

The Global Entrepreneurship Monitor 2005



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The Irish Report

Paula Fitzsimons, Colm O’Gorman



Paula Fitzsimons
Colm O’Gorman

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Entrepreneurship in Ireland in 2005

Global Entrepreneurship Monitor (GEM)

The Irish Annual Report

**Paula Fitzsimons
Colm O’Gorman**

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Explanation of Terms used in GEM

Nascent entrepreneurs

Nascent entrepreneurs are those actively planning a new venture. These entrepreneurs have done something during the previous twelve months to help start a new business, that he or she will at least part own. Activities such as organising the start-up team, looking for equipment, saving money for the start-up, or writing a business plan would all be considered as active commitments to starting a business. Wages or salaries will not have been paid for more than three months in respect of the new business. Many of these individuals are still in fulltime employment.

New firm entrepreneurs

New firm entrepreneurs are entrepreneurs who at least part own and manage a new business that is between 4 and 42 months old and have not paid salaries for longer than this period. These new ventures are in the first 42 months after the new venture has been set up.

Total early stage entrepreneurial activity (TEA rate)

As its name implies, total early stage entrepreneurial activity refers to the total rate of early stage entrepreneurial activity among the adult population aged 18-64 years inclusive. In some instances, this rate is less than the combined percentages for *nascent* and *new firm* entrepreneurs. This is because, in circumstances where respondents qualify as both a *nascent* and a *new firm* entrepreneur, they are counted only once.

Established business owner

In addition to those individuals who are currently involved in the early-stages of a business, there are also many individuals who have set up businesses that they have continued to own and manage for a longer time. These individuals are included in the *established* business owner index which captures the percentage of individuals in a population that have set up businesses that they have continued to own and manage and which has paid wages or salaries for more than 42 months.

Selected countries for comparison

Thirty five countries participated in the 2005 GEM research cycle. In the body of this report we compare Ireland to the European Union and OECD countries that participated in the research. These were Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Mexico, New Zealand, Netherlands, Norway, Slovenia, Spain, Sweden, Switzerland, United Kingdom and the United States. (Latvia and Slovenia are in the EU but not in the OECD). The prevalence rates of entrepreneurial activity across all participating countries can be found in Appendix 3.

Reading the tables

In many of the tables included in this report we refer to TEA rates. In these cases we are referring to the percentage of adults, aged 18-64 years inclusive, who are active as early stage entrepreneurs (either a *nascent* or *new firm* entrepreneur). So, while the TEA rate for Ireland is 9.8% overall, we would expect different rates for different groups of individuals (for example different age groups or gender). For example, we report that the TEA rate for 18-24 years olds is 8.0%, and for 25-34 year olds it is 14.4%. This highlights the average participation rate across the adult population and the relatively higher or lower participation rates for certain groups.

Acknowledgements

The Irish GEM team would like to thank all the entrepreneurs and expert informants that were interviewed as part of this research. They gave generously of their time and their insights as always enriched our understanding of the current state of entrepreneurship in Ireland.

We would also like to thank those recent entrepreneurs who agreed to be featured on the cover of this year's report. We hope that their achievements will be an inspiration to others.

A hallmark of the Global Entrepreneurship Research Association (GERA) is the degree of assistance that the national teams willingly give to each other. We are grateful to the GEM national teams in Australia, Canada, Finland, Singapore, the United Kingdom and the United States for the early stage entrepreneurship profiles of their countries that are included for the first time in this year's report.

As always our sincere thanks must also go to our sponsors, Enterprise Ireland, Forfás and InterTradeIreland, without whose generous continued sponsorship Ireland's participation in GEM 2005 would not have been possible.

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Foreword

The 2005 Global Entrepreneurship Monitor (GEM) Report contains much good news. The number of those who have recently set up new businesses or who are actively planning to set up new businesses in Ireland increased significantly in 2005 and we are fast approaching the levels of early stage entrepreneurial activity that is prevalent in the US. This is a very positive development, particularly as it is the first year of an upswing.

At national and local government level, we are committed to creating a pro business environment, which is highly responsive to the identified needs of enterprise. These needs may vary from time to time, but our listening mechanisms are well developed. With this in mind, I set up the Small Business Forum last October to examine the current environment in which small business operates in Ireland. Among the matters I asked the Forum to consider is whether the strategies being followed to support and develop the spirit of entrepreneurship in Ireland are effective and appropriate. The work of this Forum is almost complete and I am awaiting the output of its deliberations with interest.

It is heartening to see the very strong cultural support for entrepreneurship that this report points to among Irish people in general. There is little doubt that a significant change has taken place in recent years in the national mindset. There is now a psychological predisposition imbedded in the national psyche which is positively disposed towards setting up businesses and a belief that it is open to everyone and not just the province of the few already established.

The alertness of Irish people to recognise good commercial opportunities for setting up new enterprises which is highlighted in the report, together with a growing confidence in their ability to successfully run these businesses is very heartening and gives a very good base on which to further build and strengthen the enterprise sector.

There are still challenges to be addressed, however. Among these is the need to maximise the number of new companies that are innovative and are capable of growth. Often too narrow a view is taken of the meaning of innovation (*people in lab coats*) and many businesses do not see it as applying to them. Innovation drives competitiveness, productivity and the winning of new customers. It applies across all sectors and to all types of businesses.

I very much welcome the further insights which the 2005 GEM report provides and commend the authors not only for the quality of their research, but also for introducing into this year's report the faces and pen pictures of some of Ireland's recent entrepreneurs. I hope that their stories will help to inspire others. We need a continuing strong flow of new enterprises from which the Irish multinationals of tomorrow may spring.

Micheál Martin T.D.
Minister for Enterprise, Trade and Employment

April 2006



- | | |
|---------------------------|---------------------|
| 1. Angela Hope | 9. Jennifer Kinnear |
| 2. Brian Kelly | 10. John O'Hare |
| 3. Colum O'Sullivan | 11. Lloyd Nolan |
| 4. David Walsh | 12. Michael O'Shea |
| 5. Deirdre Uí Chathmhaoil | 13. Monica Nugent |
| 6. Denise Meagher | 14. Rosoy Broderick |
| 7. Elaine Coughlan | 15. Sean Cronin |
| 8. Jan Berg | 16. Sean Fitzgerald |

Recent Entrepreneurs Featured on the Cover

Entrepreneurs are people not statistics! This may seem self-evident but in a publication that reports on entrepreneurship in terms of numbers and statistics this we feel is a very important point to make. Hence, we have featured photographs of recent entrepreneurs on the cover of this year's report.

Each of these entrepreneurs has set up a new business in 2002 or more recently and each has a very interesting story to tell. We can give only a brief overview of their activities in the short captions that follow. As this report will relate, there are a great number of people like them around the country.¹ In total, the GEM research suggests that 112,000 individuals have recently set up new businesses². A further 137,000 are at the advanced stages of getting a new business off the ground. *New firm* entrepreneurs, like those featured, are found throughout the length and breadth of the country.

More extensive pen pictures of the entrepreneurs pictured on the cover can be found in Appendix 1. These entrepreneurs come from a variety of backgrounds and have set up a range of different types of business. What unites them is a well developed ability to spot an opportunity that could be turned into a new business venture. All agree that setting up a new business is very challenging, several refer to it as a "rollercoaster" with highs and lows, but to a person they all are glad that they took the plunge and turned that good idea into a new business.

Angela Hope

Drawn by a love of the Irish landscape to settle in Manorhamilton, County Leitrim, this graduate in fashion textiles from the University of Manchester, set up a new business in 2002 to make limited edition handbags. Made from wool sourced from Irish and Welsh mills, Angela Hope's unique handbags are now sold in about 80 outlets throughout Ireland, the UK, the Netherlands and the United States. www.angelahope.com

Brian Kelly

Dr Brian Kelly came up with the idea behind Celtic Catalysts when he was working on his PhD in UCD. Following the completion of his doctorate, Brian concentrated on getting Celtic Catalysts off the ground, together with Dr Declan Gilheany, his former supervisor. The idea behind the company is that "catalysts" (things which promote chemical reactions) are developed which enable the Pharmaceutical industry to make existing drugs more cost effectively and make new drugs with less side effects. Celtic Catalysts was able to leverage Ireland's strong reputation within the pharmaceutical industry to gain access to potential customers. www.celticcatalysts.com

Colum O' Sullivan

Colum O'Sullivan (Sully), and his friend Cullen Allen (Cully), spent one year researching the idea before they set up Cully & Sully in September 2004. In that month they launched a range of prepared meals using Ballymaloe recipes into supermarkets throughout the country. The following year, following four months of testing, Cully & Sully launched a patented pub concept which is now in over 70 Irish pubs. As Cully & Sully pies are made in ceramic bowls, they are ideal for publicans who want to serve Ballymaloe quality food without the hassle of having a kitchen. www.cullyandsully.com

¹ The sixteen individuals were suggested to us as interesting examples of recent entrepreneurs by some of our key informants.

² New firm entrepreneurs are those who own and manage a business that has paid salaries for more than three months but less than 42 months prior to the GEM adult population survey which was conducted in June 2005.

David Walsh

Founded in February 2003 in Carlow by David Walsh and his partner, Niall Kelly, Netwatch uses modern communication technologies to provide remote visual monitoring security systems to businesses throughout the country. Having grown rapidly since it was set up, there are now 40 full-time and 6 part-time Netwatch employees protecting over 350 sites throughout the country. Netwatch will take on the challenge of export markets in 2006. www.netwatchsystem.com

Deirdre Uí Chathmhaoil

Deirdre Uí Chathmhaoil set up RÍ NA MARA, Irish Seaweed Cosmetics in January 2004 with her husband, Seamus, who previously had experience of aquaculture. A registered general nurse with extensive experience in a Dermatological Unit, Deirdre recently graduated in Cosmetic Science and is a member of the Society of Cosmetic Scientists. RÍ NA MARA is located in An Spidéal, Co. Galway. The couple spent two years, prior to the setting up of the new business, researching and developing a range of skin care products based on mineral rich extracts distilled from seaweed collected off the west coast of Ireland. www.rinamara.com

Denise Meagher

Having decided to turn her back on a promising academic career in favour of one in fashion, Denise Meagher opened The Business, an innovative fashion retail outlet in Nenagh, County Tipperary in May 2004. The boutique uniquely combines a café, which sells books on interior and fashion design, and an exhibition space together with a range of exclusive fashion labels. Denise's ultimate goal is to have her own signature designer label, and the opening of The Business was the first step along that route, as it gives Denise an insider's view of the fashion industry, while most importantly giving her the opportunity to see if there is a wider customer demand for her own designs. www.thebusiness.ie

Elaine Coughlan

Drawing on a wealth of mergers and acquisitions (M&A) experience, successful IPOs and secondary market placements, gained over 13 years since she left her senior audit manager position with one of the "Big Five" accountancy firms, Elaine Coughlan, a chartered accountant, is one of four founder partners of Atlantic Bridge Partners, which was set up in 2002. The focus of the new VC is on making early and mid stage technology investments in semiconductors and software companies across Europe, with a strong focus on a US transatlantic business building and exit model. An integral part of the new VC focus is to add more than finance to its investment portfolio and to leverage the knowledge and experience of the founding partners and management team to deliver strategic and operational value to the companies in which they invest. www.abven.com

Jan Berg

Drawing on 25 years experience of international shipping, oil and energy businesses, Jan Berg, a native of Norway, identified a commercial opportunity for the development and growth of a shipping industry in Ireland, as part of his MBA thesis in the UCD Michael Smurfit Graduate School of Business. Having completed his MBA, Jan followed through and established Maritime Management in 2002, an ISM-certified maritime services company. www.maritimemanagement.biz

Jennifer Kinnear

Jennifer Kinnear started to design and sell jewellery in 2002. She found her first customers in Blackrock and later Cow's Lane markets, while she honed her collections and developed a wholesale business, with clients such as Kilkenny Design and Waterford Crystal. Two years later her business had grown sufficiently to allow her to open 'JK' a showcase retail outlet on Crow Street, Temple Bar, where she displays her three collections, Kink Bijoux, Vanilla and Jenny Wren. Her jewellery is also sold in thirty five retail outlets throughout Ireland. The export market is now her focus with agents, who sell her work in the US, Japan and the Netherlands. www.jenniferkinnear.com

John O'Hare

Innovative from an early age, John O'Hare has combined an ability to identify commercial opportunities with a specialist expertise in leading edge wireless telecommunications technology. Founder and CEO of Azotel Technologies, John O'Hare is a serial entrepreneur. That is Azotel is the second business that he has set up since 2002. Azotel software currently powers several broadband networks in Ireland and Europe. John developed his first company Amocom Technologies while participating in the Genesis Enterprise Programme in Cork. www.azotel.com

Lloyd Nolan

A graduate of University of Limerick with a Bachelor in Technology, Lloyd Nolan had always wanted to become his own boss. Having spotted a potential business opportunity while travelling in the Far East for his US employers, Lloyd researched the feasibility of the perceived opportunity at weekends and after work until he was convinced that he had the basis of a new business. Lloyd Nolan's new company, Commercial Information Technology Ltd, was set up in September 2005. The company offers an integrated club management software system and the GolfPro simulator and swing analysers. www.citassc.com

Michael O'Shea

Intelligent Health Systems was founded by Michael O'Shea, a qualified veterinary surgeon and electrical engineer, and Alison Clancy, a registered nurse tutor and university lecturer, with a mission to improve healthcare through the intelligent use of technology. Intelligent Health Systems, which is based in NovaUCD, is a multidisciplinary company, which integrates expertise from the fields of medicine, veterinary medicine, engineering and Information Technology. It provides healthcare training and consultancy and carries out research into applications of biomedical signal analysis to diagnostic and monitoring procedures in the medical and veterinary markets. www.healthsystems.ie

Monica Nugent

Believing that there was little prospect of finding employment to match her skills in Donegal, Monica Nugent, newly arrived from South America, decided to create a new business in order to create gainful employment for herself. She noticed that nobody in the Donegal area did on-site IT services. Ireland's PC Doctor (formerly known as MPN Computer Services) was set up in 2003 to bridge that gap, by providing on-site and off-site computer services to home and business users. The company now provides services on a countrywide basis. www.irelandspcdoctor.com

Rosey Broderick

Responding to the growth in the home improvements market, Rosey Broderick felt that the increasing pervasiveness of the internet offered a way to assist consumers to identify individuals with relevant skills and suppliers of quality services for home and garden. Having undertaken research to check the feasibility and latent demand for such a service, in July 2005 Rosey Broderick set up HomeWise.ie, Ireland's Home & Garden search engine, to facilitate consumers choosing home and garden suppliers and services, based on the recommendations of other consumers. www.homewise.ie

Sean Cronin

While working for a US multinational in Cork, Sean Cronin saw the combined potential offered by the arrival into the market of colour mobile phones and the ratification of the Java standard by the phone vendors, which enabled an application to be written once and then played on many different handsets. The result was the establishment of Selatra, as a global distributor of mobile phone games, in 2002. Specialising in JAVA™ games, the company set up by Sean Cronin and four other founding partners, offers a complete cost effective gaming solution to network operators and mobile content retailers from its offices in the National Software Centre in Cork. www.selatra.com

Sean Fitzgerald

Managing the European operations of a large multinational company, Sean Fitzgerald realized that he was not alone in needing a managed platform which could automate and consolidate payment/billing activity in order to address inefficiencies in accounts receivables. Out of that perceived opportunity, Sentenial emerged. Sentenial allows corporation and financial institutions to exploit the inherent advantages and flexibility of the Direct Debit in Europe using the euroDEBIT flagship product platform. The new business started trading in the summer of 2004, after a six-month development period. Located in the Maynooth Business Campus, the company already employs 12 people and is actively recruiting. www.sentenial.com

Executive Summary

GEM research shows that the numbers starting and planning new businesses increased to 9.8% in 2005 up from 7.7% in 2004. This significant increase in early stage entrepreneurial activity reversed the decline of recent years and is evident both in the number planning new businesses and in the number that have recently set up new businesses.

That is the equivalent of almost 250,000 individuals. Of this number approximately 137,000 were *nascent* entrepreneurs³ and actively planning a new venture, while approximately 112,000 were *new firm* entrepreneurs⁴ and had established a new business in the 42 months prior to the survey that is between the beginning of 2002 and the summer of 2005.⁵

- Almost one in ten of the adult population living in Ireland⁶ is actively planning or has recently set up a new business.
- One in every seven men and one in every 20 women are early stage entrepreneurs.
- One in every two Irish adults perceives that there are good opportunities to establish a new business.
- One in every two Irish adults believes that they have the necessary skills to successfully run a new business.

- Over 2,600 individuals are involved in setting up new businesses every month
- Over 3,800 *new firm* entrepreneurs, who have set up approximately 2,600 new businesses, already employ more than 20 people.⁷

The first signs of an increase in early stage entrepreneurial activity were apparent in 2004 when GEM research first detected a considerable increase in the numbers of those who perceived that there were good opportunities in the environment for commercial exploitation.⁸ A further increase occurred in 2005 among the adult population which brought the prevalence rate of opportunity recognition to 52%. This latest increase points to the Irish population being one of the most perceptive in this regard across all countries participating in the GEM research.

The 27% increase in the level of early stage entrepreneurial activity in 2005 is due in the main to a very significant increase in the number of men active as early stage entrepreneurs in Ireland. Early stage male entrepreneurs among the adult population increased from 10.4% in 2004 to 14.2% in 2005. This was particularly notable among those planning new businesses.⁹

³ The active planning phase in which the entrepreneur has done something during the previous twelve months to help start a new business, a new business that he or she will at least part own. Activities such as organising the start-up team, looking for equipment, 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***.

⁴ 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 that is between 4 and 42 months old and have not paid salaries for longer than this period are referred to as ***new firm entrepreneurs***.

⁵ The adult population survey was conducted in June 2005 by Lansdowne Market Research Ltd.

⁶ Aged between 18 and 64 inclusive.

⁷ Based on the information obtained in the 2003 GEM survey, it is apparent that 54% of early stage entrepreneurs are sole founders of their new enterprise, while of the remaining 46%, 24% have two co-founders and a further 21% have three, four or five owners. Only in just 1% of cases had the new businesses got six or more co-founders. The 2003 Irish report may be downloaded from www.gemconsortium.org

⁸ The prevalence rate of opportunity recognition increased from 33% in 2003 to 45% in 2004.

⁹ Male *nascent* entrepreneurs increased among the adult population in Ireland to 8.4% in 2005 from 5.4% in 2004.

Ireland maintained its leading position within Europe in terms of early stage entrepreneurial activity in 2005¹⁰ and began to close the gap on the most entrepreneurial of the OECD countries, particularly with regard to the proportion of the adult population who have recently set up new business.

The perceptions of those involved in early stage entrepreneurial activity is reported for Ireland in relation to those factors which are believed to have an influence on participation in entrepreneurial activity. These relate in particular to their perception of opportunities within their environment, a belief in their own skills to be able to successfully start a new enterprise, their having recent entrepreneurs as role models within their personal network and a reduced reluctance to become involved in entrepreneurial activity through fear of failure. The rate at which these perceptions are prevalent among early stage entrepreneurs, compared with their prevalence among those not entrepreneurially active, is compared for the first time in this year's report. The contrast is remarkable.

These characteristics are not evenly distributed among men and women in the adult population, however, and in all instances these characteristics are less prevalent among adult women in the population than they are among men. This fact goes some of the way to explaining the lower level of women's involvement in early stage entrepreneurial activity.

In the 2004 GEM national report, a narrowing of the gender gap was noted for two reasons: there was an increase in the number of women involved in early stage entrepreneurial activity and a decrease in the number of men involved. While the increase in the number of women involved was most welcome, the decrease in the number of men involved was disappointing and was the cause of the overall

decrease in the numbers of early stage entrepreneurs noted that year (8.1% in 2003 to 7.7% in 2004).

This trend has now been reversed and is primarily being driven by a greater involvement of men in early stage entrepreneurial activity mainly as *nascent* but also as *new firm* entrepreneurs. Hence the gender gap has opened up again: there are 2.6 times as many men involved in early stage entrepreneurial activity in Ireland as women. In the previous year, the figure was 2.1 times as many men.

The majority of new businesses are very small and expect to remain so. This is reflected in the fact that almost three out of every four new entrepreneurs expect on average to need about €10,000 to set up their new business. The financing requirements of the remaining group of entrepreneurs (26% of all early stage entrepreneurs) are much more substantial: they estimate that they will need 25 times that amount (€250,000).

In 2005, a slight downward trend has been detected in the proportion of early stage entrepreneurs with high growth aspirations (10%). In 2004 it was 11%.¹¹ Notwithstanding this, the number of early stage entrepreneurs with high growth expectations is broadly similar in 2005.¹² This is as a result of an increase in the numbers involved in early stage entrepreneurship in 2005, despite a decline in the overall percentage of entrepreneurs with growth aspirations. This underlines the importance of maintaining a high level of new enterprises being started.

In the three years prior to the 2005 GEM adult population, 2.45% of adults in Ireland survey had personally provided funds for a new business started by someone else¹³. This level of informal investment activity is broadly in line with that detected in 2004 (2.28%). This means that the level of early stage

¹⁰ EU average 5.35% (16 countries).

¹¹ To facilitate a comparison with other participating countries, the 2004 figure has been recalculated to strip out any double counting of *nascent* and *new firm* entrepreneurs. This recalculated figure is slightly lower than the figure reported in the GEM 2004 Irish report.

¹² Approximately 25,000.

¹³ Excluding any purchase of stocks or mutual shares.

entrepreneurial activity increased in 2005 without any real increase in the number of informal investors. This would signal a particular difficulty with access to finance for those setting up new businesses in 2005.

The average rate of informal investors among the adult populations across the EU and OECD participating countries is 3.08%. This raises a concern for Ireland, as the early stage entrepreneurial activity in Ireland is higher than the average across these countries, yet the funds available from informal investors is less. A comparison across the more entrepreneurial of the OECD members emphasises the low level of such investment in Ireland.¹⁴

To facilitate readers who wish to see the results at a glance, tables have been prepared with all the relevant headline figures for Ireland and for each of the participating EU and OECD countries.¹⁵ These tables appear at the end of each section summarising the relevant headline results, appropriate to sections 1-5 inclusive.

Early stage entrepreneurship is primarily concerned with individuals and their individual decisions to set up new businesses. Those decisions are influenced by both the personal context of the individuals concerned and the broader political, economic and social environment in which they live and work.

There is little doubt that the general strength of the economy in recent years has provided many opportunities for new enterprises. This increase in early stage entrepreneurial activity reflected continued growth in the economy, buoyancy in consumer spending, and record employment growth.

Demographic factors such as the increase in the population, increased inward migration and the relative youth of the population have all

played a part in providing a context in which entrepreneurial activity has thrived.

Another significant contributor is Irish culture and social norms. These are very positively disposed towards entrepreneurs, their new ventures and entrepreneurship in general.

Difficulties for entrepreneurs in raising sufficient finance to meet their financial requirements were highlighted as weaknesses in the environment for entrepreneurs once again by the experts and entrepreneurs consulted as key informants in 2005. Issues around government policy, in particular the burden of compliance costs and local authority charges on new companies were also raised during the consultation process.

Entrepreneurs and experts consulted from locations outside the Dublin/mid East environs, mentioned deficiencies in the telecommunications infrastructure, the additional time and cost involved in travelling to meet customers, and the difficulties in finding a suitably skilled and *experienced* pool of labour. The point was frequently made, in particular by entrepreneurs who had set up knowledge based businesses, that there were excellent graduates coming from the nearby Institutes of Technology, but that the requirements of a small and young company is for personnel with experience, as the company cannot afford the time needed to bring a new graduate up the learning curve.

One of the unique features of GEM is the facility which it provides to compare countries with each other across a range of variables pertinent to entrepreneurship. This is made possible as the research is carried out in exactly the same way in each country and is coordinated by the Global Entrepreneurship Research Association (GERA), based in London Business School.

¹⁴ The 2003 GEM report for Ireland highlights the importance of immediate family, work colleagues, other family/relatives, friends/neighbours and employers in providing finance for Irish nascent entrepreneurs. This report is available for downloading from www.gemconsortium.org

¹⁵ European and OECD countries that participated in the GEM 2005 research were Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Mexico, New Zealand, Netherlands, Norway, Slovenia, Spain, Sweden, Switzerland, United Kingdom and the United States. The other countries that participated in the research in 2005 were Argentina, Brazil, Chile, China, Croatia, Jamaica, Jordan, Puerto Rico, South Africa, Thailand and Venezuela.

For the first time in this year's national report, short profiles of six countries are featured and their headline results from their GEM adult population surveys are compared with those of Ireland. The countries profiled in this way are Australia, Canada, Finland, Singapore, the United Kingdom and the United States. These profiles have been written by GEM team members in each country to a common template and their cooperation is gratefully acknowledged.

The Irish GEM team consulted over 70 leading experts and entrepreneurs during 2005 to obtain their views on the relative strengths and weakness of the Irish entrepreneurial environment. These key informants were also invited to suggest ways in which entrepreneurship in Ireland could be further developed. In all they made 158 suggestions. The majority of these related to government policy (58), aspects of the education and training sector in relation to entrepreneurial development (37) and Government programmes (25). Their views are reproduced in full in Section 8.

Across the countries of the OECD, a high level of early stage entrepreneurial activity is much sought after by policy makers generally, as it is recognised that from this pool of new businesses greater competitiveness, innovation and growth should flow. Accordingly, this improvement in Ireland's level of early stage entrepreneurial activity is to be welcomed. It is to be hoped that further improvements may take place in order to close the gap between Ireland and the most entrepreneurial of the OECD countries.

With this end in mind, on the basis of the GEM research and consultations in 2005, it is recommended that the following initiatives be taken to achieve the strategic imperative of creating a fully dynamic entrepreneurial environment:

- A national strategy and coordinated policy for entrepreneurship should be developed, which is focused on maintaining a high level of early stage entrepreneurial activity and on maximizing the number of innovative new enterprises that are created which are capable of high growth.
- Specific focus should be given to increasing the number of women involved in early stage entrepreneurial activity.
- The education sector should be harnessed in a systematic way across all levels and across all disciplines to increase entrepreneurial mindsets and to enhance the capacity of those who decide to become entrepreneurs.
- A greater coordination of capability building for entrepreneurs relevant to their needs and stage of development is needed and any gaps in the training available should be bridged.
- Measures should be taken to improve access and availability of finance for early stage entrepreneurs, particularly for those who require larger amounts of start up capital, by focusing on means of encouraging more informal/angel investment.
- Given the limitations of the Irish market, a wide range of early stage entrepreneurs should be assisted in the identification of customers overseas and in accessing export markets.
- New initiatives should be taken, where necessary, to further assist in the commercialisation of research out of the third level colleges.

Some examples of those who recently set up new businesses in Ireland are featured on the cover of this year's report and are profiled in Appendix 1.

PART ONE

SECTION 1

Entrepreneurship in Ireland in 2005

1.1 Introduction

GEM research shows that the numbers starting and planning new businesses increased significantly in 2005, reversing the decline of recent years. This increase in early stage entrepreneurial activity reflected continued growth in the economy, buoyancy in consumer spending and record employment growth.

The first signs of this increase were apparent in 2004 when GEM research first detected a considerable increase in the numbers of those who perceived that there were good opportunities in the environment for commercial exploitation.¹⁶ This increased level of opportunity perception among adults in Ireland has translated into a growth in the number of those who in 2005 were actively planning new businesses (*nascent* entrepreneurs) and in those who had recently established new ventures (*new firm* entrepreneurs). This increase in entrepreneurial activity is particularly marked among men.

