

WP2 State of the Art and identification of TG's training needs



[D7 LdV Material List & Differentiation Report]

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Introduction - Requirement

Institutions in Europe and abroad that offer complete entrepreneurial programs (not just one course) will be identified. Good practices in entrepreneurship training in Europe and abroad will be identified, with special emphasis to training/ VET organizations that demonstrate success in entrepreneurship development. The countries/regions with high entrepreneurial activities will be studied. Particular emphasis will be paid to the National Content Standards for Entrepreneurship Education Development in the USA.

(www.entre-ed.com/Standards_Toolkit/standards_summary.htm).

The partners will study the existing training material developed by other organizations worldwide on entrepreneurship education, emphasizing on the courses targeting the project's target groups. This will help them in identifying the best practices used in Europe and abroad in order to develop a training program of high quality, oriented towards the needs of the target groups.

Entrepreneurship Education on the internet

Coursera (www.coursera.org)

Coursera is an education platform that partners with top universities and organizations worldwide, to offer courses online for anyone to take, for free. The following courses are offered on Coursera as described on the platform:

Developing Innovative Ideas for New Companies: The First Step in Entrepreneurship by the University of Maryland

This course assists aspiring entrepreneurs in developing great ideas into great companies. With strong economies presenting rich opportunities for new venture creation, and challenging economic times presenting the necessity for many to make their own job, the need to develop the skills to develop and act on innovative business opportunities is ever present.

Using proven content, methods, and models for new venture opportunity assessment and analysis, students will learn how to enhance their entrepreneurial mindset and develop their functional skill sets to see and act entrepreneurially. The initial steps to creating a business plan, and raising financial capital to launch the firm, are examined as well. Our goal is to demystify the startup process, and to help you build the skills to identify and act on innovative opportunities now, and in the future.

With this course, students experience a sampling of the ideas and techniques explored in the University of Maryland's Online Master of Technology Entrepreneurship.

Healthcare Innovation and Entrepreneurship by Duke University

Healthcare Innovation and Entrepreneurship applies a focused approach toward sustainable healthcare innovation. Students will be introduced to definitions and concepts that include the innovation process, design thinking, "intrapreneurship," entrepreneurship, six sigma principles of process improvement, regulatory issues, patent law, and the market forces that impact the healthcare innovation process. All students will gain confidence in the basic elements of the initial discovery phase in the healthcare innovation process, including

1. Defining and describing key components of the healthcare innovation process.
2. Becoming aware of challenges to the quality of healthcare delivery and the opportunity for improved patient care and cost reductions.
3. Learning and practicing a step-by-step "needs finding" process and a "needs filtering" process for identifying and prioritizing real clinical problems and opportunities for innovation.
4. Developing cross-disciplinary collaboration skills.
5. Strengthening communication and leadership skills in advocating health systems change.

Beyond Silicon Valley: Growing Entrepreneurship in Transitioning Economies by Case Western Reserve University

The path for entrepreneurs to grow their companies outside of well-developed entrepreneurial ecosystems like Silicon Valley is challenging. Most markets around the world do not look like Silicon Valley, and they never will. But there are other models to support new businesses. In transitioning markets (where entrepreneurs do not have much access to private sector financing), government officials, donors, and business leaders are experimenting with creative approaches to support the growth of entrepreneurs. Northeast Ohio, whose largest city is Cleveland, is one such community. During our time together in this course, we will be exploring some of these innovative approaches.

A massive intervention of government and donor resources in Northeast Ohio has been in place for over ten years. In that time, Northeast Ohio has experienced success (including job creation and follow-on funding) with alternative methods of financing startups, but it has not been easy. Yes, some progress has been made, but whether or not they've hit on ultimate success has yet to be determined. A dynamic entrepreneurial ecosystem takes many years, even decades, to develop. Government officials and donors typically are looking for shorter term success with their support programs which makes long-term support for entrepreneurship challenging.

