



**IVCA**

*Funding Innovation for Ireland*

***The Economic  
Impact of  
Venture Capital  
in Ireland - 2009***

*In association with*

 **InterTradelreland**



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## Foreword

The Irish Venture Capital Association is the representative organisation for venture capital firms in Ireland. Irish venture capital firms have invested €1.5bn in Irish SMEs since the year 2000 and, through syndication, have attracted in a further €1.5bn from international venture capital firms.

In a global context, venture capital firms are experiencing greater difficulty now in raising new funds as investors have become more risk-averse post the global financial crisis. Consequently investment activity has fallen considerably in the US and in the UK. In Ireland, investment activity continues to grow. The Irish venture capital industry, currently has funds available for investment at a time when lower valuations are presenting attractive investment opportunities. However these funds will be fully committed by 2012 and Irish venture capital firms will then need to raise fresh capital if they are to continue investing in Irish SMEs. In this, its third investment cycle, the size of the venture capital funds has increased significantly and the skill set of Irish venture capitalists has deepened considerably. We are confident that in this environment the industry can continue to thrive and grow, but to do so, it needs a continuation of Government's pro-active approach to the stimulation of innovation, entrepreneurship and venture capital investment..

This is the fourth in depth study of the economic impact of venture capital on the Irish economy. It is the first study that includes venture-backed companies in Northern Ireland. We are very pleased to be able to say that it is now an all island study. The study, conducted by the Centre of Entrepreneurial Studies in UCD, was carried out between March 2010 and September 2010 and covers the two years 2008 and 2009. It is unique in that it is a census of VC backed companies in Ireland and in Northern Ireland and, as such, it provides very useful data for policymakers, investors and industry practitioners.

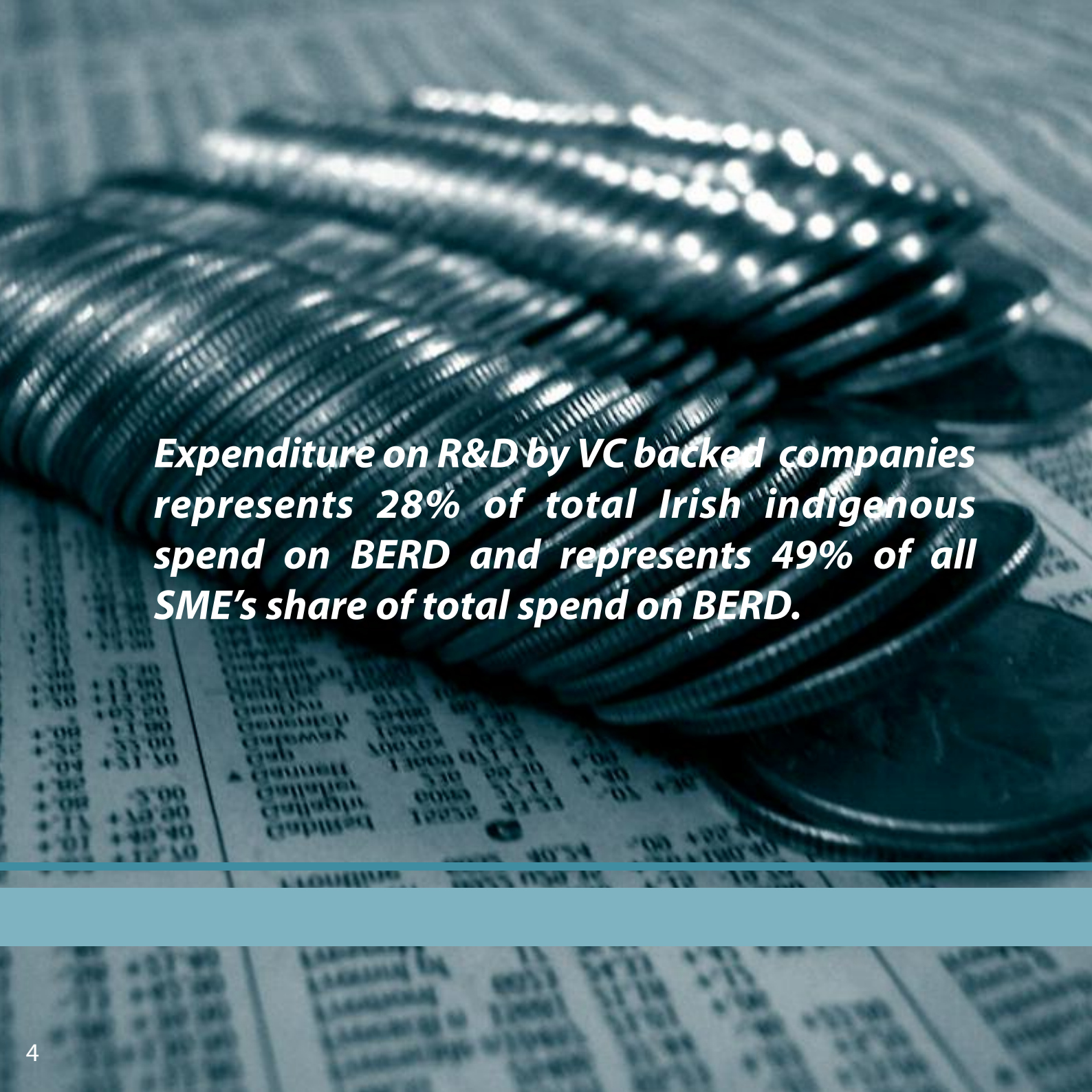
The 2008/2009 study shows that the VC industry continues to be a major driving force in encouraging entrepreneurship, supporting innovation at the company level and developing a knowledge-based economy in Ireland.