This section examines in detail the numbers involved in entrepreneurial activity as *nascent*, *new firm* and *established* entrepreneurs in Ireland and compares this level of activity with that of other participating countries particularly within Europe and the OECD.

To facilitate readers who wish to see the results at a glance, tables have been prepared with all the relevant headline figures for Ireland and for each of the participating EU and OECD countries.¹⁷ These tables appear at the end of each section summarising the relevant headline results, appropriate to sections 1-5 inclusive.

1.2 Current Levels of Entrepreneurial Activity in Ireland

In Ireland in 2005, 9.8% of the adult population, or almost one in every ten, were actively planning or had recently established a new business. That is the equivalent of almost 250,000 individuals.¹⁸

Of this number 137,000 were *nascent* entrepreneurs and actively planning a new venture, while 112,000 were *new firm* entrepreneurs and had established a new business in the 42 months prior to the survey, that is between the beginning of 2002 and the summer of 2005.¹⁹

As Table 1 illustrates, the level of early stage entrepreneurial activity in 2005 represents a significant increase over the previous year with an increase in both *nascent* and *new firm* entrepreneurs.

¹⁶ The prevalence rate of opportunity recognition increased from 33% in 2003 to 45% in 2004.

¹⁷ European and OECD countries that participated in the GEM 2005 research were Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Japan, Latvia, Mexico, New Zealand, Netherlands, Norway, Slovenia, Spain, Sweden, Switzerland, United Kingdom and the United States. The other countries that participated in the research in 2005 were Argentina, Brazil, Chile, China, Croatia, Jamaica, Jordan, Puerto Rico, South Africa, Thailand and Venezuela.

¹⁸ If we strip out those that were planning a new venture related to agriculture, the figure still remains over 9.3% or over 233,000 people.

¹⁹ The adult population survey was conducted in June 2005 by Lansdowne Market Research Ltd.

Table 1: Early stage entrepreneurial activity 2004 and 2005

	Percentage of adult population		
	2004	2005	Change
Nascent entrepreneurs	4.4	5.7	+30%
New firm entrepreneurs	3.6	4.7	+31%
Total early stage entrepreneurially activity (TEA) ²⁰	7.7	9.8	+27%

In addition to those starting a new business, GEM research is able to identify the proportion of the adult population that are *established* entrepreneurs, that is those who have set up new businesses and paid wages or salaries for *more than 42 months* prior to the survey and who are still actively involved as owner/managers.²¹ Excluding those who are engaged in businesses based on agriculture, 6.3% of the adult population, or about 160,000 people in Ireland, can be described as *established* entrepreneurs. This is broadly in line with the 2004 finding.

1.3 How Does Ireland Compare with Other Countries?

Ireland maintained its leading position within Europe in terms of early stage entrepreneurial activity in 2005²² and began to close the gap on the most entrepreneurial of the OECD countries, particularly with regard the proportion of the adult population who were *new firm* entrepreneurs (Table 2).

Table 2: Early stage entrepreneurial activity across selected countries

	Nascent entrepreneurs	New firm entrepreneurs	Total early stage entrepreneurially activity (TEA) ²³
New Zealand	9.4%	10.0%	17.6%
United States	8.8%	5.2%	12.4%
Australia	6.5%	4.7%	10.9%
Iceland	8.5%	2.7%	10.7%
Ireland	5.7%	4.7%	9.8%
Canada	6.6%	3.6%	9.3%
Norway	4.4%	5.2%	9.2%

In terms of *established* entrepreneurs, the situation is quite different in that different countries are to the fore in this regard. Excluding those engaged in businesses based

on agriculture, of the countries with the highest numbers of *established* entrepreneurs namely Greece (10.5%), Australia (8.65%) and Sweden (8.29%), only is Australia to the fore in terms

²⁰ In some instances, the TEA is less than the combined percentages for *nascent* entrepreneurs and *new firm* entrepreneurs this is because in circumstances where respondents qualify as both a *nascent* and a *new firm* entrepreneurs they are counted only once.

²² EU average 5.35 (16 countries).

²¹ *Established* entrepreneurs refer only to those who originally set up an enterprise and are still involved in its ownership and management. This may cause GEM data to suggest prevalence rates lower than those suggested from other statistics in registered firms.

²³ In some instances, the TEA is less than the combined percentages for *nascent* entrepreneurs and *new firm* entrepreneurs. This is because in circumstances where respondents qualify as both a *nascent* and as a *new firm* entrepreneur they are counted only once.

of very high numbers of early stage entrepreneurs as well.

Ireland, with 6.3% of *established* entrepreneurs among its adult population, has a higher proportion of *established* entrepreneurs than has the US (4.5%) and is broadly at the same level as New Zealand (6.7%) and Canada (6.5%). It is suggested that the higher the ratio of established business owners to early stage entrepreneurs, the higher are the approximated chances of early stage entrepreneurs succeeding with their new business venture in the sense of surviving in the market for longer than 42 months²⁴.

In 2005, 2.25% of the adult population in

Ireland closed a business in the previous twelve months, which they had previously established. This is in line with the average across the participating OECD and EU countries combined (2.32%). When the focus is only on the participating EU countries the average rate across the EU is lower (1.78%).

1.4 Trend

In terms of early stage entrepreneurial activity in Ireland, 2005 was a very significant year, in that the upward swing in the numbers involved in early stage entrepreneurial activity reversed the downward trend that had been reported each year for the last three years (Table 3).

Table 3: Early stage entrepreneurial activity 2002 to 2005

	2002	2003	2004	2005
<i>Nascent</i> entrepreneurs	5.6%	5.1%	4.4%	5.7%
<i>New firm</i> entrepreneurs	4.2%	3.7%	3.6%	4.7%
Total early stage entrepreneurially activity (TEA) ²⁵	9.1%	8.1%	7.7%	9.8%

Across the countries of the OECD, a high level of early stage entrepreneurial activity is much sought after by policy makers generally, as it is recognised that from this pool of new businesses greater competitiveness, innovation and growth should flow. Accordingly, this

improvement in Ireland's level of early stage entrepreneurial activity is to be welcomed. It is to be hoped that further improvements may take place in order to close the gap between Ireland and the most entrepreneurial of the OECD countries.

²⁴ Global Entrepreneurship Monitor, 2005 Executive Report, Maria Minniti with William Bygrave and Erkkö Autio, Babson College and London Business School, January 2006. This report can be downloaded from www.gemconsortium.org

²⁵ In some instances, the TEA is less than the combined percentages for *nascent* entrepreneurs and *new firm* entrepreneurs this is because in circumstances where respondents qualify as both a *nascent* and a *new firm* entrepreneurs they are counted only once.

Table 4: Entrepreneurial activity across 25 selected countries

Country	<i>Nascent</i> Entrepreneurs (% of adult population)	<i>New Firm</i> Entrepreneurs (% of adult population)	Total early stage entrepreneurial activity ²⁶ (% of adult population)	Established Entrepreneurs ²⁷ (% of adult population)
New Zealand	9.4	10.0	17.6	6.7
US	8.8	5.2	12.4	4.5
Australia	6.5	4.7	10.9	8.6
Iceland	8.5	2.7	10.7	6.0
Ireland	5.7	4.7	9.8	6.3
Canada	6.6	3.6	9.3	6.5
Norway	4.4	5.2	9.2	7.3
Latvia	4.2	2.8	6.6	4.4
Greece	5.2	1.6	6.5	10.5
UK	3.4	2.9	6.2	4.7
Switzerland	2.6	3.7	6.1	8.3
Mexico	4.6	1.4	5.9	1.9
Spain	2.4	3.4	5.7	7.7
Germany	3.1	2.7	5.4	4.2
France	4.7	0.7	5.4	1.6
Austria	3.0	2.4	5.3	3.4
Finland	3.1	1.9	5.0	6.5
Italy	2.9	2.3	4.9	6.1
Denmark	2.4	2.4	4.8	4.0
Netherlands	2.5	1.9	4.4	4.8
Slovenia	3.0	1.4	4.4	6.3
Sweden	1.7	2.5	4.0	5.1
Belgium	2.9	1.2	3.9	4.7
Japan	1.1	1.1	2.2	5.4
Hungary	1.1	0.8	1.9	2.0

²⁶ In some instances, the TEA is less than the combined percentages for *nascent* entrepreneurs and *new firm* entrepreneurs. This is because in circumstances where respondents qualify as both a *nascent* and a *new firm* entrepreneur they are counted only once.

²⁷ These figures do not include those whose businesses are based on farming and agriculture.

SECTION 2

Who are the Entrepreneurs?

2.1 Introduction

This section examines Ireland's early stage entrepreneurs in terms of their personal characteristics, the factors influencing their attitudes towards entrepreneurship, and compares these with entrepreneurs who own and manage businesses that are longer established. Finally, the characteristics of Ireland's entrepreneurs are compared with those from other countries.

2.2 Personal Characteristics

2.2.1 Gender

Ireland's entrepreneurs are predominantly men. This is true for those engaged in early stage entrepreneurial activity (Table 5), and is even more pronounced among entrepreneurs with longer established businesses.²⁸

Table 5: Men and women as early stage entrepreneurs

	Nascent entrepreneurs	New firm entrepreneurs	Total early stage entrepreneurially activity ²⁹
Men	8.4%	6.8%	14.2%
Women	3.0%	2.7%	5.5%
Men and Women	5.7%	4.7%	9.8%

The increase detected by the GEM research in the levels of early stage entrepreneurial activity in 2005, is due to a very significant increase in the number of men active as early stage entrepreneurs in Ireland in 2005 (14.2%), compared to 2004 (10.4%).³⁰ This was particularly notable among those planning new businesses.³¹

those who are the owner managers of longer established businesses. Early stage entrepreneurs are most frequently to be found in the 25-34 age group, whereas established entrepreneurs are most frequent among the 45-54 age group (Table 6).

2.2.2 Age

Perhaps not surprisingly, there is a generation divide between early stage entrepreneurs and

²⁸ Among *established* entrepreneurs the male /female ratio is 3.1:1.

²⁹ In some instances, the TEA is less than the combined percentages for *nascent* entrepreneurs and *new firm* entrepreneurs this is because in circumstances where respondents qualify as both a *nascent* and a *new firm* entrepreneurs they are counted only once.

³⁰ In that year, it was noted that the proportion of men engaged had declined to 10.4% compared to 12.5% in 2003, while that of women increased to 5% compared to 3.7% in 2003.

³¹ Male *nascent* entrepreneurs increased among the adult population in Ireland in 2005 to 8.4% from 5.4% in 2004.

Table 6: Entrepreneurial activity by age cohort

(Percentage of population involved in early stage entrepreneurial activity in each age cohort)

Age	Early Stage Entrepreneurs	Established Entrepreneurs
18-24	8.0	0.5
25-34	14.4	4.8
35-44	10.3	9.8
45-54	8.7	14.7
55-64	4.4	11.8

2.2.3 Education

The more educated within the population tend to be involved in early stage entrepreneurial activity to a greater extent than are those who left the education system early (Table 7).

This is not the case for the longer established

and older entrepreneurs and reflects the improvement in the education attainment levels of the younger generation, and perhaps also reflects the greater attractiveness of entrepreneurship at present to those with higher educational qualifications, than was the case in the past.

Table 7: Entrepreneurial activity by educational attainment level

(Percentage of population involved in early stage entrepreneurial activity in each cohort)

Educational Attainment	Early Stage Entrepreneurs	Established Entrepreneurs
Some second level schooling	5.4	11.0
Completed secondary school	6.4	6.1
Post Leaving Cert studies	14.8	8.5
Post graduate studies	10.9	7.6

2.2.4 Work Status

There are less early stage entrepreneurs drawn from the ranks of the unemployed, retired, or

from among students. The majority of early stage entrepreneurs come from those working full or part time (Table 8).

Table 8: Entrepreneurial activity by work status

(Percentage of population involved in early stage entrepreneurial activity in each cohort)

Work Status	Early Stage Entrepreneurs
Working (full or part time)	12.1
Unemployed	5.4
Not participating in the labour market (retired/students)	2.5

2.2.5 Motivation

In Ireland four out of every five early stage entrepreneurs (81%) are actively pursuing new ventures by choice as they perceive a

commercial opportunity to be exploited rather than believing that they have no other meaningful choices available to them (Table 11 at end of section).

2.3 Factors Influencing an Individual's Involvement as an Entrepreneur

It is apparent that certain factors have a major influence on the likelihood that a particular individual may (or may not) become involved in early stage entrepreneurial activity. These relate in particular to their perception of opportunities within their environment, a belief in their own skills to be able to successfully start a new enterprise, their having recent entrepreneurs as role models within their personal network and a reduced reluctance to become involved in entrepreneurial activity through fear of failure.

For the first time, the perceptions of those involved in early stage entrepreneurial activity is reported for Ireland in relation to these factors and compared with those who are not active as entrepreneurs (Table 9). The contrast is remarkable.

Established entrepreneurs are also more positive than the general *non-entrepreneurial* population on each of these factors and are less daunted by fear of failure than are those newly engaged in entrepreneurial activity. In other respects, however, the difference is not as pointed as it is between the early stage entrepreneurs and those not active as entrepreneurs (Table 9).

Table 9: Personal perceptions of early stage entrepreneurs and those with no involvement in entrepreneurship

	Adult Population (18-64)	Early Stage Entrepreneurs	Established Entrepreneurs	No involvement in early stage or established entrepreneurship
Personally know an entrepreneur who started a business in the past two years (% yes)	43	88	67	36
Sees good start-up opportunities in the next six months in his/her area (% yes)	52	79	62	48
Has the required knowledge and skills to start a business (% yes)	50	89	84	42
Fear of failure would prevent from starting a business (% yes)	38	25	17	41

As one might expect, the perceptions of the adult population remained broadly similar in 2005 compared to 2004. The most significant change was the increase in the percentage of the adult population that perceived good start up opportunities. This increased from 45% in

2004 to 52%. The other factors all moved less markedly, but in the right direction to support continued high levels of early stage entrepreneurial activity levels among the adult population (Table 10).

Table 10: Personal perceptions of the adult population 2004 and 2005

	2004	2005
Personally know an entrepreneur who started a business in the past two years (% yes)	41	43
Sees good start-up opportunities in the next six months in his/her area (% yes)	45	52
Has the required knowledge and skills to start a business (% yes)	48	50
Fear of failure would prevent from starting a business (% yes)	39	38

2.4 How Ireland's Entrepreneurs Compare with Those from Other Countries

Across all countries men are involved in entrepreneurial activities to a greater extent than are women. In some of the more entrepreneurial countries, however, the gender gap is less pronounced than it is in Ireland. The extent and nature of the differences between men and women as early stage entrepreneurs is further examined in Section 5.

The pattern observed in respect of Irish early stage entrepreneurs in terms of age distribution (Table 12 at end of section), work status and educational attainment levels (Table 13) is not unique to Ireland, but is common across the other countries involved in the GEM research.³²

The relatively young age of early stage entrepreneurs has serious implications for countries with an aging population. Given the relative youth of Ireland's population compared to other Western European countries, this is a significant factor in understanding the underlying reasons for Ireland's strong performance in early stage

entrepreneurial activity compared to these other countries.

In terms of the personal context of the population, people in Ireland are particularly well placed in their perception of good opportunities for entrepreneurial initiatives (52%) being ranked third across the 25 participating EU and OECD countries in this regard³³ (Table 14 at end of section).

In respect of their having recent entrepreneurs among their personal networks (43%) and in respect of their belief in their being in possession of the necessary skills to start a new businesses (50%), Ireland's adult population is ranked 7th and 8th respectively across the EU and OECD countries.

Fear of failure as a deterrent to entrepreneurial involvement (38%) is more pronounced in Ireland than it is in the majority of the EU and OECD countries, even the much less entrepreneurial. In this regard, Ireland is ranked 16th out of 25 selected participating countries.

³² Global Entrepreneurship Monitor, 2005 Executive Report, Maria Minniti with William Bygrave and Erko Autio, Babson College and London Business School, January 2006. This report can be downloaded from www.gemconsortium.org

³³ Only in Denmark (66%) and Iceland (62%) are individuals among the adult population more alert to the presence of good opportunities for new enterprises.

Table 11: Motivation for early stage entrepreneurship across 25 selected countries

	Opportunity Motivation	Necessity Motivation
New Zealand	93%	7%
US	88%	12%
Australia	88%	12%
Iceland	95%	5%
Ireland	81%	19%
Canada	86%	14%
Norway	91%	9%
Latvia	83%	17%
Greece	85%	15%
UK	87%	13%
Switzerland	86%	14%
Mexico	82%	18%
Spain	86%	14%
Germany	71%	29%
France	56%	44%
Austria	85%	15%
Finland	86%	14%
Italy	83%	17%
Denmark	96%	4%
Netherlands	92%	8%
Slovenia	89%	11%
Sweden	85%	15%
Belgium	90%	10%
Japan	81%	19%
Hungary	60%	40%

Table 12: Age category for early stage and established entrepreneurs

	Early Stage Entrepreneurs (% of adult population)	Total early stage entrepreneurs					Established Entrepreneurs (% of adult population)	Established entrepreneurs				
		Age 18-24	Age 25-34	Age 35-44	Age 45-54	Age 55-64		Age 18-24	Age 25-34	Age 35-44	Age 45-54	Age 55-64
New Zealand	17.6	12.3	17.5	24.9	17.9	8.5	6.7	0.0	4.0	11.1	15.6	11.4
US	12.4	12.6	15.6	15.6	10.0	7.0	4.5	1.4	1.9	5.9	7.5	5.8
Australia	10.9	10.9	14.7	10.4	8.5	8.2	8.6	0.7	5.2	13.6	13.8	14.4
Iceland	10.7	5.5	11.8	17.0	9.0	5.6	6.0	1.4	4.5	8.9	13.0	9.0
Ireland	9.8	8.0	14.4	10.3	8.7	4.4	6.3	0.5	4.8	9.8	14.7	11.8
Canada	9.3	6.2	11.6	10.2	10.4	5.5	6.5	1.0	4.3	8.1	10.1	14.2
Norway	9.2	9.6	14.7	10.5	5.2	3.8	7.3	0.7	3.7	9.0	10.6	11.8
Latvia	6.6	8.5	9.0	9.1	4.2	1.2	4.4	1.3	3.5	8.9	6.8	3.4
Greece	6.5	1.2	7.3	9.0	8.5	4.1	10.5	10.5	4.7	9.3	19.9	9.4
UK	6.2	7.2	7.0	7.5	5.6	2.9	4.7	0.5	2.0	6.5	8.1	8.0
Switzerland	6.1	4.5	7.4	8.2	5.0	2.9	8.3	0.7	5.2	12.8	15.1	12.1
Mexico	5.9	3.7	7.3	7.5	6.8	2.5	1.9	0.0	1.3	3.7	4.0	1.8
Spain	5.7	4.8	6.6	7.1	4.6	3.9	7.7	6.1	7.9	8.7	8.2	6.6
Germany	5.4	5.3	8.3	6.3	4.7	1.5	4.2	0.7	3.8	4.7	5.2	5.2
France	5.4	2.9	5.0	7.1	6.2	4.4	1.6	0.4	1.9	2.0	3.5	3.3
Austria	5.3	3.5	8.5	5.3	4.1	3.2	3.4	0.4	2.8	5.3	4.9	4.6
Finland	5.0	1.7	8.7	6.2	4.2	2.6	6.5	0.6	4.5	11.3	12.7	10.5
Italy	4.9	3.8	10.2	5.6	1.3	1.0	6.1	0.5	4.5	9.9	8.8	5.6
Denmark	4.8	1.0	7.0	5.8	5.1	2.4	4.0	0.0	3.5	6.3	5.3	4.8
Netherlands	4.4	2.6	5.7	4.7	5.6	1.3	4.8	0.0	3.6	7.2	9.5	6.0
Slovenia	4.4	3.2	7.6	5.3	3.0	1.0	6.3	0.4	3.3	8.9	10.7	5.7
Sweden	4.0	3.6	6.1	5.0	4.1	0.7	5.1	0.0	4.9	7.6	8.0	8.2
Belgium	3.9	3.4	5.5	5.5	2.4	1.7	4.7	0.6	6.5	8.1	6.6	3.4
Japan	2.2	0.6	1.5	2.0	3.9	2.3	5.4	0.0	1.7	4.5	8.2	10.6
Hungary	1.9	1.0	2.9	1.8	2.0	1.1	2.0	0.7	2.1	3.0	2.7	0.9

³⁴ These figures do not include those whose businesses are based on farming and agriculture.

Table 13: Education attainment levels for early stage and established entrepreneurs

	Early Stage Entrepreneurs (% of adult population)	Total early stage entrepreneurs					Established Entrepreneurs (% of adult population)	Established entrepreneurs			
		Some second level schooling	Completed secondary school	Post Leaving Cert Studies	Post graduate studies	Some second level schooling		Completed secondary school	Post Leaving Cert Studies	Post graduate studies	
New Zealand	17.6	13	17	19	21	6.7	12	13	11	11	
US	12.4	12	11	13	14	4.5	2	3	4	8	
Australia	10.9	8	N/A	14	12	8.6	10	N/A	11	9	
Iceland	10.7	8	13	N/A	10	6.0	5	9	N/A	8	
Ireland	9.8	5	6	15	11	6.3	11	6	9	8	
Canada	9.3	7	7	9	12	6.5	6	5	7	10	
Norway	9.2	8	8	N/A	11	7.3	3	7	N/A	8	
Latvia	6.6	3	3	8	11	4.4	2	6	5	8	
Greece	6.5	3	7	9	8	10.5	9	13	11	4	
UK	6.2	5	5	5	8	4.7	5	4	7	5	
Switzerland	6.1	5	N/A	10	7	8.3	9	N/A	11	10	
Mexico	5.9	4	7	N/A	9	1.9	2	1	N/A	3	
Spain	5.7	5	5	N/A	7	7.7	7	8	N/A	8	
Germany	5.4	4	N/A	8	8	4.2	3	N/A	5	8	
France	5.4	5	5	N/A	7	1.6	0	2	N/A	3	
Austria	5.3	5	5	6	10	3.4	3	6	3	7	
Finland	5.0	4	3	3	9	6.5	9	3	10	9	
Italy	4.9	4	5	N/A	6	6.1	3	6	N/A	13	
Denmark	4.8	2	4	5	6	4.0	5	2	4	5	
Netherlands	4.4	1	4	7	6	4.8	7	6	6	5	
Slovenia	4.4	2	4	6	N/A	6.3	4	5	9	N/A	
Sweden	4.0	3	3	6	5	5.1	8	6	7	5	
Belgium	3.9	2	3	4	7	4.7	4	6	5	8	
Japan	2.2	2	2	2	3	5.4	4	4	4	9	
Hungary	1.9	2	2	5	1	2.0	2	3	4	4	

³⁵ These figures do not include those whose businesses are based on farming and agriculture.

Table 14: Personal context of population across 25 selected countries

	Early Stage Entrepreneurs (% of adult population)	Know an Entrepreneur (% YES)	Start-up Skills (% YES)	Good Opportunities (% YES)	Fear of Failure (% YES)
New Zealand	17.6	44	60	57	25
US	12.4	41	52	32	23
Australia	10.9	43	56	50	34
Iceland	10.7	60	47	62	43
Ireland	9.8	43	50	52	38
Canada	9.3	36	54	48	29
Norway	9.2	43	42	46	26
Latvia	6.6	53	38	36	41
Greece	6.5	27	45	16	62
UK	6.2	29	51	39	36
Switzerland	6.1	41	51	39	35
Mexico	5.9	37	46	33	28
Spain	5.7	32	48	38	49
France	5.4	45	36	22	52
Germany	5.4	39	41	17	51
Austria	5.3	41	46	29	46
Finland	5.0	48	36	47	34
Italy	4.9	31	32	15	25
Denmark	4.8	46	38	66	41
Netherlands	4.4	32	42	39	29
Slovenia	4.4	32	35	21	23
Sweden	4.0	48	45	45	40
Belgium	3.9	37	44	43	32
Japan	2.2	29	13	17	19
Hungary	1.9	25	15	10	20

SECTION 3

What Types of Businesses are Being Started?

3.1 Introduction

It is important to know not only the number but also the type and quality of the new businesses that are being started in Ireland, as the characteristics of this pool of new businesses will impact directly on the pace of growth and competitiveness of the indigenous sector in the future. Accordingly, this section focuses on the new enterprises that are being started and examines these separately in terms of their sector, current employment size, growth aspiration, export orientation, and degree of innovativeness.

3.2 Sector

Across participating countries in Europe and the OECD, GEM research shows that the greatest number of early stage entrepreneurs is focused on consumer services. It is interesting to note, however, that there is a lower proportion of early stage entrepreneurs with a consumer focus in the high income countries (44%), than is the case in middle income countries (60%). In high-income countries, businesses services are much more important

as a basis for new ventures (26%) than they are in middle income countries (11%).³⁶

While almost one third of early stage entrepreneurs in Ireland (31%) are focused on the consumer services sector, the proportion with this focus is less than is the case in many of the other EU and OECD countries (43%).³⁷

The principal focus in Ireland is on the transformative sector and within this on construction. With 36% of early stage entrepreneurs in Ireland focused on this sector, only in Iceland, across participating European and OECD countries, is there a higher proportion of early stage entrepreneurs with this focus.³⁸

Table 15 illustrates the year on year change within Ireland between 2004 and 2005 in terms of the sectoral distribution of new enterprises. Increases in business services and within the transformative sector are apparent, while there is less focus on the extractive and consumer services sectors.

³⁶ Commenting on this observed trend the authors of the 2005 GEM Executive Report make the observation that as countries progress in their development, entrepreneurial activity shifts away from consumer-oriented services, such as retail, and towards business services such as consulting, maintenance of computers, networks or advertising. The higher ratio of business services in high-income countries can be related to the availability of highly educated and qualified people that are able to provide business services. In addition, countries that are more advanced in their economic development also tend to have more companies that have the financial resources and the need to demand such services.

³⁷ In 2005, only in New Zealand is a smaller percentage of early stage entrepreneurs focused on this sector (26%).

³⁸ The average across the 25 selected countries is 24% and across the EU members countries is 25%.

Table 15: Sectoral distribution of early stage entrepreneurial activity 2004 and 2005

	2004	2005
Extractive Sectors ³⁹	11%	5%
Transformative Sectors ⁴⁰	30%	36%
Business Services ⁴¹	23%	28%
Consumer Services ⁴²	36%	31%
All sectors	100%	100%

3.3 Size

The existing base of businesses that are still owned and managed by their founders may be divided into two groups: those that were established in the 42 months prior to the GEM adult population survey (*new firm* entrepreneurs) and those that have been in existence for a longer period (*established* entrepreneurs).

In both cases over 80% of the entrepreneurs employ five people or less, underlying the fact that many businesses start small and will remain so. Growth is very much the exception. One would expect that businesses that are

longer established would employ more, and this is the case. But time of itself is not sufficient to ensure high growth, as only 6% of the longer established entrepreneurs employ more than 20 people (Table 16).

This is confirmed by the current annual average turnover figure (€130,000) of those who have recently set up in business (*new firm* entrepreneurs) and by their estimation of what their turnover will be in five years (€200,000). *Nascent* entrepreneurs, who are at an earlier stage of setting up a new business, tend to be a little more optimistic with regard to what the turnover will be in their first year of trading (€196,000) and in year five (€562,000).

Table 16: Numbers currently employed

	<i>New Firm</i> Entrepreneurs	<i>Established</i> Entrepreneurs
No jobs except that of the founder	36%	35%
1-5 jobs	52%	47%
6-19 jobs	9%	12%
20 or more jobs	3%	6%
	100%	100%

³⁹ Extractive Sectors include for example agriculture, forestry, fishing and mining.