During this course, we will hear from entrepreneurs who have launched products and services ranging from medical devices to LED lights to whiskey. You will learn how these entrepreneurs engaged with resources made available to them through a variety of programs and intermediary organizations. We have chosen to talk with many business people that are still in the process of developing their companies and whose ultimate success or failure is still to be determined. In addition to learning about Cleveland's attempts to support entrepreneurship, you will also be hearing in the lectures from leaders in selected markets around the world including Greece, Vietnam, Tunisia, Argentina, Rwanda and China about how they are working to support the growth of start-up companies.

One of our goals is to learn from you how different communities around the world are approaching implementing strategies and methods to support businesses. Taking what we've learned from our examples in class, I will ask you to reflect on how to best grow entrepreneurship where you live. I am excited to use this global platform to create a dialogue where information flows in multiple directions. Most MOOCs rebroadcast professors' lectures, but this course will be different. Don't expect to see me standing in front of the camera, talking and lecturing every week. Instead, the lectures will be relatively short in length and will have more of the feel of an engaging documentary than a static classroom setting. We will also be providing you with opportunities for live engagement each week with the featured entrepreneurs and thought leaders through a number of interactive sessions during the course.

Social Entrepreneurship by Copenhagen Business School

The domain of social change is no longer reserved for students of political sciences and development studies. Increasingly business students are recognized as possessing important skills that can drive social change. This new discipline is often referred to as Social Entrepreneurship (S-ENT). S-ENT describes the discovery and sustainable exploitation of opportunities to create public goods. This is usually done through the generation of disequilibria in market and non-market environments. The S-ENT process can in some cases lead to the creation of social enterprises. These social ventures are hybrid organizations exhibiting characteristics of both the for-profit and not-for-profit sector. Individuals engaging in S-ENT are usually referred to as social entrepreneurs, a term that describes resourceful individuals working to create social innovation. They do not only have to identify (or create) opportunities for social change (that so far have been unexploited), they must also muster the resources necessary to turn these opportunities into reality.

A typical example is Prof. Muhammad Yunus, founder of the Grameen Bank (Bangladesh) and recipient of the Nobel Peace prize in recognition of his contribution to poverty alleviation through the invention and popularization of Microfinance. Other examples include fair trade or car-sharing. Today many foundations aim to identify and promote social entrepreneurs. Two prominent examples are Ashoka and the Skoll Foundation. So called venture philanthropists adopt methods from the domain of venture capital, for example, encouraging social entrepreneurs to provide detailed business plans and to measure and report systematically on their social performance. Social Return on Investment (S-ROI) analysis is an example, of an emerging tool aiming to describe the social impact of S-ENT in dollar terms, relative to the philanthropic investment made.

Startup Engineering by Stanford University

Learn the engineering skills needed to build a technology startup from the ground up. Spiritual sequel to Peter Thiel's [CS183](#) course on startups. Bridges the gap between academic computer science and production software engineering. Fast-paced introduction to key tools and techniques (command line, dotfiles, text editor, distributed version control, debugging, testing, documentation, reading code, deployments), featuring guest appearances by senior engineers from successful startups and large-scale academic projects. Over the course of the class, students will build a command line application, expose it as a web service, and then link other students' applications and services together to build an HTML5 mobile app. General principles are illustrated through modern Javascript and the latest web technologies, including Node, Backbone, Coffeescript, Bootstrap, Git, and Github.

Udacity (www.udacity.com)

Udacity was born out of a Stanford University experiment in which Sebastian Thrun and Peter Norvig offered their "Introduction to Artificial Intelligence" course online to anyone, for free. Over 160,000 students in more than 190 countries enrolled and not much later, Udacity was born. Now they are a growing team of educators and

engineers on a mission to change the future of education by bridging the gap between real-world skills, relevant education, and employment. Their mission is to bring accessible, affordable, engaging, and highly effective higher education to the world.