This study has become an authoritative source of information about our industry and its social and economic impact. Its value continues to deepen as the trend analysis expands from its start date in 2003.

We would like to take this opportunity to thank the venture capital companies, for providing the necessary data and Professor Frank Roche of the Centre of Entrepreneurial Studies in UCD for conducting the study.

**Peter Sandys**  
IVCA Chairman

**Sean Gallagher**  
InterTradeIreland Director

A stack of coins is shown in the foreground, slightly out of focus, resting on a document with some text and numbers. The background is a blurred document with various numbers and text, suggesting a financial or statistical context. The overall color scheme is a muted teal or blue.

***Expenditure on R&D by VC backed companies represents 28% of total Irish indigenous spend on BERD and represents 49% of all SME's share of total spend on BERD.***

## Executive Summary

Venture capital backed companies continue to provide a substantial impetus to the ongoing development of a knowledge-based economy in Ireland and to the achievement of public policy objectives in this regard. This is the key finding of this study of the economic impact of venture capital companies in 2009.

**Expenditure on R&D by VC backed companies in 2009 was €148m.** This represents 28% of total Irish indigenous spend on BERD and represents 49% of all SME's share of total spend on BERD (Business Expenditure on Research and Development).

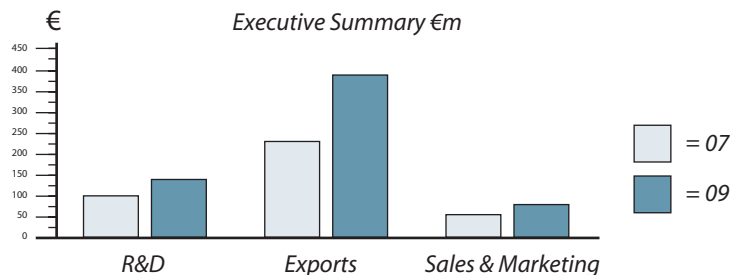
**In 2009 VC backed companies generated exports of € 539m.**

This represented export intensity of 80% of revenues in the southern companies, up from a base level of 63% in 2005, and export intensity of 100% in the northern companies.

**In 2009 total direct employment by companies currently VC backed was 9,733,** an increase of 36% on the levels employed in 2007. It is estimated that these companies, for every one direct job, support up to 3 additional downstream jobs in the Irish economy. **Payroll taxes amounted to € 50m in 2009** and to €395m since 2003. Graduates represented 77% of the southern workforce and 75% of the northern workforce.

Expenditure on Sales & Marketing increased by 25%.

In 2009 VC backed high technology companies spent €79m on sales and marketing, an increase of 25% since 2007.