⁴⁰ Transformative Sectors include construction, manufacturing, mining, transportation and wholesale distribution (physical transformation or relocation of goods and people).

⁴¹ Business Services – where the primary customer is another business.

⁴² Consumer Services – where the primary customer is a physical person (e.g. retail, restaurants and bars, lodging, health, education, social services and recreation).

In 2004, 4.3% of *new firm* entrepreneurs already employed more than 20 at the time of the survey. This percentage has declined to 3.4% in 2005. As the absolute number of *new firm* entrepreneurs increased in 2005, however, the number of those who employ more than 20 is broadly similar for both periods (3,800).⁴³

3.4 Growth Aspirations

Reflecting the diversity of entrepreneurs and of the new enterprises that they are setting up, there is a range of aspirations that early stage entrepreneurs have for their fledgling businesses. Almost one in four (24%) expect to

remain as sole traders with no one employed in the new business except themselves over the next five years⁴⁴, while the majority (76%) expect to generate sufficient turnover to justify the employment of others.

The great majority of entrepreneurs, however, expect that their businesses will remain very small, and in five years time will be employing five people or less. Only a very small proportion of early stage entrepreneurs or those with businesses longer established (*established* entrepreneurs) expect to employ more than 20 people in the next five years (10%) (Table 17).

Table 17: Anticipated employment in five years time

	Early Stage Entrepreneurs	Established Entrepreneurs
No jobs except that of the founder	24%	28%
Any employment growth	76%	72%
20 or more jobs	10%	9%

Early stage entrepreneurs with high growth aspirations are quite clearly a rare phenomenon. This is true not only in Ireland but internationally. Only 9% of all early stage entrepreneurs, across the EU and the OECD, expect on average to employ 20 or more. Their importance, however, is out of all proportion to their numbers, as they are responsible for creating up to 80% of the total jobs generated by all early stage entrepreneurs.⁴⁵

In 2005, a slight downward trend has been detected in the proportion of early stage

entrepreneurs with high growth aspirations (10%). In 2004, this proportion was 11%.⁴⁶ Notwithstanding this, the number of early stage entrepreneurs with high growth expectations is broadly similar in 2005.⁴⁷ This is as a result of an increase in the numbers involved in early stage entrepreneurship in 2005, despite a slight decline in the overall percentage of entrepreneurs with growth aspirations. This underlines the importance of maintaining a high level of new enterprises being started.

3.5 Export Orientation

Given the limited size of the home market, a

⁴³ It should be noted that the figure of 3,800 does not refer to the number of new businesses that have been started between the beginning of 2002 and the summer of 2005, but rather to the number of new firm entrepreneurs involved. Based on GEM research which identifies the numbers of new firm entrepreneurs involved as sole founders and the proportion who have established new businesses in teams of two or more, it is estimated that approximately 2,600 new businesses started during this period would already employ twenty or more.

⁴⁴ In 2004, the proportion of early stage entrepreneurs expecting to remain as sole traders over the following five year period was slightly lower (22.3%). In 2005 the *number* of early stage entrepreneurs is higher and consequently there are greater numbers in each of the growth categories, even though the *proportion* of early stage entrepreneurs in these categories decreased.

⁴⁵ High expectation entrepreneurship is special chapter written by Erko Autio in the GEM 2005 Executive report (pages 45 to 48 inclusive). See also the special topic GEM Report on High Expectation Entrepreneurship, 2005 written by Erko Autio and available for download from www.gemconsortium.org

⁴⁶ To facilitate a comparison with other participating countries, the 2004 figure has been recalculated to strip out any double counting of *nascent* and *new firm* entrepreneurs. This recalculated figure is slightly lower than the figure reported in the GEM 2004 Irish report.

⁴⁷ Approximately 25,000.

characteristic of high growth entrepreneurs in Ireland is often their greater degree of export orientation. As with high growth entrepreneurs in general, the number of entrepreneurs with significant export aspirations is relatively small. In 2005, 9% of the identified early stage entrepreneurs expected to have more than half of their customers in export markets. This represents a decline on the 2004 when 14% of early stage entrepreneurs indicated that they had aspirations to be significant exporters.⁴⁸

Focusing just on those who have recently set up a new business (*new firm* entrepreneurs), it is apparent that while the majority of these (57%) have no exports as yet, 12% already have very significant exports with more than 75% of their customers in export markets.

3.6 Innovativeness

To assess the degree of innovation involved in

the ventures being proposed by early stage entrepreneurs or those already started by established entrepreneurs, GEM asks the entrepreneur to assess the degree of novelty of the product/service to the customer, the intensity of the expected competition and the novelty of the technology or process involved.

As is evident from Table 18 entrepreneurs offering very innovative products or services are relatively rare in Ireland: but occur more frequently among early stage entrepreneurs than among *established* entrepreneurs. This holds true for all countries independent of the average level of per capita income in that country.⁴⁹ Across the 25 countries selected for comparison purposes in this report, products or services that are new to all customers are a feature of just 12% of early stage entrepreneurs and 8% of established entrepreneurs. While those offering products or services with which their customers would be well familiar are 60% and 73% respectively.

Table 18: Degree of novelty of products/services offered

	Early Stage Entrepreneurs	Established Entrepreneurs
New to no customers	54%	81%
New to some customers	33%	14%
New to all customers	14%	5%
	100%	100%

Similarly, most entrepreneurs expect to face many competitors in the market: very few expect to face no existing competition for their product or service. More of those who consider themselves first into the market are early stage entrepreneurs than established entrepreneurs (Table 19). The difference between the two groups may partially reflect a higher innovative potential of those who are just starting out with a new business idea, but

it may also reflect overly optimistic expectations of early stage entrepreneurs that is based on limited market knowledge.⁵⁰

⁴⁸ One has to treat these numbers with a degree of caution as the numbers of significant exporters detected in the sample was very small. They represented 0.9% of the adult population in 2005 compared to 1.08% in 2004.

⁴⁹ Global Entrepreneurship Monitor, 2005 Executive Report, Maria Minniti with William Bygrave and Erko Autio, Babson College and London Business School, January 2006. This report can be downloaded from www.gemconsortium.org

⁵⁰ Global Entrepreneurship Monitor, 2005 Executive Report, Maria Minniti with William Bygrave and Erko Autio, Babson College and London Business School, January 2006. This report can be downloaded from www.gemconsortium.org

Table 19: Intensity of competition

	Early Stage Entrepreneurs	Established Entrepreneurs
Many businesses offer the same product/service	39%	59%
Some businesses offer the same product/service	46%	35%
No businesses offer the same product/service	15%	6%
	100%	100%

Another important indicator of the innovativeness of a business concerns the technologies and production processes that it utilises. Usually new technologies and production processes are associated with a better utilisation of resources, higher quality of routine tasks and higher productivity.

Early stage entrepreneurs employ new technology to a much greater extent than do established businesses. Notwithstanding, more entrepreneurs from both groups employ well-established technology than apply technology with any degree of novelty to their products and processes (Table 20).

Table 20: Degree of novelty of the technology

	Early Stage Entrepreneurs	Established Entrepreneurs
No new technology	62%	82%
New technology (1-5 years)	25%	13%
Very latest technology (less than 1 year old)	13%	5%
	100%	100%

Irish early stage entrepreneurs, however, would appear on average to be more innovative with regard to their product offering, and as a consequence the competitors to be faced, than

is the case across the 25 selected countries. The proportion using the latest technology is, however, slightly less (Table 21).

Table 21: Significant innovation by early stage entrepreneurs in selected countries

	Product/process new to all customers	No businesses offer the same product/service	Uses very latest technology
New Zealand	18%	15%	10%
United States	14%	11%	15%
Australia	12%	17%	11%
Iceland	13%	18%	14%
Ireland	14%	15%	12%
Canada	14%	11%	11%
Average across 25 selected countries	12%	10%	18%

For each of these indicators of significant innovativeness, entrepreneurs that are longer established are less innovative than early stage entrepreneurs. This is true across the 25 selected countries as it is in Ireland. Established

entrepreneurs in Ireland, however, are at or below the average across the 25 selected countries on this range of significant innovation indicators (Table 22).

Table 22: Significant innovation by established entrepreneurs in selected countries

	Product/process new to all customers	No businesses offer the same product/service	Uses very latest technology
New Zealand	7%	7%	6%
United States	4%	6%	3%
Australia	5%	10%	5%
Iceland	3%	7%	5%
Ireland	5%	6%	5%
Canada	6%	6%	2%
Average across 25 selected countries	8%	6%	13%

Table 23: Sectoral distribution of early stage entrepreneurial activity in 25 selected countries
(Percentage of all early stage entrepreneurs)

	Extractive Sectors	Transformative Sectors	Business Services	Consumer Services
New Zealand	13	30	30	27
US	4	30	23	43
Australia	7	24	25	44
Iceland	11	43	18	28
Ireland	5	36	28	31
Canada	32	82	6	43
Norway	6	27	35	32
Latvia	10	25	22	43
Greece	1	22	8	69
UK	3	27	31	39
Switzerland	8	21	26	45
Mexico	1	13	14	72
Spain	0	24	26	50
Germany	4	20	31	45
France	14	22	21	43
Austria	4	17	37	42
Finland	10	28	35	27
Italy	1	24	22	53
Denmark	6	24	40	30
Netherlands	5	25	28	42
Slovenia	1	32	36	30
Sweden	8	18	32	42
Belgium	7	17	32	44
Japan	0	17	36	47
Hungary	6	16	23	55

Table 24: Sectoral distribution of established entrepreneurial activity in 25 selected countries
(Percentage of all established entrepreneurs)

	Extractive Sectors	Transformative Sectors	Business Services	Consumer Services
New Zealand	22	31	17	30
US	3	38	30	29
Australia	10	37	26	27
Iceland	20	39	27	14
Ireland	22	39	22	17
Canada	13	26	30	31
Norway	28	27	24	21
Latvia	15	34	43	8
Greece	0	32	62	6
UK	6	37	27	30
Switzerland	16	27	35	22
Mexico	6	3	82	9
Spain	0	31	46	23
Germany	12	27	38	23
France	28	12	43	17
Austria	12	25	35	28
Finland	28	28	21	23
Italy	7	25	43	25
Denmark	10	32	32	26
Netherlands	16	26	37	21
Slovenia	2	50	24	24
Sweden	18	29	27	26
Belgium	17	22	40	21
Japan	0	34	34	32
Hungary	2	40	44	14

Table 25: Expected employment growth in 25 selected countries

	Early stage entrepreneurial activity	Any employment growth	High growth expectation (expecting 20 or more jobs within 5 years of start-up)	Any employment growth	High growth expectation (expecting 20 or more jobs within 5 years of start-up)
	% of adult population	% of adult population	% of adult population	% of all early stage entrepreneurs	% of all early stage entrepreneurs
New Zealand	17.6	12.0	1.4	69	8
US	12.4	10.5	1.4	84	11
Australia	10.9	7.7	1.0	71	9
Iceland	10.7	8.8	0.9	82	8
Ireland	9.8	7.5	1.0	76	10
Canada	9.3	8.3	1.6	89	18
Norway	9.2	6.6	0.7	71	8
Latvia	6.6	4.2	1.3	64	19
Greece	6.5	5.8	0.1	90	1
UK	6.2	4.8	0.7	77	11
Switzerland	6.1	4.7	0.6	77	10
Mexico	5.9	3.2	0.1	53	1
Spain	5.7	5.1	0.2	91	3
Germany	5.4	3.5	0.5	65	9
France	5.4	4.0	0.4	75	7
Austria	5.3	3.7	0.7	69	13
Finland	5.0	3.7	0.1	74	2
Italy	4.9	3.7	0.3	75	5
Denmark	4.8	3.6	0.6	75	12
Netherlands	4.4	3.4	0.3	78	6
Slovenia	4.4	3.1	0.6	71	14
Sweden	4.0	3.0	0.5	74	12
Belgium	3.9	2.6	0.2	67	4
Japan	2.2	1.8	0.2	80	8
Hungary	1.9	1.6	0.3	83	14

Table 26: Significant export aspirations in 25 selected countries

	Early stage entrepreneurs	Greater than 50% of sales expected outside country	
		Intensive exporters	Intensive exporters
	% of adult population	% adult population	% of all early stage entrepreneurs
New Zealand	17.6	0.77	4
US	12.4	1.46	12
Australia	10.9	0.7	16
Iceland	10.7	1.43	13
Ireland	9.8	0.90	9
Canada	9.3	1.48	16
Norway	9.2	1.13	12
Latvia	6.6	0.70	11
Greece	6.5	1.05	16
UK	6.2	0.51	8
Switzerland	6.1	0.39	6
Mexico	5.9	0.11	2
Spain	5.7	0.57	10
Germany	5.4	0.37	7
France	5.4	0.87	16
Austria	5.3	0.54	10
Finland	5.0	0.13	3
Italy	4.9	0.17	3
Denmark	4.8	0.39	8
Netherlands	4.4	0.34	8
Slovenia	4.4	0.65	15
Sweden	4.0	0.07	2
Belgium	3.9	0.53	13
Japan	2.2	0.06	3
Hungary	1.9	0.08	4

Table 27: Novelty of product/service in 25 selected countries

	Total early stage entrepreneurs			Established entrepreneurs		
	New to all customers %	New to some customers %	New to no customers %	New to all customers %	New to some customers %	New to no customers %
New Zealand	18	20	62	7	17	76
US	14	25	61	4	16	80
Australia	12	24	64	5	16	79
Iceland	13	28	59	3	24	73
Ireland	14	33	54	5	14	81
Canada	14	36	50	6	29	65
Norway	19	22	59	6	16	78
Latvia	8	36	56	4	14	82
Greece	6	25	69	30	19	51
UK	13	29	58	6	20	74
Switzerland	15	27	58	6	21	73
Mexico	12	34	54	11	35	54
Spain	15	26	59	12	21	67
Germany	10	34	56	8	21	71
France	3	46	51	3	25	72
Austria	10	34	56	11	15	74
Finland	13	31	56	7	25	68
Italy	7	24	69	7	16	77
Denmark	21	32	47	13	21	66
Netherlands	18	12	70	8	12	80
Slovenia	15	33	52	6	16	78
Sweden	8	21	71	4	17	79
Belgium	11	24	65	11	21	68
Japan	0	45	55	4	25	71
Hungary	6	17	77	2	18	80

Table 28: Intensity of expected competition in 25 selected countries

	Total early stage entrepreneurs			Established entrepreneurs		
	Many businesses offer same product %	Few businesses offer same product %	No businesses offer same product %	Many businesses offer same product %	Few businesses offer same product %	No businesses offer same product %
New Zealand	31	54	15	50	43	7
US	42	47	11	59	35	6
Australia	38	45	17	53	37	10
Iceland	49	33	18	61	32	7
Ireland	39	46	15	59	35	6
Canada	40	49	11	59	34	6
Norway	42	41	17	59	33	7
Latvia	59	36	5	77	15	8
Greece	76	24	0	77	22	1
UK	40	44	16	59	37	4
Switzerland	53	36	11	65	31	4
Mexico	64	32	4	55	37	8
Spain	65	28	7	70	25	5
Germany	51	44	4	71	26	3
France	49	39	12	68	23	9
Austria	53	32	14	78	17	5
Finland	56	36	8	75	19	6
Italy	65	28	7	70	28	2
Denmark	48	39	13	63	31	6
Netherlands	52	36	12	58	32	10
Slovenia	44	42	14	62	34	4
Sweden	50	45	5	55	38	7
Belgium	65	32	3	63	33	4
Japan	82	15	3	77	20	3
Hungary	81	14	5	81	16	3

Table 29: Newness of technology or process in 25 selected countries

	Total early stage entrepreneurs			Established entrepreneurs		
	Uses very latest technology %	Uses new technology (1-5 year) %	Uses no new technology %	Uses very latest technology %	Uses new technology (1-5 year) %	Uses no new technology %
New Zealand	10	24	66	6	9	85
US	15	18	67	3	12	85
Australia	11	19	70	5	7	88
Iceland	14	18	68	5	7	88
Ireland	12	29	59	5	13	82
Canada	10	27	63	2	9	89
Norway	27	15	58	24	11	65
Latvia	17	20	63	17	10	73
Greece	47	27	26	36	26	38
UK	18	21	61	7	14	79
Switzerland	17	17	66	7	10	83
Mexico	32	13	55	22	6	72
Spain	2	9	89	6	0	94
Germany	10	20	70	3	8	89
France	23	17	60	10	12	78
Austria	6	12	82	5	9	86
Finland	16	11	72	16	10	74
Italy	8	13	79	10	11	79
Denmark	7	17	76	3	5	92
Netherlands	11	10	79	3	10	87
Slovenia	12	21	67	2	9	89
Sweden	9	6	85	3	10	87
Belgium	59	17	24	98	2	0
Japan	12	31	57	9	16	75
Hungary	33	0	67	19	0	81

SECTION 4

Finance

4.1 Introduction

This section focuses on the average amount of money that an entrepreneur needs to start a new business in Ireland, the proportion that the entrepreneur plans to contribute him/herself and the residual amount that needs to be found from other sources. This gap between the finance requirements of the new business and the entrepreneur's own contribution is potentially bridged by additional equity raised from a variety of possible sources including informal investors, formal business angels, venture capital, development agencies and/or by grants and/or by debt financing.

This section uses data derived from the GEM adult population to estimate the amount of financing required for the new business, and the extent of the funding to be provided by the entrepreneur him/herself from their own resources, and by informal investors, composed of family, friends and *foolhardy* strangers. Data from Venture Capital Associations is used to determine the amount and extent of classic venture capital involved in seed and early stage investment⁵¹.

As in previous years, the experts and entrepreneurs consulted point to problems associated with early stage financing continuing, with a shortage of funding from

informal investors and formal business angels being particularly marked.

4.2 Amount of Money Needed to Start a New Business

In 2005, the average amount that early stage entrepreneurs estimated that they required to start a new business in Ireland was just over €23,000⁵² and on average they were anticipating finding 50% (€11,500) of this requirement from their own resources. When the focus is just on those who have recently set up new businesses (*new firm* entrepreneurs) the average amount that they required to start their new businesses was €25,000, of which they invested €14,000 themselves, leaving a funding need of €11,000 or 44% of the amount required.⁵³

Section 3.3 highlighted the point that the majority of new businesses are very small and expect to remain so. This is reflected in the fact that almost three out of every four new entrepreneurs expect on average to need about €10,000 to set up their new business. The financing requirements of the remaining group of entrepreneurs (26% of all early stage entrepreneurs) are much more substantial: they estimate that they will need 25 times that amount (€250,000).

Table 30: Financing requirement of new businesses

	All early stage entrepreneurs	Those needing less than €100,000	Those needing more than €100,000
	Median	Median	Median
Total required	€23,000	€10,000	€250,000
Proportion of all early stage entrepreneurs	100%	74%	26%

⁵¹ The latest figures available from the Venture Capital Associations relate to 2004.

⁵² All averages referred to in this section are medians.

⁵³ It should be noted, however, that the number of new firm entrepreneurs in the sample is quite small.

4.3 Entrepreneurs' Own Contribution

There is a clear divide in the contributions being made by those whose new business are less capital intensive than those that require

more initial funding. The later group of entrepreneurs, while needing more money, have proportionately less of their own money to invest in the new venture and their requirement for outside funding is accordingly much greater (Table 31).

Table 31: Entrepreneurs' personal financial contribution to their new businesses

	All early stage entrepreneurs	Those needing less than €100,000	Those needing more than €100,000
	Median	Median	Median
Total required	€23,000	€10,000	€250,000
Invested from own sources	€11,500	€6,000	€58,500
Invested from own sources (%)	50%	60%	23%

Regardless of the level of their own investment, virtually all entrepreneurs expect to make a profit on their investment, whereas only 50% of the informal investors expect to make a profit.

4.4 Informal Investment

Emphasising the importance of informal investment as a source of finance for new businesses, William D. Bygrave, writing in the 2005 GEM Executive Report, highlights the fact that, in each of the countries that participated in GEM research in 2005, informal investment exceeded classic venture capital as the main source of capital for start-up companies. He points out that even in the US, the world leader in venture capital, business angels fund 100 times as many high-tech, seed-stage companies as do venture capital firms.

The majority of informal investors are family and friends. In Ireland, early stage entrepreneurs describe just 2% of those that they would approach to become informal investors as *strangers*.⁵⁴ This is reflected in the fact that 30% of informal investors in Ireland do not expect to get their money back and

only half (50%) expect to make a profit on their investment (Table 34 at end of section).

In the three years prior to the 2005 GEM adult population, 2.45% of adults in Ireland had personally provided funds for a new business started by someone else.⁵⁵ This level of informal investment activity is broadly in line with that detected in 2004 (2.28%). This means that the level of early stage entrepreneurial activity increased in 2005 from 7.7% the previous year, to 9.8%, without any real increase in the number of informal investors. This would signal a particular difficulty with access to finance for those setting up new businesses in 2005.

The average rate of informal investors across the EU and OECD participating countries is 3.08% of the adult population. This raises a concern for Ireland as the early stage entrepreneurial activity in Ireland is higher than the average across these countries, yet the funds available from informal investors is less. A comparison across the more entrepreneurial of the OECD members emphasises the low level of such investment in Ireland (Table 32).

⁵⁴ GEM 2003: The Irish Report, Paula Fitzsimons and Colm O'Gorman available for download on www.gemconsortium.org. It should be noted, however, that a significantly higher percentage of informal investors describe the entrepreneurs, in whose business they are investing, as being a *stranger* to them (15%).

⁵⁵ Excluding any purchase of stocks or mutual shares.

Table 32: Informal investment and early stage entrepreneurial activity in selected countries

	New Zealand	US	Australia	Iceland	Ireland	Canada	Norway
Early stage entrepreneurial activity (% of adult population)	17.6	12.4	10.9	10.7	9.8	9.3	9.2
Informal investment (% of adult population)	5.0	3.9	3.4	6.5	2.4	4.1	5.9

It is very significant, however, given the focus of the activity in which new entrepreneurs are engaged that 44% of the informal investors indicate that they are investing in new businesses in the transformative sector, which includes construction and manufacturing, where as just 8% have invested in business

services (Table 33). This would suggest that entrepreneurs in business services, which tend to be less asset based, attract fewer informal investors that do entrepreneurs in more traditional, asset based sectors and consequently their early stage financing difficulties may be greater.

Table 33: Focus of early stage entrepreneurs and informal/business angel investment

	Early stage entrepreneurs (%)	Informal investment (%)
Extractive Sectors ⁵⁶	5	16
Transformative Sectors ⁵⁷	36	44
Business Services ⁵⁸	28	9
Consumer Services ⁵⁹	31	31
All sectors	100	100

4.5 Venture Capital

Early stage companies that seek and/or secure VC funding are a rare breed. In Ireland they tend to be high tech, R&D intensive, and export oriented companies that are perceived to be capable of very high growth. According to a study conducted by UCD on behalf of the Irish Venture Capital Association, (IVCA),⁶⁰ in 2004 87% of all VC investment was in high technology companies. The proportion of the funds that are directed to high technology

sectors within Ireland is slightly higher than within the US (82%), and considerably higher than in Europe.⁶¹ According to the IVCA report, Irish VC investment in Ireland has the highest technology weighting in Europe, where the average is 17% with only four countries investing greater than 50% in high technology companies.

In 2004, although the amount of VC investment increased in Europe at a faster rate (22%)⁶² than it did in the US (11%),⁶³ the US

⁵⁶ Extractive Sectors include for example agriculture, forestry, fishing and mining.

⁵⁷ Transformative Sectors include construction, manufacturing, mining, transportation and wholesale distribution (physical transformation or relocation of goods and people).

⁵⁸ Business Services – where the primary customer is another business.

⁵⁹ Consumer Services – where the primary customer is a physical person (e.g. retail, restaurants and bars, lodging, health, education, social services and recreation).

⁶⁰ The Economic Impact of Venture Capital in Ireland, published by the Irish Venture Capital Association in February 2006, in association with InterTradeIreland's EquityNetwork.

⁶¹ It is important to note, however, that the European Venture Capital Association includes buy out capital in its overall statistics for venture capital, whereas the US National Venture Capital Association excludes buy out capital. Moreover, European, VC investment is directed at consumer related companies than is the case within the US.

⁶² \$10.2 billion in 2003 to \$12.5 billion in 2004.

⁶³ \$18.9 billion in 2003 to \$21 billion in 2004.

continued to dominate the world in terms of the total amount of venture capital invested and the amount invested per company across all sectors.

According to the IVCA annual review,⁶⁴ the level of investment in 2004 by Irish VCs into Irish companies was €61 million. This compares with €255 million in 2003. While the 2003 figure reflects €176 million of MBOs, the review states that a 23% fall in investment levels in 2004 is disappointing. In addition, the review notes that international VCs invested €113 million in 2004 into Irish based companies. According to the Chairman of the IVCA⁶⁵, this reflects the strong performance of Irish companies in attracting international investors, particularly in their later investment rounds.

Of the total VC invested in Ireland in 2004, 46% was into start up and early stage companies compared to a European average of 23%. While a higher percentage of VC investment was in early stage companies in 2004, reflecting the reduction in the overall level of VC investment in that year, the actual amount invested in early stage companies declined as did the average amount invested per company.⁶⁶

The concentration on early stage companies is partially explained by the shortage of business

angels to invest in the earliest stages of new venture creation and development, as would be the norm elsewhere, including the US. In this way, classical venture capital has to some extent been plugging a financing gap for a small number of early stage technology companies, given the shortage of other early stage investors.

VC investment, however, may not necessarily be the most suitable investment for companies at the earliest stages of development given the VCs need to provide an exit strategy for its investment in a relatively short timeframe. Given the lacklustre performance of IPOs as an exit mechanism, described as *IPO market angst* by the President of the US National Venture Capital Association,⁶⁷ VC backed companies continue to rely on the mergers and acquisitions market as an exit mechanism, with VC firms often finding themselves in the position of having to support their portfolio companies longer than they might have originally intended.

⁶⁴ Published June 2005.

⁶⁵ Desmond Fahey.

⁶⁶ VCs in Ireland invested €28 million in 48 start-ups in 2004 compared to €33million in 106 start-ups in 2003. That represents an average of €1.7 million invested per company in 2004, compared to €3.2 million in 2003. Source: IVCA Review, June 2005.

⁶⁷ The US National Venture Capital Association (NVCA) President, Mark Heesen, speaking in Washington, D.C on December 12, 2005, about his predictions for the Venture Capital industry in 2006. The NVCA represents approximately 450 venture capital and private equity firms in the US and its mission is to foster greater understanding of the importance of venture capital to the U.S. economy, and to support entrepreneurial activity and innovation.

Table 34: Informal venture capital activity in 25 selected counties

	Informal Venture Capital Activity (% of adult population)	Expect to get back at least own investment (% of informal investors)	Expect to make a profit (% of informal investors)
Iceland	6.50	77%	47%
Norway	5.98	80%	41%
New Zealand	5.07	81%	43%
Canada	4.17	70%	70%
Switzerland	4.12	76%	76%
US	3.98	61%	54%
Mexico	3.95	N/A	N/A
France	3.62	71%	51%
Australia	3.47	69%	27%
Finland	3.46	85%	51%
Belgium	3.11	88%	49%
Latvia	2.91	56%	46%
Greece	2.63	91%	49%
Spain	2.46	75%	32%
Ireland	2.45	71%	50%
Denmark	2.38	88%	41%
Sweden	2.34	59%	62%
Italy	2.27	94%	27%
Germany	2.12	79%	51%
Hungary	2.05	78%	35%
Netherlands	2.01	74%	43%
Slovenia	1.92	88%	71%
Austria	1.79	68%	28%
UK	1.65	70%	28%
Japan	0.81	93%	62%

SECTION 5

Women and Entrepreneurship

5.1 Introduction

In 2004, GEM detected for the first time an increase in the number of women nascent entrepreneurs that is in those actively planning new businesses. In 2005, while no further real growth in the numbers of women active as entrepreneurs took place, the improvement noted in the previous year has been sustained.