The following courses are offered on Udacity as described on the platform:

How to Build a Startup The Lean LaunchPad

Course Instructor: Steve Blank

Learn the key tools and steps to build a successful startup (or at least reduce the risk of failure). An introduction to the basics of Steve Blank's famous Customer Development process, where entrepreneurs "get out of the building" to gather massive amounts of customer and marketplace feedback, and then use that feedback to continuously iterate and evolve their startup business models, improving the chances of success at every step. You'll learn the key steps of the Customer Development process: how to identify and engage the first customers for your product, and how to gather, evaluate and use their feedback to make your product, marketing and business model far stronger.

Khan Academy (www.khanacademy.org)

Khan Academy is an organization on a mission. They are a not-for-profit with the goal of changing education for the better by providing a free world-class education for anyone anywhere. All of the site's resources are available to anyone. It doesn't matter if you are a student, teacher, home-schooler, principal, adult returning to the classroom after 20 years, or a friendly alien just trying to get a leg up in earthly biology. Khan Academy's materials and resources are available to you completely free of charge as per their site.

Interviews with Entrepreneurs

Personal lessons and insights from accomplished entrepreneurs like Richard Branson, Elon Musk etc, are the basis of this interview series produced by the Ewing Marion Kauffman Foundation and Khan Academy.

Life of a company--from birth to death

Educational videos on the following subjects:

1. Raising money for a startup: Raising money from an angel investor. Pre-money and post-money valuation.
2. Getting a seed round from a VC: Series A funding from a seed venture capitalist.
3. Going back to the till: Series B More on the series A financing. Going back for another round with a series B financing.
4. An IPO: The initial public offering of our online sock company.

5. More on IPOs: Public vs. Private Equity. Why people buy equity to begin with.
6. Equity vs. debt: Debt vs. Equity. Market Capitalization, Asset Value, and Enterprise Value.
7. Bonds vs. stocks: The difference between a bond and a stock.
8. Chapter 7: Bankruptcy liquidation: Introduction to bankruptcy liquidation (Chapter 7)
9. Chapter 11: Bankruptcy restructuring: Chapter 11: Restructuring through a bankruptcy
10. Stock dilution: Why the value per share does not really get diluted when more shares are issued in a secondary offering

MIT

Open

Courseware

(<http://ocw.mit.edu/courses/entrepreneurship/>)

MIT OpenCourseWare (OCW) is a web-based publication of virtually all MIT course content. OCW is open and available to the world and is a permanent MIT activity.

MIT OpenCourseWare Core Entrepreneurship Courses

Course #	Course Title	Level
<u>6.901</u>	<u>Inventions and Patents</u>	<u>Undergraduate</u>
<u>15.615</u>	<u>Law for the Entrepreneur and Manager</u>	<u>Undergraduate</u>
<u>15.975</u>	<u>Special Seminar in Management The Nuts and Bolts of Business Plans</u>	<u>Undergraduate</u>
<u>15.316</u>	<u>Building and Leading Effective Teams</u>	<u>Graduate</u>
<u>15.317</u>	<u>Organizational Leadership and Change</u>	<u>Graduate</u>
<u>15.351</u>	<u>Managing Innovation and Entrepreneurship</u>	<u>Graduate</u>
<u>15.351</u>	<u>Managing the Innovation Process</u>	<u>Graduate</u>
<u>15.352</u>	<u>Managing Innovation: Emerging Trends</u>	<u>Graduate</u>
<u>15.356</u>	<u>How to Develop "Breakthrough" Products and Services</u>	<u>Graduate</u>
<u>15.358</u>	<u>The Software Business</u>	<u>Graduate</u>
<u>15.369</u>	<u>Corporate Entrepreneurship: Strategies for Technology-Based New Business Development</u>	<u>Graduate</u>
<u>15.389A</u>	<u>Global Entrepreneurship Lab: Asia-Pacific</u>	<u>Graduate</u>
<u>15.389B</u>	<u>Global Entrepreneurship Lab: Latin America, the Middle East, and Africa</u>	<u>Graduate</u>
<u>15.391</u>	<u>Early Stage Capital</u>	<u>Graduate</u>
<u>15.394</u>	<u>Designing and Leading the Entrepreneurial Organization</u>	<u>Graduate</u>

