuals for an entrepreneurial career.

8.3 Learning from Finland

A comparison of Ireland and Finland using the GEM data suggests that there are significant differences between the two countries. From this analysis it is concluded that a policy challenge for Ireland is to develop a means of increasing the level of applied research and innovativeness, so that the entrepreneurial strengths already apparent within the country may be further strengthened by being married to a high degree of innovation.

Specifically it is suggested that Ireland could benefit from exploring the following aspects of Finland's policy.

- Its success in achieving a high level of innovation to underpin the development of a knowledge economy,
- Finland's specific entrepreneurship policy, which has specific targets for entrepreneurial activity and for aspects of the entrepreneurial environment, and mechanisms for monitoring progress,
- The manner of developing and monitoring entrepreneurial policies in a coordinated manner across government departments and development agencies,
- Interventions by the Finnish government in the venture capital market, and
- The environment for female entrepreneurs in Finland and the policy interventions, if any, that have supported their establishment of new businesses.

8.4 Policy Implications/Recommendations

Flowing from the analysis described above, certain policy implications arise. There is a consistency between what many of the experts and entrepreneurs consulted are recommending and what the Irish GEM team is recommending, having considered not only the results for Ireland but those available across

⁷¹The US market is an important market for many high tech firms that receive venture capital in Ireland, and there they may expect to compete with many firms, including new firms, that are much better resourced than they are.

other high income countries and the findings of GEM research at Global level.

The main recommendation calls for the development of a comprehensive national entrepreneurship strategy. This strategy would be based on a systematic and all embracing review of entrepreneurship policy and supports, and would compliment the review which has been carried out by the Enterprise Strategy Group, by focusing in particular on entrepreneurial activity within the country. The benefits of a highly thriving entrepreneurial sector are well documented and are being actively embraced by policy makers in many high income countries – even in those which have much higher levels of entrepreneurial activity compared to Ireland.

The EU has emphasized the challenge to coordinate entrepreneurship policy as it embraces very many Ministers, Government Departments and development agencies.

A comprehensive national policy for entrepreneurship should be developed.

Such a policy would inter alia spell out

- The economic, societal and personal benefits that are targeted through the Government's substantial commitment to this activity and the means by which these will be measured.
- Barriers within the environment that hamper entrepreneurship or add additional costs to entrepreneurs should be identified and lessened or removed, as appropriate.
- The wide range of programmes and other supports currently in place to encourage entrepreneurship (fiscal, educational, financial, and advisory among others), would be reviewed in terms of their effectiveness and efficiency.
- An examination of the manner in which the existing supports are coordinated and structured should be made, at present these range across several Departments and agencies, and proposals made as necessary to further coordinate these in order to improve their efficiency and effectiveness.

The other recommendations that are being proposed for Ireland by the Irish GEM team are as follows:

- There is clearly a skills deficit surrounding entrepreneurship of different types, which needs to be tackled. The initiatives developed must be the appropriate to particular groups of entrepreneurs and their needs. (For example, the skill needs of an entrepreneur starting and developing a micro-enterprise focused on local markets will be quite different to that of an entrepreneur who is starting a knowledge intensive new business, directed primarily at export markets.) This might be carried out within an overall series of educational and training initiatives and should be designed to develop both the required skills and confidence in individuals, through the formal general education system and through entrepreneurial specific initiatives.
- The availability of pre- and start-up seed capital for different types of business' needs should be reviewed and any gaps in the availability of financing should be addressed. The relative attractiveness for investors of investing in early stage enterprises should also be examined and the risk/reward of such investment made more attractive as necessary.
- More women must be actively encouraged and supported to become entrepreneurs. Ireland should seek to learn from the experience of other countries that have successfully supported a higher level of women entrepreneurs. The barriers preventing a greater involvement by women in entrepreneurial activity should be systematically identified and removed.
- Means of transferring the significant research, technological development and innovation (RTDI) investment, currently being implemented, into new entrepreneurial initiatives should be actively encouraged and any barriers to its transfer should be identified and removed.

APPENDIX 1

Global Results at a Glance

Figure 6 presents the Total Entrepreneurial Index for all countries that participated in GEM in 2004.

Table 30 presents a summary of the results for

the Total Entrepreneurial Activity Index for all countries that have participated in GEM in 2004. Comparative TEA scores for 2001 to 2003 are presented where available.