This section outlines the number of women early stage entrepreneurs that there are in Ireland, examines whether there are differences between men and women entrepreneurs across a range of personal characteristics and in terms of the factors that influence their perceptions of entrepreneurship, and compares the gender differences apparent in Ireland with a range of other countries.⁶⁸

5.2 Number of Women Entrepreneurs in Ireland

There are about 70,000 women involved in early stage entrepreneurship in 2005. That is the equivalent of 5.5% of the adult population of women aged 18 to 64 inclusive in the country. This compared with 5.0% in 2003, which was a year of substantially increased involvement by women in early stage entrepreneurial activity, as the rate the previous year was just 3.7%.

Early stage entrepreneurial activity is made up of those in the advanced stages of planning to

set up a new business (*nascent* entrepreneurs) and of those who have recently set up a new business (*new firm* entrepreneurs).⁶⁹ The increase noted in 2004, was primarily among women *nascent* entrepreneurs. Interestingly in 2005, the increase is primarily in the number of women *new firm* entrepreneurs (from 1.9% in 2004 to 2.7% in 2005). This is a very positive development. Accordingly, 34,250 women have recently set up a new business in Ireland.

In the 2004 GEM national report, a narrowing of the gender gap was noted for two reasons: there was an increase in the number of women involved in early stage entrepreneurial activity and a decrease in the number of men involved. While the increase in the number of women involved was most welcome, the decrease in the number of men involved was disappointing and was the cause of the overall decrease in the numbers of early stage entrepreneurs noted that year (8.1% in 2003 to 7.7% in 2004).

This trend has now been reversed and is being primarily being driven by a greater involvement of men in early stage entrepreneurial activity mainly as *nascent* but also as *new firm* entrepreneurs. Hence the gender gap has opened up again: there are 2.6 times as many men involved in early stage entrepreneurial activity in Ireland as women.⁷⁰ In the previous year, the figure was 2.1 times as many men.

⁶⁸ The 2004 GEM report also examined the personal characteristics of women entrepreneurs and the type of businesses that women are setting up, their growth aspirations and export orientation. To arrive at these figures three years data was combined together to increase the number of women entrepreneurs identified on which to base the analysis. The reader is referred to this earlier report for detailed information of this nature.

⁶⁹ In the 42 months prior to the GEM adult population survey which was conducted in June 2005.

⁷⁰ The average across the EU participating countries is twice (2.0) as many men as women involved in early stage entrepreneurial activity.

In total there are 180,000 men involved in early stage entrepreneurial activity. That is equivalent to 14.2% of the male adult

population aged between 18 and 64 inclusive. 8.4% are *nascent* entrepreneurs and 6.8% are *new firm* entrepreneurs (Table 35).

Table 35: Early stage entrepreneurs by gender 2005 and 2004

	2004		2005		Change 2005 on 2004	
	Men	Women	Men	Women	Men	Women
<i>Nascent</i> entrepreneurs	5.6%	3.4%	8.4%	3.0%	+50%	-12%
<i>New firm</i> entrepreneurs	5.3%	1.9%	6.8%	2.7%	+28%	+42%
Total early stage entrepreneurial activity	10.4%	5.0%	14.2%	5.5%	+37%	+10%

GEM research in 2005 indicates for the first time the number of established entrepreneurs by gender. That is those who set up and have run their own businesses for many years.⁷¹ There are 12.3% of the male adult population that fall into this category compared to just 3.9% women. The gender gap between men and women in this regard is even more pronounced than it is between those more recently engaged as entrepreneurs. There are 3.1 times more men than women *established* entrepreneurs.

5.3 Factors Influencing Entrepreneurial Behaviour

GEM research has demonstrated that the personal characteristics of individuals have a bearing on whether a person is more or less likely to be engaged in early stage

entrepreneurial activity.⁷² These relate in particular to a heightened perception of opportunities within their environment, a belief in their own skills to be able to successfully start a new enterprise, their having recent entrepreneurs as role models within their personal network and a reduced reluctance to become involved in entrepreneurial activity through fear of failure.

These characteristics are not evenly distributed among men and women in the adult population, however, and in all instances these characteristics are less prevalent among adult women in the population than they are among men (Table 36). This fact goes some of the way to explaining the lower level of women's involvement in early stage entrepreneurial activity.

Table 36: Personal context of the adult population by gender

	All Adult Men	All Adult Women
Perception of opportunities	58%	44%
Belief in own skills	59%	39%
Know a recent entrepreneur	52%	33%
Fear of failure would prevent involvement in entrepreneurial activity	34%	42%

In every instance, the personal context of adult men significantly improved in 2005, compared to 2004, across all the key variables, as did their engagement in early stage entrepreneurial

activity. With women, a significant increase is noticeable only with regard to their perception of opportunity (Table 37).

⁷¹ Longer than 42 months prior to the survey.

⁷² See Section 2.3 of this report.

Table 37: Personal context of the adult population by gender 2004 and 2005

	2004		2005		Change 2005 on 2004	
	Men	Women	Men	Women	Men	Women
Perception of opportunities	48%	37%	58%	44%	+21%	+18%
Belief in own skills	52%	37%	59%	39%	+13%	+5%
Know a recent entrepreneur	45%	30%	52%	33%	+16%	+10%
Fear of failure would prevent involvement in entrepreneurial activity	33%	39%	34%	42%	+3%	+8%

Several of the key informants interviewed suggested that the lack of supports for women, particularly in the area of childcare supports, also has a negative impact on the involvement of women in entrepreneurial activity.

5.4 How Does Ireland Compare?

In every country it is evident that women are less involved in entrepreneurial activity than are men. The average early stage entrepreneurship rate across the 25 selected countries is 8.9% of adult men compared to 4.6% of adult women. The participation rate of women relative to men is 56%. Among established entrepreneurs, the participation rate of women relative to men is even less (51%).

Irish women, however, are relatively less involved in entrepreneurship than are women on average across the 25 selected countries. Irish women have a participation rate relative to men of 39% for new firm entrepreneurs and 32% for established entrepreneurs. These ratios are at the lower end of the gender ratios across the 25 countries (Table 39).

It is clear from Table 38 that the level of early stage entrepreneurial activity among Irish men in 2005 is more or less on a par with the most entrepreneurial of the OECD countries, except New Zealand, which is very far ahead of the group. Hence an increase in the number of women involved in early stage entrepreneurial activity would make a major impact on bringing the level of early stage entrepreneurial activity in Ireland into line with the most entrepreneurial of the OECD countries.

Table 38: Early stage entrepreneurial activity by gender in selected countries
(percentage of adult population aged 18-64 inclusive)

	Men	Women	Total early stage entrepreneurially activity
New Zealand	21.7	13.7	17.6
United States	15.2	9.6	12.4
Australia	14.7	7.5	10.9
Iceland	14.8	6.4	10.7
Ireland	14.2	5.5	9.8
Canada	13.1	5.6	9.3

Table 39: Early stage and established entrepreneurial activity by gender in 25 selected countries

	Early stage entrepreneurs			Established entrepreneurs		
	Men (% of adult population)	Women (% of adult population)	Participation ratio: participation of females relative to males (per 100)	Men (% of adult population)	Women (% of adult population)	Participation ratio: participation of females relative to males (per 100)
New Zealand	21.7	13.7	63%	13.8	8.0	58%
US	15.2	9.6	63%	6.0	3.3	56%
Australia	14.2	7.6	53%	12.1	7.1	59%
Iceland	14.8	6.4	43%	9.0	5.5	61%
Ireland	14.2	5.5	39%	12.3	3.9	32%
Canada	13.1	5.6	42%	9.7	5.1	52%
Norway	13.9	4.5	32%	10.1	4.4	43%
Latvia	8.5	5.0	59%	6.6	3.6	55%
Greece	9.7	3.4	35%	11.4	9.6	85%
UK	8.7	3.7	43%	8.1	2.1	26%
Switzerland	7.3	4.9	67%	11.9	7.6	64%
Mexico	7.4	4.5	62%	3.1	0.8	25%
Spain	7.2	4.2	58%	8.7	6.7	76%
Germany	6.9	3.8	55%	6.0	2.4	39%
France	7.4	3.3	45%	2.8	1.8	65%
Austria	6.9	3.7	53%	5.1	2.6	50%
Finland	5.5	4.4	80%	12.4	4.7	38%
Italy	6.2	3.7	60%	9.2	3.6	40%
Denmark	6.4	3.1	48%	6.6	2.1	32%
Netherlands	6.6	2.1	32%	7.4	3.9	54%
Slovenia	5.8	2.9	50%	8.7	3.8	43%
Sweden	5.1	3.0	59%	8.7	3.9	45%
Belgium	5.4	2.4	45%	7.2	4.0	56%
Japan	3.2	1.2	38%	7.7	3.1	41%
Hungary	1.4	2.4	172%	2.1	2.0	94%

Table 40: Nascent entrepreneurs and new firm entrepreneurs by gender across 25 selected countries

	Nascent entrepreneurs			New firm entrepreneurs		
	Men (% of adult population)	Women (% of adult population)	Participation ratio: participation of females relative to males (per 100)	Men (% of adult population)	Women (% of adult population)	Participation ratio: participation of females relative to males (per 100)
New Zealand	10.1	8.7	86%	14.0	6.3	45%
US	11.3	6.3	56%	5.8	4.7	81%
Australia	8.7	4.2	48%	5.7	3.7	65%
Iceland	12.2	4.7	39%	3.7	1.7	47%
Ireland	8.4	3.0	36%	6.8	2.7	39%
Canada	9.3	3.8	41%	4.9	2.3	47%
Norway	7.3	1.4	19%	7.0	3.3	47%
Latvia	5.4	3.0	56%	3.5	2.1	61%
Greece	8.9	1.5	17%	1.0	2.2	212%
UK	4.6	2.3	51%	4.3	1.5	34%
Switzerland	3.0	2.3	79%	4.7	2.8	60%
Mexico	5.6	3.7	67%	1.9	0.8	44%
Spain	2.9	1.9	67%	4.4	2.3	53%
Germany	3.8	2.4	64%	3.8	1.6	43%
France	6.7	2.7	40%	0.7	0.6	86%
Austria	4.0	2.1	53%	3.2	1.6	49%
Finland	3.3	3.0	89%	2.3	1.5	63%
Italy	4.0	1.9	46%	2.7	1.8	69%
Denmark	3.3	1.6	49%	3.4	1.5	44%
Netherlands	3.7	1.3	35%	3.0	0.9	30%
Slovenia	3.9	2.1	53%	1.9	0.9	47%
Sweden	1.8	1.6	91%	3.7	1.4	37%
Belgium	4.0	1.8	46%	1.6	0.7	44%
Japan	1.4	0.7	47%	1.8	0.5	30%
Hungary	0.8	1.4	167%	0.6	1.0	178%

Table 41: Personal context of adult population by gender in 25 selected countries

	Know a recent entrepreneur		Perceive good opportunities		Possess relevant skills		Fear of failure would inhibit entrepreneurial activity	
	Males (%)	Females (%)	Males (%)	Females (%)	Males (%)	Females (%)	Males (%)	Females (%)
New Zealand	51	36	61	52	72	47	21	29
US	46	37	42	23	61	44	20	25
Australia	43	42	53	47	64	49	30	39
Iceland	64	57	66	58	57	36	39	47
Ireland	52	33	58	44	59	39	34	42
Canada	38	34	52	44	62	45	27	30
Norway	50	36	52	40	50	33	26	26
Latvia	60	46	39	34	42	35	41	42
Greece	30	24	23	11	58	32	60	62
UK	35	24	45	33	62	40	34	38
Switzerland	47	35	44	33	61	42	30	40
Mexico	41	34	34	32	48	43	26	31
Spain	34	29	40	36	49	47	45	52
Germany	44	33	22	12	50	32	46	57
France	52	39	26	17	46	26	47	56
Austria	46	35	33	25	53	38	40	51
Finland	55	40	50	43	47	25	27	41
Italy	40	22	17	12	41	23	24	26
Denmark	54	38	67	65	48	28	40	42
Netherlands	38	25	41	37	55	28	27	31
Slovenia	38	26	22	20	42	29	21	24
Sweden	54	43	52	39	57	32	34	45
Belgium	43	30	44	41	55	35	29	34
Japan	32	27	17	16	18	9	20	17
Hungary	27	24	10	11	17	12	16	23

SECTION 6

The Environment for Entrepreneurship

6.1 Introduction

Early stage entrepreneurship is primarily concerned with individuals and their individual decisions to set up new businesses. Those decisions are influenced by both the personal context of the individuals concerned and the broader political, economic and social environment in which they live and work.

This section examines the environment for entrepreneurship in Ireland focusing on the strengths within that environment and the areas that are perceived as being in need of improvement.

6.2 What's Good?

There is little doubt that the general strength of the economy in recent years has provided many opportunities for new enterprises. Demographic factors such as the increase in the population, increased inward migration and the relative youth of the population have also all played a part in providing a context in which entrepreneurial activity has thrived.

Another significant contributor is Irish culture and social norms. These are very positively disposed towards entrepreneurs, their new ventures and entrepreneurship in general.

This is evidenced by the responses to the GEM adult population survey which enquired whether in the opinion of those interviewed entrepreneurship was a good career choice,

whether successful entrepreneurs were held in high regard and whether the media pays a lot of attention to entrepreneurs. The responses to these questions, when combined into a cultural index, ranks Ireland the highest in this regard across all the countries participating in the GEM survey in 2005⁷³ (Table 35 at the end of this section). The media in particular are perceived by 83% of the adult population to regularly profile entrepreneurs and their new ventures. This view of the media is equalled only by Iceland and is well ahead of the next ranked country New Zealand (76%).

The entrepreneurs and experts consulted as key informants, as a separate part of the GEM research, also mentioned positive factors around culture and social norms three times more frequently than any other factor when asked to indicate strengths in the Irish environment for entrepreneurship.⁷⁴ Availability of role models and the communication of their success in the media, rising national self confidence, and the development of a *get up and go* mentality were mentioned again and again by those consulted.

In this regard several of the key informants noted a change that had taken place in recent years to what would have been the position previously. A shift in the public's attitude to entrepreneurs, a much lower level of begrudgerly and a lower fear of failure were highlighted. One key informant summed up the change that has taken place in this way:

⁷³ In 2004 Canada (2.30) was very slightly ahead of Ireland (2.27) on this index, but Ireland (2.33) has passed out Canada (2.14) in this regard in 2005. Second to Ireland on the cultural index in 2005 was Iceland (2.16).

⁷⁴ Factors surrounding culture and social norms made up one third (60) of the 179 positive mentions made by the key informants. The next highest mentions related to the development agencies (18).

I think culturally, self-employment is now viewed in a much more positive and respectful fashion than 10-15 years ago. The State also provides a broader range of financial, fiscal and soft supports than ten years ago. Indeed, people almost started a business in the 1980s "in spite of" the environment. This is in stark contrast to the situation today.

Those entrepreneurs and key informants that mentioned the development agencies, in terms of strengths in the entrepreneurial environment, mentioned in particular Enterprise Ireland and the County Enterprise Boards.⁷⁵

Government policy was also mentioned in a positive light, particularly in terms of an improved reward balance through fiscal policies in recent years.⁷⁶

6.3 What Needs Improving?

Drawing on the findings of the GEM adult population survey, Section 4 highlighted the difficulties with regard to the level of informal investment in 2005. Given the importance of informal investment and the fact that the pervasiveness of informal investors in Ireland is low by international standards, and did not increase in line with the increased level of entrepreneurial activity, finding sufficient start up capital would have been particularly difficult for entrepreneurs in 2005.⁷⁷

The entrepreneurs and experts consulted in Ireland as part of the GEM research also cited issues surrounding access and availability of finance most frequently in terms of weaknesses in the Irish entrepreneurial environment.⁷⁸

Difficulties for entrepreneurs in raising sufficient finance to meet their financial requirements are not unique to Ireland, however. When asked specific questions about the financial environment, entrepreneurs and experts consulted across the EU and OECD countries were united in not being very positive about the prevailing conditions within their countries. This was true across the more entrepreneurial of these countries, as well as the less entrepreneurial of them. The exception was the United States.

Issues around government policy, in particular the burden of compliance costs and local authority charges on new companies were mentioned frequently by entrepreneurs and experts in terms of weaknesses in the Irish entrepreneurial environment.⁷⁹

Key informants, from locations outside the Dublin/Mid East environs, mentioned deficiencies in the telecommunications infrastructure, the additional time and cost involved in travelling to meet customers, and the difficulties in finding a suitably skilled and *experienced* pool of labour. The point was frequently made, particularly by entrepreneurs with knowledge based businesses, that there were excellent graduates coming from the nearby Institutes of Technology, but that the requirements of a small and young company is for personnel with experience, as the company cannot afford the time needed to bring a new graduate up the learning curve.

⁷⁶ 17 of 179 strengths identified.

⁷⁷ The annual GEM report for 2003 highlights the importance of immediate family, work colleagues, other family /relatives, friends/ neighbours and employers in providing finance for Irish nascent entrepreneurs. This report is available for downloading from www.gem-consortium.org

⁷⁸ 40 of 202 weakness identified.

⁷⁹ 22 of 202 weaknesses identified.

Table 42: Cultural context for entrepreneurial activity in 25 selected countries

	Entrepreneurship is considered a good career choice (% yes)	Successful entrepreneurs are held in high regard (% yes)	There are often stories in the public media about successful entrepreneurs (% yes)	GEM Cultural Index (Low 1 to High 3)
Ireland	69	79	83	2.33
Iceland	62	72	83	2.16
Canada	69	71	74	2.14
New Zealand	61	73	76	2.14
Latvia	58	75	70	2.07
Netherlands	79	66	58	2.02
Norway	63	66	73	1.99
Finland	37	86	69	1.93
Belgium	67	72	48	1.88
UK	54	73	55	1.85
US	59	61	63	1.84
Australia	53	71	56	1.78
Switzerland	52	74	50	1.75
Mexico	55	61	56	1.73
Germany	56	75	42	1.73
Spain	71	60	41	1.72
Sweden	52	62	55	1.69
Austria	40	70	59	1.69
Greece	64	66	38	1.67
France	61	64	37	1.63
Japan	32	52	53	1.48
Denmark	44	73	30	1.48
Italy	47	50	26	1.08
Slovenia	33	46	33	1.03
Hungary	36	35	20	0.88

PART TWO

SECTION 7

Profiles of Selected Other Countries at a Glance

7.1 Introduction

One of the unique features of GEM is the facility which it provides to compare countries with each other across a range of variables pertinent to entrepreneurship. This is made possible as the research is carried out in exactly the same way in each country and is coordinated by the Global Entrepreneurship Research Association (GERA), based in London Business School.

For the first time in this year's national report, short profiles of six countries are featured and

their headline results from their GEM adult population surveys are compared with those of Ireland. The countries profiled in this way are Australia, Canada, Finland, Singapore, the United Kingdom and the United States. These profiles have been written by GEM team members in each country to a common template and their cooperation is gratefully acknowledged. Other country summaries, together with the global executive report, special topic reports and a range of national reports may be found on www.gemconsortium.org.

7.2 Australia⁸⁰

Level of Entrepreneurial Activity

- Australia's early-stage business participation rate (early-stage entrepreneurship index) has fallen to 10.9% (from 13.4% in 2004). This decline coincides with decreased business confidence, although Australia still remains amongst the top ten of GEM participating nations when compared on this measure.
- Reversing the trend of the last two years, female early-stage business participation has dropped markedly from 11% to 7.6%. This means that now for every ten men participating in early-stage business activities there are a little less than five women.
- Business angel activity has increased by 0.8% this year. This coincides with an improvement in the ratio of activity motivated by opportunity and by necessity: this suggests that the quality of start-ups in 2005 may be better than in 2004.

Unique National Features

- The decline in the early-stage business participation rate is largely accounted for by a reduction in female participation. This suggests that the type of businesses being commenced by females may be more susceptible to changes in business confidence.
- In Australia, the relative levels of full and part-time participation on the part of business owners reflect the average score of this year's GEM nations. The nation's comfortable lifestyle is often said to be an inhibitor to the creation of high growth businesses. One may expect that part time business

ownership would feature more strongly in Australia – this was not the case.

- On measures of innovation, Australia again displays a higher propensity toward competitor differentiation with 40% of business owners falling into the medium category and 14% indicating a high score. On measures of newness to customer and adoption of new technologies, more than 70% of Australian business owners reported low scores in each area.

Key Issues

- Much of government policy on entrepreneurship centres on generating innovation through science and technology. There is little evidence of success in diffusion policies where start-ups, young and established businesses readily seek out and adopt new technologies or create new products and services for customers and markets.
- Australia remains below the GEM average (on the reports of the key informants) on measures of education in entrepreneurship and the start-up and growth of new firms, in all education sectors from primary through to higher education.
- The sustained high levels of participation in entrepreneurship could be well supported by policy measures that not only encourage innovation in the business sector but drive ambitions and intentions beyond thinking domestically or even growing exports and toward the creation of a business environment that thinks and acts as global players on a world stage.

⁸⁰ The Irish GEM team gratefully acknowledges the co-operation of the members of the Australian GEM team, particularly Dr. Kevin Hindle, of the Australian Graduate School of Entrepreneurship, Swinburne University of Technology, who wrote this summary.

Table 43: Headline results Australia and Ireland**Entrepreneurial Activity** (% of the adult population)

	Australia	Ireland
Nascent entrepreneurs	6.5	5.7
New firm entrepreneurs	4.7	4.7
Total early stage entrepreneurial activity	10.9	9.8
Established business owners	9.6	8.1
Indication of entrepreneurial plans in the short term (over the next 3 years)	15.0	12.6

Entrepreneurial Activity 2003-2005 averages (% of adult population)

	Australia	Ireland
Average early stage rate 2003-2005	12.0	8.5
Average established rate 2003-2005	9.5	7.1

Entrepreneurial Activity by Gender

	Australia	Ireland
Participation rates of female/male new firm entrepreneurs	65%	39%

Growth expectation (% of adult population)

	Australia	Ireland
High growth expectation (20 or more jobs within 5 years)	1.01	0.98

Informal investors (% of adult population)

	Australia	Ireland
Informal Investors	3.47	2.45

Personal context of the adult population (% responded yes)

	Australia	Ireland
Perceive good opportunities in the environment for entrepreneurial activity	50	52
Personal belief in own relevant skills	56	50
Personally know a recent entrepreneur	43	43
Fear of failure would inhibit involvement in entrepreneurial activity	34	38

Cultural attributes of the adult population (% responded yes)

	Australia	Ireland
Entrepreneurship is considered a good career option	53	69
Successful entrepreneurs are held in high esteem	71	79
Entrepreneurship receives a lot of media coverage	56	83

7.3 Canada⁸¹

Level of Entrepreneurial Activity

- For the second consecutive year, early stage entrepreneurial activity in Canada has increased; this year from 8.9% to 9.3%. This means that 1,912,000 adults from 18-64 years of age were actively creating a business or were the owner/manager of a new one for duration of 42 months or less.
- This increase in entrepreneurship in Canada was modest compared to that observed in the USA where the early-stage entrepreneurship increased from 11% to 12.4%, which represents a 13% year-over-year increase.
- The increase in early-stage entrepreneurial activity is explained primarily by the number of *nascent* entrepreneurs and not by the number of *new firm* entrepreneurs. The business start-up rate improved from 6.0% in 2004 to 6.6% in 2005, and the young enterprise rate was stable at 3.6%.
- It is noteworthy that the increase in business starts was not associated with a decrease in business closures, which bodes well for the underlying economic vitality. In both 2004 and 2005, only 2% of respondents indicated that they had closed their enterprise.
- Entrepreneurial initiatives are being supported by a significant increase in financial resources from informal investors: the proportion of informal investors increased from 2.7% to 4.2%

in 2005, a year-over-year increase of 55%.

Unique National Features

- The increase in entrepreneurial activity is explained primarily by the initiatives of immigrants. Comparing 2004 to 2005, early-stage entrepreneurship increased from 10.1% to 13.5% for immigrant Canadians, whilst the trend was stable for all Canadians, that is, from 8.7% to 8.4%.
- Gender differences were evident. The entrepreneurial activity of women decreased slightly from 6.4% to 5.5%, whilst it increased for men from 10.1% to 13.1%.
- It is estimated that 1,400,000 Canadians were actively creating a social enterprise.
- The western regions of the country were twice as entrepreneurial as the eastern regions. The entrepreneurial rate was 11% in the western provinces, but only 10% in Ontario, 9% in Quebec, and 4% in the Maritime Provinces.

Key Issues

- Wealth and entrepreneurship are distributed inequitably across Canadian provinces. Consequently, more efforts and support are needed in the regions that are less entrepreneurial in order to enhance the entrepreneurial context.

⁸¹ The Irish GEM team gratefully acknowledge the co-operation of the members of the Canadian GEM team, particularly Dr. Nathaly Riverin and Dr. Louis-Jacques Filion of HEC-Montréal who wrote this summary.

Table 44: Headline results Canada and Ireland**Entrepreneurial Activity** (% of the adult population)

	Canada	Ireland
Nascent entrepreneurs	6.6	5.7
New firm entrepreneurs	3.6	4.7
Total early stage entrepreneurial activity	9.3	9.8
Established business owners	7.4	8.1
Indication of entrepreneurial plans in the short term (over the next 3 years)	14.6	12.6

Entrepreneurial Activity 2003-2005 averages (% of adult population)

	Canada	Ireland
Average early stage rate 2003-2005	8.7	8.5
Average established rate 2003-2005	6.3	7.1

Entrepreneurial Activity by Gender

	Canada	Ireland
Participation rates of female/male new firm entrepreneurs	47%	39%

Growth expectation (% of adult population)

	Canada	Ireland
High growth expectation (20 or more jobs within 5 years)	1.63	0.98

Informal investors (% of adult population)

	Canada	Ireland
Informal Investors	4.17	2.45

Personal context of the adult population (% responded yes)

	Canada	Ireland
Perceive good opportunities in the environment for entrepreneurial activity	48	52
Personal belief in own relevant skills	54	50
Personally know a recent entrepreneur	36	43
Fear of failure would inhibit involvement in entrepreneurial activity	29	38

Cultural attributes of the adult population (% responded yes)

	Canada	Ireland
Entrepreneurship is considered a good career option	69	69
Successful entrepreneurs are held in high esteem	71	79
Entrepreneurship receives a lot of media coverage	74	83

7.4 Finland⁸²

Level of Entrepreneurial Activity

- Early stage entrepreneurial activity in Finland has been quite stable since the down turn experienced in most countries in 2002. In 2005, early-stage entrepreneurial activity was 5.0% indicating an increase of 0.6% over the previous year. In relation to the other Nordic countries Finland is positioned in the middle with a slightly higher early-stage entrepreneurship index than Denmark and Sweden.
- Female entrepreneurial activity has increased in Finland for the last five years narrowing the female/male ratio to 0.8. This places Finland amongst the top six GEM nations in female/male ratio in 2005. This outturn is in marked contrast to the year 2000 when Finland had the greatest gender imbalance in early stage entrepreneurial activity of the ten countries participating in GEM research at that time.
- While the level of necessity-based entrepreneurial activity has increased slightly in Finland, it remains remarkably low at only 0.6% of the population. The ratio between opportunity and necessity index is six to one.