Course #	Course Title	Level
<u>15.431</u>	<u>Entrepreneurial Finance</u>	<u>Graduate</u>
<u>15.783J</u>	<u>Product Design and Development</u>	<u>Graduate</u>
<u>15.818</u>	<u>Pricing</u>	<u>Graduate</u>
<u>15.821</u>	<u>Listening to the Customer</u>	<u>Graduate</u>
<u>15.835</u>	<u>Entrepreneurial Marketing</u>	<u>Graduate</u>
<u>15.912</u>	<u>Technology Strategy</u>	<u>Graduate</u>
<u>MAS.666</u>	<u>Developmental Entrepreneurship</u>	<u>Graduate</u>

Entrepreneurship Videos Hosted by MIT

The videos and websites hosting videos listed address various aspects of entrepreneurship and entrepreneurship education, including innovation, the recognition of opportunity, finance, organizational management, and leadership. The participants are MIT professors, entrepreneurs who attended MIT, and business leaders who recognize the ways in which an education at MIT can foster entrepreneurial talent and success.

TITLE	PARTICIPANTS	DATE
<u>Challenges in Leading Entrepreneurial Ventures—and Solutions</u>	Matt Marx, Fiona Murray, Edgar Schein, William Aulet	October 21, 2011
<u>The Ecosystem: Nurturing Entrepreneurship at MIT</u>	Susan Hockfield, Ed Roberts, William Aulet, and others	May 19, 2011
<u>MIT Enterprise Forum Videos</u>	Jeff Immelt, Bill Joy, Peter Thiel, Ken Wang, and others	April 21, 2011
<u>Finance in Action</u>	Stewart Myers, Douglas Breeden, Eugene Flood, Bennet Golub, Robert	January 28,

TITLE	PARTICIPANTS	DATE
	Jarrow, Judy Lewent	2011
<u>Better World at MIT: Accelerating Lab to Market Innovation</u>	Jason Pontin, Dean Kamen, Sandy Pentland, David Berry, Iqbal Quadir, Devorah Klein, Beto Lopez, Robert Urban, Sangeeta Bhatia, and others	October 18, 2010
<u>From Experimental Physics to Internet Entrepreneurship: One Scientist's Journey</u>	Charles C-Y Zhang	October 7, 2010
<u>Entrepreneurship Development Program MIT Sloan Executive Education Program</u>	Jared Thompson	August 9, 2010
<u>Entrepreneurship Development Program MIT Sloan Executive Education Program</u>	Debbie Yaver	August 9, 2010
<u>Entrepreneurship Development Program MIT Sloan Executive Education Program</u>	Mark Taha	August 9, 2010
<u>MIT's Entrepreneurial Development and Impact Over the Past 50 Years</u>	Ed Roberts	June 5, 2010
<u>Webinar: Supply Chain for Entrepreneurs</u>	Dr. Jarrod Goentzel and others	November 18, 2009
<u>The Tough Get Going: How to Succeed in a Down Economy</u>	Bo Fishback, Eugene Fitzgerald, Daphne Zohar, Helen Greiner	November 16, 2009
<u>Leadership and Entrepreneurship</u>	David Fialkow, Ben Fischman, Alex Laats	October 20, 2009
<u>Entrepreneurship, Government and Development in Africa</u>	John Kufuor	September 21, 2009