### Irish Venture Capitalists

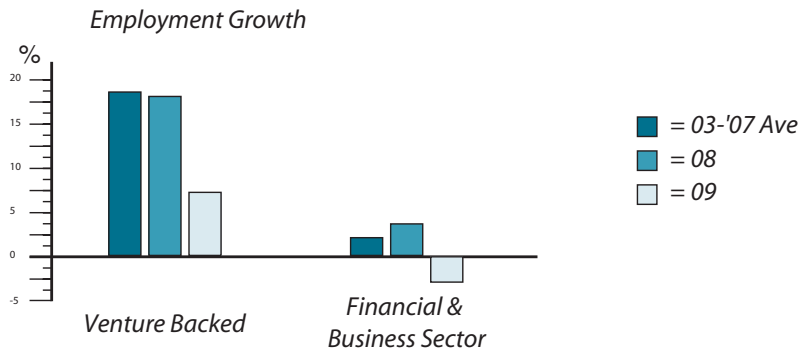
**Invest in High Technology:** Since 2004 IVCA members have backed one hundred and thirty nine (139) new companies, 77% of which were in the early stage high tech sector.

**Build Businesses:** Between 2003 and 2009 the average number of employees in VC backed high technology companies has increased in the 0-2 year age bracket from 2 employees per company to 17 employees per company and in the 10 year + bracket from 48 employees per company to 65 employees per company.

# Venture capital boosts the Irish economy

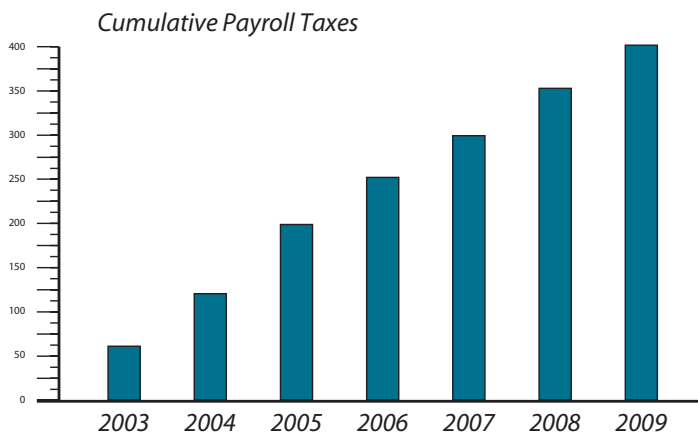
## Employment

Venture backed companies increased employment by 18.1% in 2008 and by 7% in 2009. This compares to an overall increase in employment in the Financial and Business Sector of 4.1% in 2008 and to a decrease of 2.7% in 2009. The annual average increase in employment since 2003 was 18.6%. During this period there was no growth in overall employment within the economy and the annual average increase in employment in the Financial and Business Sector was 2.3%. The performance of venture back companies has been significantly better than in the economy generally. Total direct employment by companies currently VC backed was 9,733 in 2009. It is estimated that these companies, for every one direct job, also support up to 3 additional downstream jobs within the Irish economy. These numbers take no account of employment in companies that are no longer in VC ownership and since 2004 125 such companies exited member firm's portfolios.



## Payroll Taxes

In 2009 IVCA backed companies contributed €49.9m in payroll taxes to the Exchequer. Since 2003 total payroll taxes were €395m, averaging €56m pa.



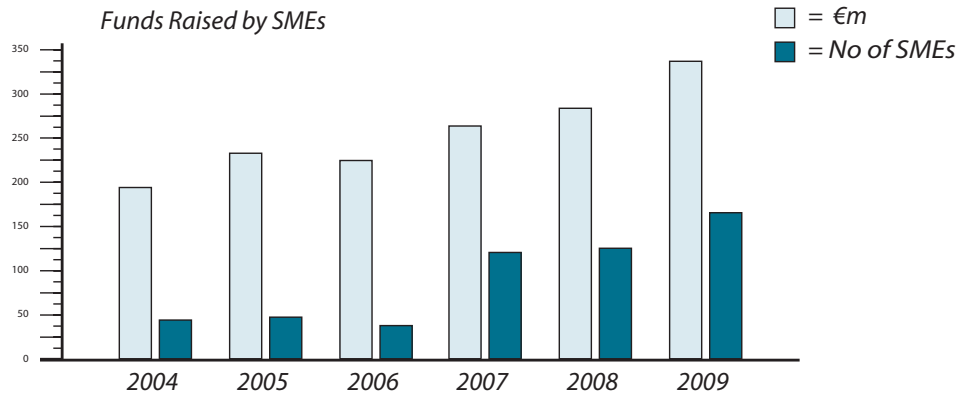


## Revenues

Venture-backed companies increased revenues in the two years to 2009 by 13%. The average annual growth rate since 2003 was 15.9%. In 2009 revenues in high technology companies are growing even faster, showing an increase of 21.8%.