Unique National Features

- Nearly half of Finnish entrepreneurial activity is part-time entrepreneurship, i.e. individuals are engaged in starting a business as an extra source of income (or as a main source of income, but with less than 38 hours a week). Globally, the share of part-time activity is higher only in Sweden, Belgium and Mexico. Another feature is that about half of the *nascent* and *new firm entrepreneurs* prefer multiple-ownership. These may be ways of reducing entrepreneurial risk.
- Finland scores very low in high-potential

entrepreneurial activity. Only two out of one hundred entrepreneurially active individuals expect to employ at least 20 employees within the next 5 years. With this figure Finland falls behind all Nordic and all GEM European countries except for Greece.

Key Issues

- Despite of the low level of entrepreneurial activity, Finland is amongst the most optimistic of GEM nations, in respect to seeing favourable business opportunities, and scores highly when it comes to personally knowing recent entrepreneurs. Furthermore, the media offer plenty of examples of entrepreneurial success stories and fear of failure is not perceived as a major barrier to entrepreneurship. Moreover, new businesses are respected in the society (Finland ranks top amongst GEM countries in this regard).
- The low level of entrepreneurial activity in Finland might be related to personal motivation and the capacity for starting a business. Only in three countries (out of the 35 participating in 2005) did individuals consider a new business to be a less desirable career choice than they do in Finland. Finland also ranks low in personal assessment of entrepreneurial capacity: only about one-third of the adult population perceives that they possess the knowledge, skills and experience required to start a new business.
- Based on GEM results it seems that more emphasis could be put in Finnish entrepreneurship policy on such measures that would increase the desirability of entrepreneurship and enterprise growth.

⁸² The Irish GEM team gratefully acknowledge the co-operation of the members of the Finnish GEM team, particularly Tommi Pukkinen of Turku School of Economics and Business Administration, who wrote this summary.

Table 45: Headline results Finland and Ireland**Entrepreneurial Activity** (% of the adult population)

	Finland	Ireland
Nascent entrepreneurs	3.1	5.7
New firm entrepreneurs	1.9	4.7
Total early stage entrepreneurial activity	5.0	9.8
Established business owners	8.6	8.1
Indication of entrepreneurial plans in the short term (over the next 3 years)	6.2	12.6

Entrepreneurial Activity 2003-2005 averages (% of adult population)

	Finland	Ireland
Average early stage rate 2003-2005	5.4	8.5
Average established rate 2003-2005	9.2	7.1

Entrepreneurial Activity by Gender

	Finland	Ireland
Participation rates of female/male new firm entrepreneurs	63%	39%

Growth expectation (% of adult population)

	Finland	Ireland
High growth expectation (20 or more jobs within 5 years)	0.09	0.98

Informal investors (% of adult population)

	Finland	Ireland
Informal Investors	3.47	2.45

Personal context of the adult population (% responded yes)

	Finland	Ireland
Perceive good opportunities in the environment for entrepreneurial activity	47	52
Personal belief in own relevant skills	36	50
Personally know a recent entrepreneur	48	43
Fear of failure would inhibit involvement in entrepreneurial activity	34	38

Cultural attributes of the adult population (% responded yes)

	Finland	Ireland
Entrepreneurship is considered a good career option	37	69
Successful entrepreneurs are held in high esteem	86	79
Entrepreneurship receives a lot of media coverage	69	83

7.5 Singapore⁸³

Level of Entrepreneurial Activity

- Early-stage entrepreneurial activity in Singapore increased from 5.7% in 2004 to 7.2% in 2005 and has risen from a low of 4.2% in 2000. Singapore's rate is now above the mean for OECD member states (6.8%).
- While men are still more likely to be involved in entrepreneurial activities than women, the gender gap has begun to narrow. The rate of female involvement has risen by 50% from 3.4% in 2004 to 5.1% in 2005, whilst male overall involvement has risen by only 17% from 8.2% in 2004 to 9.6% in 2005.
- Consistent with previous years, opportunity entrepreneurship accounts for the majority of entrepreneurial activities in 2005 (83.8%). However, the rate of necessity entrepreneurship has doubled from 0.6% of the general population in 2004 to 1.2% in 2005.
- With about 1 in 5 new start-ups expecting to create high levels of employment, Singapore is amongst the top nations for high growth potential entrepreneurial activities.

Unique National Features

- The prevalence of informal investors has been on an upward trend since 2003, with a rate of 3.5% in 2005 as compared to 2.7% in 2004. In the last two years, Singapore's business angel prevalence rate has been above the GEM global average. Given the positive economic outlook and growth in the country's R&D sectors, it likely that informal investments will continue to rise to provide financing support for the development of new start-ups. The key challenge for policy makers is to enhance the level of professionalism and expertise of the business angel community so that they are better

equipped to invest in high-risk and high growth ventures.

Key Issues

- Experts rated cultural attitudes towards entrepreneurship slightly higher in 2005 than in previous years. This appears to reflect the success of efforts to leverage education and training in order to foster entrepreneurial mindsets. Policy makers have made significant changes to the education curriculum at the primary, secondary and tertiary levels to mould the young generation to be less risk averse and more enterprising. However, it will take time for these policy changes to make a significant impact on society's attitudes towards entrepreneurship. As revealed in the 2005 survey, the prestige of entrepreneurship in Singapore is rated slightly below the GEM global average.
- The effectiveness of R&D transfer is the third lowest rated entrepreneurship framework condition in Singapore. This concern is addressed by several recent policy initiatives that emphasize R&D as a national priority. The government recently announced an increase in total public sector R&D budget from just under S\$5 billion (€2.58 billion)⁸⁴ for 2001-2005 to almost S\$12 billion (€6.19 billion) for 2006-2010, including S\$5 billion (€2.58 billion) committed to the new National Research Foundation. A high-level Research, Innovation and Enterprise Council (RIEC) will also be set up to foster innovation for growth and job creation. These developments provide promising opportunities for high-tech start-ups and knowledge-based ventures. It will be important to ensure that these resources are channeled effectively to eligible recipients in order to boost their technological and internationalization capabilities.

⁸³ The Irish GEM team gratefully acknowledges the co-operation of the members of the Singapore GEM team, particularly Associate Professor Dr. Poh Kam Wong, Lena Lee and Yeun Ping Ho of the National University of Singapore, Entrepreneurship Centre, who wrote this summary.

⁸⁴ Conversion rate of 1 SGD to €0.516128.

Table 46: Headline results Singapore and Ireland**Entrepreneurial Activity** (% of the adult population)

	Singapore	Ireland
Nascent entrepreneurs	3.9	5.7
New firm entrepreneurs	3.7	4.7
Total early stage entrepreneurial activity	7.2	9.8
Established business owners	4.7	8.1
Indication of entrepreneurial plans in the short term (over the next 3 years)	17.0	12.6

Entrepreneurial Activity 2003-2005 averages (% of adult population)

	Singapore	Ireland
Average early stage rate 2003-2005	6.0	8.5
Average established rate 2003-2005	3.5	7.1

Entrepreneurial Activity by Gender

	Singapore	Ireland
Participation rates of female/male new firm entrepreneurs	50%	39%

Growth expectation (% of adult population)

	Singapore	Ireland
High growth expectation (20 or more jobs within 5 years)	1.5	0.98

Informal investors (% of adult population)

	Singapore	Ireland
Informal Investors	3.5	2.45

Personal context of the adult population (% responded yes)

	Singapore	Ireland
Perceive good opportunities in the environment for entrepreneurial activity	17	52
Personal belief in own relevant skills	29	50
Personally know a recent entrepreneur	31	43
Fear of failure would inhibit involvement in entrepreneurial activity	39	38

Cultural attributes of the adult population (% responded yes)

	Singapore	Ireland
Entrepreneurship is considered a good career option	47	69
Successful entrepreneurs are held in high esteem	58	79
Entrepreneurship receives a lot of media coverage	70	83

7.6 UK⁸⁵

Level of Entrepreneurial Activity

- Early-stage entrepreneurial activity remained roughly the same (6.2%) in the UK in 2005 as it had been in 2004. This is the third highest rate of the G7 economies behind the US (12.44%) and Canada (9.33%). The gap between the UK and the US has widened in 2005.
- Male early-stage entrepreneurship has decreased slightly from 8.5% to 8.1% of the UK population. The female rate has remained the same at 3.9%.
- Necessity entrepreneurship in the UK has fallen from 1.4% to just 0.7% between 2001 and 2005. Opportunity entrepreneurship has increased marginally over the same period from 5.1% to 5.2%.
- The UK is the only country in the G7 to see a 50% drop in necessity entrepreneurship combined with a slight increase in opportunity entrepreneurship. In other countries, although necessity entrepreneurship has gone down, so too has opportunity entrepreneurship.
- Entrepreneurship across all UK regions has increased overall since 2002. In the past year, however, there were marked reductions in entrepreneurial activity in the East Midlands and the North East. Entrepreneurial activity remained the same or reduced slightly in Northern Ireland, the South East, the South West and Wales. It increased in the East of England, London, the North West, Scotland, Yorkshire and Humberside.
- Attitudes towards entrepreneurship are generally positive, with a big increase in the numbers of people seeing good business opportunities. Fear of failure, however, has increased slightly from 32% to 34% of the whole population.
- Ethnic minority groups are, as in previous years, substantially more entrepreneurial than their white counterparts. Rates amongst Indians and Pakistanis are twice as high as they are in White communities. The Black African community has treble the rate. Black African women are more entrepreneurial than Black African men, and nearly six times more entrepreneurial than white women.
- Rates of those expecting to start a business in the next three years double, irrespective of gender or educational level, if some form of enterprise training, government training or work experience is obtained. Entrepreneurial activity amongst people with a graduate or post-graduate qualification is significantly higher than for those without a university education.

⁸⁵ The Irish GEM team gratefully acknowledges the co-operation of the members of UK GEM team, particularly Dr. Rebecca Harding and Johanna Walker of the London Business School who wrote this summary.

Table 47: Headline results UK and Ireland**Entrepreneurial Activity** (% of the adult population)

	UK	Ireland
Nascent entrepreneurs	3.4	5.7
New firm entrepreneurs	2.9	4.7
Total early stage entrepreneurial activity	6.0	9.8
Established business owners	5.0	8.1
Indication of entrepreneurial plans in the short term (over the next 3 years)	9.0	12.6

Entrepreneurial Activity 2003-2005 averages (% of adult population)

	UK	Ireland
Average early stage rate 2003-2005	6.3	8.5
Average established rate 2003-2005	5.3	7.1

Entrepreneurial Activity by Gender

	UK	Ireland
Participation rates of female/male new firm entrepreneurs	34%	39%

Growth expectation (% of adult population)

	UK	Ireland
High growth expectation (20 or more jobs within 5 years)	0.70	0.98

Informal investors (% of adult population)

	UK	Ireland
Informal Investors	1.65	2.45

Personal context of the adult population (% responded yes)

	UK	Ireland
Perceive good opportunities in the environment for entrepreneurial activity	39	52
Personal belief in own relevant skills	51	50
Personally know a recent entrepreneur	29	43
Fear of failure would inhibit involvement in entrepreneurial activity	36	38

Cultural attributes of the adult population (% responded yes)

	UK	Ireland
Entrepreneurship is considered a good career option	54	69
Successful entrepreneurs are held in high esteem	73	79
Entrepreneurship receives a lot of media coverage	55	83

7.7 US⁸⁶

Level of entrepreneurial activity level

- Early-stage entrepreneurial activity continues to grow in the United States. The prevalence rate is 12.4% for 2005 compared to 11.3% in 2004. This is the second highest rate for the United States since GEM began in 1999. Although the increase is modest, it confirms a positive trend in early-stage entrepreneurship in the United States, and is the highest rate of activity amongst the G7 countries.
- Established business ownership decreased in 2005 to prevalence rate of 4.7%. The difference between the 2005 and 2004 rate of 5.4% is not statistically significant. The decrease reveals that more people, who had set up a business themselves in the past, dropped out of business ownership than entered. The reduction in established business ownership can be attributed to numerous factors, such as the low early-stage entrepreneurship levels in 2001/2002, business closings, change of ownership and mergers. The United States established business

ownership rate is the fourth highest of the G7 countries.

- The gender gap is widening again in 2005. The prevalence for men to be involved in early stage entrepreneurial activity is 15.2% and for women is 9.7%. The rate amongst women shows a minor decline from 10.6% to 9.7%, while the prevalence for men rose from 12% in 2004 to 15.2% in 2005. Compared to the other G7 countries, the US rates are 6.5% higher for men and 5.3% higher for women, and growing significantly more amongst men.

Key Issues

- The number of informal investors in the United States comprised 4% of the adult population in 2005 – down from 4.3% the previous year. The average prevalence rate of informal investors in the G7 is now 2.1%. Hence, the rate in the United States is still more than twice the average rate across the G7 countries.

⁸⁶ The Irish GEM team gratefully acknowledges the co-operation of the members of the US GEM team at Babson College who wrote this summary.

Table 48: Headline results US and Ireland**Entrepreneurial Activity** (% of the adult population)

	US	Ireland
Nascent entrepreneurs	8.8	5.7
New firm entrepreneurs	5.2	4.7
Total early stage entrepreneurial activity	12.4	9.8
Established business owners	4.6	8.1
Indication of entrepreneurial plans in the short term (over the next 3 years)	16.4	12.6

Entrepreneurial Activity 2003-2005 averages (% of adult population)

	US	Ireland
Average early stage rate 2003-2005	11.9	8.5
Average established rate 2003-2005	5.2	7.1

Entrepreneurial Activity by Gender

	US	Ireland
Participation rates of female/male new firm entrepreneurs	81%	39%

Growth expectation (% of adult population)

	US	Ireland
High growth expectation (20 or more jobs within 5 years)	1.41	0.98

Informal investors (% of adult population)

	US	Ireland
Informal Investors	3.98	2.45

Personal context of the adult population (% responded yes)

	US	Ireland
Perceive good opportunities in the environment for entrepreneurial activity	32	52
Personal belief in own relevant skills	52	50
Personally know a recent entrepreneur	41	43
Fear of failure would inhibit involvement in entrepreneurial activity	23	38

Cultural attributes of the adult population (% responded yes)

	US	Ireland
Entrepreneurship is considered a good career option	59	69
Successful entrepreneurs are held in high esteem	61	79
Entrepreneurship receives a lot of media coverage	63	83

PART THREE

SECTION 8

Views of the Experts and Entrepreneurs Consulted

8.1 Introduction

The Irish GEM team consulted over 70 leading experts and entrepreneurs during 2005 to obtain their views on the relative strengths and weakness of the Irish entrepreneurial environment. These key informants were also invited to suggest ways in which entrepreneurship in Ireland could be further developed. In all they made 158 recommendations. The majority of these related to government policy (58), aspects of the education and training sector in relation to entrepreneurial development (37) and government programmes (25).

This section reproduces all of the suggestions made. The only editorial has been to group them into headings for ease of reference for the reader. They are presented in rank order leading with Government policy as that is the area in which most recommendations were made. In some instances, the experts and entrepreneurs gave detailed commentary on their suggestion. In other instances, they summed up their thoughts more succinctly.

Those who made these comments have extensive knowledge and considerable experience in the whole area of

entrepreneurship and have given considerable thought to ways in which the environment can be made even more attractive for entrepreneurs and an even greater spirit of entrepreneurship nurtured. It should be pointed out, however, that the points made reflect the views of those consulted who may, or may not, be aware of current legislation in relation to State aid and the current programmes that are available. They do not necessarily reflect the views of the authors, and are reproduced here without comment as to their suitability.

8.2 Government Policy

Approach to Policy

- Develop a Government Policy on entrepreneurship.
- A joined-up approach is needed in government thinking regarding its policies and business support systems.
- Have **all** entrepreneurs in the hands of IDA (FDI), EI (over 20), CEB (up to 20)⁸⁷.
- Recognise that performance to date has been relatively good for many years. Therefore, be careful not to disrupt or

⁸⁷ The reference is to IDA Ireland, Enterprise Ireland and the City and County Enterprise Boards. At present, not all early stage entrepreneurs would be eligible for support from the development agencies. Early stage entrepreneurs seeking assistance from EI have to be setting up new businesses that meet the following criteria.

- Operate in either the manufacturing sector or in an internationally traded service sector in an export led environment;
- The proposed product or service is technologically advanced;
- Likely to achieve significant growth within three years (sales of €1.0m and employment of 10 or more);
- Projected sales have a heavy export element; and
- The business is Irish owned and will be located in Ireland.

The CEBs are currently responsible for certain categories of entrepreneurs who have up to 10 employees.

abandon government agencies or programmes that may have contributed significantly to the good performance.

Raising Awareness

- National campaign to promote and recognise entrepreneurship at all societal levels – not alone focusing on start-up enterprises but at the widest possible sphere of entrepreneurship, i.e. community groups, local initiatives, etc. Objective to get buy-in at all strata of the population.
- Major publicity and advertising programme focused on increasing start-ups and giving entrepreneurship a high visibility. Particular focus for young people and women as areas of major opportunity, road show campaigns visiting towns and communities – enterprise centres at local level.
- Mass media, especially women's magazines and glossies need to highlight more case studies of successful (female) entrepreneurs.
- Successful business people should be treated as positive role models.
- More promotions of the topic.
- Continue to publicise entrepreneurial successes, particularly those that have lasted the pace and succeeded internationally. Young school goes and beyond need to internalise the potential of the entrepreneurship opportunity.
- Media programmes.
- Increased awareness of entrepreneurs that are successful through press/media articles and award schemes. Recognise and applaud creativity.
- Temper the glorification of entrepreneurs – e.g. a certain entrepreneur for example has become quite disliked for his move to Portugal to avoid tax – encourage role models but be aware of downside.
- Celebrate successful entrepreneurship.

- Increased promotion to general public on the benefits of entrepreneurship.

More inclusive approach to supporting entrepreneurs

- Service sector is fastest growing sector of Irish economy. Develop policies for growth and development of sector separate to those for internationally traded service and manufacturing.
- Less focus on funding from government sources on a narrow range of enterprises. Small quality focused companies either in services or international orientation should be supportable. The business case should be the determinant and not the business type.
- Overall encouragement to start-up a business, and lessen “problems” re failures, and encourage to start again.
- Increase support available for entrepreneurs from all sectors.
- Change focus to entrepreneur/company-centred support.
- Grant aid should be more available to non-manufacturing.
- Base national policy on a different footing than has been the case in recent years i.e. all FDI is good/domestic industry is a dead loss. Encourage domestic entrepreneurship – not just the narrow criteria suggested by current policy – HPSU and internationally traded.
- Less emphasis on HPSUs and more support for entrepreneurs.
- Encourage immigrants with skills to start firms, especially those with links back to C&E Europe.
- Encourage/support development of micro-enterprises by immigrant population.
- Greater selectivity by the state as to who it supports.

Focus on technology and innovation

- Focus on innovation as the next step in developing enterprise culture (rather than start-up).
- Find effective ways of achieving objective of leveraging technology development commercially. Create a “match-making” mechanism between technologists and entrepreneurs.
- Significant investment needs to be made in technology usage and the attraction of more young people into scientific and technical areas towards entrepreneurship.

Capability enhancement

- Introduce extensive management development programmes targeted at SME owner managers.
- Introduce paid ‘enterprise breaks’ for shop floor and supervisory staff who possess low educational qualifications.

Fiscal incentives

- The BES scheme needs to be re-launched and re-branded and not directed to the construction of holiday homes. Similarly, the Seed Capital scheme is perceived as too complex and it puts entrepreneurs off applying for it.
- Expand the BES.
- There should be tax relief to encourage people into entrepreneurship.
- Initiatives to encourage the availability of seed funding. Such initiatives could include BES revisions to improve its effectiveness and schemes to encourage more private equity from property to higher risk owners.
- Rebalance tax regime away from property in favour of enterprise.
- Introduce a tax on investment in foreign properties to make it attractive to keep money in Ireland and incentivise equity investment in indigenous start-ups.

- Incentivise entrepreneurship – allow some tax free earnings for the first few years. Reward risk.
- New businesses should be exempt from tax and certain other regulations for first 12 months. Also look into audit and VAT exemptions. New businesses should also be exempt from New Directors compliance regulations for a certain period so as to encourage risk taking.
- Childcare costs should be deductible against tax. For self-employed and working women it is an expense for the purpose of producing income and therefore should be allowable.
- Tax based incentives’ for individuals investing in technology based ventures.
- Difficulty of first 3 years of start-up. Need for more work on tax breaks especially for SME service sector.

Decision making at local level

- Government funding decisions should not be allowed to be made by one individual within the decision making organisation (at local level).

Local government charges

- Local Government should be resourced centrally and not obliged to levy local businesses to balance the local budget.
- Local government should be more active with more of a *can do* attitude. Regulation must be streamlined and responses fast-tracked. National government must move away from its employee led social agenda.
- There should be a moratorium on payment of planning permission levy to local government for new companies.
- There should be a moratorium on local government rates or they should not apply for a certain period for start-up companies, given the negative impact these have on a cash flow of a new business.

Assistance for exporters

- More resources needed in the internationalisation area. Money available for R&D – nothing seems to be available for sales and marketing development despite the recent Enterprise Ireland corporate plan and announced new direction. Company must grow customers in UK and US if the company is to grow.

Lessen bureaucracy and burden of regulation

- Less red tape.
- Reduce the burden of regulation on start up businesses. Make the process less bureaucratic and costly.
- New company law procedures should relate only to companies with a turnover of €100 million or above.
- Redefine ‘small’ company for compliance purposes – the 1986 definition with its monetary limits needs to be raised as too many micro businesses are now caught with full compliance requirements.
- Reduce the burden of regulation on start up businesses. Make the process less bureaucratic and costly.
- Reduce regulatory burden on small business (quite good by international standards, but capable of improvement).

Entrepreneurs/academics forum

- Would welcome a focused forum to discuss with others their business concept and share ideas with other entrepreneurs and academics.

Public procurement

- Use public procurement – x% from SMEs – as a way of supporting new enterprises.

International collaboration

- “Bird” Foundation type Ireland-US

collaboration, as has been successful in Israel.

Addressing labour shortages

- There needs to be a co-ordinating body, a ‘marriage broker’, to match up the skilled labour requirements of companies, with an ability to identify people in other countries who would like to come to take up the jobs, where there are skilled shortages in the Irish labour market.

8.3 Education and Training

Harnessing the resources of the education sector

- More education at all levels on the benefits of entrepreneurship – primary, secondary and tertiary. Also educating teachers / trainers on the topic to enable them to effectively teach enterprise skill.
- Development of the entrepreneurship agenda in the education system and stronger focus on the importance of entrepreneurship as a career option.
- Entrepreneurship education primary, secondary, tertiary – enterprise as career option.
- The education system needs an overhaul: enterprise, entrepreneurship, risk taking and innovation are absent.
- Encourage creativity and innovation at all levels of the education system from primary through to third level to help develop the entrepreneurial characteristics and traits in our young people. This will require inter-departmental response (e.g. Department of Education, Department of Enterprise, Trade & Employment) and various agencies given specific responsibility for programme delivery (e.g. CEBs, EI, etc.)
- More life skills should be taught in the schools appropriate to the age of the child, but should include opening a

bank account, etc. Such teaching should not just be confined to those opting for Business Studies in second level.

- Longer term, reverse educational trend currently turning away from technology.
- More focus on science education combined with entrepreneurship education in primary/secondary schools.
- Entrepreneurship education throughout all levels is critical if the culture is to be changed in terms of people willing to consider entrepreneurship as a career option and reducing begrudgery.
- Children need to be exposed to the concept of entrepreneurship from an early age, both at school and ideally within the home.
- Develop the area of creativity amongst primary and second level students. Link this creativity training with the concept of entrepreneurship.
- Ireland's knowledge economy is built with Irish people. It is imperative that all are included. The education and training sector have a significant part to play in ensuring that everyone is supported to fulfil their full development. This will require measures to be taken to tackle the incidence of early school leavers and to enhance the capabilities and skills of those already at work.

General initiatives

- Introduction of entrepreneurship modules/classes at second and third level schools and colleges.
- Innovative programmes to develop entrepreneurial skills at second and third level.
- Develop "The Real Game" model in schools.
- High quality starts should be

encouraged to take business courses part-time, etc.

- Outreach courses in business entrepreneurship/online, etc.
- Discourage parents from feeling that job security is a No 1 priority for children.
- To divert people with brains and energy away from the cosy professions to job creation.

Primary level

- Introduce entrepreneurship to the schools curriculum at primary level.
- Necessary to introduce entrepreneurship "thinking" into the primary school level.

Secondary level

- Sow the seeds of entrepreneurship at secondary level.
- Introduce pre-teen and early teenagers to the concept of entrepreneurship. Encourage individualism and entrepreneurship in the early education system. Stimulate creativity and innovative thinking in education and develop a "can do" philosophy.
- All transition year students should be encouraged to work in office or on shop floor for 6-12 weeks.
- Business people should be involved in career guidance programmes in all schools.
- Education at second level.
- Stop people from feeling that good results in the Leaving Certificate are vital.
- A 'Young Scientist' equivalent at secondary school level and primary level for entrepreneurs – Start Your Own Business Event for schools (on a far bigger scale than the former YES).

Third level

- Beef up entrepreneurship programme in

the universities/colleges. Link to US universities, e.g. Babson College, Boston.

- Encourage the universities to engage more strenuously in the provision of accessible management capability development programmes.
- Have a MBA in entrepreneurship.
- More emphasis on cross disciplining education, i.e. science/business, engineering/business, etc.
- More emphasis on technology acquisition and technology transfer from 3rd level.
- Entrepreneurship/innovation modules should be developed in all degree programmes in science, technology and business studies.

Apprenticeship training

- Tradesmen/women should get business enterprise training when doing their apprenticeship training.

Sales and marketing

- Develop sales and marketing expertise.
- The Tech Start programme was an excellent way of giving technical graduates commercial experience. Something along the same lines should be initiated. Give serious training in sales and marketing to scientists and engineers.
- Good sales training for technical graduates, perhaps a degree or post-grad in sales.

8.4 Government Programmes

Enterprise Ireland

- The Enterprise Ireland Regional Director should be less constrained and given more autonomy. He knows what is best for the region and is very proactive.
- Enterprise Ireland *key manager support* should be made available for executives based in the marketplace. At present it

is only available for executives based in Ireland.

- Enterprise Ireland support in sales & marketing area should be more creative and should be more related to individual companies' requirements: for example more assistance should be made available to bring appropriate trade magazine editors to Ireland and to support Irish companies going to trade shows. The key here is that it must be appropriate to the company's requirements – not a one size fits all approach!
- The move to provide strong central support to the CEBs through Enterprise Ireland is a positive development, but the current specific regional focus must be maintained as the regional dimension is the key to vibrant regional development.

City and County Enterprise Boards

- CEBs should be allowed provide soft support, training, etc. to all small businesses in their catchment area, where such facilities are not available from FÁS or from the private sector.
- Single agency for small business registration/set-up – to overcome current problem and pathos of form filling, registrations that exists (i.e. tax, CRO, etc.). This is perhaps best vested in a one-stop-shop agency such as CEBs at local level. Single form filling information supplied to be used by all agencies.

FÁS

- FÁS needs to realign their operations to meet changing needs.

Sales and marketing support

- Specially tailored soft support programmes – particularly in sales/marketing. Many SMEs with potential do not have a dedicated sales/marketing function, which militates against development.

Programmes such as a Focused Market Development Programme should be developed with third level colleges and targeted at SMEs. There is an increasing proportion of companies with >10 and <30 employees that would benefit from such support.

- More support for international trading.
- A mechanism is needed to *identify* sales and marketing people based in the market abroad. (Note: It is difficult to get Irish people to travel abroad).
- Help SMEs secure export sales. More trade exhibitions in Dublin like Futura, etc.
- Deepening systems which helps to gain better market access.