Figure 6: Total Entrepreneurial Activity 2004

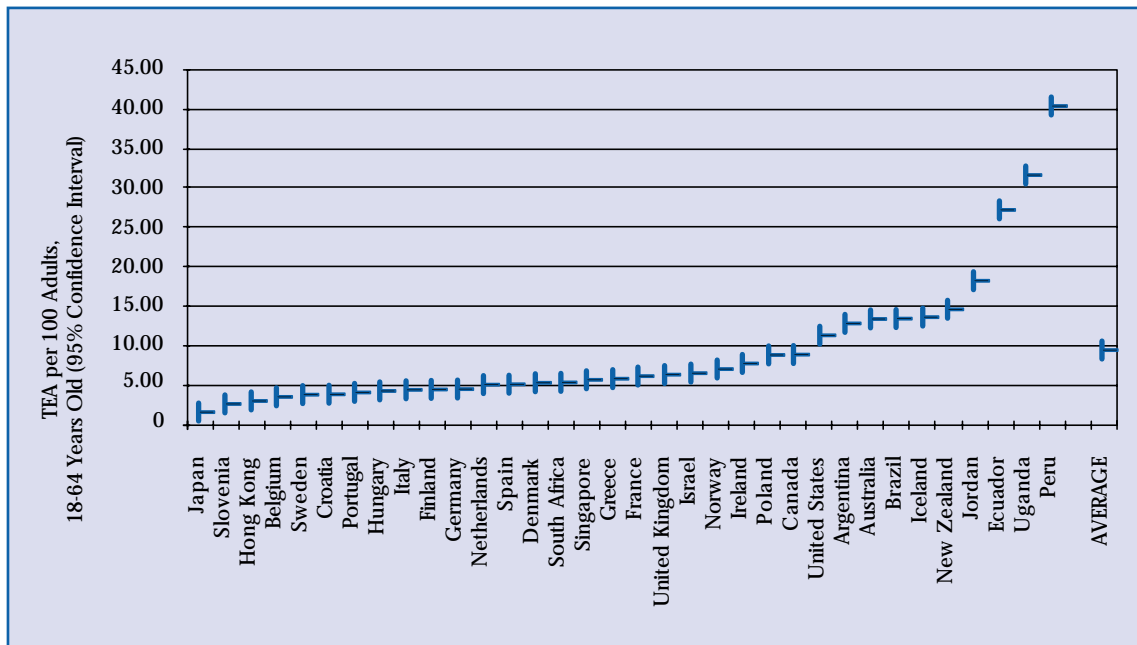


Table 30: Total Entrepreneurial Activity and Estimated Counts by Country: 2001-2004

