

Entrepreneurship on the Island of Ireland



Paula Fitzsimons, Colm O’Gorman, Mark Hart and Eileen McGloin

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Based on the research findings of
The Global Entrepreneurship Monitor 2003

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We would also like to thank InterTradelreland, who first saw the potential of an all-island report on entrepreneurship based on GEM research, and our three sponsors, InterTradelreland, Enterprise Ireland and Invest Northern Ireland, whose generous sponsorship and co-operation made this first profile of entrepreneurship on the island of Ireland possible.

Foreword

Entrepreneurship is one of the cornerstones of a modern, fully developed economy and the lifeblood of thriving local communities. This is true throughout the island of Ireland, as it is throughout the UK and Europe as a whole. As a result, creating an environment in which entrepreneurship flourishes and entrepreneurs abound is a common goal of policy makers and one which presents them with many similar challenges.

Our focus has not just been on fostering and supporting entrepreneurship in Northern Ireland, but on *accelerating* entrepreneurship and in coordinating government policy across Departments, and support programmes across agencies, with this end in view.

But government programmes in themselves, no matter how supportive, will not be sufficient to achieve this objective, unless becoming an entrepreneur is seen as a good career choice and one that has general support within families and the wider community. In general, those who become entrepreneurs are making an active choice to do so. Other choices are available.

We need local heroes who will create employment and bring economic prosperity and rejuvenation into their communities. Creating a prevailing culture that fosters and supports entrepreneurs is a challenge that goes beyond government and in which providers of finance, educationalists, the media, and all facets of society have a role to play. We need to recognize the risks that entrepreneurs take and applaud those that are successful, while realising that some will fail. The economic and social penalties for failure should not be so daunting as to prohibit people from taking the risk in the first place. Again government has a part to play in getting the risk/reward balance right, but so has the wider community.

The response of the people of Northern Ireland to the challenge of the recent “Go for it” campaign amazed even the most optimistic of those who designed the promotional campaign aimed at encouraging more people to consider setting up and running their own business. There is obviously a latent entrepreneurial potential out there, which is in all our interests to encourage.

It is against this background that it is my pleasure to welcome the publication of *Entrepreneurship on the Island of Ireland*. This report gives us for the first time a comprehensive review of entrepreneurial activity throughout the island and enriches our understanding of the entrepreneurs within our midst and the nature of their concerns. It provides a means of sharing our experiences throughout the island and of learning from each other. This report will be of interest to all those committed to nurturing a spirit of enterprise in the knowledge of the very real benefits that a fully dynamic entrepreneurial environment will bring.

Barry Gardiner
Minister with responsibility for Enterprise, Trade and Investment
June 2004

Foreword

I very much welcome this first report on *Entrepreneurship on the Island of Ireland*. This report is based on the combined results from the Global Entrepreneurship Monitor (GEM) research that has been undertaken North and South. It has been made possible 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.

The report provides valuable insights into the current state of entrepreneurship on the island of Ireland. We can now say with some certainty on the basis of the GEM research, not only how many people are active as entrepreneurs on the island of Ireland, but who these entrepreneurs are, what types of new businesses they are starting, and what features in the environment support and constrain their activity.

As entrepreneurship contributes to job creation and economic growth, and is crucial to innovation and competitiveness, it is not surprising that it is high on the agenda of policy makers throughout Europe. We on the island of Ireland share that common agenda.

The challenge of fostering a fully dynamic entrepreneurial environment will require us to build on our own success, to focus on those areas in which we must improve, to learn from each other's experience, and from the success of initiatives which have been proven elsewhere. In many instances these initiatives will benefit from an all-island approach to their design and implementation.

Good policy must be based on sound and reliable information. *Entrepreneurship on the Island of Ireland* adds valuable information to our knowledge of the dynamics which promote and inhibit entrepreneurial activity on the island of Ireland. I believe that this report, and the sharing of information and knowledge on which it is based, provides a very pragmatic example of a way that we, on the island of Ireland, can learn from each other's experience, in a way that can bring positive benefits to all.

**Mary Harney T.D.,
An Tánaiste, and
Minister for Enterprise, Trade and Employment
June 2004**

Executive Summary

It is now well accepted that entrepreneurship is an important contributor to economic growth, employment, innovation, and competitiveness. Policy makers on the island of Ireland, in common with policy makers throughout Europe, have increasingly articulated the importance of fostering an environment that is supportive of entrepreneurs and of directly supporting individual entrepreneurs. This report represents the first in-depth assessment of entrepreneurial activity on the island of Ireland.

The report is based on the GEM research, which was carried out separately by the GEM research teams in Ireland and in Northern Ireland during 2003, and was made possible through the support of InterTradeIreland, Enterprise Ireland and Invest Northern Ireland (NI). It has been co-authored by Paula Fitzsimons (GEM Ireland), Colm O’Gorman (GEM Ireland), Mark Hart (GEM Northern Ireland) and Eileen McGloin (InterTradeIreland).

The European Commission has recognised that an ‘entrepreneurial deficit’ exists between the European Union and the United States. Given the importance of entrepreneurial activity to economic growth and development, the Commission argues that governments and policy makers in Europe must build and sustain a regulatory, fiscal, and cultural environment that is supportive of entrepreneurship. Policy makers on the island of Ireland have recognised and are responding to this challenge.

The objective of this initiative is to use the GEM research to provide a consistent and reliable way of measuring entrepreneurial activity and the concerns of entrepreneurs in order to provide policy makers on the island of Ireland with unrivalled knowledge about entrepreneurship. It is intended that this

informed assessment of entrepreneurial activity will facilitate the sharing of knowledge and experience among all those interested in entrepreneurship throughout the island and will assist in achieving the collective goal of encouraging economic growth, prosperity and competitiveness through fostering a fully dynamic entrepreneurial environment.

Using the unique data collected by the GEM research project, the authors report on the overall number of entrepreneurs, the people who are acting as entrepreneurs, the type of new businesses that are being started, the manner in which new businesses are being financed, the human dimension of entrepreneurship, and an assessment of how supportive the environment is for entrepreneurship.

The report suggests that the differences in the extent, scope, and trends in entrepreneurial activity between Ireland and Northern Ireland may be due to differences in policy objectives and policy interventions; in the personal social context of the adult population (belief in skills to start a new business and presence of role models); in rates of informal investment in new businesses; in the general economic environment; and in the demographic profile of the population.

The following points are a summary of the main characteristics of entrepreneurial activity on the island of Ireland:

- There are over one quarter of a million adults active as entrepreneurs. That is, one in every fourteen adults on the island of Ireland is an entrepreneur.
- Specifically 253,000 adults were currently active as entrepreneurs on the island of Ireland in 2003. Of the 253,000 entrepreneurs, 147,000 are

nascent entrepreneurs (58%)¹, and 106,000 are *new firm entrepreneurs*² (42%).

- There are approximately 200,000 entrepreneurs in Ireland and approximately 53,000 entrepreneurs in Northern Ireland.
- The great majority of these are responding to a perceived opportunity.
- The total entrepreneurial activity (TEA) rate is higher in Ireland (8.1%) compared to Northern Ireland (5.2%)³.
- The rate of entrepreneurial activity on the island of Ireland is significantly lower than the rate in the US, where it is almost 12%. This suggests that there is significant scope for increasing the levels of entrepreneurial activity on the island of Ireland.
- Entrepreneurs on the island of Ireland tend to be aged between 35-44 years of age, are male, have a relatively high level of education, and are exploiting entrepreneurial opportunities.
- There are relatively few women on the island of Ireland active as entrepreneurs. (Ireland 3.7%/Northern Ireland 3.5%).
- Four sectors account for the majority of entrepreneurial activity on the island of Ireland. These are 'Business Services', 'Retail', 'Consumer Services' and 'Construction and Mining'.
- Like most entrepreneurs everywhere, the great majority of entrepreneurs on the island of Ireland replicate an existing product or service and start a 'lifestyle' business, that is, a small business for which they have no growth

aspirations. For example, two thirds of entrepreneurs expect to employ less than five employees in five years time; and the majority of new ventures being started by entrepreneurs on the island of Ireland have little or no innovativeness.

- A relatively small but significant proportion of entrepreneurs throughout the island, however, believe they are innovative and/or have ambitions to grow their new business. A higher proportion of entrepreneurs in Ireland have high growth aspirations for their new businesses (16%) than is the case in Northern Ireland (8%).
- Access and availability of finance is a key issue for entrepreneurs on the island of Ireland.
- Most entrepreneurs use relatively small amounts of money to start their new business.
- Most entrepreneurs expect to invest relatively small absolute amounts of their personal capital into their new business.
- Entrepreneurs expect to fund the deficit between their own resources and the funds needed to start the business by getting funds from a combination of banks and financial institutions, government sources, and informal investment from 'family, friends and fools'.
- *Nascent entrepreneurs* in Ireland believe that they will have a larger funding gap than do those planning new businesses in Northern Ireland.
- The level of informal investment is now more pervasive in Ireland (2.6%) than in

¹ An individual was considered to be a *nascent entrepreneur* if he/she fulfilled three conditions: (i) they had done something – taken some action – to create a new business in the last year; (ii) they expected to share ownership of the new firm; and (iii) the firm had *not* paid wages or salaries for more than three months.

² If the initiative had paid salaries and wages for more than three months but less than 42 months, its founder was classified as a *new firm entrepreneur*.

³ The confidence limits for these TEA rates are as follows: Ireland ± 1.17 (TEA 8.1%); Northern Ireland ± 0.85 (TEA 5.2%). Therefore, we can be confident that the difference in the TEA rate reported here is statistically significant.

Northern Ireland (0.9%). Overall, however, the rate of informal investment activity on the island of Ireland (just over 2% of the adult population) is relatively low. In the US, the rate of 'business angel' activity among the adult population at 4.9% is nearly two and a half times higher than the rate on the island of Ireland.

- The formal venture capital market has developed significantly in both Ireland and Northern Ireland in recent years. Notwithstanding this, venture capital activity is less developed in Northern Ireland than in Ireland.
- In Ireland (46%) and in Northern Ireland (42%) the number of people who believe they have the skills to start a business is lower than it is in the US (54%).
- 'Fear of failure' would prevent four out of every ten people from starting a business in Ireland and in Northern Ireland compared to just half that number in the US.
- In Northern Ireland people lack role models, as a relatively low number of people know a recent entrepreneur (25%).
- The cultural context for entrepreneurship is particularly strong in Ireland. It is less well developed in Northern Ireland.

The higher entrepreneurial activity rate in Ireland compared to Northern Ireland arises because of much higher rates of participation in entrepreneurial activity among those with higher levels of education and among those under 45 years of age in Ireland compared to Northern Ireland.

The economic and demographic context is an important determinant of the level of entrepreneurial activity. Specifically, the high levels of entrepreneurial activity in Ireland may be partly explained by the favourable economic environment of recent years, (for

example high levels of growth in GDP and high levels of growth in employment) and the favourable demographics in Ireland, (for example, a growing population and a relatively high number of males within the age grouping that is the most entrepreneurial). Given the lower rate of economic growth experienced in Northern Ireland, compared to Ireland, in recent years, and the less favourable demographic context, it is not surprising that the rate of entrepreneurial activity has been lower in Northern Ireland.

A number of areas that policy makers on the island of Ireland need to address are highlighted. These are as follows:

- Increase the level of entrepreneurial activity.
- Maximise the entrepreneurial potential of all sections of the population.
- Harness the resources of the education and training sector.
- Increase the number of women active as entrepreneurs.
- Continuously monitor access and availability of finance.
- Increase the level of business angel activity.
- Monitor the cost of starting and operating a new business.
- Maximise the number of innovative and high growth new ventures.
- Support the development and exploitation of research.

There is benefit in designing and implementing some of the initiatives on an all-island basis. For example, networks of entrepreneurs and informal investors/business angels could be further developed on an all-island basis. Similarly, the sharing of experience and co-operation in the effective development of focused educational and training initiatives

among teachers and educationalists would benefit from an all-island approach. Another common challenge is the effective commercialisation of R&D from the third level sector. Again the barriers are similar, and are being experienced in many developed economies. The challenge to coordinate policy initiatives in an effective manner is also highlighted.

Without doubt, policy makers and others

interested in the development of entrepreneurship in both Ireland and Northern Ireland have much to learn from each other, as they strive to maximise the entrepreneurial potential of the people and develop a fully dynamic entrepreneurship environment on the island of Ireland. The authors of this first report, *Entrepreneurship on the Island of Ireland*, hope that their input makes a worthwhile contribution to the achievement of this challenging goal.

SECTION 1

Entrepreneurship policy on the island of Ireland

1.1 Introduction

The annual GEM reports published earlier for Ireland (April 2004) and Northern Ireland (February 2004) separately analysed entrepreneurial activity within their respective populations and the challenges that faced those concerned with fostering and supporting entrepreneurship. Despite many similarities and common challenges, important differences emerged.

Entrepreneurship on the Island of Ireland is intended to highlight those similarities and differences and to provide an information resource to policy makers and others interested in sharing knowledge and experience in this important area for the benefit of all on the island of Ireland.