Basis of support

- Reluctance to move away from job related supports means low potential service provider type starts can do better than they should – and high potential starts not as well – longer, more patient supports for HPSUs are required.

Centre of Excellence

- Develop a “Centre of Excellence” for owner managers.
- Establish an Academy of Entrepreneurship with international quality staff and courses.
- Much more emphasis on developing links between indigenous Irish SME and research centres.

Strengthen soft supports

- Development of support networks to help new entrepreneurs resolve issues and accelerate their development.
- Spend on marketing – bring back the CTT model!
- Have more Government sponsored mentors available for early stage entrepreneurs.
- Strengthen state support through

providing *hands on* mentor support, both direct and indirect.

- Mentoring opportunities at early stage.
- Early stage projects must be nurtured – mentor system needs to be further developed, it could be right type of mentor or a discussion group of early stage entrepreneurs (peer support group).
- Aggressive screening of experienced mentors/non-executive directors.

8.5 Finance

Seed funding

- Access to finance/seed capital for good business opportunities should be improved.
- Improve access to finance/seed capital for good business opportunities.
- Facilitate access to start-up capital.
- Develop real seed capital fund. Speculative money less than €500,000 without too much bureaucracy attached.
- Government support should focus on early stage seed funding, if necessary at the expense of VC investment.

Micro finance support

- Increased financial support to encourage micro finance institutions develop.

Angel/informal investors

- Create genuine angel investment network, country is awash with money, some of it looking for a high risk/high return place to invest. Facilitate it.
- Work with Angel investors with specific vertical market knowledge, to find matched opportunities and to provide a tax efficient, easy mechanism to get them invested.
- Increase incentives for private investment in start-up companies.

Loan guarantees

- A loan guarantee scheme should be introduced for small amounts of money to a wide variety of businesses, along the lines available from the SBA in the United States.

Venture Capital

- Development VCs with larger funds capable of providing larger investments in projects – even if it means fewer projects.
- Work with VC community to help to adopt the best behavioural aspects of US west coast VCs that specialize in true, early stage investments, e.g. network engagement, highly interventionist, access to human capital, Entrepreneurs in Residence, etc.
- Continued support for the development and deepening of the venture capital industry.
- Need better seed funding and access to VCs outside of Dublin.

8.6 Research and Development

Commercialisation

- Continue efforts to strengthen the capability in third level institutes for commercialising research.
- Universities should be supported in taking responsibility for building in-house support for innovation and technology transfer.
- Increase focus on applied research.
- Improve R&D links with 3rd level to draw out commercially viable opportunities.
- A mechanism to incubate and perform applied academic research. This piece of infrastructure is largely missing from the Irish industrial landscape.
- Funding the exploitation of R&D.
- We need more technical innovation specialists who know how to convert

from research to commercialisation (either through a licence or through a new venture start) and can get market validation. *You don't need to be a technical expert in the field to find out what the market needs.* Academic researchers find it very difficult to deal with the commercial aspects.

Support for R&D

- Sustained and increasing support for industrial and 3rd level R&D.
- Need for better interpretation of marketing into high tech start-ups.
- Greater help over longer periods for R&D expenditure especially early on.
- Change R&D tax credit system – make it volume based.
- There is a need for a significant ramping up of the investment in R&D and innovation by the State and by the private sector. For example, the number of PhDs needs to double.
- Channel R&D money through industry to the university sector – all research should be carried out as a “contract” from industry i.e. an end game in sight with value added.

8.7 Women Entrepreneurs⁸⁸

- Introduce an effective child-minding system.
- Address the lack of service to support women working with particular emphasis on entrepreneurial women.
- Major publicity and advertising programme focused on increasing start-ups and giving entrepreneurship a high visibility. Particular focus for young people and women as areas of major opportunity, road show campaigns visiting towns and communities – enterprise centres at local level.
- Mass media, especially women's magazines and glossies need to

⁸⁸ Points three and four were included under the Raising Awareness section (8.2 Government Policy). They are reproduced here as they are very relevant to this section also.

highlight more case studies of successful (female) entrepreneurs.

8.8 Regional Dimension

- Focus on spatial strategy. Try to provide jobs and new businesses locally.
- Not convinced there is considerable scope for an all island context except in “border” region.
- The biggest market for many Irish companies is on our doorstep – Britain. However, co-operation between companies North and South might/should make market entry easier for both.

8.9 Infrastructure

- Clean room environments should be available for lease, as money would be better spent on the actual business.

Spending money on construction gives no real added value to the new business, but clean room facilities are not at present available to lease, certainly not in Mullingar, and so the company is obliged to provide its own clean room environment, although the money could be better spent on other areas of the business.

- Make premises available at low cost (subsidised) for two years.
- There is a need for a definite commitment and follow through in good times and lean to get the infrastructure right – transport and access to broadband, if the regions are not to be disadvantaged. These comments relate not just to the roads but to getting the quality of the training service greatly improved and access in and out of Dublin Airport.

SECTION 9

Conclusion and Policy Recommendations

The improvement in Ireland's level of early stage entrepreneurial activity, which has been noted in this report, is very welcome. Improvements can be made, however, which would further close the gap between Ireland and the most entrepreneurial of the OECD countries. The imperative is to maintain a high level of entrepreneurial activity and to maximise the number of significant businesses that emerge from these new enterprises.

With this end in mind, on the basis of the GEM research and consultations in 2005, it is recommended that the following initiatives be taken to achieve the strategic imperative of creating a fully dynamic entrepreneurial environment:

- A national strategy and coordinated policy for entrepreneurship should be developed, which is focused on maintaining a high level of early stage entrepreneurial activity and on maximizing the number of innovative new enterprises that are created that are capable of high growth.
- Specific focus should be given to increasing the number of women involved in early stage entrepreneurial activity.
- The education sectors should be

harnessed in a systematic way across all levels and across all disciplines to increase entrepreneurial mindsets and to enhance the capacity of those who decide to become entrepreneurs.

- A greater coordination of capability building for entrepreneurs relevant to their needs and stage of development is needed and any gaps in the training available should be bridged.
- Measures should be taken to improve access and availability of finance for early stage entrepreneurs, particularly for those who require larger amounts of start up capital, by focusing on means of encouraging more informal/angel investment.
- Given the limitations of the Irish market, a wide range of early stage entrepreneurs should be assisted in the identification of customers overseas and in accessing export markets.
- New initiatives should be taken, where necessary, to further assist in the commercialisation of research out of the third level colleges.

Many of these recommendations have appeared in earlier GEM reports, their adoption and implementation is still awaited.

APPENDIX 1

Pen Pictures of Entrepreneurs Featured on the Cover

Angela Hope

Angela Hope became an entrepreneur the day she graduated from Manchester University with a degree in Fashion Textiles. She always knew that she would work for herself and believed that it was almost in her blood as her Dad had always been self employed.

Her first venture was with a group of four other design graduates. Between them they had two retail outlets in Bristol and in Bath, which they stocked with their designs. Each of the design team was responsible for a different area. At that time Angela specialised in women's clothing.

Over time Angela has had different ventures, retaining her passion for self employment even during those short periods when she found herself employed. Along the way she acquired an MA in marketing which complements her technical and creative skills.

From her home in Bristol, Angela and her partner, Martin, often came to Ireland on holidays and fell in love with the beauty of the landscape. They decided to follow their dream and to move permanently to Ireland. Initially they located in County Mayo and subsequently moved to County Leitrim. Angela loved County Leitrim with its wonderful light, open spaces and green fields. All of which she found were much more conducive to her creativity than was the more urban concrete environment of Bristol.

The move to County Leitrim coincided with Angel's first foray into the making of handbags.

Describing herself as someone who is more often seen with a rucksack than with a handbag, Angela explains how she found herself making handbags and fell by chance across a very promising opening for a new business:

I had a good friend in the London fashion PR scene who had been asking me to make her a handbag for some time. I eventually gave in to my friend's persistence and posted the bag off to London, expecting to hear nothing more. The bag was much admired and being seen around the fashion scene in London many orders came through just word of mouth from people who had seen the bag.

When she began to think further about building a business around limited edition handmade handbags, Angela received terrific encouragement from Anne Maire O'Rourke in Leitrim Design House, a part of the Leitrim County Enterprise Board:

Anne Marie spurred me on and gave me the self belief to go for it. She also gave me practical assistance and helped me to participate in Showcase that first year. The Enterprise Board also provided an employment grant which I used to renovate an existing outhouse store close to the cottage where I was living with my partner. I made the money go a long way as I and my partner did all the work ourselves, including the wiring, plumbing and carpentry. This gave me the space I needed for cutting and storing the fabrics.

From this start in 2002, Angela has travelled to Showcase, which is run by the Crafts Council of Ireland, each year as this is her main shop window to the major buyers. Her bags are now sold in 75/80 outlets throughout Ireland, the UK, the Netherlands, and the United States.

The bags are made from wool sourced from Irish and Welsh mills. These are made into blankets from which the material for the bags is cut. They are then lined in velvet and Irish lavender is placed between the velvet and the wool to add to the bag's unique charm. Angela describes the bags as classic and timeless, but with a modern feel. The demand for her bags is growing apace and Angela's main concern is not attracting more buyers but retaining a balance between her creativity, her lifestyle and her work.

Angela is cautious about recommending entrepreneurship to others: *They would really have to want to do it. On the one hand there is great freedom and flexibility in being your own boss, you reap the rewards fully of your own hard work, but on the other hand, it is really hard work. And the sheer hard work should not be underestimated.*

Asked if she personally would do it all over again, Angela replies without hesitation: *Absolutely!*

Brian Kelly

Brian Kelly was always on the lookout for good opportunities which could form the basis of a new business and the idea behind Celtic Catalysts came to him when he was in the middle of his PhD. He went to his then PhD supervisor (Dr. Declan Gilheany) and enquired if he would be interested in getting involved in making this idea a business reality. They shook hands and decided to pursue the idea. Brian, however, still had the task of completing his PhD first before he could concentrate on this new business venture. So while most of his fellow post grads were focused on securing a good job in industry after their PhDs, Brian's head was buzzing with a different challenge.

Brian has had strong personal support and goodwill, particularly from family and friends, and this has been important to him. Having a partner like Declan was also important to Brian, as it took away the isolation that an entrepreneur working alone could face:

Unsurprisingly in trying to get a company off the ground, there have been many ups and downs, but having Declan there to share the rollercoaster ride has been great - particularly when I felt like "throwing in the towel" and getting a "proper" job!

The NovaUCD Campus Company Development Programme proved useful in helping to identify the commercial elements of the new business. Brian recognised from the outset that the challenge in setting up a new biotech company was significant and that it would be important to attract good people to work directly and indirectly with the fledgling business:

We have assembled a fantastic management team and a world class Scientific Advisory Board (chaired by a Nobel Prize winner) – all of whom have been tremendously supportive both in terms of advice and "opening doors". Our investors have also been great – not just in terms of the money, but also through their practical support and advice.

Brian is full of praise for the desire of Enterprise Ireland to create new bio-tech enterprises in Ireland and he believes that a number of new companies in this sector can be successfully developed here, as long as the right level of support is in place. He would, however, like to see a greater level of support for such companies during their post – start up/pre-revenue phase of development. He also believes it would be advantageous if there was a greater degree of flexibility in the support that the development agencies could offer to those who are not employed by the third level colleges, but are devoting themselves full time to their new venture.

As Brian explains: *It should be remembered that academics always have their university jobs*

to fall back on – so it's not necessarily such a big deal, if they have a go at spinning-out a company and fail. This is not the case for those who put their career on the line and don't have the luxury of a salaried job to fall back on.

The result has been that at a time when his peers, who had completed their PhD's around the same time, were all off working in well paid jobs in industry and able to afford to buy cars, houses, holidays etc., Brian had to earn money in all sorts of weird and wonderful ways in order to support himself, while he tried to get the company going. Brian Kelly is not undaunted, however, and is committed to making Celtic Catalysts the success that he believes it can be.

Colum O'Sullivan

Colum O'Sullivan and his friend and fellow entrepreneur, Cullen Allen, were born into enterprising families. Cullen is a grandson of Myrtle Allen and looks after the food end of things and Colum's mum owns the Granary Food Store in Cork which is where their idea for the Cully & Sully prepared meals range originated.

Cully & Sully is the latest in a long line of trial and error entrepreneurial endeavours that have always been a part of Colum O'Sullivan's life. He was bitten by the entrepreneurial bug from a very early age!

It's simply what I always wanted to do. I set up businesses when I was in school, making tree and bird houses and selling them, then I used to buy golf balls second hand and sell them to golfers. In college, I used to buy mum's pasta from her and sell it to students, then I started to smoke chickens and sell them to restaurants. While I was working in Musgraves I was continually 'scamming' – investigating different ideas. I have half baked business plans for everything from industrial cooking stocks to coffins. I have a wardrobe at home which has more files and statistics about different ideas than I don't know what.

Colum and Cullen, or Cully and Sully as they

are known to their friends, spent one year researching the idea during which time Colum participated in the Genesis Enterprise Programme and benefited from Enterprise Ireland's support under its Feasibility and Cord Programmes.

In September 2004, they launched a range of prepared meals using Ballymaloe recipes into the nation's supermarkets. This was followed by the launch last September of a patented pub concept which is now in over seventy pubs throughout the country. Cully & Sully are currently in negotiations with two companies in the Netherlands concerning launching their pies into that market.

Colum emphasizes the support that both he and Cullen received from their families:

We both left our jobs. I had to move back home, after about 10 years of being away. We had to borrow money and they were a big help with aspects of that.

There was support available from other quarters as well:

There is no way we would be where we are without the help of Enterprise Ireland, Genesis and business people generally. We have a policy of talking to everyone. There's lots of grey hair out there, who have tried many things and made plenty of mistakes and they are more than happy to talk to you about it. People are very, very supportive of people trying to set up a business and this general attitude is a really fantastic trait of the Irish. EI have been excellent to us, not just financially, but in things like providing a mentor, which is worth way more than a few thousand Euro grant. Joe O'Keefe – ex MD of Apple Europe is our current mentor and is excellent. Drew O'Sullivan in Genesis in Cork is super. We entrepreneurs are stubborn and are dreadful at being told what to do. Drew is excellent at this and works phenomenally hard helping us to sort out problems like tax, patenting etc. He's a really good guy!

Asked what the greatest challenges were that he had to face in setting up the business, Colum does not underplay the difficulties involved:

To be absolutely honest, there were many mountains and there are many more. It's incredible, you think you've sorted one thing out and that just leads to the next challenge. You have to be constantly innovating. Getting the Ballymaloe approval was probably the biggest challenge and took the longest time.

Colum describes the last two and a half years as a *phenomenal roller coaster ride with lots of highs and lows* but, despite all the difficulties encountered along the way, when asked would he do it all again he replies immediately:

Absolutely! I wouldn't change it for the world. I love it. It does have its bad days, but then I say to myself "would I prefer to be back working for someone else?" and the answer is simple. It's tough at the start as you're borrowing a lot of money. Then some months you make money and other months you lose money. You lose a fortune in your first year, and it's a battle to get through this. It's very rewarding, and once you start becoming recognized and respected it does make life easier.

David Walsh

With David Walsh the desire to become an entrepreneur came before he had identified the specific opportunity which would turn his aspiration into reality. He explains that he had always wanted the freedom of working for himself and had looked at a number of ideas previously. It was, he says, a matter of timing and trying to identify a winning business proposition.

The idea for Netwatch, the brainchild of David Walsh and his partner, Niall Kelly, arose following an attack on a friend of the founders who had been called out to answer a traditional alarm activation at his business premises. Netwatch founders felt there had to be a better way to protect both key holders

responding to an alarm and the premises itself from intruders.

As no system was available in Ireland, David and his partner looked abroad for the answers. Together they travelled to Australia to meet a company that specialises in video transmission for military installations. This system they considered to be far better than the traditional alarm and CCTV systems, and more cost effective than employing full time security guards. Rather than seeking to develop an entirely new solution, they discussed the possibility of customising this technology to meet the needs of Irish businesses. This led to the development of the Netwatch System.

Netwatch uses modern communication technologies to provide remote visual monitoring security systems to businesses. This intelligent security system allows the Netwatch command centre to watch in real time any intrusion at a client premises and more importantly, speak directly to the criminals, clearing them from the site thus preventing theft and damage to property.

Asked about the greatest challenges that he had to face in deciding to become an entrepreneur, David immediately mentions the lack of financial support systems for those who decide to leave a secure job and set up his/her own business, particularly if that new business is in the services sector:

The financial support systems are less than satisfactory, particularly for service-based companies such as ours. A good example is the Seed Capital Scheme, which is aimed at manufacturing or export companies, despite the fact that it is the services sector, which forms the backbone of Ireland's economic success.

Another challenge that had to be overcome before Netwatch would be rolled out was accessing the necessary telecommunication infrastructure. This proved unnecessarily difficult:

We also had difficulties in actually securing telecoms service and broadband service to

enable us to deliver the Netwatch System to our clients. The roll-out of broadband is positioned by Government as key to our continued economic success, but unless you are in Dublin, you are going to meet with difficulties in obtaining broadband. This is impacting on all businesses and needs to be seriously addressed.

From the outset David recognised the need to build a balanced team of complimentary skills:

Like any new start-up, financing and finance management was a major challenge. My own background is in sales, and Niall's is in technology. We knew we could build and sell the Netwatch system, but could we make any money from it? Our first appointment was a financial controller who helped us put the processes in place to actually secure financing and make the business earn money.

David in common with most entrepreneurs recognises that a strong network of support is essential to getting even the best of ideas off the ground. That support needs to be personal as well as professional and advisory.

The belief and support of my wife Beatrice – who had more to lose than anyone if the business failed – was very important to me in starting the business.

Many entrepreneurs make bad business managers. The Carlow Enterprise Board ran an excellent training course for owner-managers which gave us incredible insight and knowledge into running a business and the importance of internal systems and controls. Later on the South East Business Innovation Centre (SEBIC) were invaluable in helping us to develop our business plan and to identify the strategy which will take us to the next level. They not only helped us to identify our mission and plan, but more importantly, they helped us to clearly identify the sectors we should avoid.

Asked if he would do it all again, David replies without hesitation:

Most definitely! My advice to people who are thinking of setting up their own business would be to research the market place thoroughly before you start, make sure you have the expertise on board and just go for it.

Deirdre Uí Chathmhaoil

It was a love of the Irish language that brought Deirdre Uí Chathmhaoil and her husband Seamus to live in the West of Ireland. Having trained and then worked in England, this couple from Tyrone wanted to raise their children in an area in which they would have the opportunity to be educated through the medium of Irish and to live in an Irish speaking environment. This move also provided the couple with the incentive to follow through on a long nurtured dream of being their own boss.

Deirdre was immediately struck by the sheer volume of seaweed that was available off the West coast and which was totally underutilized. She was aware of the therapeutic properties of seaweed and of the fact that it contains a balanced concentration of nutrients, vitamins and active minerals that enhance the skin's physiological functioning and promotes overall well-being. Deirdre initially thought of setting up a health and beauty spa in Connemara, focused on the use of seaweed. After an initial investigation of this idea, she saw an even bigger opportunity to create and manufacture beauty treatments and cosmetics based on fully natural ingredients, including seaweed.

Having obtained a feasibility grant from Udarás na Gaeltachta, Deirdre and Seamus travelled extensively in Europe looking at the manner in which seaweed was being applied in the beauty and skincare industry. They became more and more convinced through their travels that there was a real opportunity to capitalise on the natural advantages that Ireland's West Atlantic seaboard offered as a natural habitat for nutrient-rich seaweed and marine algae.

Learning from what they had seen in France, Spain and Italy, the couple then set about developing their own products and putting the

elements of a business in place. The couple spent two years, prior to the setting up of the new business, researching and developing a range of skin care products based on mineral rich extracts distilled from seaweed collected off the west coast of Ireland.

As a registered general nurse with extensive experience in a Dermatological Unit, Deirdre saw the need to strengthen her commercial skills and began to attend a number of relevant courses. She also saw the importance of further strengthening her specific knowledge of cosmetic science. She recently graduated in Cosmetic Science and is a member of the Society of Cosmetic Scientists, having completed a distance learning course with De Montfort University in Leicester. She finds that this course of study has been most useful in guiding her in the research and development of new products.

It is against this background that RÍ NA MARA, Irish Seaweed Cosmetics was set up in January 2004. RÍ NA MARA is located in An Spidéal, Co. Galway. To date six cosmetic and beauty products have been developed and launched based on seaweed harvested off the West Coast of Ireland. A unique combination of mineral rich algae extracts, slowly and meticulously distilled as one, form the basis of their home spa range of skin care. Optimistic about the future Deirdre very much enjoys being an entrepreneur and the daily challenge it provides. She is totally committed on a personal basis to life-long learning and improving her own skills: *I am determined to keep on learning. The more I learn the more I realize I have to learn. My focus now is on sales and marketing and on introducing Irish Seaweed Cosmetics to new customers in new markets.*

Having initially launched on the home market, Deirdre is already in discussions with distributors in the UK, US and Australia about introducing the company's range of cosmetics in those countries. Asked about the greatest challenge that she now faces, Deirdre immediately replies: *Money – simply having enough working capital to allow us to expand.*

Denise Meagher

With strong ties to the County Tipperary of her birth, Denise Meagher's route to becoming an entrepreneur was not an obvious one. With a degree in English and anthropology from NUI Maynooth, she decided to pursue her studies further and obtained a PhD in anthropology. Her career looked set to be an academic one and initially she found herself working for the Tipperary Institute, an innovative educational concept with strong developmental ties to local communities and businesses.

All of this time, Denise had a passion for fashion and was happiest when designing. Self taught and with a strong sense of personal style, she decided to get some formal training in the area and attended the Grafton Academy of Fashion Design in 2003. In her early thirties, she decided to take a complete career change and pursue her interest in fashion. Her ambition was to become a designer with a signature label that would be widely recognised and in demand. She quickly realized, however, that she knew little about how the fashion industry worked as a business. This she set out to rectify.

The result was *The Business* – an innovative fashion retail store that opened its doors in Nenagh, County Tipperary, in May 2004. Denise set out to create something unique and incorporated the concept of a café bar, a designer book shop and exhibition space into *The Business*, which stocked complimentary high fashion designer labels for men and women.

Denise's motivation was to gain an understanding of the fashion industry from the inside and she has had to learn fast. She was faced with a very steep learning curve as the whole business was new to her. She quickly understood that being an admirer and passionate about fashion was important but not a sufficient base on which to build a new business.

I learned how genuinely hard it was to set up a sophisticated concept like The Business – a boutique that was much more

than a boutique in that it supported the arts, café society and literary culture through the sale of books and art, when one's background was in a totally different field and when one had no significant capital to invest at the start.

Which leads to the second big problem: not understanding the critical importance of the buying side and the way the fashion industry is divided into two seasons annually. This means one buys for the next season, six months in advance, usually at some glitzy weekend tradeshow in Paris, London or New York, and one lives with those decisions 6 months later when one feels decidedly less sure one bought the right things! I overbought, as I had no clue what might or might not be the average sale per month for well into a year of business and I often tried to buy too innovatively.

In the middle of getting to grips with all the challenges posed by setting up a new business, Denise had a whole new learning experience to come to grips with. She became a mother for the first time six months after *The Business* opened.

The pressure at times was tremendous with a new baby – and home life often suffered as a result.

Along the way she has received tremendous support from her staff: *They were often my backbone;* from her partner: *I learnt I had a very supportive partner and that it is possible for people who come in contact with the trials and tribulations of setting up a business to actually learn and apply new skills to their own businesses. Such was the case for Seosamh;* and from her bank manager: *Unlike any other I have heard about, he is not a bean counting bureaucrat. He sees the bigger picture and gave me slack when I am sure very, very few others would have entertained me.*

Denise Meagher's determination is still undaunted and she is glad she took the road less travelled. She is not one to understate the

pressures involved in setting up a new business, however:

I learned that what they say about getting over the initial 3 years must be correct! If you survive it, you do deserve a medal!

Elaine Coughlan

Elaine Coughlan, a chartered accountant, spent eight years at Ernst & Young as a senior audit manager specializing in advising SEC registered clients in the technology sector and handling IPO transactions. She was attracted by the excitement of knowledge based entrepreneurial companies and decided to leave the relative security of one of the "Big 4" accountancy firms and to become involved in guiding these young companies to successful growth.

I had worked and trained in a large and very traditional organisation which had start up companies as clients. It became clear to me that the reason entrepreneurial and smaller companies can beat the "big guys" is that in those large companies the decision making process is like turning around a large ocean liner. Large companies can easily get caught in this static of slow decisions, poor focus and lack of an aggressive "can do" approach to new markets, products and ideas.

I found these start up companies which had deep domain technology and products much more dynamic and at the coal face of creating "real" businesses, with real technology the kind of companies that Ireland now aspires to create more of in the knowledge economy.

Against this background, she went on to accumulate over 13 years operational experience in technology companies from early stage of development through to exit. She gained extensive mergers/acquisition (M&A) and exit experience having been involved in three successful technology IPOs and secondary market placements which raised over \$1.6 billion in capital for both the companies and investors (IONA Technologies

plc, CBT Systems plc. and Parthus Technologies plc (CEVA Inc.).

It was incredibly rewarding to work with some of the smartest engineers creating world beating products that succeeded on a global scale. And coming from a small country only made the success even more satisfying.

In May 2000, Elaine played a central role in organizing a successful IPO of Parthus Technologies plc. Two years later, upon completion of the \$500M merger of Parthus and Israeli based CEVA Inc. Elaine decided to leave the company and to find a way to apply her accumulated knowledge and experience not just on behalf of one company, but on behalf of many.

While many others may have been content to rest on the laurels of their past success, Elaine Coughlan, together with Brian Long, Paul Harvey and Kevin Dillon, decided to back their own judgement further and to put together a new venture capital company, Atlantic Bridge Ventures. Elaine is a general partner and CFO of the new venture, with responsibility for finance, treasury, legal and investor relations.

Elaine explains what motivated her and the other founding partners to set up Atlantic Bridge Partners: *Given this experience we wanted to do it again – but instead of doing just one successful start up, we felt that we should invest in many and use our skills and know how in terms of founding and exiting businesses successfully.*

An integral part of the new VC focus is to add more than finance to its investment portfolio and to leverage the knowledge and experience of the founding partners and management team to deliver strategic and operational value and to adopt a transatlantic approach to building businesses to maximise shareholder value.

Even with the wealth of experience that the founders of the new VC brought to its establishment, it was not without challenges: *Starting from zero is both exciting and daunting.*

It is also a slow process to create meaningful value . . . you have to be “long term greedy”. Given that you start at zero you have to have confidence and the belief in yourself and your team that you will succeed in the long term. It helps having a team that share the same vision and ethos to get through the tough days and celebrate the successes.

Elaine cites the founding investors, Enterprise Ireland and her partners in the fund as offering that very critical support through the early days. A positive attitude and strong resilience Elaine believes to be paramount: *It is important never to under-estimate what can be achieved; to expect to get some knock backs along the way, but to get right back at it; and to persist irrespective of how tough it sometimes is.*

Even given the rollercoaster ride of a start-up, Elaine Coughlan is adamant that she would do it all over again: *There is nothing to beat the feeling of starting a business with a long term vision of success and having “wins” after taking risks.*

While she would recommend entrepreneurship to others, she would do so with some caveats emphasizing the importance of getting the fundamentals right: . . . *But it’s not for everyone given the risks that people have to take starting off. I think you need a well thought out defensible idea and business model and then you need great people . . . The entrepreneur can lead, but the really successful ones lead a really great loyal team around them.*

Jan Berg

A fascination with maritime matters influenced Jan Berg’s choices from an early age. Coming from Norway, a country with a long and well established maritime tradition this was not so unusual. Jan graduated with a Masters of Science from the Faculty of Marine Technology at the Norwegian University of Science and Technology and his immediate thoughts were not related to starting a new business but rather to getting as wide a range of experience as he could within his chosen industry.