Country	TEA 2001	TEA 2002	TEA 2003	TEA Index 2004	Population 18-64 2004	Total Labour Force 2003	Estimate of TEA Participants
United States	11.6	10.5	11.9	11.3	183,430,000	146,510,000	20,763,000
Brazil	12.7	13.5	12.9	13.5	114,005,000	85,830,000	15,368,000
Peru				40.3	15,680,000	10,400,000	6,325,000
Uganda			29.3	31.6	10,608,000	12,100,000	3,356,000
Argentina	11.1	14.2	19.7	12.8	22,895,000	13,930,000	2,940,000
Germany	8.0	5.2	5.2	4.5	52,404,000	39,510,000	2,342,000
United Kingdom	7.8	5.4	6.4	6.3	37,582,000	29,930,000	2,349,000
France	7.4	3.2	1.6	6.0	37,064,000	27,010,000	2,235,000
Poland	10.0	4.4		8.8	25,265,000	17,050,000	2,231,000
Ecuador				27.2	7,264,000	5,100,000	1,979,000
Canada	11.0	8.8	8.0	8.9	21,060,000	17,050,000	1,864,000
Australia	15.5	8.7	11.6	13.4	12,542,000	10,150,000	1,678,000
Italy	10.2	5.9	3.2	4.3	37,162,000	24,150,000	1,605,000
South Africa	9.4	6.5	4.3	5.4	25,122,000	16,200,000	1,357,000
Spain	8.2	4.6	6.8	5.2	26,110,000	18,820,000	1,345,000
Japan	5.2	1.8	2.8	1.5	80,830,000	66,660,000	1,196,000
Jordan				18.3	3,078,000	1,400,000	562,000
Netherlands	6.4	4.6	3.6	5.1	10,469,000	8,150,000	535,000
Greece			6.8	5.8	6,780,000	4,450,000	391,000
New Zealand	18.1	14.0	13.8	14.7	2,496,000	2,020,000	366,000
Hungary	11.4	6.6		4.3	6,550,000	4,150,000	281,000
Portugal	7.1			4.0	6,603,000	5,410,000	261,000
Israel	5.7	7.1		6.6	3,617,000	2,610,000	239,000
Belgium	4.5	3.0	3.9	3.5	6,424,000	4,710,000	223,000
Sweden	6.7	4.0	4.1	3.7	5,510,000	4,450,000	204,000
Norway	8.8	8.7	7.5	7.0	2,824,000	2,370,000	197,000
Ireland	12.2	9.1	8.1	7.7	2,502,000	1,920,000	193,000
Denmark	8.0	6.5	5.9	5.3	3,402,000	2,870,000	181,000
Singapore	6.6	5.9	5.0	5.7	3,142,000	2,150,000	179,000
Finland	7.7	4.6	6.9	4.4	3,289,000	2,600,000	144,000
Hong Kong		3.4	3.2	3.0	4,777,000	3,500,000	142,000
Croatia		3.6	2.6	3.7	2,841,000	2,100,000	106,000
Slovenia		4.6	4.1	2.6	1,344,000	960,000	35,000
Iceland		11.3	11.2	13.6	181,000	160,000	25,000
GEM Countries 2001-2004*							
<i>All countries</i>	9.9	8.1	8.7	8.4			
<i>Country average</i>	8.9	6.7	7.3	6.9			
GEM 2004 Countries							
<i>All countries</i>				9.3	784,851,000	596,380,000	73,217,000
<i>Country average</i>				9.4			

*Twenty-one countries were involved in GEM in each of the years 2001-2004 inclusive. These are: Argentina, Australia, Belgium, Brazil, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Singapore, South Africa, Spain, Sweden, United Kingdom and United States.

APPENDIX 2

The GEM Project Explained

History of the Project

The Global Entrepreneurship Monitor (GEM) is a research programme, whose co-ordination centre is hosted jointly by London Business School and Babson College in the USA. The research also involves a consortium of national teams from each of the countries involved in the study.

The aim of GEM is to create an annual assessment of the levels of entrepreneurial activity across countries. The research also explores a variety of factors both within and across countries that might give rise to systematic differences in entrepreneurship rates. Through a greater understanding of these factors, policies to enhance the level of entrepreneurial activity can be based on solid research and the role of entrepreneurship in contributing to a positive economic environment can be better understood.

GEM began in 1999. The first study began with 10 countries,⁷² and has involved 40 different countries since its inception. Thirty-four countries⁷³ participated in the 2004 research cycle.

GEM Definition of Entrepreneurship

For the purposes of the research, GEM uses a very comprehensive definition of entrepreneurship, which encompasses any type of entrepreneurial initiative, including self-employment. Individual efforts to create new businesses are reflected in the Total

Entrepreneurship Activity (TEA) index. The TEA rating is made up of those actively planning to become entrepreneurs, and taking some specific actions to bring this about, (categorised by GEM as ‘ ‘ nascent’ entrepreneurs) and those who have set up a new enterprise in the 42 months prior to the carrying out of the adult population survey, (categorised by GEM as ‘ ‘ new firm’ entrepreneurs).

Thesis to be Proven

GEM was designed to answer three fundamental questions:

- (i) Does the level of entrepreneurial activity vary between countries, and, if it does, to what extent?
- (ii) Does the level of entrepreneurial activity affect a country’s rate of economic growth and prosperity?
- (iii) What accounts for national differences in entrepreneurship?

Mindful of the focus of policy-makers on GEM, a fourth question was added more recently:

- (iv) What can governments do to affect the level of entrepreneurship?

The major research focus across GEM has been on developing harmonized measures of entrepreneurial activity.

⁷² Canada, Denmark, Finland, France, Germany, Israel, Italy, Japan, UK and USA.