1.2 A new focus on entrepreneurship

It is now well accepted that entrepreneurship is an important contributor to economic growth, employment, innovation, and competitiveness. Policy makers on the island of Ireland, in common with policy makers throughout Europe, have increasingly articulated the importance of fostering an environment that is supportive of entrepreneurs and of directly supporting individual entrepreneurs.

The need to increase the level of entrepreneurial activity in Europe and to support more of the new ventures to grow is a challenge that has been clearly articulated by the European Commission. The Green Paper 'Entrepreneurship in Europe', published by the Commission in January 2003 and the follow-up 'Action Plan: The European Agenda for

Entrepreneurship', published in March 2004, state in detail the Commission's commitment to encouraging a greater level of entrepreneurship throughout Europe, the many positive correlations between entrepreneurship and economic performance, the entrepreneurial challenge facing Europe and, in the latter document, the Commission's proposed strategy for achieving its objectives in this area.

Many governments within Europe have prioritised entrepreneurship. Apart from general macroeconomic and employment policies, governments have put in place specific policies designed to support and foster entrepreneurs and new venture creation. This reflects the growing consensus of the power and potential of a dynamic entrepreneurial environment and the desire to foster such an environment within individual countries.

The experience of the US suggests that such a dynamic entrepreneurial environment can be created. For example, in the early 1970s in the US only about 200,000 enterprises were created a year; less than \$200 million a year was invested by venture capitalists; less than 10% of high school seniors expressed an interest in a business career of any kind; one in four people worked in Fortune 500 companies; and it took 20 years to replace one third of the Fortune 500 companies. Now it is estimated that over one million businesses are started each year in the US and that 40% of all American men will seek to start a business at some stage of their life; that \$18+ billion was invested by venture capitalists in 2003; that 70% of high school seniors want to own their own business; that as few as one in fourteen

work in Fortune 500 companies; and that it takes about 4 years to replace one third of the Fortune 500⁴.

The sections which follow examine the broad thrust of enterprise policy in Ireland and in Northern Ireland and highlight the extent of the programmes that exist that are designed to support entrepreneurship on the island of Ireland.

1.3. Government policy for fostering entrepreneurship in Ireland

There has been a commitment at the highest level to fostering a spirit of enterprise and significant resources have been committed to encouraging and supporting entrepreneurs. The approach of government policy, which has been adopted in recent times, has been to focus on creating an environment in which it was relatively easy to set up a new business and in which the levels of personal, corporation and capital gains taxation, are relatively low. The particular focus of government supports, implemented through the main development agencies, has been on the creation of greater numbers of new technology based, internationally trading enterprises with significant growth potential.

A ten-year agenda for Irish industrial development policy was proposed in *Enterprise 2010*, which was published in 2000 by Forfas, the state policy advisory agency for industry. The conclusions and recommendations of *Enterprise 2010* have filtered into other policy documents at central government level, including the *National Development Plan*.⁵ The strategy of the Department of Enterprise, Trade and Employment⁶ also reflected the need to build stronger indigenous enterprises.

Concerns regarding the rate of formation of new indigenous enterprises, particularly those in high-growth or knowledge sectors, were

expressed in these and other policy documents and certain barriers to entrepreneurship were identified and solutions to these were suggested. These included the following:

- Improve access to finance – by the provision of new seed and venture capital funds;
- Strengthen management expertise by up-skilling existing managers to make them more open to new business and entrepreneurial opportunities and to the additional expertise that non-executive directors can bring;
- Support for innovation – to be addressed by increasing financial support for R&D both within firms and third-level colleges and universities;
- Promote a culture of enterprise;
- Improve the visibility and quality of SME support services for individuals, firms and local groups interested in establishing viable businesses; and
- Focus support on small and medium indigenous enterprises with a willingness and potential to grow.

It is expected that the Taskforce on Enterprise Strategy, appointed by the Tánaiste under the chairmanship of Eoin O’Driscoll, will focus on entrepreneurship as a central element within economic and enterprise policy, when it reports in the near future.

1.4. Government policy for fostering entrepreneurship in Northern Ireland

A ten-year industrial policy statement for Northern Ireland was unveiled in 1999. While

⁴ Source of data is a presentation by Professor Jeffrey Timmons of Babson College, USA.

⁵National Development Plan, 2000-2006 (2000).

⁶ Department of Enterprise, Trade and Employment, *Strategy Statement 2001-2003* (2001), p.18.

*Strategy 2010*⁷ generated considerable debate, the thrust of creating a knowledge-based economy has remained central to policy ever since. *Strategy 2010* has been reflected in many of the later commitments made by the devolved administration and other institutions.

Within the Programme for Government⁸ there is recognition of the need to raise the overall numbers and quality of start-ups and a commitment to adopt a strategic long-term programme of action, which will promote and celebrate entrepreneurship. It is recognized that for such policies to be effective a major challenge presents itself in the deep-rooted educational, social and cultural biases, which need to be overcome, if a truly entrepreneurial society is to be created in Northern Ireland.

Since its inception in 2001, Invest Northern Ireland (NI) has stated its commitment to addressing the low level of business starts in Northern Ireland and, in particular, those with the potential to create wealth. Its Corporate Plan, launched in April 2002, had as one of its foremost concerns 'the lack of [a] critical mass of innovation and entrepreneurial firms.'⁹

In 2003, in order to follow through on the commitment made in the Programme for Government for Northern Ireland to increase Business Birth Rate and to coordinate and focus efforts to foster and support a greater level of entrepreneurial activity in Northern Ireland, Invest NI published 'Accelerating Entrepreneurship'. The vision for the strategy is 'to make Northern Ireland an exemplar location for starting and growing a successful business'.

The implementation of the strategy, outlined in 'Accelerating Entrepreneurship', is coordinated and strategically managed by Invest NI in partnership with the Department of Enterprise, Trade and Investment. The implementation is based on a collaborative approach and is coordinated across all other government departments, Enterprise Northern Ireland (the

federation of all the Local Enterprise Agencies, responsible to Invest NI and local Councils for the delivery of the Business Start Programme), local authorities and other organizations providing support for entrepreneurship. This degree of horizontal and vertical coordination is not as evident to date in Ireland.

The following priorities were established under the strategy to accelerate entrepreneurship:

- Initiate a change of attitudes and perceptions about entrepreneurship.
- Encourage more people from all backgrounds to take the first steps in thinking about establishing a business venture.
- Place a clear emphasis on building strong teams capable of guiding the new business to success.
- Provide a flexible system of support for individuals from all backgrounds who have the ideas and the potential to create wealth in priority sectors.
- Create an infrastructure that enables start-ups to progress and grow rapidly, particularly globally trading, knowledge-based projects.
- Optimise the use of electronic media to disseminate information, advice and best practice.

In October 2003, the 'Go for It' campaign was launched. This communications strategy, by Invest NI, signalled a further intensification of the efforts being made to raise awareness of the potential of entrepreneurship to the Northern Ireland economy, and the support available to the general public to assist them in starting their own businesses.

There are a number of related strategies to "Accelerating Entrepreneurship" within Invest NI that are designed to target specific groups, which have traditionally been under-represented in self-employment and business

⁷ *Strategy 2010: Economic Development Review Steering Group*, 1 March 1999.

⁸ *Programme for Government: Northern Ireland Executive* 2001.

⁹ Invest NI, *Corporate Plan, 2002-2004*, p.2.

ownership in Northern Ireland. The following are examples of these:

- The Investing in Women Initiative seeks to increase the number of women who start their business in Northern Ireland, and the number who grow their business performance over the next five years.
- A sub-strategy for young people aged 18 to 30 is currently being developed by Invest NI to promote youth entrepreneurship and to create more, viable business starts by young people.

There are no equivalent nationwide programmes in Ireland focused on encouraging greater entrepreneurial activity among previously under represented groups.

1.5 Support programmes on the island of Ireland

Throughout the island a large number of policy measures and support schemes have been

implemented, or are under preparation, in areas such as research and development, entrepreneurship, innovation, finance, the transfer of technology between research and industry, and the protection of intellectual property rights.

A listing of the programmes available to support and foster entrepreneurship and innovation through the development agencies on the island of Ireland is included in Appendix 1.

Approximately 77 measures and schemes are available to potential innovators on the island, 44 in Ireland, 24 in Northern Ireland and 9 available on a cross-border basis. Given the breadth of measures and policy interventions, what are considered to be the most important programmes are listed. While every effort has been made to make this list as complete as possible, given the large number of separate programmes and schemes that are available in this area on the island of Ireland, the list may not be entirely comprehensive.

SECTION 2

Entrepreneurs on the island of Ireland

2.1 Who do we count as an entrepreneur?

As a result of GEM research, reliable estimates can be made for the first time of the number of entrepreneurs on the island of Ireland. The research carried out by the GEM teams, in Ireland and in Northern Ireland during 2003, provides a measure of current entrepreneurial activity that can be reliably compared, contrasted and combined. It provides a new information resource for policy makers and all interested in learning more about entrepreneurship and how it may be further supported and fostered on the island of Ireland. Moreover, the value of this research is further enhanced, as it is directly comparable with many countries and regions outside the island of Ireland.

The entrepreneurial processes, which have been consistently emphasised in GEM research, focus on new business creation. The creation of new businesses is a process, which may be considered to have two phases:

- i. The active planning phase in which the entrepreneur has done something during the previous twelve months to help start a new business, a business that he or she will at least in part own.

Activities such as organising the start-up team, looking for equipment or a location, saving money for the start-up, or writing a business plan would all be considered as active commitments to starting a business. These entrepreneurs are referred to as *nascent entrepreneurs*.

- ii. The second phase is the first 42 months after the new venture begins to trade. Entrepreneurs who at least part own and manage a new business within these time parameters are referred to as *new firm entrepreneurs*.

2.2 How many entrepreneurs are there?

The number of entrepreneurs on the island of Ireland in 2003 was approximately 253,000. There are approximately 200,000 entrepreneurs in Ireland and about 53,000 in Northern Ireland. For the island as a whole, about 1 person in every 14 is active as an entrepreneur.

Of the 253,000 entrepreneurs on the island of Ireland, 147,000 are *nascent entrepreneurs*. This is 58% of all entrepreneurs. There are approximately 106,000 *new firm entrepreneurs* on the island of Ireland (representing 42% of all entrepreneurs.) See Table 1.

Table 1: Breakdown of Entrepreneurs by Type in Ireland and Northern Ireland

	Ireland	Northern Ireland	Island of Ireland
<i>Nascent</i>	115,000	31,000	147,000
<i>New Firm</i>	85,000	22,000	106,000
Total	200,000	53,000	253,000

2.3 How does this compare with entrepreneurship elsewhere?

GEM has consistently shown that the level of entrepreneurial activity varies quite significantly across countries and regions. In order to make meaningful comparisons, it is sensible to compare Ireland and Northern Ireland with countries within Europe and with other highly developed entrepreneurial countries and regions. Comparisons with countries such as China and Uganda (other countries that are included in the Global GEM report) are less fruitful for the island of Ireland, although these make legitimate benchmarks for countries at a similar stage of development or within the same geographical or trading region.

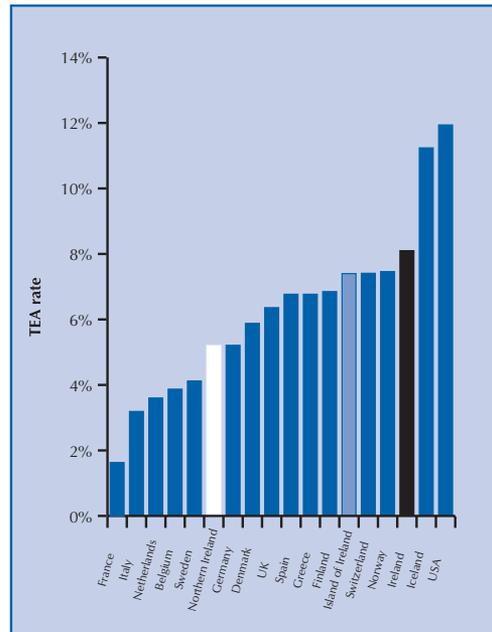
For the purposes of this report, comparisons with Europe in general will be made and with the United States (US) as an example of a wealthy nation with a highly dynamic entrepreneurial environment.

To illustrate the difference in entrepreneurial activity, one needs look no further than a comparison between the rate of entrepreneurial activity in Europe relative to the US. As this comparison is very much in favour of the US, the European Commission in its recent policy documents on entrepreneurship highlights this difference and uses it to urge member countries in general to rise to the challenge of creating new businesses at the rate that they are created in the US and to encourage a greater number of these new ventures to grow.

What is true for Europe as a whole is, in this context, also true for the island of Ireland. There are about forty percent more entrepreneurs per hundred of population in the US, than there are on the island of Ireland. The US has twice as many entrepreneurs per hundred of its population as has Northern Ireland and is about one and half times more entrepreneurially active than Ireland. This is notwithstanding the fact that Ireland is to the fore within Europe, and first of the member states of the EU, which are participating in GEM, in terms of the entrepreneurial activity levels of its adult population. The contrast

within Europe is even more pronounced, as Ireland is nearly five times more entrepreneurial than France, the EU country with the lowest recorded level of entrepreneurial activity in 2003.