## Investment

Venture-backed companies raised €288m in 2009 compared to €243m in 2008. This is the highest level of funds raised since 2002.



High technology companies accounted for 92% of all VC investment in both 2009 and 2008. This is the highest technology weighting in Europe, where the average is 31% with only four countries investing greater than 50% in high technology companies.

In 2009 25% of this capital was invested into start up and early stage companies. This pattern compares with the European average of 24%. Since 2004 this early stage concentration in Ireland has fallen from 45%.

# Venture capital invests in the knowledge based economy

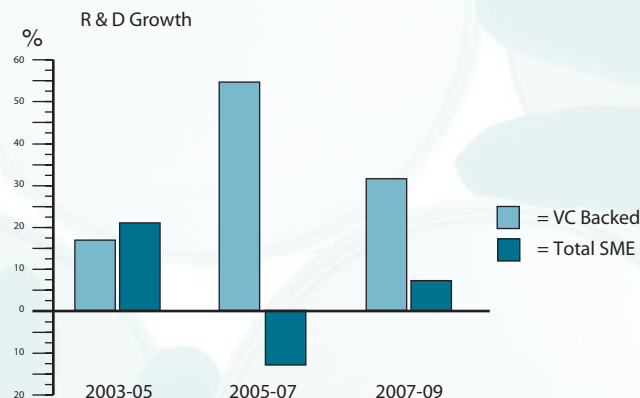
**An in depth analysis of VC backed high technology companies shows that they are knowledge based and export led, particularly among younger companies**

## Research and Development

VC backed high technology companies invested €134m in R&D in 2009, an increase of 33% over the two year period since 2007. This increase compares to growth of 7% in BERD (Business Expenditure on Research and Development) by all SMEs in Ireland.

The chart highlights the consistently higher rate of R&D spend in venture backed companies.

Expenditure on R&D by VC backed companies represents 28% of total Irish indigenous spend on BERD and represents 49% of SME's share of total spend on BERD. R&D intensity in the younger companies i.e. less than five years old is at 50%. This intensity falls to 15% in companies over ten years old.



## Export Intensity

In 2009 VC backed companies generated exports of €539m.

VC backed high technology companies increased exports by 46% since 2007 compared to a fall in total Irish exports of 5.6% in the same period. In 2009 alone exports of computer equipment fell 28%. In this sector export intensity was 80% of revenues in the southern companies, up from a base level of 63% in 2005 and export intensity of 100% in the northern companies.

## Graduate Based Employment

Since 2007 graduate employment in VC backed high technology companies increased by 35%. In the same period PhD employment, currently at 139, increased by 32%.

Graduates represented 77% of the southern workforce and 75% of the northern workforce.

This graduate % ranges from a high of 88% in 3-5 year old high tech companies to a low of 30% in the 6-10 year old non-tech companies.

## Sales and Marketing

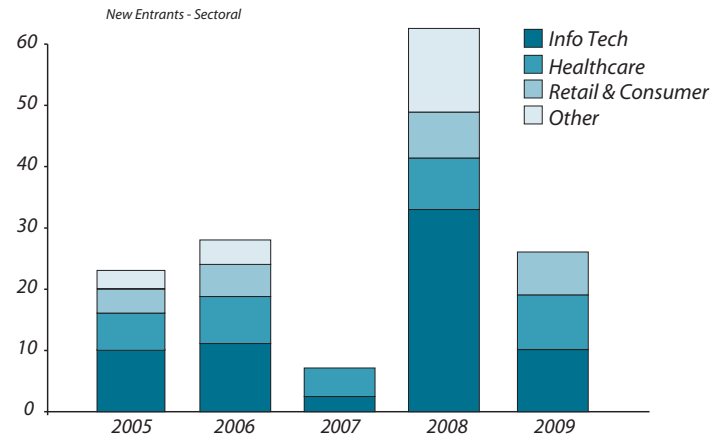
In 2009 VC backed high technology companies invested €79.3m in sales and marketing, an increase of 24.8% since 2007. The average annual increase since 2003 was 14.4%.