With this in mind he travelled to the Middle East to join the world’s largest ship repair yard,

Dubai dry docks. It was in Dubai that he met an Irish girl who was to become his wife. The couple choose initially to live in Norway, so that Jan could further deepen his knowledge and experience. There he held executive positions in shipping and offshore exploration companies. Eventually they decided to return Ireland. This explains how a Norwegian, with extensive experience of international shipping, found himself in Ireland – a country with an underdeveloped maritime industry, but, as Jan says, with plenty of potential.

As part of his MBA thesis *“The Irish Shipping Industry in an Industrial Cluster Perspective”* in the Smurfit Business School in UCD, Jan investigated this potential and became convinced that Ireland was an excellent choice for significant shipping company activity, given its geographical location, and the fact that it was an English speaking, neutral country with a vibrant economy and a productive and highly flexible workforce. Moreover, the approval in December 2002 by the European Commission of new tax incentives⁸⁹, introduced by the Irish government to attract the international shipping sector to Irish shores, was perfectly timed to coincide with the launch of a new marine services company. It was against this background that Maritime Management was established.

Founded at the end of 2002, Maritime Management has obtained the International Safety Management, or ISM certification, in addition to the International Ship and Port Facility Security ISPS Code. The new business, the first of its kind in Ireland, is seeking to capitalize on the competitive advantages that Ireland has as an international base for shipping company activity and on the economical efficiencies provided by the tonnage tax. These advantages can be gained by operating ships in international trade from a base in Ireland.

The company offers ship management, maritime consultancy and marine surveying and associated maritime services to the

international and local maritime and shipping industry. It has a particular focus on companies that are looking to Ireland as a base for their maritime operations. For the local maritime, fishing and offshore industry, special marine services and Naval Architects, which in the past were only available abroad, are now on their doorstep.

Jan Berg is not someone who always wanted to be an entrepreneur- quite the reverse. He describes himself as *very much a company man*. When he saw the potential that existed in Ireland to develop not just a company but a whole industry, however, he could not resist the challenge.

Jan points particularly to the support he has received from NovaUCD Campus Company Development Programme as being a key component in the turning of an aspiration into a reality. Still housed in NovaUCD, the continuing involvement of the university as a shareholder in the business brings an added dimension, Jan believes, that is very important to the new venture.

I found the start up support in Ireland great: entrepreneurship is much more valued here than it is in Norway. If I were still in Norway, I would never have developed the determination to become an entrepreneur.

While full of praise for the support that he has received in Ireland, Jan is very critical of the high costs that start-up companies must face, particularly in terms of professional fees and insurance cover. *Compared to Ireland the cost of these services in Norway is marginal*. Jan believes that these high costs kill off many start-ups before they ever get off the ground.

He also finds that the environment in Ireland is *family hostile* compared to Norway, where better childcare facilities and a greater equality in the roles of men and women, with regard to family and professional responsibilities, provide more opportunity for women to develop

⁸⁹ The tonnage tax.

careers outside the home and a better family – work balance for the men.

Jan does not regret his decision to move with his family to Ireland and is very excited by the prospect of being part of the development of a new industry, virtually from scratch. He sees the maritime industry in Ireland as being at a similar stage of development that the IT and pharmaceutical industries were in the early 1980s and he believes that its potential is equally impressive.

Jennifer Kinnear

In college, Jennifer Kinnear studied Sports, Recreation and Leisure Management. At that time, few of her fellow students could have realized that some years later, Jennifer's jewellery designs would be sold in 35 shops throughout the country, and that she would have her own flagship store in Temple Bar, Dublin where she showcases her jewellery collections.

Jennifer was always creative and had a great interest in the fashion world. This interest brought her to work for a fashion clothing company after college and to attend evening courses in jewellery design in the National College of Art and Design. She loved these classes and while working in a variety of jobs, continued to experiment with jewellery design and manufacture, reading every book she could lay her hands on in this area. Friends and family all raved about her designs and gave Jennifer the determination to make a career for herself as a jewellery designer.

Jennifer's drive was to create stunning jewellery: she became an entrepreneur by default.

In 2002, Jennifer started selling in the Blackrock market and then moved to Cow's Lane market in Temple Bar, where she found a ready interest and many customers for her jewellery. At the same time, she started to sell on a wholesale basis to a variety of shops and galleries.

During this initial start up phase she had the benefit of a mentor from the Dublin City

Enterprise Board, which was just as well as she had to absorb a great deal of information in a relatively short time in order to set up the new business. As she says herself: *The learning curve was so steep it was almost vertical!* The commercial realities of managing a business meant that she would not be able to dedicate herself full time to designing, but would have to strike a balance between all the conflicting demands of a new business. One of the earliest lessons was that cash is king and that watching the cash flow is fundamental.

Jennifer now showcases her work in JK Retail Studio and Showrooms. Located in Temple Bar, the shop was opened in December 2004, and displays the three distinct ranges, *Kink Bijoux*, *Vanilla* and *Jenny Wren* that Jennifer designs and makes. She also works in situ, designing custom made, 'one off' pieces for the commission client, who wants to partake in the design process.

Jennifer Kinnear comes from a line of entrepreneurs, her father and grandfather both had their own businesses. She believes that an entrepreneur, be they a man or a woman, needs tenacity and resilience – *The ability to keep hold of the vision and when the knocks come along, as they invariably will, to bounce back and get straight back into it.*

Jennifer's family gave her great support and urged her to follow her dream. Without a network of support from friends and family, she believes that becoming an entrepreneur would not have been possible. Her partner, Simon, particularly fuelled her sense of self belief whenever it started to flag, and they brain stormed over many cups of coffee, as he was also setting up a new business, in a totally different area, at the same time as Jennifer was starting out.

At the beginning, Enterprise Ireland was not convinced that the new business was a viable proposition. Looking back on this now, Jennifer laughs as she says this was not particularly surprising as they were faced *with a young designer with plenty of creativity and drive but with no formal design or commercial training.*

Once Jennifer could, as she says, *prove her worth* the agency backed her with research and development grants. These allowed her to develop a further collection of her jewellery and underpinned her securing sales in the US market and an agent in Japan. Jennifer meets buyers at Showcase Ireland, run by the Crafts Council of Ireland, which she says *proved invaluable as a way of giving a platform to the jewellery and meeting major buyers from Ireland and from overseas.*

Asked if she would do it again, Jennifer hesitates and then says she would. The hesitation comes from a greater awareness of what is involved in the whole process of starting up a new business. She would have loved to have known back in 2002 what she knows now: *I have learnt so much along the way and have acquired new skills in many areas that I would never have acquired if I had not taken the plunge and become an entrepreneur.*

Jennifer is now looking to further grow sales of her jewellery in the US, get her sample collection out to Japan where she has just landed an agency deal and to break into the UK market. It seems a long way from a stall in the Blackrock Saturday market.

John O'Hare

John O'Hare, founder and CEO of Azotel Technologies, is a serial entrepreneur. That is Azotel is the second business that he has set up since 2002.

Thinking back to his early formation as an entrepreneur, John immediately recalls his childhood:

I've always had an immensely strong work ethic and the desire to do things better, which very often means doing things differently. I think it was the freedom of growing up on a farm that gave me the desire to setup and run my own business. It encouraged a sense of fearless self sufficiency and a spirit of innovation. For example, when it came to fixing or improving a piece of farm machinery, my Dad would always say 'try it yourself' so I

would, and usually we'd succeed. If I didn't, I'd think of another way of doing it until the problem was solved.

A graduate of the University of Limerick with a First Class Honours degree in Electronic Engineering, John has a specialist expertise in leading edge wireless telecommunications technology. He formerly worked with Motorola Inc. in Ireland, Europe and the US. He successfully established a number of collaborative research efforts between industry and education in Ireland before founding Amocom Technologies in 2002.

John added good industry experience and a strong technical background to an ability to identify an opportunity and act on it:

From my experience in the multi-national telecommunications industry in Europe and the US, I could see that broadband connectivity was going to be the next big thing, "the electricity of the 21st century", so I decided to roll out a broadband network of my own. Amocom Technologies was founded in April 2002, while I was a participant in the Genesis Enterprise Programme. Sounds funny now, but in 2002 a lot of people hadn't even heard of broadband. Those were pioneering days, Amocom was the first company to deploy a Motorola Canopy network in Europe and we were the first company in Cork to offer a wireless broadband service.

Amocom's mission was to rapidly deploy a wireless broadband network in Cork city, using cutting edge broadband technology developed in-house at minimal cost. In February 2003 John O'Hare was awarded the top prize in the Genesis Enterprise Business Development Awards.

Having proven the technical excellence of the proprietary software developed in-house on the Amocom network in Cork, and having achieved commercial success with Amocom Net, in 2005 John decided to sell a majority share of Amocom and establish Azotel Technologies.

Azotel's mission is to enable broadband operators anywhere in the world to rapidly reach a plateau of technical excellence and commercial success by using Azotel's technology solutions. Azotel software currently powers several broadband networks in Ireland and Europe.

According to John, broadband rollout on a global basis is still only gaining momentum, but it's important to be one step ahead. He believes that there is a tremendous opportunity for developing platforms that will play a central role in the delivery of broadband services and applications. That is precisely what Azotel does. The Azotel solution is now as much sought after in China and Kenya as it is in Cork.

John O'Hare's objective is simply to create 300 Amocoms globally, within the next 3 years. It might seem a little daunting, he says, but so too did acquiring 30 customers when Amocom first started.

Asked to comment on the greatest challenge that he faced as an entrepreneur, John immediately identifies time: *Time is the biggest challenge for anybody starting a business.*

While the role of the entrepreneur may at times appear a lonely one, John points to a number of people and organisations that gave him support and continue to do so.

All of the above would simply not have been possible without the support of my wife Denise, family and a few very close friends. I also got superb help and advice from many organizations – Genesis Enterprise Programme, Cork City Enterprise Board, Motorola, CIT⁹⁰, Cork BIC, NSC⁹¹, Cork Chamber of Commerce, Dept of Communications, Enterprise Ireland, but most of all from the many early adopters of the technology.

Asked if he would do it all again, John has no hesitation in replying *definitely!*

Lloyd Nolan

A graduate of University of Limerick with a Bachelor in Technology, Lloyd Nolan had always wanted to become his own boss and had been considering the idea of creating a business for some time.

I have always wanted to work for myself, for several reasons. I am not averse to managed risk – I work better without a boss and enjoy being empowered to build my own livelihood. I am also motivated by money and felt that my career path in the PAYE sector would never allow me to reach my financial goals.

For that reason he was actively looking for an opportunity out of which he could create a new business. Travelling in connection with his work, he was yet another travel weary transient passing briefly through Hong Kong in the autumn of 2004. To put in some hours, he was attracted to a golf simulator which was one of the most sophisticated he had ever seen. A keen golfer – *but no Tiger Woods!* – he thoroughly enjoyed his "game". Within that fateful two hours he realised that he had the basis on which a new business might be built, because he was fairly sure there was nothing of this quality available anywhere within Europe.

Much intensive after-work research was needed to check out his idea further. So most weekends and evenings, Lloyd was busy researching the market, identifying the owners of the technology and working hard to obtain the European distribution rights for the GolfPro simulator and swing analysers.

Full of enthusiasm, in May 2005 Lloyd left the security of his well paid position in a US blue chip company in the South West of Ireland to join the ranks of the self employed.

The first major challenge that he faced was to try to find a means of offsetting his immediate loss of income and to find a means to pay ongoing personal expenses including a hefty

⁹⁰ Cork Institute of Technology.

⁹¹ The National Software Centre.

mortgage. He quickly realised that he would need to bring in outside investors and give away part of the new company to create the conditions necessary to allow him time to concentrate full time on getting the new business off the ground.

The challenge here was to make contact with people with the right background and more importantly with people I could trust – for what would hopefully turn out to be a long term proposition.

Lloyd decided that the VCs were less attractive an option for him as an outside source of equity than business angels, as he wished to retain full control over the decision making within the company, while prepared to give up part of the ownership. He found the informal investors that he was looking for within the circle of close family and friends.

During this time, Lloyd attended the Venture Start programme which is run on a part time basis in the Innovation Works by Shannon Development. He found this course most useful in helping him to crystallise his thoughts about the new businesses.

In particular, it helped my self belief, because it dispelled any perceived ‘special circumstances’ around starting a business and it broke through the sense of isolation that I was the only one facing the challenges of starting businesses as it gave me an opportunity to meet with and exchange ideas with others in the same boat as myself.

He also saw the need to round out his business proposition further and drawing on his IT background, he identified what he considered to be world-class integrated club management software and incorporated it into the business as a separate product offering.

By September 2005, Lloyd Nolan’s new company, Commercial Information Technology Ltd, was ready for business. That presented another set of challenges:

The next challenge was how to target my potential customers. I had never managed

any type of marketing campaign before, and I quickly learned that ROI on advertising is something of a dark science that can simply eat money! A lot of money was also spent on hiring consultants to put together branding, brochures, websites etc.

He has learnt through this initial experience and is more cautious today spending more time doing initial research himself before hiring consultants to tell him what he could find out himself with a little effort and for a fraction of the cost.

Lloyd quickly learned that his best route to winning customers was not with blanket advertisements but with referrals. He needed a few well known names in the club world to install the club management software. This product by the time it is installed is entirely customised to a particular club’s needs and a full pre installation customisation is required and full after sales service supplied. The challenge here was less about convincing prestige clubs about the product itself, as its integrated nature held its own appeal. The real challenge was convincing them that the new company would be around in the future to cater to their service needs. Just six months after setting up, CIT Associates can now proudly claim Fitzwilliam Lawn Tennis Club, the Kildare Street Club, and the Luttrellstown Golf Club, among many others, among its client base.

Lloyd is now leading the pressurised life that most entrepreneurs encounter in which multitasking and long hours are a feature:

Multitasking is a skill that requires a steep learning curve, and it can be challenging to concentrate to completion on single tasks knowing that several others require your immediate attention.

I have had to cancel booked weekend trips, be away from home for several days on end, cry off from social events, and even when I am home I’m still very much focused on work. Because the new business dominates every aspect of my life it can be challenging to refrain from

burdening friends and family with the latest success when we do meet on social occasions.

Lloyd stresses that his wife Helena's support and understanding has been essential to him over this period. *Without her support, I simply could not have given up a well paid position and followed my ambitions to set up and run my own business. While friends and family can also be counted on for much needed words of encouragement.*

Shannon Development has supported Lloyd throughout the planning and early start up period: *We went through a feasibility study with them and my mentor there has been very helpful in doing market research, gaining contacts and framing our business plans. My bank manager has also been very supportive in putting the necessary facilities in place.*

Lloyd Nolan is now optimistic the CIT Associates will be showing a profit in its first year of trading. Asked if he would encourage other people to follow his example and set up their own businesses, Lloyd responds without hesitation: *Absolutely!* But cautions budding entrepreneurs – *Good health is a requirement and the long hours required can be draining, so quick recovery is a must. Self confidence is also a pre requisite, I have found myself in some unfamiliar situations and the need to believe in what you are doing is right is important.*

Michael O'Shea

Michael O'Shea loves variety, has a great sense of adventure, and a strong personal drive. He is not someone that it is easy to categorize. The road that he took to setting up his new business, Intelligent Health Systems, reflects all of these traits.

Originally a Veterinary Graduate of UCD, Michael developed an interest in biomedical engineering, particularly in the application of technology to diagnostic and monitoring applications in medicine. He looked to see how he might be able to further this interest and, after a number of years in practice,

decided to return to UCD where he obtained a second degree, this time in Electronic Engineering.

Having graduated with a second degree, Michael set out to pursue his interest in biomedical research. But to his disappointment, he could only find a very limited number of companies in Ireland doing any biomedical research and most of this was not in the area in which he was interested. His particular interest lay in the field of biomedical signal analysis. He decided to take a different path and to start up his own company in the biomedical research area, as he believed that he had real insights into this emerging area. But first he wanted to fill in some gaps in his knowledge . . .

I found my way into the IT industry. I developed good programming skills and also hardware development experience. I was involved in a number of IT and Electronic start up companies and the overall experience formulated my approach to my ultimate goal.

At that stage, Michael O'Shea's professional background spanned the worlds of veterinary, engineering and IT and he was uniquely placed to *think outside the box* and to see opportunities that spanned across different disciplines that were not, as he says, *always visible to other structured biomedical companies.*

Drawing on this wide base of professional knowledge, Michael O'Shea and his wife and business partner, Alison Clancy, a registered Nurse Tutor and university lecturer, decided that the time was ripe to draw together all the various strands of their professional life to create Intelligent Health Systems (IHS) Ltd, a healthcare technology company.

Michael is now the Managing Director of IHS, a multi-disciplinary company, which integrates expertise from the fields of medicine, veterinary medicine, and engineering and information technology. Based in NovaUCD, the mission of IHS is *to improve healthcare through the intelligent use of technology.* The

company provides healthcare training and consultancy and carries out research into applications of biomedical signal analysis to diagnostic and monitoring procedures in the medical and veterinary markets.

Operating at the cutting edge of an emerging technology has many challenges not least of which is the need to educate others to see the potential that it offers and the opportunities that exist.

Getting people to see the big picture can often be difficult. When confronted with new concepts most investors are somewhat tunnel-visioned. It's also a challenge to find funds to support early stage research for areas that have no, as yet, obvious commercial benefit, and yet these building blocks are the foundation on which advances can be made.

Michael O'Shea, however, is not easily daunted. He is used to a challenge and seldom takes the easy route. He and Alison travelled along the Inca Trail for their honeymoon, he trained for a short period as a stunt man (a long story . . . !), and in the early 1990s he organised and led a sponsored Landrover drive from Ireland to Ethiopia to raise funds for the Irish third world charity, Self-Help. The highlights on that trip included repairing a radiator in the Sahara using a makeshift soldering iron and digging their way through the mud on the 'roads' in Zaire.

Adventure sports have always attracted Michael and he became proficient at many of these. Among these was Skydiving, but he has less time to do this now:

I suppose business now equates to freefalling . . . hoping the chute is going to open!

Given the wide ranging professional education, training and experience that Michael and Alison bring to their new business, it is obvious that they leave little to chance, but come very well prepared for this latest joint venture.

Monica Nugent

Ireland's PC Doctor (formerly known as MPN

Computer Services) was set up in 2003 by Monica Nugent, who spent her formative years in Australia and Argentina. Monica found herself in Donegal having met and married an Irish man in Argentina. With her qualifications and experience in the IT sector, Monica had a choice to make. She could either not make use of her qualifications, as there did not appear to be employment in the IT sector in Donegal Town or any surrounding areas, or else create a new business that would make use of her skills. She decided to create a new business.

This strong sense of self-determination came to Monica from her parents:

The fact that my parents have had several types of businesses in South America, from convenience stores to a butcher store and a few others in between, I grew up with the idea that if you want to get anywhere you have to have control of your own life and by that I mean by having a business.

Having decided that she was going to set up a new business, but still unsure what the focus of that new business should be, Monica attended a *Women in Enterprise – Start Your Own Business* course. Monica explains that the idea behind the new business came to her while she was attending the course:

I realised that nobody in my area did on-site IT services. Customers had to drag their PC's to their local shop. It was then that I decided that was what I was going to do, provide on-site and off-site computer services to home and business users.

Initially established as MPN Computer Services in 2003 in Donegal Town to bridge the gap that she had identified in her local market, Monica Nugent launched new services in 2005 on a nationwide basis and rebranded as Ireland's PC Doctor. The company now provides a range of services including repairs, maintenance, sales, networking, website design, live telephone technical support and live remote access support. The team now consists of three people and Monica is hoping to employ more in the near future.

Monica points to a network of support that made setting up her own business possible: *I can't say who has given me the most support but I think that all three are linked, my husband to begin with, who helped me and still does; Donegal Local Development Company (DLDC), especially Louise Brogan; and the Back to Work Enterprise Allowance Scheme. I think that, without these three, I wouldn't be in business today. The combination of not being able to find employment and the help of DLDC gave me the push I needed to get started.*

Monica's greatest challenge in setting up her new business was cash flow: *I started off with ZERO cashflow. With every job I did, I just allowed my earnings to grow in the Bank to build the cashflow. I held minimal stock and had a home-office. The Back to Work Enterprise Allowance Scheme played a big part in helping get this business off the ground.*

Even with the network of support that she has, Monica pulls no punches in spelling out that setting up a new business can be difficult: *Being an entrepreneur has turned out to be a lot more difficult than I thought. I now believe the statistics that only 1 in every 5 business survives in business during the first five years: at first I didn't believe it, but having gone through the experience and what I am experiencing now proves how difficult it is in business. Believe me, its true.*

Despite the difficulties, Monica would recommend that others should consider becoming an entrepreneur, as her choice to set up her own business has given her great freedom, which suits her independent nature: *While I earn no more than if I worked for some one else, I have independence, I am my own boss and my destiny is in my own hands and not in others. There is no one telling you what to do, it's all up to you, the responsibility is yours and there is no one to blame but yourself.*

Rosey Broderick

Setting up a new business is a challenge that Rosey Broderick always wanted to take on. An increasing interest in home and garden

improvements fuelled by the rising value of property in Ireland, together with the growing use of the internet, combined to convince Rosey that the consumer was ready for a comprehensive information centre for all home renovations and improvements. This she believed was the opportunity that she had been looking for and she decided to put her experience and energies into converting that opportunity into a business.

She believed that Homewise.ie could serve both the interests of the consumer and of the supplier. From the consumers' perspective it would provide the means to find a local supplier from a directory of 50,000 listed home & garden suppliers and services and from the suppliers' perspective, it would provide a cost effective and powerful method of getting a presence on the Internet to reach their target market.

Recognizing that Home & Garden suppliers and services are most commonly promoted through word of mouth, Rosey Broderick applied this concept to HomeWise.ie by allowing consumers to rate and review the goods and services they received and to make these reviews available to other potential consumers.

Rosey Broderick is the only person working full time on this new business at present and she reckons that the greatest challenge she faces is to ensure that the correct balance of time, energy and finance are applied to the most relevant areas at the right time to develop this new venture to its full potential. She does not underestimate the challenges involved and recognizes that maintaining focus and momentum on a long term basis will be needed.

In turning her aspiration to be an entrepreneur into a reality, Rosey had what she considers to have been invaluable assistance:

The support of programmes such as the M50 Enterprise Platform is invaluable for getting a business off the ground, not only through being introduced to a network of similar minded people and having the

benefit of mentoring from others who have been through the experience before, but also through attendance at workshops and having the use of office facilities.

As someone who has gone through all the challenges associated with starting a new business very recently, Rosey Broderick is not at all daunted by the experience, quite the reverse:

This roller coaster experience is one that I can't recommend highly enough. If you have a business idea and the drive to do something about it, take the plunge!

Sean Cronin

Sean Cronin had always wanted to be an entrepreneur and during the time spent in the early years after university, working for blue chip US multinationals, Sean was learning valuable lessons with regard to how multinationals think and operate, at the same time as being well positioned to spot opportunities that could form the basis of a new venture.

It was during the time that Sean was development centre manager for Logica in Cork, that a series of coincidences formed themselves into the opportunity he had been waiting for. Working with Microsoft on Mobile PC solutions and presenting Logica's products to operators, Sean became aware that what operators wanted was revenue earning services that the new phone technology enabled. Logica, however, was not interested in developing services and the procedure was to recommend partners to supply services after the hardware and management platform had been sold to the customer.

This was in 2001/2 and colour phones were starting to emerge. At the same time the Java™ standard had just been ratified by phone vendors. This enabled an application to be written once and then played on many different handsets. This had not been the case previously as applications up to that point had to be written for each handset based on its

individual operating system. Sean saw the potential that this situation offered.

Initially he approached his employer proposing that Logica should develop value added applications that could be sold after the platform was enabled but this suggestion *fell on deaf ears*. Sean was not about to let this opportunity pass by. If his employer could not see its potential, he certainly could and decided to go after it.

So I proposed to some friends and colleagues that this would be a good opportunity as colour handsets would become affordable within a year and they would be ideal for Java games and other entertainment. They would become affordable in time.

The difficulty was that Sean could not afford the salaries his target people wanted. This situation was to change within a few months. Logica decided to re-size and move some development work to Eastern Europe in a cost cutting exercise. Cork, being the youngest development centre, was earmarked to close and move the 106 jobs to Prague and India. Staff suddenly became affordable and, an added bonus, they had some investment funds by way of redundancy money. So out of this potentially difficult situation the means to create Selatra were put in place.

Sean and his friends and former colleagues were convinced that they could develop a Java download platform and sell a managed service rather than a product. The key to managing within their means was to keep the investment to a bare minimum and to deliver a platform with a fully stocked games catalogue that other Games developers had spent time and money creating. The affordability of colour handsets, they were convinced, would create a market within months among the pre-paid subscriber base, which was their target market (15-35 year olds). They wanted to be in a position to avail of that opportunity as it presented itself.

So we set up and invested our own money (5 founders) with enough funding to run for 12 months. We expected to be revenue

generating within nine months but we did it in four and, as revenues rose month on month, we became self sustaining with EI matching funds.

The availability of matching equity funds from EI, together with feasibility funding, was a key support in those early months and allowed the new company to get off the ground without having to draw on the VCs or other outside equity at that early stage. During the start-up phase Sean attended the Genesis Enterprise Programme which *provided a kick start to honing the multiple skills needed to survive in today's start up land.*

These were the circumstances in which Selatra was founded in 2002 as a global distributor of mobile entertainment content specialising in JAVA™ games. Selatra licenses JAVA™ games from all over the world and offers these high quality branded and non-branded games and applications to their retail partners. Through the company's extensive portfolio of games, their JAVA™ download technology and their content management system, Selatra offers a complete cost effective gaming solution to Network Operators and Mobile Content Retailers from its offices in the National Software Centre in Cork.

The company grew rapidly from the start and the founders considered that it was important to maximise their early mover advantage. Growth is expensive, however, and must be financed. Having managed to bootstrap the business initially with their own investment and with matching equity funds from EI, more was needed.

As we grew and wanted to ramp up faster than our organic growth in revenues permitted. We took a strategic decision to raise VC growth money in 2004.

While a decision is relatively easily made, having made the decision to seek VC funding the founders of Selatra did not fully appreciate at the outset how long that process would take and how much time would be involved.

The amount of time dedicated to pitching and answering queries was far more than

we had expected. We eventually found funds in July 2005, nine months from the first pitch. The term sheet negotiations and legal issues were very distracting and had to be dealt with at the same time as dealing with changing expectations from staff and partners. The cultural change that external VC partners brought into the mix was also difficult.

Looking back over the last few years, Sean comments that he has no regrets in having become an entrepreneur: but that he would be more aware next time of the amount of time that can be tied up securing sufficient finance to allow the company to develop and grow. Sean would caution other entrepreneurs:

Don't underestimate the difficulty in fundraising for hi tech, non asset-backed ventures in today's property preoccupied Ireland!

Sean Fitzgerald

Sean Fitzgerald was someone that had long admired entrepreneurs and always wanted to set up and run his own business.

I have always had a great admiration for people who create wealth through building a business. There are tremendous unsung heroes in Ireland who have, through their drive and vision, greatly advanced our wealth and general well being as a nation.

His route to becoming an entrepreneur was an indirect one. Having studied physics and chemistry at Kevin St., Dublin Institute of Technology, he began his career at Analog Devices in Limerick as a semiconductor process engineer. He then worked internationally for sixteen years in companies in the semiconductor and chemicals business.