Figure 1: Rates of entrepreneurial activity in selected countries

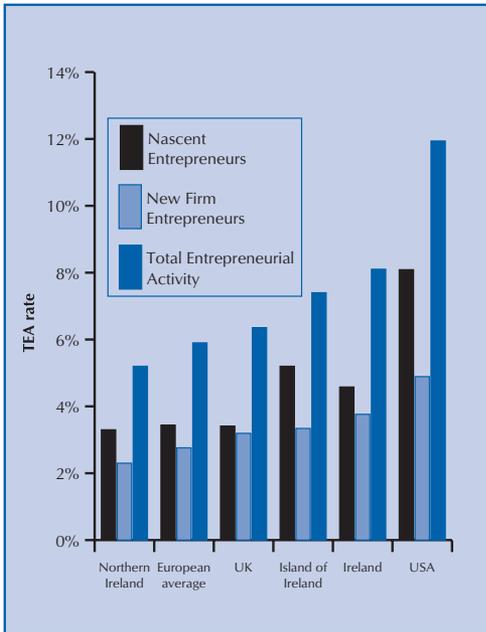


The island of Ireland ranks 6th, while Ireland and Northern Ireland rank 3rd and 12th respectively when measured against a range of countries in Europe and the US that participated in GEM research in 2003 (Figure 1).

GEM research highlights the fact that in most countries the number of those planning to start new businesses (*nascent entrepreneurs*) is higher than the number that has actually started a new business in the previous 42 months (*new firm entrepreneurs*). This is also the case for Ireland and Northern Ireland (Figure 2). It is clear that not all nascent entrepreneurs will realise their entrepreneurial ambition. While there is little research evidence explaining why this is the case, it is possible that a number of factors might cause an entrepreneur to abandon efforts to start a new business. These would include identifying

a better opportunity in paid employment and difficulty in amassing the resources necessary to start the business.

Figure 2: Nascent and new firm rates of entrepreneurship



It is also interesting to note from Figure 2 that the US has a very high ratio of *nascent* to *new firm entrepreneurs*. It appears that there are a relatively higher number actively planning to start a new business in the US than might be suggested from the number of its *new firm entrepreneurs*, given the position in the other countries. Given that entrepreneurial activity has increased in that country recently after a period of decline, it would appear that further strong growth in activity levels may be expected in the medium term, particularly as the European Commission, suggests that the US has a higher follow through, than has Europe, in the proportion of those actively planning new business that go on to successfully implement their ambition. This fact should ring further alarm bells in Europe, given the Commission's stated ambitions to increase the number of entrepreneurs in Europe, as the potential pool of new firm entrepreneurs appears to be relatively low, given that all of those planning to start a new business will not fulfil their ambitions.

SECTION 3

Who are the entrepreneurs?

3.1 Do rates of entrepreneurial activity differ by age, education and gender?

Levels of entrepreneurial activity differ significantly within populations depending on age, education and gender, and this is true across all countries involved in the GEM research. This section examines each of these three factors and concludes with an analysis of how entrepreneurs differ between Ireland and Northern Ireland¹⁰.

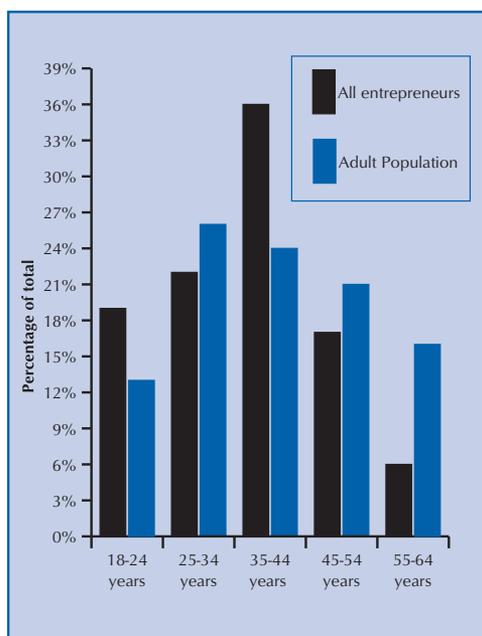
3.2 At what age are people most active as entrepreneurs?

Across all GEM countries the 25-34 age group is the most common age for men and women to be active as entrepreneurs, while on the island of Ireland, entrepreneurs are most likely to be within the 35-44 age group (Figure 3).¹¹ The combined population figures for Ireland and Northern Ireland are included in Figure 3 for comparison purposes.

This difference in the age at which people become involved in entrepreneurship, may be explained by the difference in their motivation to become entrepreneurs. Within less developed countries, which have a very high proportion of their population active as entrepreneurs, these 'entrepreneurs' believe themselves forced into self employment, as they believe that they have no other choices for work, and cannot fall back on social security payments. They are, in effect,

entrepreneurs through necessity. In these circumstances, it is not surprising that they become involved at an earlier age.

Figure 3: The age distribution of entrepreneurs on the island of Ireland

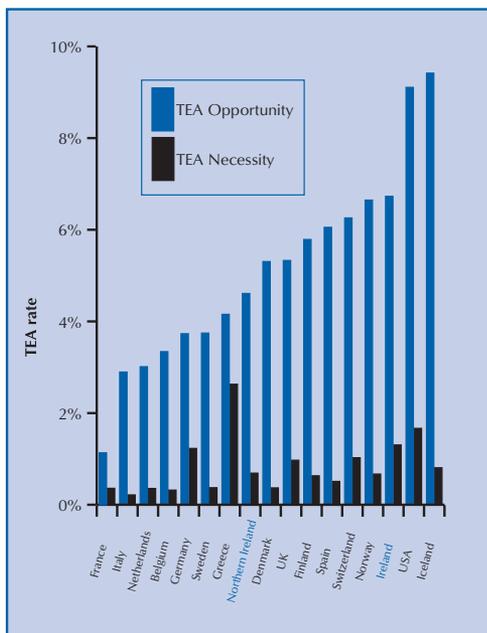


¹⁰ The results presented in this report may differ very slightly from those already published in the separate Ireland and Northern Ireland GEM 2003 reports. This is due to the effects of the new weighting protocols imposed on the merged all-Ireland GEM Adult Population Database which has been specifically created for this report.

¹¹ Due to differences in the collation of the data, the entrepreneur age category of 18-24 years corresponds to the 20-24 age category in the adult population, as identical age categories for both groups is not available.

In contrast, in common with other developed areas of the world, the overwhelming majority (85%) of entrepreneurs on the island of Ireland consider themselves to be responding to perceived opportunities within their environment when they decide to set up a new business (Figure 4). Hence, it is not surprising that the age group most active as entrepreneurs tends to be a slightly older age group. They can choose to wait until they have accumulated experience about products and services and about the customers they will try to sell to; they need time to build the networks they will use to support the start-up process; they need to accumulate some personal financial resources; and it may be that at this age individuals are most motivated to make the significant time commitment that is typically involved in starting a business.

Figure 4: Opportunity and Necessity Entrepreneurship

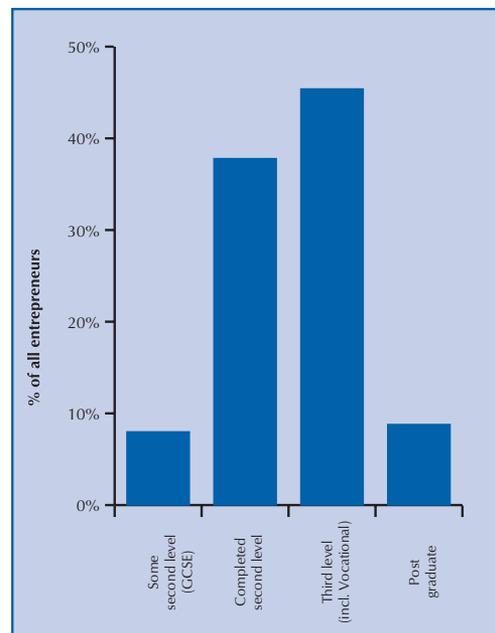


3.3 What is the typical education attainment of an entrepreneur?

International evidence from GEM research suggests that the higher the educational level attained, the greater the proportion of

opportunity rather than necessity entrepreneurs within a particular educational attainment group. Accordingly, it is not surprising that the vast majority (over 90%) of entrepreneurs on the island of Ireland have completed at least second level education, with about half of all entrepreneurs having some form of education beyond second level (Figure 5).

Figure 5: The educational level completed by entrepreneurs on the Island of Ireland



3.4 What is the gender divide of entrepreneurs on the island of Ireland?

The great majority of entrepreneurs on the island of Ireland are men. This in itself is not surprising as GEM research has shown that in general men are more likely to be active as entrepreneurs than are women. For example, across all GEM countries for every two women involved in entrepreneurship, there are three men.

Notwithstanding this fact, relatively few women on the island of Ireland are active as entrepreneurs, as the rate of entrepreneurial activity among adult women is broadly similar in Ireland and in Northern Ireland (Figure 6).

Ireland represents an unusual case of a strong gender imbalance among those active as entrepreneurs: there are low levels of female entrepreneurs (3.7%) and relatively high levels of male entrepreneurs (12.5%). So in Ireland, for every 100 male entrepreneurs, there are only 29 female entrepreneurs. This imbalance is further highlighted by comparing the situation with Northern Ireland where for every 100 male entrepreneurs, there are 49 female entrepreneurs. The important caveat, however, is that in Northern Ireland the level of both female (3.5%) and male entrepreneurship (7.1%) is relatively low.

Figure 6: Rates of entrepreneurial activity for men and women in selected regions/countries

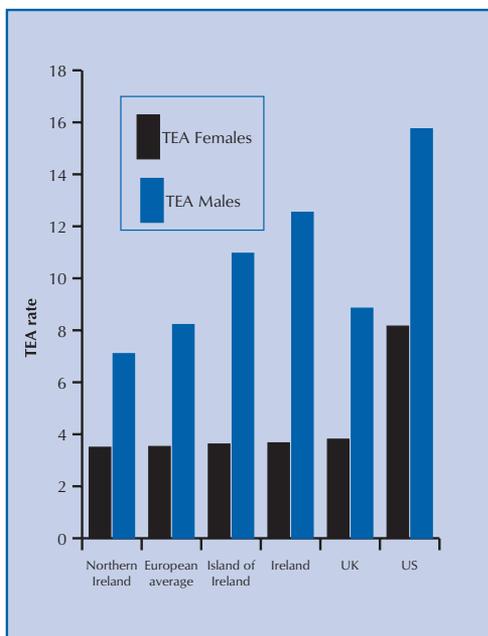


Figure 6 clearly illustrates that in a highly entrepreneurial society like the United States, while the number of women active as entrepreneurs is less than men (59:100), the rate of female participation in entrepreneurship is much higher and both male and female entrepreneurship are relatively high.

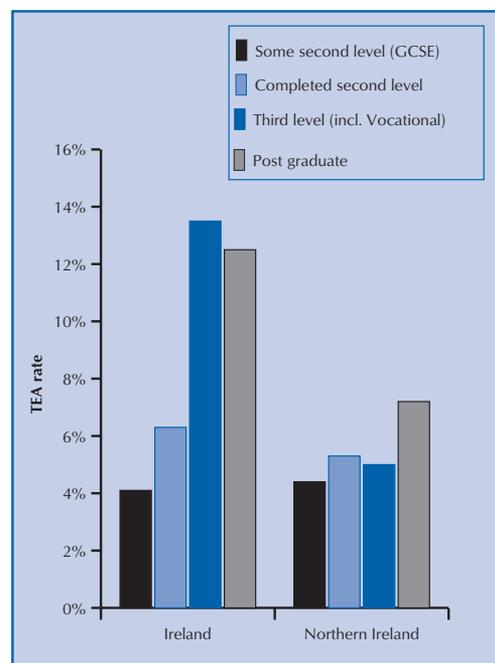
The challenge for Ireland is to encourage more women to become entrepreneurs and to

address the gender imbalance. If women in Ireland were to be active as entrepreneurs at the same rate as women are in the United States, there would be another 56,000 entrepreneurs in Ireland. The challenge for Northern Ireland is to increase the number of both men and women active as entrepreneurs and, while fostering a greater level of activity than is currently the case, to at least maintain the current gender balance.