⁷³ The 34 countries participating in the GEM 2004 cycle are as follows: Argentina, Australia, Belgium, Brazil, Canada, Croatia, Denmark, Ecuador, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Israel, Ireland, Italy, Japan, Jordan, New Zealand, Norway, Peru, Poland, Portugal, Singapore, Slovenia, South Africa, Spain, Sweden, Switzerland, The Netherlands, UK and USA.

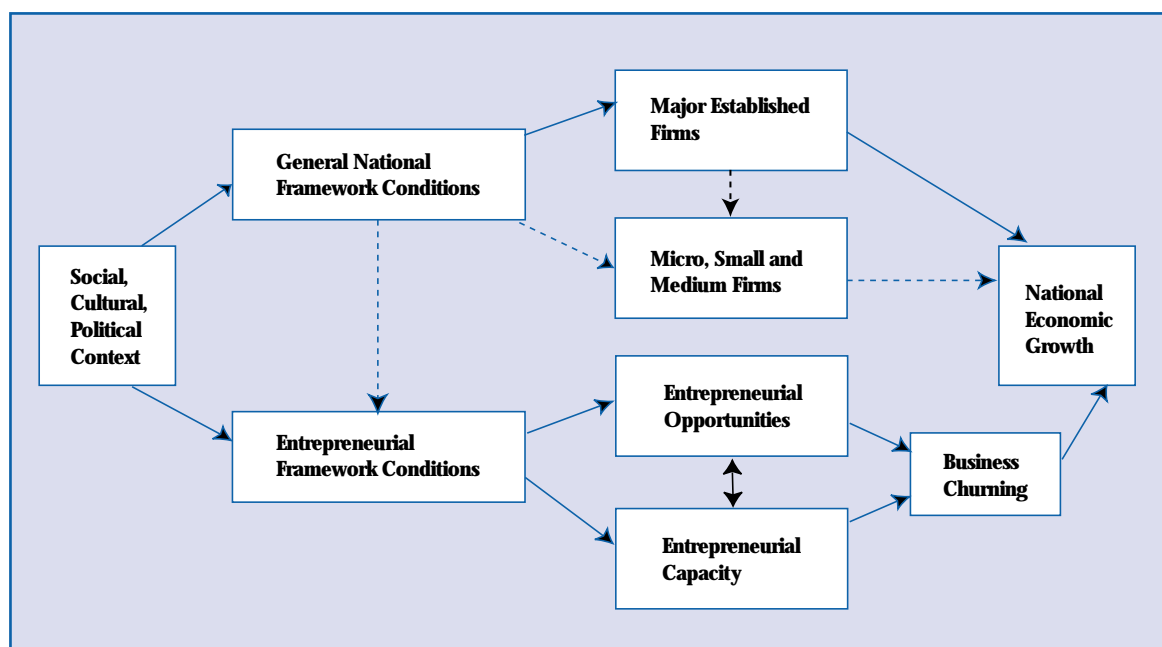
The GEM Theoretical Model

Most studies of economic performance focus on the ‘primary economy’ of large, established firms and industries, and the ‘secondary economy’ of small and medium sized enterprises. The focus is, therefore, on enterprises already established, in other words the ‘status quo’. The entrepreneurial sector, (i.e. start-ups and new firms), is missing.

The GEM model specifically incorporates both the established and entrepreneurial sectors and illustrates the relationship between them. GEM seeks to examine the strength and influence of the entrepreneurial sector, (i.e. the effect of new firm creation and growth), on the economy.

The model for GEM is illustrated in diagrammatic form in Figure 7.

Figure 7: The GEM Theoretical Model



The general environment, which pertains within a particular country at a point in time, influences both new and existing firms. The characteristics of this general environment are referred to in GEM as the ‘National Framework Conditions’.

The National Framework Conditions are as follows:

- The relative openness of the economy,
- The role and extent of Government intervention,
- The efficiency of the financial markets,
- The level and intensity of technology and R&D,
- The physical infrastructure,
- The availability and extent of management skills,
- The degree of flexibility in the labour market,
- The degree to which institutions are unbiased and the rule of law prevails.