## Focus on the characteristics of Entrants and Exits

An in depth analysis of new VC backed companies shows that they are knowledge based and export led.

### New Investments

Irish venture capitalists continue to invest in early stage high tech companies. Since 2004 there have been 139 new investments, 108 (78%) of them into the high tech area and the majority concentrated in the IT and Healthcare sectors.



These new Entrants continue to exhibit a high propensity of exports, R&D spend and graduate employment.

Financial Characteristics	05	06	07	08	09
Revenues per company	€2.2m	€4.5m	€0.8	€2.3m	€0.4m
Employees per company	27	36	11	21	12
Export Intensity	74%	51%	86%	94%	78%
Graduates as a % of Employees	53%	82%	84%	74%	57%
R&D as % of Revenues	20%	20%	105%	20%	100%
S&M as % of Revenues	13%	11%	7%	14%	7%

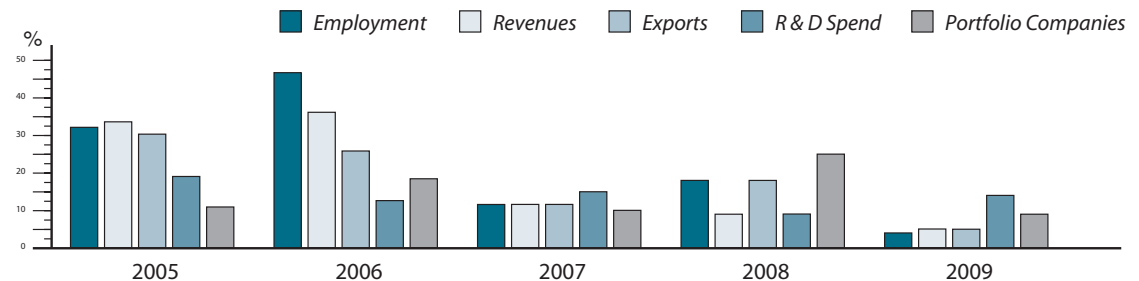
### Realised Investments

During the same period there were 125 exits, 91 (73%) were in the high tech area. Since 2004, 41% of the Total Portfolio has been turned over indicating a healthy level of regeneration and renewal.

In the five years 2005 to 2009 exits, on average, were 10 times the size of new entrants.

Statistics relating to exits are removed from the database. Consequently realised investments, because they are significantly larger than the average investment in the Portfolio, tend to have a disproportionate effect on portfolio revenues and employment.

Exits: Impact on Portfolio



# Building a Successful Venture Capital Ecosystem in Ireland

## Venture Capital: Its Economic Relevance

The venture capital industry drives job creation and economic growth by helping entrepreneurs turn innovative ideas and scientific advances into products and services that change the way we live. Venture capitalists do this by providing the funding and guidance – and by sharing the risks with the entrepreneurs – necessary to build high-growth companies capable of bringing these innovations to the marketplace. Venture capital nourishes entire industries and because of their high growth characteristics venture capitalists continue to fund innovations within them.

Throughout its history, venture capital in the US has developed numerous life-changing innovations into entirely new industries. In the 1970s, VCs helped found the biotechnology industry through their investments in pioneering companies like Genentech and Amgen. A decade later, venture funding was growing the software development and semiconductor industries into prime drivers of the U.S. economy.

Online retailing (Amazon, eBay) followed in the 1990s and clean technology is poised to extend this legacy today. **In Ireland venture capitalists have driven growth in these new industries by funding innovation within them.** Many of these “new industry” companies located their European headquarters in Ireland and consequently **Irish VCs have developed specialist sectoral clusters of innovative activities** including medical devices, telecommunications, laser optics, electronic switching devices, business software and gaming.

While its innovations ripple through the lives of people around the country and around the world each day, venture capital still lies mostly below the public’s radar. In those countries or regions that have built thriving venture hubs, however, the industry’s effects on job creation, revenue growth and the tax base are significant. International studies indicate that the predominance of venture capital:

- Stimulates Growth – an increase of 0.1% in VC/GDP results in 0.3% real GDP growth. **In Ireland, between 2005 and 2009, VC/GDP increased from 0.12% to 0.17%.**
- Stimulates Innovation – There is a positive statistical correlation between the amount of venture capital and the transmission of ideas into commercially successful innovations.
- Stimulates Research and Development – In the US a \$ of venture capital is three times more potent in stimulating patenting than a \$ of traditional R&D.
- Stimulates the Creation of New Businesses – The rate of new business creation increases and is three times more likely in industries that attract sizeable venture capital investment.
- Stimulates Entrepreneurialism – A venture capital investment in a firm stimulates the creation of between two and twelve additional spinout firms. **Many Irish companies have spun out more than twelve new companies and serial entrepreneurs are predominant in the early stage sectors.** (Aldiscon, a telecoms company, spun out at least fourteen (14) start-ups: other examples include Elan, Digital Equipment, Iona technologies, Ericsson, Firecomms etc).