3.5 In what way do entrepreneurs differ between Ireland and Northern Ireland?

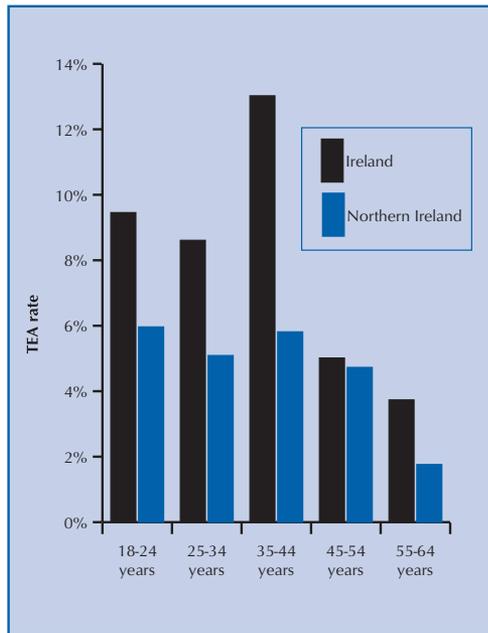
The total entrepreneurial activity (TEA) rate is higher in Ireland (8.1%) than in Northern Ireland (5.2%)¹². These differences arise

Figure 7: Entrepreneurial activity rates by education level attained for entrepreneurs in Ireland and Northern Ireland



¹² The confidence limits for these TEA rates are as follows: Ireland ± 1.17 (TEA 8.1%); Northern Ireland ± 0.85 (TEA 5.2%). Therefore, we can be confident that the difference in the TEA rate reported here is statistically significant.

Figure 8: Entrepreneurial activity rates by age groups for entrepreneurs in Ireland and Northern Ireland



because of much higher rates of participation in entrepreneurial activity among those with a higher level of education (Figure 7) and among those under 45 years of age (Figure 8) in Ireland compared to Northern Ireland.

These are important differences as they have implications not only for the number of new ventures being started, but also for the type and potential of those new businesses. GEM research has shown that highly educated entrepreneurs, pursuing identified opportunities, have greater growth aspirations for their new businesses than have other groups of entrepreneurs.

These differences may have several different causes and the GEM research per se cannot identify precisely what the most significant factors are. The authors note, however, the difference in policy focus in Ireland compared

to Northern Ireland, with the former primarily targeting knowledge based new business with significant growth and export potential and directing its supports almost exclusively in this direction. While Northern Ireland also seeks to encourage the establishment of this type of new ventures, this is only one among a group of objectives. This type of sophisticated new ventures are typically set up by male entrepreneurs in their mid thirties, who have third level education and have accumulated sufficient knowledge, skills and experience to feel confident in their own ability to successfully start up and manage a sophisticated enterprise with potential for exports and growth.

Throughout the island of Ireland the number of women active as entrepreneurs is low, although the gender balance in terms of participation is higher in Northern Ireland than in Ireland. This may further reinforce the profile of the types of new businesses being started, as women tend to be more involved in locally traded services with low growth aspirations, and much less involved in the establishment of knowledge based new businesses with significant growth and export potential.

Another important difference is the trend in terms of the rate and direction of change of total entrepreneurial activity levels. In Ireland, the percentage of the adult population active as *nascent* or *new firm entrepreneurs* has declined from 9% in 2002 to 8.1% in 2003, while the trend has been upwards in Northern Ireland from 3.3% in 2002 to 5.2% in 2003. The latter trend might suggest that the long established policy for business start-ups in Northern Ireland, which is based on an extensive and coherent network of Local Enterprise Agencies, recently brought together under the banner of Enterprise Northern Ireland (ENI), is beginning to show positive results.

SECTION 4

New businesses being started on the island of Ireland

4.1 What types of businesses are being started?

New businesses differ in terms of the sector in which they operate, the size of the new business, the growth expectations of the entrepreneur, and the degree of innovativeness of the new business idea. Many, if not most, entrepreneurs replicate an existing product or service and start a 'lifestyle' business, that is, a small business for which they have no growth aspirations. These businesses are important sources of competition and employment. A small number of all new businesses, however,

have a disproportionate economic impact. These are typically growth orientated, innovative new businesses. This section examines the type of businesses that are being started by entrepreneurs on the island of Ireland.

4.2 In what sectors is entrepreneurial activity most common?

Four sectors account for nearly two-thirds of the entrepreneurial activity on the island of Ireland (Figure 9). These are 'Business

Figure 9: Entrepreneurial activity by sector on the island of Ireland

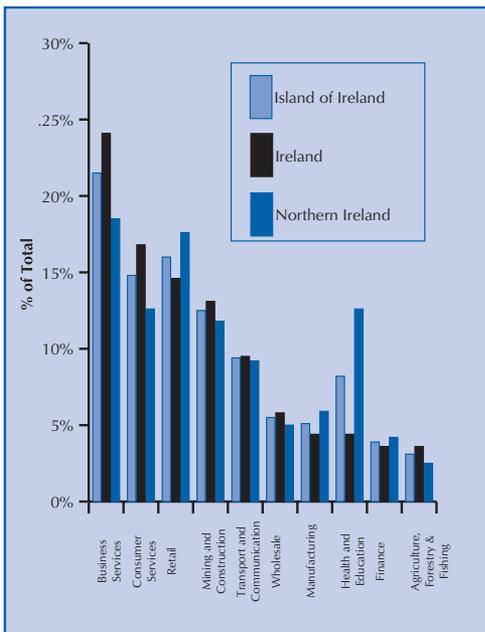
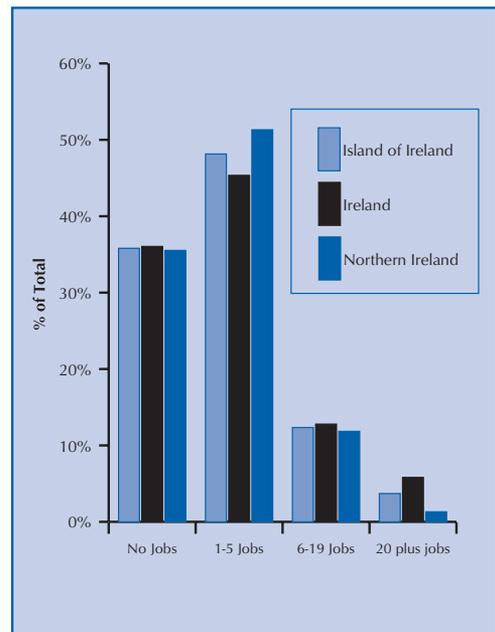


Figure 10: Existing jobs in recently established businesses



Services', 'Retail', 'Consumer Services' and 'Mining and Construction'.

4.3 How large is the typical new business?

In common with the majority of new businesses everywhere, most *new firms* that have been started in last 42 months on the island of Ireland, are small (Figure 10). Specifically, 84% of these businesses employ five or less employees, with over a third of all of these new businesses employing no one other than the entrepreneur. Only a very small number already employ more than five staff (19% in Ireland and 13% in Northern Ireland).

4.4 How many entrepreneurs expect their new business to grow?

The establishment of new small businesses makes an important contribution to employment creation. Research suggests, however, that a small number of all start-ups, which grow, have a disproportionate impact upon the environment in which they thrive. Their beneficial impact is out of proportion to

their relatively small number. Hence, their attractiveness to policy makers is obvious.

Most new businesses on the island of Ireland, in common with the trend elsewhere, start small and their owners expect that they will remain so (Figure 11). Accordingly, on the island of Ireland, two thirds of entrepreneurs expect to employ less than five employees in five years time. In a small number of cases, the entrepreneurs have aspirations beyond establishing 'lifestyle businesses' and have real growth ambitions for their new enterprises.

In Ireland, new enterprises with growth potential are referred to as 'high potential start-ups' and are the primary focus of Enterprise Ireland's attention in the new business arena. In Northern Ireland these new ventures are referred to as "globally trading, knowledge-based projects" and form one of the target groups of new enterprises that Invest NI and its enterprise partners will assist, under the Accelerating Entrepreneurship Strategy, launched in 2003.

Figure 11: Growth expectations in terms of number of jobs in five years time

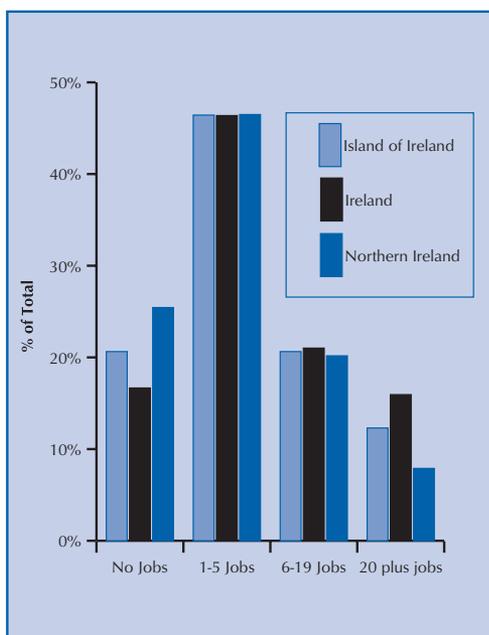
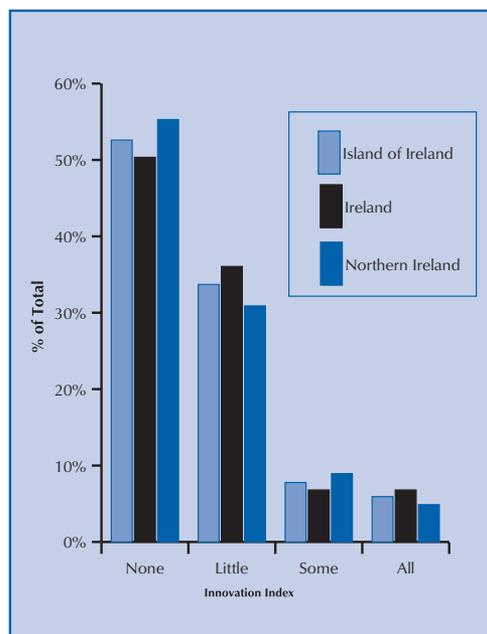


Figure 12: Innovation index for island of Ireland, Ireland and Northern Ireland



A small number of entrepreneurs, 8% in Northern Ireland and 16% in Ireland, expect to employ more than 20 staff in five years time. The higher proportion of entrepreneurs with high growth aspirations in Ireland is noteworthy, as it is particularly high by international standards. It may be a reflection of the specific and sustained policy in Ireland, which is focused on encouraging such entrepreneurs.

4.5 How innovative is the typical new business?

Entrepreneurs are an important source of innovation. Most entrepreneurs, on the island of Ireland as elsewhere, however, choose to replicate or modify an existing business model.

Such activity is important as it typically offers customers choice, introduces competition for existing businesses, and it allows entrepreneurs to learn about markets which might lead to future innovation.

The degree of innovation is measured in the GEM project in terms of the extent of market innovation involved in the entrepreneurial effort; plus the newness of the technology or procedures required to produce the product or service; and/or the existence of competing products/services. While the majority of new ventures being started by entrepreneurs on the island of Ireland are not innovative (Figure 12), a relatively small but significant proportion of entrepreneurs throughout the island (13%) believe that they are innovative.

SECTION 5

Finding the finance to start a new business

5.1 Is access and availability of finance a key issue for entrepreneurs?

Access and availability of finance is a key issue for entrepreneurs. Indeed of the 1,300 experts and entrepreneurs consulted internationally as part of the GEM research in 2003, almost 60% cited shortcomings surrounding access and availability of finance as an important weakness restricting entrepreneurship development within their countries. Similarly, the response by key informants throughout the island of Ireland to a series of questions regarding access and availability of finance highlights this as an area of equal concern to entrepreneurs. The responses were broadly similar between Northern Ireland and Ireland.

5.2 How much finance is needed to start a new business?

GEM research internationally indicates that entrepreneurs require relatively small amounts of money to start a new business. This is also true for the island of Ireland. For example, half of the entrepreneurs in Ireland expect to start their new business using less than €20,000 (Stg£13,800), while three-quarters expect to need less than €94,000 (Stg£66,400). In Northern Ireland, half of all entrepreneurs expect to start with less than Stg£10,000 (€14,500¹³), and three quarters expect to start with less than Stg£40,000 (€57,800).

Entrepreneurs planning new businesses in Ireland expect to need more money than do entrepreneurs in Northern Ireland. The reason that more entrepreneurs in Ireland believe that they will require more money initially to

finance their new business may be related to the type of business that they are starting and its higher requirements for initial investment and/or it may relate to a higher, real or perceived, cost of doing business in Ireland compared to Northern Ireland. Other research¹⁴ has suggested that some aspects of doing business are more expensive in Ireland compared to Northern Ireland (for example, the cost of accommodation).

There is evidence to suggest that the average total amount of finance and the average amount of personal money needed from the entrepreneur to start a new business is significantly lower in the US as compared to European economies. For example, entrepreneurs in the US estimate that they will need, on average, US\$29,600 (€26,200/Stg£18,100) to start a new business. In Europe, entrepreneurs estimate they will need, on average, US\$53,800 (€47,600/Stg£32,900). This may reflect a real or perceived higher cost of starting a new business in Europe and may be one of the factors inhibiting the rate of new business formation in Europe compared to the US.

5.3 What are the sources of finance used by entrepreneurs?

International evidence from GEM research suggests that personal investment, informal investors, bank finance, and government funding are very important as sources of finance for entrepreneurs.