TITLE	PARTICIPANTS	DATE
<u>The Power of Competition: How to Focus the World's Brains on Your Innovation Challenges</u>	Fiona Murray	June 6, 2009
<u>Energy Entrepreneurship and Innovation: Today's Challenges, Tomorrow's Opportunities</u>	William Aulet, Christina Lampe-Onnerud, Jacques Beaudry-Losique, Matthew Nordan, Robert Metcalfe	May 7, 2009
<u>Are You Ready for IPO? Strategies and Steps for How to Take Your Company Public</u>	Jonathan Bush, Gail Goodman, Jonathan Goldstein, Bruce Evans	January 24, 2008
<u>Global Entrepreneurship: Inefficiency as Opportunity in the Developing World</u>	Alex Pentland, Damian Balsan, Randy Zadra, Rick Burnes, Iqbal Quadir	September 21, 2006
<u>Talk to an Angel: Crucial Connections to Early Stage Capital</u>	John May, Robert Greene, David Friend, Cynthia Fisher	June 7, 2006
<u>New Insights into Technology, Innovation and Entrepreneurship</u>	Ed Roberts, Frank Douglas, Gerry Mooney	October 7, 2005
<u>Angel Groups in Action: Funding Early Stage Innovation</u>	Jeffrey Sohl, James Gershweiler, Ed Roberts, Jerry Schaufeld	June 1, 2005
<u>Innovation Forum</u>	Daniel DiLorenzo, Amy Smith, James McLurkin, David Berry, Dick Gordon	March 8, 2005
<u>Placing Your Bets: Where Will the Smart Money Land?</u>	Robert Metcalfe, Ann Winblad, Guy Kawasaki	June 2, 2004
<u>Innovation at the Interface: Technological Fusion at MIT</u>	Ed Roberts, Rodney A. Brooks, Robert S. Langer Jr.	January 21, 2004
<u>Organizational Economics and Management Education</u>	Robert S. Gibbons	June 7, 2003

TITLE	PARTICIPANTS	DATE
<u>Building Growth: Why We Don't Use What We Know</u>	Rebecca Henderson	May 13, 2003
<u>Biotechnology: Will It Create a New Industry?</u>	Henri Termeer	April 26, 2002

Stanford Online (<http://online.stanford.edu/>)

Stanford Online offers a variety of professional education opportunities in conjunction with many of the University's schools and departments. They also offer an array of free online courses taught by Stanford faculty to lifelong learners worldwide.

Technology Entrepreneurship

INSTRUCTOR: Chuck Eesley, Assistant Professor, Department of Management Science and Engineering

This course introduces the fundamentals of technology entrepreneurship, pioneered in Silicon Valley and now spreading across the world. You will learn the process technology entrepreneurs use to start companies. It involves taking a technology idea and finding a high-potential commercial opportunity, gathering resources such as talent and capital, figuring out how to sell and market the idea, and managing rapid growth. To gain practical experience alongside the theory, students form teams and work on startup projects in those teams.

This is the second offering of the class. Last time, nearly 40,000 students from around the world participated and worked in teams together. The top teams were matched with Silicon Valley mentors, and the best teams at the end of the class pitched their ideas to investors. Many of the alumni of the last class are continuing to build their startups and will be mentoring teams this time.

By the conclusion of the course, it is our hope that you understand how to:

1. Articulate a process for taking a technology idea and finding a high-potential commercial opportunity (high performing students will be able to discuss the pros and cons of alternative theoretical models).
2. Create and verify a plan for gathering resources such as talent and capital.
3. Create and verify a business model for how to sell and market an entrepreneurial idea.
4. Generalize this process to an entrepreneurial mindset of turning problems into opportunities that can be used in larger companies and other settings.

Startup Boards: Advanced Entrepreneurship

INSTRUCTOR: Clint Korver, Adjunct Professor, Stanford Technology Ventures Program

This is an advanced entrepreneurship class, designed for teams who have already started a company or are seriously thinking about starting a company. We encourage teams to take this class together as much of the work will be focused on working with your board to make real progress on the most important issues in your startup.

For each startup team, we will create a board comprised of your peers based on your needs, their skills, and everyone's engagement. In addition, one of the early assignments will be for each team to find one or two domain experts to serve on their board for the duration of the class.

One of the requirements in this class is to serve on another team's board. As we go, we will refine board membership based on peer reviews and demonstrated effort. We will optimize this class for entrepreneurs willing to invest the time and energy to help themselves and others.