These economic characteristics have encouraged and influenced policy makers around the world to recognise the importance of venture capital activity. Innovation and venture capital are at the center of Ireland's economic policy. This is evidenced by the establishment firstly of the Innovation Taskforce, whose findings and recommendations in relation to developing the entrepreneurial infrastructure are being implemented in detail, and secondly of the Innovation Fund Ireland (IFI).

Supported by IVCA, Government focus on the Smart Economy is adding momentum to an already vibrant innovation ecosystem.

## Building the Venture Ecosystem

Most venture capital communities tend to feature the same elements working in the same symbiotic ways.

Most start with a steady flow of ideas – usually generated by a top-class research university, government laboratory or academic community. The development agencies in Ireland are improving the quality of the public research infrastructure and promoting its links to industry in order to transfer knowledge from research organisations to the market. Specific initiatives include a) the establishment of SFI Centres for Science, Engineering and Technology with the aim of significantly advancing knowledge and exploiting opportunities for discovery and innovation – these Centres involve research partnerships between Irish universities, multinational companies and SMEs and b) linking academic researchers and industry within Strategic Research Clusters that focus on aspects of the ICT and Biotechnology industries. Enterprise Ireland is working closely with these research centres to encourage and facilitate commercialisation of ideas and technologies by supporting the emergence of spin-outs. Approximately 75% of Irish university spin-outs go on to raise venture capital and 2/3rds of the SMEs collaborating within the CSETs and SRCs are venture backed, thus closing the virtuous funding circle. The presence of an innovative, venture-backed anchor company with an entrepreneurial streak – one that draws talent to the area (e.g. Google or Intel) – is another plus. These organisations are often breeding grounds for the entrepreneurs of tomorrow and regularly spin-out new ideas and companies from existing operations. These anchor companies also have pools of qualified middle management from which to draw. Encouraged and facilitated by the IDA, almost all of the leading US ICT and Bio/Pharma companies have located their European headquarters in Ireland. A significant number of the Irish venture capital investments have been into spin-outs established by employees from these multi national corporations (MNCs).

Entrepreneurs need significant operations support to get their ideas off the ground. That's why a healthy network of lawyers, accountants and other business professionals who understand the challenges of the start-up community remains essential to building a viable venture capital hub. These networks develop over time and provide start-ups and VCs with specialized services such as intellectual property protection, IPO registration, auditing and workforce development. Ireland is currently ranked 2nd best place in Europe for venture capital supports as reported in the EVCA's Benchmarking European Tax and Legal Environment

Support from state and local government in the form of favorable tax policies, common-sense regulatory structures and encouragement of basic research provide a third essential component. Ireland's tax regime, through R&D tax credits and a low rate of CGT on carried interest, recognizes the importance of capital formation and rewards long-term investment in innovation.

The ecosystem must provide a vibrant exit mechanism for entrepreneurs and venture capitalists. Most exits in Ireland are through trade salesv mainly to the MNCs thus further expanding the presence of multinational industry in Ireland.



## ***Study Methodology***

This is the fourth in depth study of the economic impact of venture capital on the Irish economy and for the first time includes data on venture-backed companies based in Northern Ireland. The study, conducted by the Centre of Entrepreneurial Studies in UCD, gathered and analysed the following statistics:

**For every company in the portfolios of IVCA members and in the portfolios of Northern Ireland venture capital funds at the end of 2008 and at the end of 2009;**

- revenues,
- employment,
- capital raised,
- spend on research and development,
- graduate employment,
- export performance,
- spend on sales and marketing.

**For every company supported by non-IVCA venture capital companies active in Ireland at the end of 2008 and at the end of 2009;**

- revenues,
- employment,
- capital raised.

The database was adjusted to reflect exits and new entrants during the year.



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