In terms of personal investment, about half of all entrepreneurs in Northern Ireland expect to

¹³ Exchange rates used in conversions are Stg£1.00 to €1.4456; €1.00 to US Dollar 1.13.

¹⁴ Valuations & Land Agency.

invest less than Stg£6,000 (€8,700) of their own money in their new business, while three quarters expect to invest less than Stg£25,000 (€36,100). In comparison, in Ireland, half of all entrepreneurs expect to invest less than €10,000 (Stg£6,900) in their new business, while three quarters of all entrepreneurs expect to invest less than €37,800 (Stg£26,100).

While entrepreneurs in Ireland and Northern Ireland are expecting to invest similar amounts of money, entrepreneurs in Ireland expect to need larger amounts of money to start their new businesses. This suggests that some entrepreneurs in Ireland will face a larger funding gap. This funding gap is generally funded from other sources such as banks, informal investors and government agencies.

On the island of Ireland, the most important source of external finance for those actively

planning new businesses (*nascent entrepreneurs*) is banks and financial institutions- half of all entrepreneurs expect to use this as a source of finance. Government sources are also very important- about one third expect to use government sources. At least one third also expect to use informal investment, from a group often referred to as ‘family, friends and fools’. Entrepreneurs in Ireland appear more likely to use family as a source of finance than entrepreneurs in Northern Ireland. In Northern Ireland, entrepreneurs may be more likely to use banks/financial institutions as a source of finance. The figures in Table 2 do not indicate what percentage of total funding comes from any of these sources, but rather indicates the percentage of nascent entrepreneurs who expect to use a particular source. Many would expect to use more than one source and hence the sum is greater than 100%.

Table 2: Sources of finance nascent entrepreneurs expect to use (% for any given source).

Banks/financial institutions	51%	58%
Government programmes	34%	39%
Immediate family (spouse, parent, and siblings)	29%	19%
Work colleague	14%	12%
Friend or neighbour	9%	7%
Other family/relatives	9%	8%
Employer	6%	4%
Other sources	16%	19%

5.4 How many informal investors are there on the island of Ireland?

For the island of Ireland, GEM research indicates there are about 76,000 people who are active in investing in new business (excluding investments in their own business). These are referred to as informal investors or business angels.

It should be pointed out, however, that many of these investors are investing relatively small amounts of money and would not perceive

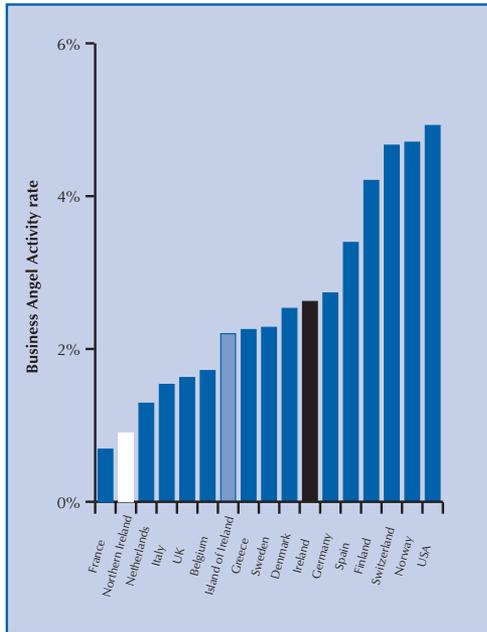
themselves to be business angels, in the way that the term is often used.¹⁵

GEM research indicates that the rate of informal investment activity on the island of Ireland (just over 2% of the adult population) is relatively low (Figure 13). In the US in particular, the rate of business angel activity among the adult population is 4.9% (which, for example, is nearly five times higher than Northern Ireland, which has a rate of slightly less than 1%.) Similarly in Canada, which has a similar level of entrepreneurial activity to Ireland, there is a 25% greater involvement in

¹⁵ The term “business angels” is used to describe individuals of significant wealth who invest in a professional and more formal manner in businesses other than their own.

informal investment among its adult population. In Ireland the rate is just 2.6%.

Figure 13: Rates of business angel activity in selected countries

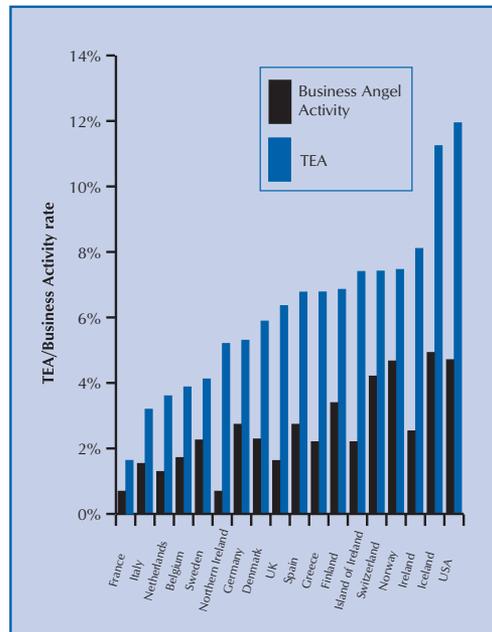


In general, the amount invested by business angels tends to be relatively small. It should be noted that GEM research on the island of Ireland indicates that compared to the US, amounts invested in Northern Ireland and Ireland by individual business angels are quite high. For example, in Northern Ireland the median amount invested in 2003 was Stg£10,000 (€14,500), while in Ireland it was €10,000 (Stg£6,900). In the US the median was US\$1,700 (€1,500/Stg£1,000). What this suggests is that the much lower rates of business angel activity on the island of Ireland compared to the US might be partly explained by the absence of individuals who invest small amounts of money in other people’s business ideas. Those active as business angels on the island of Ireland appear to be investing relatively high amounts of money¹⁶.

When business angel activity rates are compared to entrepreneurial activity rates, it is

clear that high rates of entrepreneurial activity are closely associated with high rates of business angel activity (Figure 14).

Figure 14: Business angel activity and TEA occur together



GEM research indicates that the presence of informal investors is a critical factor allowing entrepreneurs to implement start-ups and suggests that informal investments may justify more careful attention from policy makers, who currently give substantial emphasis to the venture capital sector.

5.5 VC investment on the island of Ireland

Informal investment activity is complemented by formal venture capital activity. Formal venture capital, however, is only a source of funding for a relatively small number of all new businesses. Typically, those businesses most suited for venture capital are those with high growth potential, and often, though not always, this means that they are high-technology businesses. These businesses, however, make a

¹⁶ These figures may not be representative of all business angel investments. The analysis is based on a relatively small number of business angels given the very low rate of business angel activity on the island of Ireland.

disproportionate contribution to wealth creation and job creation.

Many of the experts interviewed commented on the development and current situation with respect to the venture capital sector in Ireland and Northern Ireland. The venture capital market is relatively new in Ireland and Northern Ireland. This is not surprising given that prior to the 1990s very few businesses on the island of Ireland were suitable candidates for venture capital investment.

The experts suggest that when compared to the situation in the mid to late 1990s, the formal venture capital market has increased significantly in both Ireland and Northern Ireland in terms of both the number of deals done and the overall amount invested (though year on year venture capital activity varies due

to changing market conditions). Research undertaken by InterTradeIreland's EquityNetwork initiative in 2001 indicated that in general there is an adequate supply of venture capital funds, but that there is often a lack of understanding of what is required to secure VC funding on the part of those entrepreneurs for whom such funding would be appropriate.

Venture capital activity in Northern Ireland is low by comparison to Ireland. In Ireland, the emergence in the 1990s of 'demand' for venture capital from new and growing technology businesses, frequently software businesses, was supported by large amounts of EU and government funds that were committed to the venture capital market. These funds were used to leverage significant funds from the private sector.

SECTION 6

An entrepreneurial mindset on the island of Ireland

6.1 The importance of personal and cultural context

The “softer”, qualitative factors around attitude, personal beliefs, motivation and the prevailing cultural and social norms have a major impact on whether an individual is engaged in entrepreneurial activity and the relative level of activity between countries and regions.

The European Commission realises the importance of these factors and in its Action Plan to make Europe more entrepreneurial, stresses the need to develop “an entrepreneurial mindset”:

*“To realise its full entrepreneurial potential, the EU must take serious steps to make Europe more attractive for business activity. But this alone is not enough to fuel the entrepreneurial drive: a more entrepreneurial mindset is needed. This means actively promoting entrepreneurial values and addressing the fear of risk-taking among the widest possible audience of potential entrepreneurs”.*¹⁷

6.2 Personal social context

GEM research suggests that (i) those who believe that they have the skills to start a business; (ii) those who see good opportunities; and (iii) those who know somebody who has started a business in the past six months are many times more likely to be engaged in entrepreneurial activity. In fact, GEM research suggests that an individual who has all three characteristics is about ten times more likely to be an entrepreneur than an individual who has none of these characteristics.

Table 3 illustrates for Ireland and for Northern Ireland, as well as for the UK, the US and the average across Europe, the percentage of the adult population who believe that they possess these qualities.

According to the GEM research, a fear of failure, often considered to have a major influence, has in fact only a minor impact on whether an individual is engaged in entrepreneurial activity. The responses in respect of this factor are also illustrated in Table 3.

Table 3: Personal context of the population

Personal context	Ireland	Northern Ireland	UK	US	European average
I have the skills to start a business	46%	42%	48%	54%	40%
I see good opportunities	33%	32%	35%	31%	32%
I know a recent entrepreneur	43%	25%	25%	39%	40%
Fear of failure would prevent me starting a business	41%	40%	34%	23%	38%

¹⁷ Action Plan: The European Agenda for Entrepreneurship, presented by the European Commission, 2004

Compared to the US, there are aspects of the personal context of people in Ireland and Northern Ireland that might explain lower levels of entrepreneurial activity. In particular, the high number of Americans who believe that they have the skills to start a new business- more than one in every two Americans believe they could start a business. This figure is 17% higher than the number in Ireland and 29% higher than the number in Northern Ireland.

The response of the adult population is related to their perception of whether they had the appropriate skills, knowledge and experience to start a new business. The key informants, experts and entrepreneurs consulted as part of the GEM research, were in general less positive in their opinion as to the degree to which their adult populations possessed the necessary skills.

The US key informants were the most positive of all informants in this regard and were ranked the highest of the 31 countries on average in their response across five linked questions. The key informants in Ireland were fairly negative in their response to this set of linked questions, although their responses ranked Ireland 10th across all the participating countries. This places in context the even more negative response of the key informants in the UK (25th) and in the Northern Ireland (28th) to questions regarding their perception of whether many people within their populations had the necessary skills, experience, and appropriate speed of response to perceived opportunities.

Another striking difference highlighted in Table 3 relates solely to Northern Ireland: that is the relatively low numbers in Northern Ireland who know a recent entrepreneur. Only one quarter of people in Northern Ireland claim to have a 'role model' of a recent entrepreneur. In Ireland the numbers who know someone who has recently become an entrepreneur is higher

than even in the US and is almost double the percentage in Northern Ireland.

In the US, lower levels of fear of failure prevail. About two out of every ten Americans say that fear of failure would prevent them starting a business. In comparison about four out of every ten people on the island of Ireland report that fear of failure would prevent them starting a business. The prevalence of fear of failure is broadly similar in Ireland and Northern Ireland.

Interestingly, the percentages of the population that see good opportunities to start a new business in the short term are broadly similar in the US, Europe and the island of Ireland.

The views of the key informants, experts and entrepreneurs, consulted as part of the GEM research, were much less uniform with regard to the existence of good entrepreneurial opportunities. These key informants were asked a range of related questions regarding their perceptions of whether good opportunities were prevalent. The key informants in the US were the most positive. The Irish key informants were joint 6th in this regard across all of the countries. The key informants in the UK were much less positive in their belief that good entrepreneurial opportunities existed and were ranked 21st against the 31 countries. The response of the key informants in Northern Ireland is lower again (29th).

6.3 Cultural Context

GEM research highlights the fact that those who perceive the cultural context to be very supportive are almost four times more likely to be engaged in entrepreneurial behaviour.

As a comparative measure of the degree of cultural support for entrepreneurship, Table 4 illustrates for Ireland and for Northern Ireland, as well as for the UK, the US and the average across Europe, the percentage of the adult population who believe that entrepreneurship is a good career choice, has a high status, and consider that there is good media coverage of entrepreneurship.¹⁸

¹⁸ This is not to suggest that other factors within society as a whole, local communities, the family and the educational sector etc. do not have an impact on defining the cultural context.

Table 4: Cultural context for entrepreneurship

Personal context	Ireland	Northern Ireland	UK	US	European average
Entrepreneurship is a good career choice	66%	59%	52%	63%	58%
Entrepreneurs have a high status	76%	77%	72%	64%	66%
There is good media coverage of entrepreneurship	84%	61%	56%	64%	54%

What is immediately apparent from this comparison is the strength of the support for entrepreneurs and for entrepreneurship among the general adult population within Ireland. It is even stronger than in the US. The perception of a very positive media support for entrepreneurship within Ireland, both among the general adult population and the experts and entrepreneurs consulted, is among the highest in the world.