After the completion of this course, students:

1. will understand the crucial role boards play in launching successful startups,
2. be able to identify and recruit effective board members,
3. be able to manage a board meeting, eliciting useful guidance and making important decisions, and
4. will have made meaningful progress building your startup.

This class will be interactive and team based. We will use videos and readings to convey board best practices. However, most of the learning in this class will take place from applying these best practices to your board with the goal of making meaningful progress on your startup.

Technology Entrepreneurship Part 1

INSTRUCTOR: Chuck Eesley, Assistant Professor, Department of Management Science and Engineering

This course introduces the fundamentals of technology entrepreneurship, pioneered in Silicon Valley and now spreading across the world. You will learn the process technology entrepreneurs use to start companies. It involves taking a technology idea and finding a high-potential commercial opportunity, gathering resources such as talent and capital, figuring out how to sell and market the idea, and managing rapid growth. To gain practical experience alongside the theory, students form teams and work on startup projects in those teams.

This is the second offering of the class. Last time, nearly 40,000 students from around the world participated and worked in teams together. The top teams were matched with Silicon Valley mentors, and the best teams at the end of the class pitched their

ideas to investors. Many of the alumni of the last class are continuing to build their startups and will be mentoring teams this time.

By the conclusion of the course, it is our hope that you understand how to:

1. Articulate a process for taking a technology idea and finding a high-potential commercial opportunity (high performing students will be able to discuss the pros and cons of alternative theoretical models).
2. Create and verify a plan for gathering resources such as talent and capital.
3. Create and verify a business model for how to sell and market an entrepreneurial idea.
4. Generalize this process to an entrepreneurial mindset of turning problems into opportunities that can be used in larger companies and other settings.

Technology Entrepreneurship Part 2

INSTRUCTOR: Chuck Eesley, Assistant Professor, Department of Management Science and Engineering

This is the second half of a course that introduces the fundamentals of technology entrepreneurship, pioneered in Silicon Valley and now spreading across the world. Last time, nearly 40,000 students from around the world participated and worked in teams together. The top teams were matched with Silicon Valley mentors, and the best teams at the end of the class pitched their ideas to investors. Many of the alumni of the last class are continuing to build their startups and will be mentoring teams this time.

By the conclusion of the course, it is our hope that you understand how to:

- Articulate a process for taking a technology idea and finding a high-potential commercial opportunity (high performing students will be able to discuss the pros and cons of alternative theoretical models).
- Create and verify a plan for gathering resources such as talent and capital.
- Create and verify a business model for how to sell and market an entrepreneurial idea.
- Generalize this process to an entrepreneurial mindset of turning problems into opportunities that can be used in larger companies and other settings.

Entrepreneurship Through The Lens Of Venture Capital

The course explores how successful startups navigate funding, managing, and scaling their new enterprise. This process is explored through guest lectures and mentorship

from experienced venture capital investors and seasoned entrepreneurs who manage these issues on a daily basis in Silicon Valley.

Course themes: customer value equation, board management, market strategy, company culture, and hyper growth. This is a student initiated course.

With over a century and a half of venture capital experience and many more years of practice in entrepreneurship, our teaching team and guest lecturers cover the fundamentals for building a successful company. While there is no set formula for building a successful company, basic principles and general patterns are manifested in the most successful start-ups. With assistance from experienced venture capital investors and seasoned entrepreneurs from Silicon Valley, this course proceeds through the stages of growth and challenges experienced by startups.

Stanford Software Engineering Mooc Aims At Future Startup Ceos

Even at Stanford, according to Vijay Pande, professor of chemistry and, by courtesy, of structural biology and of computer science, students really don't know much about software engineering. They might know how to program a bit, but if writing a novel is a metaphor for launching a startup, he said, then all they know is grammar. And that's not enough. So Pande and a colleague, Balaji Srinivasan, both with strong research and entrepreneurial backgrounds, taught a traditional classroom course in software engineering winter quarter aimed at future chief technology officers. It was so successful they're now going to go virtual, and starting June 17 they will begin teaching a 10-week massive open online course titled Startup Engineering. The idea is to reach thousands of people around the world who want to start their own companies but lack the requisite integration skills.