Overtime, his responsibilities shifted away from the technical side and more towards the commercial and management side of the business. Eventually he found himself managing a European business for a large multinational. The accounts receivables side of the business was proving highly inefficient and ineffective.

Sean explains that he proposed a simple solution of linking invoice presentment to a direct debit on a European basis and was surprised to find that it could not be done. As Sean explains: *It was one of those Eureka moments!*

Further research demonstrated the size of the opportunity in the European context. This was to prove the opportunity that Sean had long sought and was to form the basis of the new business. The underlying challenge was to facilitate corporations and financial institutions to exploit the inherent advantages and flexibility of the Direct Debit in Europe. The company's euroDEBIT flagship product platform was developed to exploit this identified market need.

Sean fleshed out the idea and decided that it was now or never. The timing from a family point of view, however, was a little problematic.

I was just married: pitter patters were starting to echo around the house, which had just undergone a significant renovation. In spite of the risk and the uncertainty my wife gave me her full support. This is absolutely essential for me.

Sean emphasizes the importance of family support to an entrepreneur starting out and does not downplay the difficulties encountered along the way:

There are many ongoing tough and gruelling periods, so strong support on the home front is an imperative.

The ability to multitask and to balance all the facets of the new business is a skill that all new entrepreneurs need, according to Sean Fitzgerald:

I don't think there is one single dimension in building a business which is of most significance. The challenge is multi faceted. Each element is as important as any other and neglecting any one can cause serious problems. Developing a market and customers are a given. Without those there is nothing. But you also need to address

product development, marketing, customer care, premises, recruiting, funding, accounts, legal . . . The list goes on. At various stages each aspect comes to the fore.

One key dimension is probably managing product development to provide cash flow generation in the early stages which enable the business to focus on enhancing the product functionality to enable client base to broaden and deepen. Clear product definition aligned to the needs of the potential client base is essential. Then test the results with experts in your target markets. The marketing and sales tactics then evolve fairly naturally if the product definition process is robust.

Developing the organisation to conduct and support the sales process requires forward planning. It is important to recognise client expectations the company will face up to six months down the line and then to staff up to ensure the skill base and experience is there to handle this.

Having taken the plunge himself Sean Fitzgerald is now more aware of what is involved in the process and would be more cautious than previously in recommending it as a route for others: *I am not sure I would recommend taking the entrepreneurship route to everyone. It can be tough. I think you probably need the right combination of vision, persuasive powers and thick skin. A bit of experience of business and management also helps and you obviously need the financial wherewithal to sustain yourself and the business for a few years.*

Given his admiration for entrepreneurs and his long cherished wish to be an entrepreneur, Sean, however, has no regrets about becoming an entrepreneur. But he has only started out. Sentenial is not two years old yet. With continuing strong support from home and positive feed back from customers, Sean Fitzgerald is more convinced than ever that he was right to leave the security of a well paid senior position with a multinational firm and to follow his dream.

APPENDIX 2

Preface to GEM Phase 2⁹²

This is the seventh annual Global Entrepreneurship Monitor (GEM) cross-national assessment of entrepreneurial activity. Started in 1999 with 10 participating countries, the project has expanded to include 35 countries in 2005. Over the years national teams from 43 countries have contributed to the project. A GEM consortium assessment and planning meeting is held in January of each year and more than 150 scholars from the various national teams collaborate with the coordination team in the collection of the data and the development of the project.

GEM is a major research project aimed at describing and analyzing entrepreneurial processes within a wide range of countries. In particular, GEM focuses on three main objectives:

- To measure differences in the level of entrepreneurial activity between countries
- To uncover factors determining the levels of entrepreneurial activity
- To identify policies that may enhance the level of entrepreneurial activity

GEM's contribution to the knowledge and understanding of the entrepreneurial process is unique since, to date, no other data set exists that can provide consistent cross-country information and measurements of entrepreneurial activity in a global context.

Clearly, a project of GEM's scale and scope is an ongoing work in progress and it requires continuous improvements with respect to both

the quality of the data and the way the data are interpreted.

In 2005, GEM Phase 2 was initiated.

Thanks to the knowledge and experiences accumulated in the past seven years, as well as the inputs provided by many scholars in the last few months, the GEM project has undergone a significant amount of change and improvement, and much more planned for the coming year. Although the changes are numerous and range from very broad to very detailed, they can be roughly summarized into two categories:

- Changes related to the collection and documentation of the data
- Changes related to the use and interpretation of the data

Extensive changes are being implemented with respect to the collection, harmonization, and documentation of the data. One of the comparative strengths of the GEM project is its unique ability to provide comparable data across countries. The quality of the data is, as a result, paramount. The statistical characteristics and properties of the entire data set are being assessed and significant attention is being paid to the data collection procedures with the aim of increasing response rates and the overall quality of the samples.

Extensive changes are also being implemented with respect to the use and interpretation of the data. In the past, GEM has focused on the study of early-stage entrepreneurial activity. Entrepreneurship, however, is a complex and

⁹² This preface appears in the Global Entrepreneurship Monitor 2005 Executive Report.

multifaceted phenomenon. Although GEM will continue collecting data and documenting the behaviour of potential entrepreneurs, its data provide a broad range of information on many of the various phases of the entrepreneurial process. This year's Executive Report analyses the existence and characteristics of established business owners; the degree of innovativeness, competitiveness, and growth expectations of early-stage and established business owners; and the existence and characteristics of social environments conducive to entrepreneurship.

Overall, GEM's unique ability to provide information on the entrepreneurial landscape of countries in a global context makes its data

a necessary resource for any serious attempt to study and track entrepreneurial behaviour worldwide. Most important, GEM's renewed vision will allow researchers to further increase their ability to inform policy makers and make a difference in our economies.

GEM could not have been possible without the support and encouragement of Babson College and London Business School, its two funding institutions. New developments, and all national reports, can be found at **www.gemconsortium.org**.

Dr. Maria Minniti
GEM Research Director

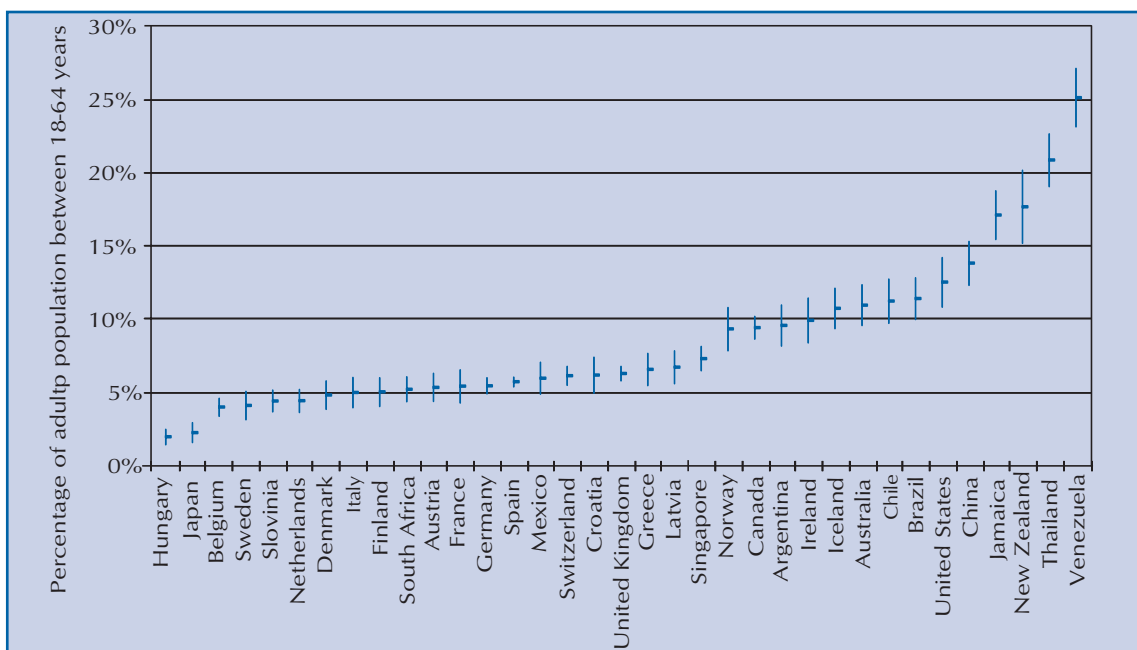
APPENDIX 3

Global Results at a Glance

Figure 1 shows the prevalence of early-stage entrepreneurial activity across the 35 countries

that participated in the GEM research cycle in 2005.

Figure 1: Early-stage entrepreneurial activity by country (TEA Index) 2005



Source: GEM 2005 Executive Report

The vertical bars in the chart display the 95% confidence intervals.⁹³ A confidence interval is provided because the GEM survey does not include the entire adult population of a country. If the survey would cover the entire adult population in each country, the actual rate of entrepreneurial activity would have a 95% probability of falling along the vertical bar around the estimated points. The length of the bar is a reflection of the sample size in each country: small samples lead to wider vertical bars, and vice versa. Countries that exhibit

overlapping vertical bars are not significantly different in their participation rates.

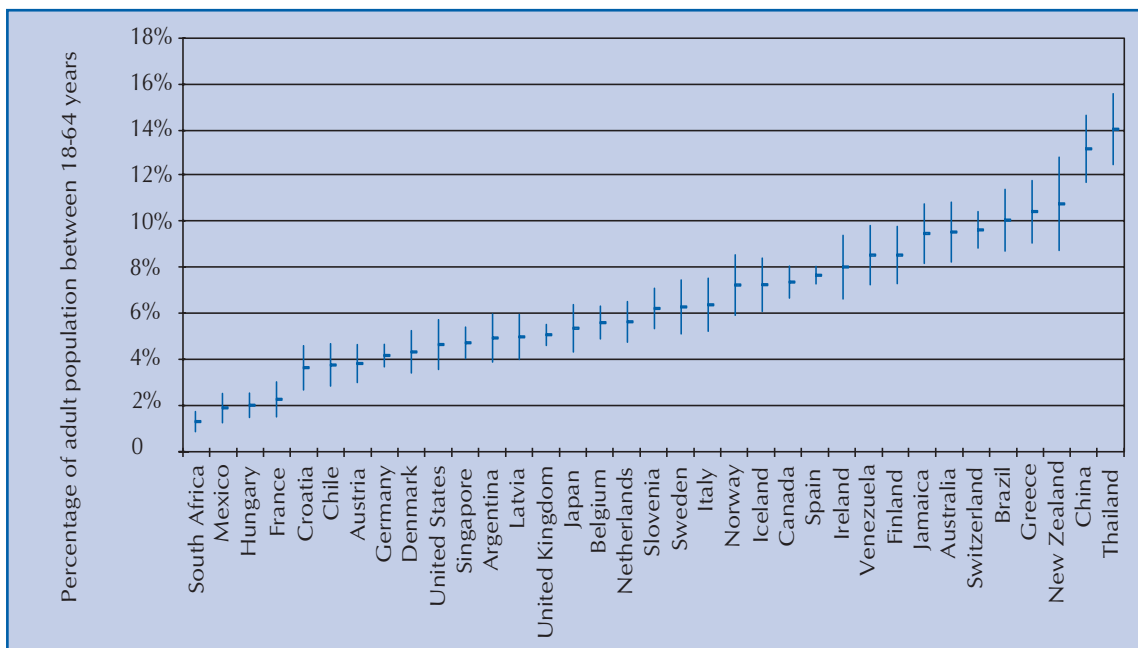
In addition to those individuals who are currently involved in the early-stages of a business, there are also many individuals who set up a business which they have owned and managed for a longer time. These individuals are included in the established business owner index that captures the percentage of individuals in a population that have been owning and managing a company that they

⁹³ While the prevalence rate for each country is based on weighted observations, the confidence interval displayed by the vertical bars is approximated using unweighted individual-level survey data. This asymmetry occurs because there is, to the best of knowledge, no formula for computing confidence levels using weighted data.

have set up and that has paid wages or salaries for more than 42 months. Figure 2 shows the prevalence rates of established business

owners across countries in 2005. As before, the vertical bars represent the 95% confidence interval.

Figure 2: Established business ownership by country 2005



Source: GEM 2005 Executive Report

Table 49 provides an overview of the different stages of entrepreneurial activity measured by GEM. The early-stage prevalence rate (or TEA index) is the combined count of nascent entrepreneurs and new business owners, while the overall rate of entrepreneurial activity is the count of early-stage plus established

entrepreneurs. A small number of individuals qualify for more than one of the entrepreneurial stages because they are involved in more than one venture. The combined early-stage index and the overall index count these individuals only once.⁹⁴

⁹⁴ Hence, the early-stage entrepreneurial activity rate is smaller than or equal to *nascent* entrepreneurs plus new business owners (*new firm* entrepreneurs) and the overall rate is smaller than or equal to early-stage rate plus *established* business owner rate.

Table 49: Prevalence rates of entrepreneurial activity across all countries that participated in the GEM research cycle in 2005

	Nascent Entrepreneurial Activity	New Business Owners	Early-stage Entrepreneurial Activity (Nascent + New) ⁹⁵	Established Business Owners	Overall Business Owners (Nascent + New + Established)	Number of Observations
Argentina	5.9%	3.9%	9.5%	5.0%	14.1%	1,746
Australia	6.5%	4.7%	10.9%	9.6%	20.4%	2,002
Austria	3.0%	2.4%	5.3%	3.8%	8.8%	2,197
Belgium	2.9%	1.2%	3.9%	5.6%	9.4%	4,047
Brazil	3.3%	8.2%	11.3%	10.1%	21.4%	2,000
Canada	6.6%	3.6%	9.3%	7.4%	16.6%	5,519
Chile	6.0%	5.3%	11.1%	3.8%	14.4%	1,733
China	5.6%	9.4%	13.7%	13.2%	26.7%	2,109
Croatia	4.1%	2.5%	6.1%	3.7%	9.7%	1,555
Denmark	2.4%	2.4%	4.8%	4.4%	8.8%	1,968
Finland	3.1%	1.9%	5.0%	8.6%	13.5%	2,010
France	4.7%	0.7%	5.4%	2.3%	7.5%	1,603
Germany	3.1%	2.7%	5.4%	4.2%	9.4%	6,577
Greece	5.2%	1.6%	6.5%	10.5%	16.9%	2,000
Hungary	1.1%	0.8%	1.9%	2.0%	3.8%	2,878
Iceland	8.5%	2.7%	10.7%	7.3%	17.6%	2,002
Ireland	5.7%	4.7%	9.8%	8.1%	17.7%	1,541
Italy	2.9%	2.3%	4.9%	6.4%	11.3%	1,793
Jamaica	10.5%	6.7%	17.0%	9.5%	26.4%	2,031
Japan	1.1%	1.1%	2.2%	5.4%	7.4%	1,931
Latvia	4.2%	2.8%	6.6%	5.0%	11.5%	1,964
Mexico	4.6%	1.4%	5.9%	1.9%	7.6%	1,885
Netherlands	2.5%	1.9%	4.4%	5.7%	9.4%	2,706
New Zealand	9.4%	10.0%	17.6%	10.8%	28.2%	938
Norway	4.4%	5.2%	9.2%	7.3%	15.6%	1,562
Singapore	3.9%	3.7%	7.2%	4.7%	11.9%	3,876
Slovenia	3.0%	1.4%	4.4%	6.3%	10.1%	3,016
South Africa	3.6%	1.7%	5.1%	1.3%	6.0%	2,736
Spain	2.4%	3.4%	5.7%	7.7%	13.2%	18,953
Sweden	1.7%	2.5%	4.0%	6.3%	10.2%	1,717
Switzerland	2.6%	3.7%	6.1%	9.7%	15.4%	5,456
Thailand	9.7%	13.1%	20.7%	14.1%	34.8%	2,000
United Kingdom	3.4%	2.9%	6.2%	5.1%	11.2%	9,167
United States	8.8%	5.2%	12.4%	4.7%	16.2%	1,530
Venezuela	18.8%	7.5%	25.0%	8.6%	33.1%	1,856
Average	5.0%	3.9%	8.4%	6.6%	14.8%	108,604

⁹⁵ This measure corresponds to the old Total Entrepreneurial Activity (TEA) Index.

APPENDIX 4

GEM Teams and Sponsors 2005

Title	Location	Members		
GEM Interim Executive Director	London Business School	Mick Hancock		
GEM Research Director	Babson College	Maria Minniti		
GEM Operations Director	London Business School	Stephen Hunt		
GEM Coordination Team	Babson College	William D. Bygrave Stephen Spinelli Marcia Cole		
	London Business School	Michael Hay Tatiana Schofield Neils Bosma Karla Hoffman Ingvild Ritter		
Team	Institution	Members	Financial Sponsor	APS Vendor
Argentina	Center for Entrepreneurship, IAE Management and Business School, Universidad Austral	Silvia Torres Carbonell Hector Rocha Florencia Paolini Natalia Weisz	IAE Management and Business School Banco Rio Siemens Banco Galicia	MORI Argentina
Australia	Australian Graduate School of Entrepreneurship, Swinburne University of Technology	Kevin Hindle Allan O'Connor	Westpac Banking Corporation	Australian Centre for Emerging Technologies and Society
Austria	FH Joanneum GmbH – University of Applied Science Graz Institute of International Management, University Graz Institute of Technology and Innovation Management, University Graz	Martin Sammer Christina Schweiger Ursula Schneider Soren Salomo	Government of the Province of Styria Federal Ministry of Economics and Labour of the Republic of Austria The Austrian Federal Chamber	OGM Vienna

Team	Institution	Members	Financial Sponsor	APS Vendor
Belgium	Ghent University and Vlerick Leuven Gent Management School Université de Liège	Bart Clarysse Hans Crijns Mirjam Knockaert Sophie Manigart Tom Vanacker Together with: Bernard Surlemont	Flemish Ministry of Economic Affairs (Steunpunt Ondernemerschap, Ondernemingen en Innovatie) Walloon Ministry of Economic Affairs	SNT Belgium
Brazil	Instituto Brasileiro de Qualidade e Produtividade – IBQP (Brazilian Institute of Quality and Productivity) Pontifícia Universidade Católica do Paraná – PUCPR	Marcos Mueller Schlemm Simara Maria de S. S. Greco Paulo Alberto Bastos Junior Rodrigo Rossi Horochovski Joana Paula Machado Paula Ludwina Ninow Dias Guérios	SEBRAE- Serviço Brasileiro de Apoio às Micro e Pequenas Empresas Sistema Federação das Indústrias do Estado do Paraná (FIEP, SESI, SENAI e IEL) Instituto Brasileiro de Qualidade e Produtividade – IBQP	Instituto Bonilha
Canada	HEC-Montréal The Sauder School of Business at UBC	Nathaly Riverin Louis-Jacques Filion Ilan Vertinsky Victor Cui Qianqian Du Aviad Pe'er	HEC Montréal Chaire d'entrepreneuriat Rogers-J.A. Bombardier Développement économique Canada pour les régions du Québec W. Maurice Young Entrepreneurship and Venture Capital Research Center The Sauder School of Business, The University of British Columbia	SOM
Chile	Centro de Entrepreneurship Grupo Santander Universidad Adolfo Ibáñez Centro para el Emprendimiento y la Innovación Universidad del Desarrollo	José Ernesto Amorós German Echeopar Marina Schorr Patricio Cortés Tomas Flores	Grupo Santander Chile Universidad del Desarrollo	Benchmark
China	National Entrepreneurship Centre, Tsinghua University	Jian Gao Xiaolong Zhu'	School of Economics and Management, Tsinghua University National Entrepreneurship Research Centre of Tsinghua University	AMI Synovate

Team	Institution	Members	Financial Sponsor	APS Vendor
Croatia	J.J. Strossmayer University in Osijek	Slavica Singer Sanja Pfeifer Djula Borozan Natasa Sarlija Suncica Oberman Peterka	Ministry of Economy, Labour and Entrepreneurship SME Policy Centre – CEPOR, Zagreb Open Society Institute – Croatia, Zagreb J.J. Strossmayer University in Osijek – Faculty of Economics, Osijek	Puls, d.o.o., Zagreb
Denmark	Centre for Small Business Studies, University of Southern Denmark	Thomas Schøtt Torben Bager Lone Toftild Kim Klyver	International Danish Entrepreneurship Academy (IDEA) Erhvervs- og Byggestyrelsen Industriens Realkreditfond (Dansk Industri)	
Finland	Turku School of Economics and Business Administration Helsinki University of Technology HEC Lausanne	Anne Kovalainen Jarna Heinonen Tommi Pukkinen Markku Maula Erkko Autio	Ministry of Trade and Industry Turku School of Economics and Business Administration	TNS Gallup Oy
France	EM Lyon	Oliver Torres Danielle Rousson Aurélien Eminet	OSEO Service Observatoire des PME	CSA
Germany	Institute of Economic and Cultural Geography, University of Hannover	Rolf Sternberg Udo Brixy Jan-Florian Schlapfner	KfW Bankengruppe Institut für Arbeitsmarkt – und Berufsforschung (IAB)	infas – Institute for Applied Social Sciences
Greece	Foundation for Economic and Industrial Research (IOBE)	Stavros Ioannides Takis Politis Aggelos Tsakanikas	Bank of Attica and Chipita SA	Datapower SA
Hungary	University of Pécs George Mason University Queensland University of Technology/Max Planck	László Szerb Judit Károly Zoltán Acs Siri Terjesen József Ulbert Attila Varga	Ministry of Economy and Transport	Szocio-Gráf Piac-és Közvélemény-kutató Intézet
Iceland	Reykjavik University	Rögnvaldur Smundsson Elín Dóra Halldórsdóttir	Reykjavik University The Confederation of Icelandic Employers New Business Venture Fund Prime Minister's Office	Gallup – Iceland
Ireland	UCD Business School, University College, Dublin	Paula Fitzsimons Colm O'Gorman Frank Roche	Enterprise Ireland Forfás InterTradeIreland	Lansdowne Market Research Ltd.

Team	Institution	Members	Financial Sponsor	APS Vendor
Italy	Bocconi University	Guido Corbetta Alexandra Dawson	Bocconi University Ministry of Education, University and Research	Nomesis
Jamaica	University of Technology, Jamaica	Sandra Glasgow Garth Kiddoe Adelani Ogunrinade	University of Technology, Jamaica National Commercial Bank Jamaica Limited Jamaica Producers Group Limited Jamaica National Foundation GraceKennedy Limited Digicel Plannins Institute of Jamaica National Export-Import Bank of Jamaica Limited City of Kingston Cooperative Credit Union	Koci Market Research & Data Mining Services
Japan	Research Institute for Economics & Business Administration, Kobe University	Takehiko Isobe	Venture Enterprise Center	SSRI
	Musashi University Keio University	Noriyuki Takahashi Tsuneo Yahagi		
Jordan	Young Entrepreneurs Association	Usama Jacir Khaled al Kurdi Gabi Afram Amjad Attar	Ministry of Planning and International Cooperation	Al Jidara Pro Group Consulting
	Ministry of Planning and International Cooperation			
Latvia	Stockholm School of Economics in Riga	Vyacheslav Dombrovsky Mark Chandler Karlis Kreslins	TeliaSonera NDB	Latvijas Fakti
Mexico	Tec de Monterrey, Business Development Centre	Arturo Torres	Tec de Monterrey and Secretaria de Economia	Alduncin y Asociados
	Tec de Monterrey, EGAP, Strategic Studies Centre	Marcia Campos Elvira Naranjo		
Netherlands	EIM Business and Policy Research	Jolanda Hessels Sander Wennekers Kashifa Suddle Andre van Stel Niels Bosma Roy Thurik Lorraine Uhlener Ingrid Verheul	Dutch Ministry of Economic Affairs	Survey@
New Zealand	New Zealand Centre for Innovation and Entrepreneurship, UNITEC New Zealand	Howard Frederick Graeden Chittock Dean Prebble Alex Maritz Franceen Reihana	Te Puni Kokiri (Ministry of Maori Development), Unitec New Zealand, and Te Wananga o Raukawa	Digipoll
	Te Wananga o Raukawa	Mihipeka Sisley Helmut Modlik		

Team	Institution	Members	Financial Sponsor	APS Vendor
Norway	Bodø Graduate School of Business	Lars Kolvereid Bjørn Willy Ámo Gry Agnete Alsos	Innovation Norway Ministry of Trade and Industry Bodø Graduate School of Business Kunnskapsparken Bodø AS, Center for Innovation and Entrepreneurship	TNS
Puerto Rico	University of Puerto Rico	Marines Aponte Edgardo Rodriguez	Adeco Compañía de Comercio y Exportación de Puerto Rico Banco de Desarrollo Economico para Puerto Rico	
Singapore	National University of Singapore	Poh Kam Wong Lena Lee Finna Wong	Economic Development Board of Singapore National University of Singapore	Joshua Research Consultants
Slovenia	Institute for Entrepreneurship and Small Business Management, Faculty of Economics and Business, University of Maribor	Miroslav Rebernik Polona Tominc Ksenja Pusnik	Slovenian Research Agency Ministry of the Economy SmartCom Chamber of Craft Finance – Slovenian Business Daily	RM PLUS
South Africa	UCT Centre for Innovation and Entrepreneurship, The Graduate School of Business, University of Cape Town	Mike Herrington Eric Wood Marlese von Broembsen	Liberty Life South African Breweries The Shuttleworth Foundation	AC Nielsen ZA
Spain	Co-ordination Team Instituto de Empresa	Ignacio de la Vega Alicia Coduras Rachida Justo Cristina Cruz María Pia Noguera	Instituto de Empresa Fundación Cultural Banesto Fundación INCYDE Dirección General de Política de la Pequeña y Mediana Empresa	Opinòmetre
	Andalucía's Team Universidad de Cádiz	José Ruiz Navarro Daniel Lorenzo J. Aurelio Medina Álvaro Rojas Salustiano Martínez Antonio R. Ramos David Urbano	Junta de Andalucía Consejería de Innovación, Ciencia y Empresas Junta de Andalucía Centro de Estudios Andaluces Unicaja Endesa Colaboración Grupo Joly	Opinòmetre

Team	Institution	Members	Financial Sponsor	APS Vendor
Spain—contd.	Canarias Team Universidad de las Palmas de Gran Canaria Universidad de la Laguna	Rosa M. Batistac Canino Alicia M. Bolívar Cruz Desiderio García Almeida Agustín Sánchez Medina Silvia Sosa Cabrera Domingo Verano Tacoronte	Gobierno de Canarias Consejería de Economía y Hacienda DG de Promoción Económica Consejería de Empleo y Asuntos Sociales Fondo Social Europeo Servicio Canario de Empleo Cámara de Comercio de Las Palmas La Caja de Canarias Caja Canarias, Obra Social y Cultural	Opinòmetre
	Castilla y León Team Universidad de León	Mariano Nieto Antolín Constantino García Ramos Noemí Huerga Pérez Núria González Álvarez Vanea Solís Rodríguez	Junta de Castilla y León Agencia de Desarrollo Económico de Castilla y León Centros Europeos de Empresas e Innovación de Castilla y León	Opinòmetre
	Catalonia's Team Universitat Autònoma de Barcelona IEMB Generalitat de Catalunya	Carlos Guallarte Teresa Obis Alex Rialp Josep Ma Surís Anaís Tarragó	Institut d'Estudis Regionals i Metropolitans de Barcelona Generalitat de Catalunya Conselleria de Treball i Indústria Diputació de Barcelona (Xarxa de Municipis)	Opinòmetre
	C. Valenciana Team Universidad Miguel Hernández Elche	J.M. Gómez Gras Ignacio Mira Jesús Martínez Antonio J. Verdú	Air Nostrum	Opinòmetre
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