Within Northern Ireland, the response of the adult population to questions indicating support for entrepreneurship appears relatively positive and is at odds with the views of the experts and entrepreneurs consulted, whose opinions would suggest that the cultural support in Northern Ireland is in fact much less positive.

In general, the GEM key informants within the UK are much less certain in their view across a

range of related questions, than are their Irish counterparts, that the cultural and social norms within their environment are supportive of entrepreneurship. The key informants consulted within Northern Ireland were more negative.

It is apparent that the personal attributes and cultural supports present within Ireland are factors which contribute to its relatively high rate of entrepreneurial activity. The one area of weakness would appear to be in the area of appropriate skills and experience.

Northern Ireland is less strong in the area of personal attributes and cultural supports for its adult population.

While of great importance to creating a climate that fosters entrepreneurship, these are areas that are much less open to influence through direct policy intervention in the short term, than are other factors in the environment.

SECTION 7

The environment for entrepreneurship on the island of Ireland

7.1 The importance of a supportive environment

The GEM model (see Figure 15 in Appendix 2) suggests that a number of factors are important in creating an environment that is supportive of entrepreneurship. Specifically, the model suggests that an ideal environment, which is supportive of new and growing firms within a developed economy, would have the following characteristics:

- The availability of appropriate sources of finance that are necessary to start and grow a business. Specifically this includes both equity and loan capital, and when relevant, traditional venture capital. The relative ease of access to these sources of funds for entrepreneurs is also important.
 - Cultural and social norms that are supportive of entrepreneurs and of entrepreneurial activity.
 - Supportive government policies and programmes, which include an environment in which it is relatively easy and inexpensive to set up a new business and in which the regulatory and compliance burden on new firms is minimised.
 - The availability of education and training that is supportive of entrepreneurship as a career choice and that equips entrepreneurs with the knowledge and skills that are needed to successfully start and grow a business.
- The commercial exploitation of research from universities and research institutions, with appropriate protection for the intellectual property (IP).
 - The availability of appropriate professional services and advice.
 - Appropriate infrastructure, in particular the availability of competitive communications and transportation services and of appropriate accommodation to meet the needs of new and growing businesses.

These are the ideal. In reality, even the most entrepreneurial country would not score a perfect 10 on each of these factors. What is apparent, however, is that the more entrepreneurial countries tend to have strengths in many of these areas.

7.2 How supportive is the environment on the island of Ireland?

The paragraphs that follow examine each of the various factors and assess their impact on the entrepreneurial environment on the island of Ireland.

(i) Finance

There is widespread agreement among the key informants, experts and entrepreneurs, throughout the island of Ireland that there are not sufficient funds available to meet the needs of entrepreneurs, particularly for seed finance. This common view extends across the availability of equity finance, both in terms of informal investors and the more formal venture capital, to debt funding for new and growing

businesses, with funding through Initial Public Offerings (IPOs) virtually non-existent. It should be noted, however, that this view was not unique to the key informants on the island of Ireland, but the access and availability of finance was considered by key informants throughout the world to be a major constraint in hampering the development of a fully dynamic entrepreneurial sector.

(ii) *Cultural and Social Norms*

Section 6.3 examined the relative cultural support for entrepreneurship in Ireland and in Northern Ireland. Further evidence of the cultural divide on the island with regard to entrepreneurship is highlighted in the fact that aspects of the culture and social norms were mentioned most frequently as a strength by the key informants in Ireland when asked to comment on important features that help further entrepreneurship development in their country and mentioned most frequently by key informants within Northern Ireland as a weakness restricting entrepreneurship development.

(iii) *Government Policy*

A series of linked questions designed to assess the key informants' opinions of government policy across a range of issues affecting entrepreneurship were also asked of the key informants in all the participating countries. The key informants were not particularly positive in their views. The response of the key informants in Ireland appears in a more positive light, however, when viewed against the opinions of the other national groups of key informants. Ireland was ranked 4th by the key informants in this assessment, just ahead of the US. The key informants in Northern Ireland, however, were significantly less positive and their combined opinions ranked 18th, behind New Zealand (11th), the UK (13th), Canada (16th) and Australia (17th), all of whose key informants

were very negative in terms of their response to the set of linked questions.

The effectiveness of government policy is obviously of major importance. The key informants, experts and entrepreneurs, in all countries included in the GEM research were specially asked for their opinion on the effectiveness of government policies aimed at supporting new and growing firms. Across all countries, the key informants were once again not particularly complimentary in the opinions they expressed on this point. Having said that, the key informants in Ireland, while not giving a clear endorsement, were the most positive across the 31 countries. The key informants in Northern Ireland, while being less convinced, were marginally more positive than were the key informants in the UK.

(iv) *Government Programmes*

The key informants on the island of Ireland were generally more positive in terms of their assessment of government support programmes.¹⁹ Although again not giving a clear endorsement, the key informants in Ireland were the most positive of all key informants across the 31 countries in their response to a series of six linked questions related to government programmes. While the opinions of the key informants in Northern Ireland ranked the region 9th, ahead of the UK (16th), their views were generally negative in this regard.

There would appear to be either (a) an information deficit or (b) a "gap" in the services available on the island of Ireland, as the key informants in both Ireland and in Northern Ireland expressed a view that those seeking help from a government programme for a new or growing business, might be unable to find what they need.

(v) *Education and Training*

The key informants in Ireland and in Northern Ireland were consistent in pointing to shortcomings in the educational sector with

¹⁹ Appendix 1 contains a list of support programmes for entrepreneurship and innovative offered by economic development agencies on the island of Ireland.

regard to its contribution towards the fostering and support of entrepreneurs. The third level sector was perceived to pay insufficient attention to providing relevant courses and to opening the minds of students to the potential offered by entrepreneurship as a legitimate career choice. Primary and second level schools were also perceived to offer inadequate attention to entrepreneurship. The key informants were also uniform in their view that in general the knowledge, skills and experience needed to start and successfully run a new and developing business were not widespread among the adult population on the island of Ireland.

(vi) *Intellectual Property (IP)*

The protection of IP is seen as being of importance particularly in those economies that wish to foster and support sophisticated knowledge-based entrepreneurship. While the situation regarding IP is far from perfect on the island of Ireland, IP is perceived, by the experts and entrepreneurs consulted, to be less protected and respected within Northern Ireland than it is within Ireland.²⁰

(vii) *Professional and Commercial Infrastructure*

In common with most of the developed economies, appropriate professional and commercial support appears to be available on the island of Ireland, with key informants fairly clear in their assessment that it is relatively easy for new and growing firms to get good professional legal, accounting and banking services.

(viii) *Physical Infrastructure*

The key informants are much more positive about the quality of and ease of access to the necessary physical infrastructure in Northern Ireland, than are the key informants in Ireland, where the physical infrastructure is generally considered to be insufficient and under-developed for a knowledge economy.

7.3 The economic context for entrepreneurship on the island of Ireland

GEM research demonstrates that favourable macroeconomic conditions and policies, resulting in greater levels of growth and wealth within an economy, are important in creating an environment conducive to entrepreneurship. The particular features of the economic environment, which have a significant positive association with the rate of entrepreneurial activity within more developed economies, are as follows:

- Higher average economic growth, is positively associated with more opportunities for entrepreneurship;
- Higher GDP per capita, is also associated with greater opportunities for entrepreneurship;
- Higher levels of employment also have a positive association, as long term unemployment is associated with less opportunity start-ups.

Sustained economic growth and the resulting buoyancy of disposable incomes have a positive effect on the level of entrepreneurial activity, as it creates increased local demand.

7.3.1 *The economic context in Ireland*

For most of the last decade entrepreneurs have enjoyed and capitalised upon remarkable benign economic and fiscal conditions. As one economist summed up the situation:

‘Irish entrepreneurs never had it as good as in the last decade. The economy has enjoyed a sustained boom, creating jobs, income and wealth that would have been unthinkable in the early 1980s. The virtually continuous expansion of the economy from 1994 onwards has created an array of expanding opportunities for the exercise of entrepreneurial talent, both in

²⁰ Ireland’s first **National Code of Practice for Managing Intellectual Property from Publicly Funded Research**, which was developed by the Irish Council for Science Technology and Innovation (ICSTI), was launched in April 2004. The Code addresses each aspect of the management and transfer of research and development results from universities, institutes of technology and public research institutions to the commercial market place. In particular, it stresses the need for a real commitment from public research organisations and funders to the timely exploitation of research and to ensuring that the necessary resources and expertise are provided for commercialisation. There is no uniform code of practices of this nature in Northern Ireland, and each university has its own strategy.

terms of launching new businesses and expanding existing enterprises. A growing market has provided the recipe for rising incomes and profits. And the sustained thrust of policy has been to allow entrepreneurs to keep a larger slice of what they make.²¹

He points in particular to the following positive contributors:

- The economy has more than doubled in size over the past decade;
- Domestic consumer spending has risen by three quarters over the past decade due to a 50% increase in the numbers at work, rising incomes and falling income taxes;
- SMEs, and the entrepreneurs who run them, have benefited very substantially from very steep reductions in corporation tax rates, income tax rates and the halving of Capital Gains Tax rates.

The labour market trends in the 1990s were characterised by high levels of employment growth and low levels of unemployment. Between 1997 and 2001, the number of employed people increased by 299,800. Unemployment had reached an all time low of 3.7 per cent during 2001. The rapid growth in the labour force was in part due to a sharp rise in female participation, in particular married women returning to work. While unemployment has begun to increase slowly, it remains lower than in Northern Ireland and the majority of countries in the rest of Europe.

These factors in the environment go some way to explaining the high rates of entrepreneurial activity that GEM has reported for Ireland in recent years, rates which place Ireland to the fore within Europe generally and first within the members of the European Union. The more recent slow-down in the rate of growth within the economy may also explain the recent

decline in the rate of entrepreneurial activity within Ireland. It is generally recognised that economic growth on the level that was experienced in the last decade is unlikely to be repeated in the years ahead. This poses additional challenges for policy makers and others who wish to sustain a dynamic entrepreneurial environment in Ireland going forward.

7.3.2 The economic context in Northern Ireland

The economy of Northern Ireland performed above the United Kingdom (UK) average throughout the 1990s. Gross Domestic Product (GDP) growth performed well until 1996, when it fell to just 1.2 per cent, and showed more moderate growth after 1997.

A key indicator of the improved economic health in Northern Ireland is the substantial improvement in labour market participation over the last 10 years. In Northern Ireland, job numbers expanded by almost 22 per cent in the period from 1990-2002 with employment growing at 2 per cent per annum from 1993-2002. Relatively low levels of unemployment reflect increases in part-time work, with nearly 80 per cent of part-time workers being female.

Since 2002, there have been some signs of renewed growth in the Northern Ireland economy. For example, although unemployment has risen slightly over the 12 months to November 2003, total employment has increased, manufacturing output increased slightly and, after a sharp fall between 2001 and 2002, self-employment increased markedly in the 12 months to June 2003. In December 2003, unemployment stood at 6.3 per cent. Northern Ireland's employment performance continues to outperform all the UK regions²². There has been continued growth in public expenditure and consumer spending which was above the UK average and has

²¹ The economist referred to is Paul Tansey, Managing Director, Tansey Webster Stewart & company, and the extract is from a paper entitled *The Entrepreneurial Environment in Ireland Today*, presented at a conference hosted by Waterford Institute of Technology on 5th May 2004.

²² Invest NI Quarterly Economic Report (October 2003)

contributed to these trends²³. However, economic activity rates remain the lowest of all the regions of the UK at 72 per cent.

The public sector plays a much more significant role as an employer within Northern Ireland than within Ireland. Employees in the public sector represent less than 20% of the labour force in Ireland, compared to about 32% in Northern Ireland.²⁴ Typically, few public sector employees become entrepreneurs.

The GEM 2003 survey was undertaken against this economic background. Given the less benign conditions and the lower rate of economic growth experienced in Northern Ireland, compared to Ireland in recent years, it is not surprising that the rate of entrepreneurial activity has been less as fewer entrepreneurial opportunities would have been present within the economy.

7.4 The demographic context of entrepreneurship on the island of Ireland

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).

7.4.1 *The demographic context of entrepreneurship in Ireland*

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 highest among this group for both males and females. As entrepreneurship in Ireland is primarily driven by men in their mid thirties, the fact that Ireland has a high percentage of men currently aged between 20 and 34 years (25%) is very positive, as it suggests a good source of potential entrepreneurs going forward.

7.4.2 *The demographic context of entrepreneurship in Northern Ireland*

Northern Ireland can be characterised as an urbanised and compact region. The population is principally concentrated around the Belfast Metropolitan Area and its hinterland. There are only three centres in Northern Ireland with populations over 50,000, namely Belfast, Craigavon and Londonderry/Derry.

In 2001, the population of Northern Ireland was 1.69 million. This represents an increase of 5.1 percent on 1991: The greater part of the increase (3.4%) having taken place in the first half of the decade, 1991-1996, with a slight decrease in growth rate since then. The population of Northern Ireland is expected to grow to 1.83 million by 2025.