Srinivasan, who holds a doctorate in electrical engineering from Stanford, was a lecturer in statistics before he co-founded Counsyl, a genomics company that started up in a Stanford dorm room. The company, in which Pande also participates, develops genetic tests so potential parents can discover whether their future children are at risk for certain inherited diseases. The test analyzes DNA from saliva samples.

The trial run of their course, Computer Science 184/Computational and Mathematical Engineering 184, was aimed at bridging the gap between academic computer science, which Pande said is more theory than practice, and production software engineering.

"We see a lot of smart kids, both in companies and here at Stanford, who have to pick it up on the job by osmosis, and there's a huge cost in time," he said. "You acquire bad habits that can lead to inferior work products. But if you do software engineering well, you can move very quickly."

The fast-paced course for 150 undergraduates and graduate students featured frequent visits from senior engineers at leading technology firms. The class met once a week for 10 weeks, learning front-end and back-end HTML5 development. The second half of the class was largely hands-on as students created and scaled their future company or product.

The online version of their course, offered on the Coursera platform using Amazon Web Services (AWS), will replicate CS184, with technical and theoretical material in the first half followed by the more hands-on work in the second half. There will be 5- to 10-minute video lectures, online quizzes and assignments. Students may work as individuals or in teams, and their engineering projects also will use AWS as a platform. Pande is optimistic that motivated students will learn lots, learn fast and create virtual communities.

Udemy (<https://www.udemy.com>)

Today, 2 million students in 190+ countries are taking online courses on Udemy. They're learning Programming, Yoga, Design, Photography, Spanish, Marketing, Guitar, Finance, Cake Decorating, and so much more. More than 12,000 courses (in 10 different languages) have been published in the Udemy marketplace. Each course is designed and taught by an expert instructor and hundreds of new courses are published every month

21 Critical Lessons for Entrepreneurs

Key insights to starting and succeeding with your own business. Presented by Jason Nazar, CEO of Docstoc. Whether you aspire to start your own business or are a serial entrepreneur, this **entrepreneurship training** offers real-world insights that can be put into action. Jason Nazar, CEO of Docstoc, shares important lessons learned over his career, first by working with new companies then on to starting his own successful business. From the early stages of vetting your idea and raising money to hiring the best team and continuing to grow your business, this training offers poignant insights from **a real entrepreneur** that can be applied to any business.

Introduction to Entrepreneurship

Everything you need to know to make it as a successful entrepreneur

Part-Time Entrepreneurship & Startups

Start Small, Leverage Technology, Minimize Risk and Start a Successful Business. No More Excuses for Wantpreneurs

Entrepreneurship -- From Idea to Launch

This Entrepreneurship course explains the process from creation of an idea to successful launch of a new venture.

Social Entrepreneurship: A Crash Course

5 Cutting Edge Tools to Scale Your Impact

This course was designed as an 'insanely useful' first step in using social entrepreneurship to increase the impact of your work. Using a street smart approach, and an applied case study, this course looks at five of the most useful tools social entrepreneurs use:

1. Hybrid Organizations
2. Earned Revenue

3. Impact Capital
4. Impact Measurement
5. and Human Centered Design

Social Entrepreneurship: An Introduction

An introduction to social entrepreneurship, social impact, and change making. This "How to Become a Social Entrepreneur" course is offered as an entry point for those interested in learning more about social entrepreneurs, their strategies and tools, and their expanding role in global problem solving. This is an introductory course.

Entrepreneurship: Overcoming the Distractions and Chaos

Tame Entrepreneurial ADHD and learn to be a focused and effective entrepreneur. Learn how to be a master of efficacy

This course is about the specifics of ensuring you maintain laser focus, cut through all the BS, and maintain constant efficiency without burnout.