In addition to this, there is a set of factors that GEM has identified as specifically influencing the entrepreneurial sector. These are termed the ‘Entrepreneurial Framework Conditions’. The Entrepreneurial Framework Conditions are as follows:

- Finance
- Government Policies
- Government Programmes
- Education and Training
- R&D Transfer
- Commercial Infrastructure
- Internal Market Openness
- Physical Infrastructure
- Cultural and Social Norms

There is somewhat of an overlap between the National Framework Conditions and those specifically affecting entrepreneurship, but, within the Entrepreneurial Framework Conditions, it is the relative effect of the Condition for a new firm that is the issue. For example, there may be instances within countries whereby the general financial

environment is supportive of established businesses, but is less available to and less supportive of new businesses.

GEM suggests that at the heart of the explanation of the relative entrepreneurial propensity of a country's adult population is a combination of the following:

- Differences in the nine entrepreneurial framework conditions between countries;
- The relative perceptiveness of the adult population of new venture opportunities, (' ' entrepreneurial opportunity'); and
- The capacity (in the sense of possessing the appropriate skills) and motivation of the adult population to capitalise on such opportunities (' ' entrepreneurial capacity').

APPENDIX 3

How GEM Collects Data

The GEM model incorporates four fundamental research instruments in order to explore these questions. These instruments are as follows:

- (i) A population survey, based on a random sample of approximately 2,000 adults.
- (ii) Face-to-face interviews with at least 36 experts (called ‘ key informants’) in the first year on various aspects of entrepreneurship.⁷⁴
- (iii) A detailed questionnaire completed by the experts interviewed.
- (iv) The use of selected national economic data, measured in standard units, from credible international sources including the Organisation for Economic Cooperation and Development (OECD), the World Bank, and the Global Competitiveness Report.

Details of each of these instruments are contained in the paragraphs that follow.

(i) Adult Population Survey

Professional survey research firms in each country administer the adult population surveys, which are based on a random sample of approximately 2,000 adults⁷⁵. Sampling procedures vary somewhat, but all of the survey firms are able to provide samples that are, when properly weighted, representative of the adult population in each country.

Telephone interviews are utilized in Ireland,

as in most of the developed countries, where most households have a telephone. The interview completion time ranges from a low of 60 seconds to a high of 15 minutes, depending on the extent of the respondent’s involvement in entrepreneurial activity. The first four items asked of all those interviewed are related to participation in entrepreneurial activities — starting a new firm, owning and managing a new firm and informally investing in another’s new firm. Anyone engaged in any of these activities is asked for additional selected details about that activity.

A further six items, also asked of all those interviewed, are for assessing attitudes towards and knowledge of the entrepreneurial climate.

(ii) Expert Informant Interviews

Expert informants are chosen by reputation and referrals to represent the nine entrepreneurial framework dimensions in the GEM model as outlined above. At least three experts should come from each of the nine entrepreneurial framework conditions and 25% of them should be entrepreneurs. The GEM national team conducts face-to-face interviews with at least 36 such experts, called ‘ ‘ key informants’’ in the first year. This number may reduce in subsequent years. The interviews attempt to ascertain the views of national experts and entrepreneurs on the factors that have been shown to influence the level of entrepreneurial activity.

⁷⁴ The number of key informants interviewed face-to-face may be reduced to 18 after the first year.

⁷⁵ An increasing number of countries e.g. the UK, Germany, Spain and the US use a much larger sample being interested in carrying out regional comparisons within the country. The 2,000 person adult person survey is, however, the norm in many countries.

(iii) *Detailed Questionnaires Completed by the ‘ ‘ Key Informants’ ’*

The experts and entrepreneurs interviewed also complete a detailed questionnaire. The group of key informants chosen for an in-depth face-to-face interview, complete this questionnaire in the presence of the interviewer at the end of the interview, while those interviewed in the preceding year(s) are requested to complete the questionnaire and return it by post.

Expert self-completed questionnaires, translated into the national languages, consist of those items asked in the adult population survey, plus an additional 80 five-point scale items covering a range of

topics relating to the entrepreneurial framework conditions, the entrepreneurial capacity and opportunity recognition perceptiveness of the adult population, as well as other socio-demographic items. These questionnaires take about 20 minutes to complete.

(iv) *National Economic Data*

Standardized cross-national data on a variety of national characteristics and attributes (e.g., growth in GDP) are assembled from a wide range of harmonized international sources. Sources include the United Nations, Eurostat, ILO, U.S. Census International Data Base, World Bank, and International Monetary Fund, among others.

HOW ENTREPRENEURIAL WAS IRELAND IN 2004?



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