Increases in net outward migration since 1996 have had an influence on the decline in

²³PriceWaterhouseCoopers Northern Ireland Review and Prospects (August 2003)

²⁴ Source: CSO; Public Sector Employment and Earnings, February 2004. NISRA; Quarterly Employment Survey, December 2003.

population growth rates in recent years. The contribution of inward migration to population change figures less in Northern Ireland than in Ireland.

Similar to the situation in Ireland, there has been an increase in the proportion of the

population in the age groups of 25-44 and 45-64 and a reduction in the younger age groups.

Overall, the demographic situation in Northern Ireland differs greatly from the position in Ireland in terms of the scale and timing of the increase in population.

SECTION 8

Shared challenges in fostering entrepreneurship on the island of Ireland

8.1 An informed basis for policy

The objective of this report was to use the GEM research, carried out separately in Ireland and in Northern Ireland, to provide a consistent and reliable way of measuring entrepreneurial activity and the concerns of entrepreneurs in order to provide policy makers on the island of Ireland for the first time with unrivalled knowledge about entrepreneurship. It is intended that this informed assessment of entrepreneurial activity will facilitate the sharing of knowledge and experience among all those interested in entrepreneurship throughout the island.

The research has highlighted some strengths and a number of weaknesses in the environment for entrepreneurship on the island of Ireland. The latter include the relatively low level of entrepreneurship among women, the low levels of informal investment/business angel activity, and deficiencies in the pervasiveness among the adult population of the knowledge, skills and experience to successfully start and grow a new business.

There are many similarities and some important differences in the level and nature of entrepreneurial activity in Ireland and in Northern Ireland. Based on the GEM research, this report offers a number of explanations as to the factors that underpin these differences. Being better informed about these factors should help policy makers on the island of Ireland to share experiences that might be useful in informing the overall policy debate on how best to foster and sustain a fully dynamic

entrepreneurial environment on the island of Ireland.

8.2 The focus of policy interventions

Policy makers will need to make interventions across a broad range of government activities if they are to effectively address the weaknesses that exist (for example, aspects of taxation impact on rates of informal investment/business angel activity, the third level education system may be important if career attitudes are to be changed, employment and other legislation impact on the cost of starting a business).

There may also be a benefit in designing and implementing some of the initiatives on an all-island basis. For example, networks of entrepreneurs and informal investors/business angels could be further developed on an all-island basis. The sharing of experience and co-operation in the effective development of focused educational and training initiatives among teachers and educationalists would also benefit from an all-island approach. Similarly, programmes aimed at young people and the co-ordination of research efforts could benefit from an all-Ireland dimension. Another common challenge is the effective commercialisation of R&D from the third level sector. Again the barriers are similar, and are being experienced in many developed economies.

8.3 Shared challenges

The report has developed a set of policy objectives based on the GEM research which

are intended to assist policy makers in achieving their collective goal of fostering a fully dynamic entrepreneurial environment on the island of Ireland. These are as follows:

- [1] Increase the level of entrepreneurial activity.

The level of entrepreneurial activity on the island of Ireland must be increased. By international comparison, the level of entrepreneurial activity in Ireland and Northern Ireland is significantly lower than it is in the most entrepreneurial of the developed nations outside Europe (for example, US, Australia, and New Zealand). The benefits of increased levels of entrepreneurship should include higher growth and prosperity and improved competitiveness in Ireland and Northern Ireland.

- [2] Maximise the entrepreneurial potential of all.

The aspects of personal social context of people on the island of Ireland that are associated with entrepreneurship must be enhanced. Internationally, the presence of role models and a belief in one's ability to start a new business are important aspects of personal context of those that are active as entrepreneurs. These important aspects of personal context need to be enhanced on the island of Ireland. Importantly, such interventions should target groups that have relatively low levels of entrepreneurial activity when compared to international 'norms'. For example, this might mean trying to enhance the personal context of women in Ireland and of educated males in the 25-44 age group in Northern Ireland.

- [3] Harness the resources of the education and training sector.

The education and training sector must support the development of entrepreneurs. Specifically, it should seek to develop a belief in the ability to start a new business and should seek to reduce the high levels of 'fear of failure' among people on the island of Ireland. It can also play an important role in building and maintaining a positive cultural 'norm' that supports entrepreneurship and in bridging the skills gap where this exists.

- [4] Increase the number of women active as entrepreneurs.

The number of women active as entrepreneurs needs to be increased. The rate of entrepreneurial activity among women is relatively low on the island of Ireland. Increasing the rate of participation in entrepreneurship by women would have the direct effect of increasing the overall level of entrepreneurial activity. Some European countries have adopted specific programmes that have sought to target and support women entrepreneurs.

- [5] Monitor access and availability of finance.

Establish a continuous monitoring system that reports back to policy makers on a regular basis regarding specific difficulties that exist, or may arise in the future, surrounding access and availability of finance for particular types of entrepreneurs with varying funding requirements.²⁵ As specific gaps are identified, interventions could be introduced to bridge the identified gaps and their effectiveness ascertained through the monitoring system. When the need for the intervention to address any given market failure is no longer present, the intervention should be discontinued.

²⁵ In the UK, this is the responsibility of the Bank of England.

- [6] Increase the level of business angel activity.

The level of business angel activity must be increased. The level of informal investment on the island of Ireland is relatively low. Informal investment is important to entrepreneurs as they use informal investment to help fund the gap between the money needed to start a new business and the funds the entrepreneur invests in the new business.

Such policy interventions typically involve the networking or syndicating of business angels. However, what may be more critical is that the risk-reward profile for investments in new ventures are attractive, when compared with alternative investments such as property, stocks and shares, etc. Additionally, it must be relatively easy for investors to realise any gain they make, which often occurs through 'trade sales' and exceptionally through Initial Public Offerings (IPOs). Such liquidity may be critical to maintaining a continuous flow of informal venture capital.

- [7] Monitor the cost of starting and operating a new business.

Monitor, and seek to reduce, the costs of starting and operating a new business. Entrepreneurs face many costs in starting a business. These may include registering the new business, leasing premises, buying equipment, hiring staff, and some form of marketing. Other costs include insurances, energy, telecommunications and transport. These should also be monitored and reductions sought where possible.

International evidence suggests that the average funds that entrepreneurs anticipate using varies quite significantly between different countries. The higher the cost of starting and operating a new business the harder it will be for an entrepreneur to fund such activity and

to make money from the new business. Some entrepreneurs in Ireland, as compared to Northern Ireland, anticipate needing larger amounts of funding to start their new business. These differences may reflect the nature of the new venture or may mean that it is relatively more expensive to start a business in Ireland.

- [8] Maximise the number of innovative and high growth new ventures.

Ensure entrepreneurs maximise the growth potential of their businesses. Internationally, innovative, high growth new ventures, contribute disproportionately to wealth and job creation. While a small but significant proportion of entrepreneurs throughout the island (13%) already believe their business model is innovative, it is essential that these entrepreneurs are able to realise their growth ambitions. Entrepreneurs on the island of Ireland face particular problems in trying to grow their new business, as frequently this will involve internationalising at a relatively early stage of the business's development.

- [9] Support the development and exploitation of research.

Support the development of a research and development infrastructure that supports high potential new firms. Continue to invest in research and facilitate the commercial exploitation of this research.

High potential new firms appear to be more prevalent in countries with a substantial research and development infrastructure. The full benefits of increased state expenditure on research and development may not always be realised, however, due to the difficulty of commercialising the research, spinning it out from the third level sector in which it was developed, and the difficulties associated with

exploiting such research in the market place.

8.4 Conclusions

The challenge to policy makers is not only to adopt a range of appropriate interventions, but to ensure that these are effectively co-ordinated across different policy areas, at national and regional level, if the objective of creating an 'enterprise society' is to be realised. The challenge to effective coordination, however, should not be underestimated. The Green Paper of the European Commission²⁶ spells out the ideal:

"Entrepreneurship requires a co-ordinated approach because of its horizontal nature. Policy should embrace all the influential elements within the relevant policy areas, to allow these to act in a mutually reinforcing way. Within public authorities, co-ordinating services can forge links

between different departments, and regional and local authorities, to identify priorities and ensure a coherent approach."

The Commission suggests that it could assume a co-ordinating role at EU level.

GEM research shows that there is no one uniform 'strategy' for achieving the objective of making an economy more entrepreneurial. Each strategy, while containing many common elements, must be tailored to the particular circumstances of the local environment. That is not to say, however, that there is not considerable merit in learning from the experience of others. GEM facilitates this type of learning internationally. This report suggests that policy makers in both Ireland and Northern Ireland have much to learn from each other and much to gain from co-operating together, as they strive to maximise the entrepreneurial potential of the people on the island of Ireland.

²⁶ The Green Paper *Entrepreneurship in Europe*, published by the European Commission in January 2003.

APPENDIX 1

Support programmes directed at entrepreneurship and innovation offered by economic development agencies on the island of Ireland

Agency	Programme	Orientation	Beneficiaries	Type of Support	Scale & Duration*	Turnaround Time
InterTradeIreland	FUSION	Technology transfer	SMEs (LT 250), higher education institutions and graduates	Partnerships, graduate placements and projects	Medium, 18 months	3-4 months
InterTradeIreland	All-Island Entrepreneurship Inventory	Entrepreneurship	Policy makers and academics	Information resource	Small, ongoing	N.A.
InterTradeIreland	Equity Network	Awareness	SMEs	Advice & Guidance	Varies (Depends on each case)	N/A
InterTradeIreland	Seed Corn	Early stage development	SMEs	Seed funding	Small-Medium	1-2 Months
InterTradeIreland / Enterprise Ireland / Invest NI	All-Island Innovation System	Innovation research	Industry, policy makers, academics	Research reports	Small, 3 years	N.A.
InterTradeIreland / Enterprise Ireland / Invest NI	Innovation North+West	Innovation audit and awareness	Industry and policy makers	Research reports	Medium, ongoing	N.A.
InterTradeIreland/Forfás/ Invest NI	All-Island Innovation Awards	Innovation Awareness	Industry	Awards	Medium, ongoing	2 months

*Small: less than €25,000 (Stg£17,300); Medium: €25,000-€250,000 (Stg£17,300-Stg£173,000); Large: + €250,000 (+ Stg£173,000).

Agency	Programme	Orientation	Beneficiaries	Type of Support	Scale & Duration	Turnaround Time
Forfás	STI Awareness	Innovation awareness	Second and third level education	Awareness raising	Medium, ongoing	N.A.
Forfás/ICSTI	ICSTI research	Innovation awareness	Industry, government and academics	Research reports & statements	Medium, ongoing	N.A.
Science Foundation Ireland	Centres for Science, Engineering and Technology	R&D	Third-level institutions and industry	Funding for Staff, research facilities and projects	Large, 5 years	4-6 months
Shannon Development	InnovationWorks	Incubator networks	Industry, particularly start-ups	Facilities	Large investment, 2-4 years	N.A.
Shannon Development	Venture Start 1	Start-up Development	Entrepreneurs	Advice and Guidance	Small, 3-4 months	1-2 Months
Shannon Development	Venture Start 2	Project Development	Entrepreneurs	Advice and Guidance	Small, 3-6 months	1-2 Months
Shannon Development	Excellerator Programme	Growth and Development	High Potential Firms	Networks	12 months	1-2 Months
Shannon Development	Alumni Start Programme	Business Development	Alumni from the Shannon Region	Training and Mentoring	Small, 1 year	1-2 Months
Shannon Development/ Enterprise Ireland	Design Capability Audit	Design capability	SMEs	Training	Small, short periods	1 month
Enterprise Ireland / Shannon Development	R&D Initiatives I	Company expansions	High Potential Start-Ups	Facilities, staff and projects	Large, 2-3 years	4 months
Enterprise Ireland / Shannon Development	R&D Initiatives II	Company development	Industry	Facilities and projects	Large, 3 years	6 months
Enterprise Ireland / Shannon Development	Research Technology and Innovation (RTI) Initiative	Near-market product development	Industry	Projects	Large, 2 years	4 months
Enterprise Ireland	Innovation Partnerships	Pre-competitive research	Third-level researchers	Projects	Medium, 1-2 years	4 months

Agency	Programme	Orientation	Beneficiaries	Type of Support	Scale & Duration	Turnaround Time
Enterprise Ireland – Commercialisation Fund (a)	Proof of Concept	Pre-competitive research	Third-level researchers	Projects	Medium, 12-18 months	4 months
Enterprise Ireland – Commercialisation Fund (b)	Technology Development	Nearer market research	Third-level researchers	Projects	Medium, 2-3 years	4 months
Enterprise Ireland – Commercialisation Fund	Business Development	Business Planning	Entrepreneurs	Support for market intelligence and business plan development	Small-Medium	
Enterprise Ireland	Campus Company scheme	Start-up Development	Third-level researchers	Training & Advice	Medium, 1 year	3 months
Enterprise Ireland	High-Potential Start Ups	Start-up Development	Entrepreneurs, SMEs	Training & Advice	Medium, 6-12 months	2-3 Months
Enterprise Ireland	Environmentally Superior Product Initiative	Near-market product & process development	SMEs (LT 250)	Projects	Medium, 1-2 years	3 months
Enterprise Ireland	Programme in Advanced Technologies	Technology management/technology transfer	HE institutions and industry	Project support, in form of technology management to six technology sectors*	Large, 3-4 years	
Enterprise Ireland	Regional Innovation Infrastructure (Business Incubators)	Business Incubators	Institutes of Technology	Facilities, staff	Large investment, 2-3 years	4-6 months
Enterprise Ireland	COST (International R&D Collaboration)	R&D Networking	Academics	Travel grant	Medium, 18 months	Annual call
Enterprise Ireland	International Collaboration Travel Support	R&D Networking	Academics	Travel grant	Small, 3 months	Annual call
Enterprise Ireland	Business Partners Scheme	Technology transfer	Industry	Advice and overseas networking projects	Small, variable	2-4 months

*Informatics, biotech, industrial materials, optronics, electronics and AMT.

Agency	Programme	Orientation	Beneficiaries	Type of Support	Scale & Duration	Turnaround Time
Enterprise Ireland	Intellectual Property Assistance Scheme	IP Protection	Mixed industry and universities	Patent application support and advisory services	Small, 6 months	1 month
Enterprise Ireland	Innovation Management Initiative	R&D capability building	Industry	Training	Small, 6 months	2-3 months
Enterprise Ireland	R&D Awareness Initiative	R&D capability building	Industry	Awareness raising & consultancy support	Small, 1 month	1-2 months
Enterprise Ireland	Atlantic University Alliance	R&D capability building	University/industry	Training, networks and consultancy	Small, 1 year	2-3 months
Enterprise Ireland	Innovation Relay Centres	Technology transfer	Industry	Partnerships identification	Small, short periods	Ongoing (EU funding)
Enterprise Ireland	Graduate Enterprise Programme	Start-up Development	Entrepreneurs	Training & Mentoring	Small, 12 months	2-3 Months
Enterprise Ireland/Invest NI	All-Island Student Awards	Start-up Development	Student Entrepreneurs	Award	Small, 3-4 months	N/A
Enterprise Ireland	AIB Equity Fund	Company Development	Industry	Venture Capital	Large	2-3 Months
Enterprise Ireland	BOI Venture Capital Ltd	Company Development	Industry	Venture Capital	Large	2-3 Months
Enterprise Ireland	Delta Enquiry Fund 2 Limited Partnership	Early Stage Development	Start-up Companies	Seed Funding	Medium	2-3 Months
Enterprise Ireland	Enterprise Equity Investment Fund Ltd	Seed & Early Stage Development	Start-ups: Manufacturing and ICT in BMW region	Seed Funding	Medium	2-3 Months
Enterprise Ireland	Enterprise Equity Seed Capital Investment Fund	Seed & Early Stage Development	Start-ups: BMW region	Seed Funding	Medium	2-3 Months
Enterprise Ireland	European Bioscience Fund 1	Business Development	Start-ups: Bioscience Sector	Venture Capital	Medium – Large	2-3 Months
Enterprise Ireland	EVP Early Stage Technology Fund	Early Stage Development	Start-ups: ICT	Seed Funding	Medium	2-3 Months

Agency	Programme	Orientation	Beneficiaries	Type of Support	Scale & Duration	Turnaround Time
Enterprise Ireland	The Guinness Ireland Ulster Bank Equity Fund Limited Partnership	Seed through to Company Development	Industry	Venture Capital	Small – Large	2-3 Months
Enterprise Ireland	ICC Regional Venture	Early Stage and company Development	Industry	Venture Capital	Large	2-3 Months
Enterprise Ireland	Kernel Capital Partners	Early Stage Development	Life Sciences and Technology Companies	Venture Capital	Medium – Large	2-3 Months
Enterprise Ireland	Mentor Capital Partners Limited Partnership	Business Development	Industry: ICT and Electronics Companies	Venture Capital	Medium – Large	2-3 Months
Enterprise Ireland	The Hot Origin Fund 1	Early Stage Development	Start-ups: Software Companies	Seed Funding	Small – Medium	2-3 Months
Enterprise Ireland	Trinity Venture Fund 2	Seed through to company development	Software companies	Venture Capital	Large	2-3 Months
Enterprise Ireland	4th Level Ventures University Seed Fund Limited Partnership	Early Stage Development	Start-ups: Technology Companies	Seed Funding	Small – Medium	2-3 Months
Invest NI	START	Pre-competitive R&D	Industry and university/industry partnerships	Projects	Large, 18 months – 3 years	3 months
Invest NI	COMPETE	Near market product and process development	Manufacturing firms	Projects	Medium, 1-2 years (in 2 phases)	3 months
Invest NI	COMPETE Fast Track	Near market product development	ICT companies	Projects	Medium, 1 year	3 months
Invest NI	newradiane	Near market product and process development	Industry	Projects with International partners	Medium, 1-2 years	2 months
Invest NI	SMART	Pre-competitive R&D	Researchers and small firms (LT 50)	Projects	Small, 6-18 months (SMART Micro, 12 months)	2 months

Agency	Programme	Orientation	Beneficiaries	Type of Support	Scale & Duration	Turnaround Time
Invest NI	LINK	Pre-competitive R&D	Industry/academic partners	Projects	Small, 1 year	3 months
Invest NI	Business Incubators	Business Incubators	HE institutions	Facilities	Large investment, 3-5 years	Variable
Invest NI	RTD Centres of Excellence	Research infrastructure	Mixed universities and industry	Facilities	Large investment, 2-3 years	Variable
Invest NI	Technology Development Programme	R&D infrastructure	Industry and universities	Facilities	Large investment, 3-5 years	Variable
Invest NI	Knowledge Transfer Programme	Technology transfer	Universities, companies and graduates	Graduate placements	Medium, 1-3 years	3 months
Invest NI	Design Development Programme	Near market product development	Industry	Training and consultancy	Variable	1-2 months
Invest NI	R&D Networking	Technology transfer networking	University/industry	Partnerships and projects travel grant	Small, 3-6 months	1 month
Invest NI	DICE	Innovation awareness	FE colleges	Projects	Small, 1 year	2 months
Invest NI	Innovation Relay Centres	Technology transfer	Industry	Partnerships identification	Small, short periods	Ongoing (EU funding)
Invest NI	Business Innovation Link	Pre-competitive R&D	Researchers	Advisory services/training	Variable	1-2 months
Invest NI	Innovation Audit	R&D capability	Companies	Consultancy	Small, short periods	1-2 months
Invest NI	Global Start Programme	Start-up Development	Entrepreneurs	Training & Advice	Medium	N/A
Invest NI	Growth Start Programme	Start-up Development	Entrepreneurs	Training & Mentoring	Medium	N/A
Invest NI	Northern Ireland Business Start Programme	Start-up Development	Entrepreneurs	Training & Mentoring	Small, 1 year	1 month

Agency	Programme	Orientation	Beneficiaries	Type of Support	Scale & Duration	Turnaround Time
Invest NI	Community Business Start-ups Programme	Start-up & Early Stage Development	Social Entrepreneurs	Training & Advice	Small, 3 years	Depends on the applicants. Can be as soon as 3 months or as long as 3 years.
Invest NI	Management into Enterprise Programme (MINE)	Company development and Guidance	SMEs, Managers	Advice and Guidance	Small	N/A
Invest NI	Women in Enterprise (WIE)	Early Stage and Start-up Development	Female Entrepreneurs	Training & Advice	Small	N/A
Invest NI	NITECH Growth Fund	Commercialisation of R&D within Universities, new-starts and existing SMEs.	SMEs and Researchers	Venture Capital	Small – Medium	2-3 Months

The GEM project explained

The 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 countries²⁷, and has involved 40 different countries since its inception. Thirty-one countries²⁸ participated in the 2003 research cycle. Ireland has been involved in the research since 2000, while Northern Ireland became involved in 2002. As part of its commitment to understanding the levels and types of entrepreneurial activity in Northern Ireland and as a key step to measuring the impact of the “*Accelerating Entrepreneurship Strategy*”, Invest NI co-sponsored the Global Entrepreneurship Monitor (GEM) UK project in 2002 and 2003. The GEM UK survey, managed and co-ordinated by Rebecca Harding and Marc Cowling, both of the Work Foundation in London, is the largest of all the

national surveys, with 22,000 respondents in 2003.

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).

The 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:

²⁷ Canada, Denmark, Finland, France, Germany, Israel, Italy, Japan, UK and USA

²⁸ The 31 countries participating in the GEM 2003 cycle are as follows: Argentina, Australia, Belgium, Brazil, Canada, Chile, China, Croatia, Denmark, Finland, France, Germany, **Greece**, Hong Kong, Iceland, Ireland, Italy, Japan, New Zealand, Norway, Singapore, Slovenia, South Africa, Spain, Sweden, Switzerland, The Netherlands, **Uganda**, UK, USA and **Venezuela**. Those participating for the first time are marked in bold.

(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.

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.

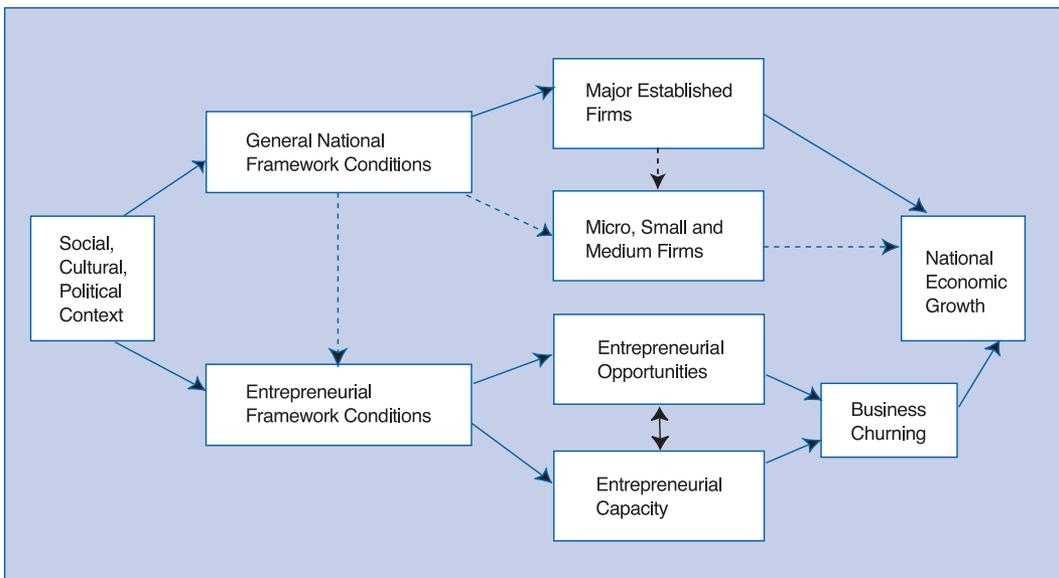
The model for GEM is illustrated in diagrammatic form in Figure 15.

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;

Figure 15: The GEM Theoretical Model



- The physical infrastructure;
- The availability and extent of management skills;
- The degree of flexibility in the labour market; and
- 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').

How GEM collects data

The GEM model incorporates four fundamental research instruments²⁹ 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 entrepreneurship³⁰;
- (iii) A detailed questionnaire completed by the experts interviewed; and
- (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

²⁹ (i) and (iv) are the responsibility of the GEM central co-ordination team and (ii) and (iii) are the responsibility of the national team.

³⁰ The number of key informants interviewed face-to-face may be reduced to 18 after the first year.

of approximately 2,000 adults³¹. 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 and in Northern 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, 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 of a country's participation in the research. 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.

(iii) Detailed Questionnaires Completed by the 'Key Informants'

The experts interviewed also complete a detailed questionnaire. The group of experts, 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 experts 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.

³¹ A small number of countries e.g. the UK, Germany and the US use a much larger sample being interested in carrying out statistically robust regional comparisons within the country. The 2,000 person adult person survey is, however, the norm in most countries. The sample size in Ireland was 2,000 and in Northern Ireland was 3,000, as part of the 2003 GEM global research programme.

APPENDIX 3

The Research Team

Paula Fitzsimons, the editor of this report, is the Ireland co-ordinator for GEM. An independent strategy and management consultant, specializing in sectoral and enterprise development strategies, her clients include government development agencies and individual start-up and developing companies.

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Professor Mark Hart is Professor of Small Business Research in the Small Business Research Centre at Kingston University (UK). He has worked and published extensively in the general area of enterprise, small business and regional and local economic development in Ireland, UK and the European Union. Of particular concern has been the effectiveness of public policy support to the SME sector overall and to individuals as they seek to engage with the enterprise agenda.

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Dr. Eileen McGloin is Policy Research Manager with InterTradeIreland. Her work contributes to the development of an all-island research programme, which seeks to enhance the concept of the island economy. She was formerly a senior consultant specialising in small firm development strategies.

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Entrepreneurship on the Island of Ireland



Paula Fitzsimons
Colm O’Gorman
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Eileen McGloin