Leadership, management & entrepreneurship in the 21 Century

Combining leadership, management & entrepreneurship skills, discover the 21 Principles of 21st Century Leadership. Certified by the globally recognised 'Institute of Leadership & Management'.

How to encourage and teach our children entrepreneurship

For parents and teachers. Learn about the many ways you can coach children to make/save money and become entrepreneurs.

The Lean Startup Talk at Stanford E-Corner

Debunking Myths of Entrepreneurship A startup is not a "doll house" version of a larger enterprise. A startup is not a "doll house" version of a larger enterprise. It's a human institution trying to start something new under extreme conditions of uncertainty, says author Eric Ries. It's not that some founders have better ideas than others, and this is what dictates success. What differentiates a successfully launched enterprise is one who can unearth the best ideas under duress - those who can find the pivot- the point of reinvention when they realize that their original ideas need retooling. And, more critically, that they can find their market before they run out of money.

Legal Advice for Entrepreneurs & Startups

An introduction to concepts that every entrepreneur / startup should understand. (Entrepreneurship / lean startup). This class will introduce you to a number of important legal concepts relevant to entrepreneurs and start-ups. Whether you're looking to launch a tech start-up or a small online business, enroll in this class if you would like to learn some important tips to keep in mind when starting your business.

Developing and launching a new business

Learn the essential topics related to entrepreneurship and, using simple steps, start your own business. This program, designed especially for new entrepreneurs defines the essential topics related to entrepreneurship and gives basic tools to start a new business. Using descriptive examples and exercises you will be able to understand the knowledge and skills required in the entrepreneurial journey.

Build. Measure. Learn. Lean Startup SXSW 2012.

Become a Lean Startup Guru. Learn Lean Methodology from Lean experts like Eric Ries, Steve Blank, and more. The exclusive Lean Startup course where you will learn lean startup methodology from the world's leading startup founders and experts, including Steve Blank, Scott Cook, Ash Maurya, Todd Park, and many more.

Build: Lessons learned in agile, continuous development

Measure: Case studies on pivots & minimum viable product (MVP).

Learn: Best practices in customer development Recorded at SXSW Interactive 2012, this course is the only place where you can find all presentations and videos for the entire Lean Startup event and learn lean methodology for startups from the leading experts.

NovoEd (<https://novoed.com/>)

NovoEd is a social online learning environment that offers experiential courses from leading institutions.

Financial Analysis of Entrepreneurial Ideas

Instructors: Shahid Ansari, Professor of Behavioral and Managerial Accounting; CEO, Babson Global Jan Bell, Weintraub Professor of Accounting

The course is action-oriented and provides students the opportunity to test the financial feasibility of a new opportunity, test its financial impact, develop a financially credible business plan, and examine the financial consequences of proposed actions. It teaches students to develop an entrepreneurial initiative into either a profitable or economically sustainable venture.

Lead Like an Entrepreneur

Instructors: David Bradford, Eugene D. O'Kelly II Senior Lecturer in Leadership, Emeritus, Allan Cohen, Edward A. Madden Distinguished Professor of Global Leadership

This is an action-oriented course to help develop your entrepreneurial leadership skills, whether or not you intend to start a new business, and will offer the elements needed to take initiative from any organizational position. It will help you reexamine your

mindset about leadership - constantly seeking opportunities, action to test possibilities, learning and new actions. You will develop your vision of what kind of leader you want to be, your ability to engage with colleagues to create a high performing team, and your skills at influencing the many people whose cooperation you need even though you can't give them orders.

Venture Deals

Instructors: Brad Feld, Co-Founder and Managing Director at Foundry Group
Jason Mendelson, Co-Founder and Managing Director at Foundry Group.

This course will demystify venture capital deals and startup financing to give both first-time and experienced entrepreneurs a definitive guide to secure funding. Taught by renowned venture capitalists Brad Feld and Jason Mendelson, partners at the Foundry Group and authors of *Venture Deals*, the course reveals the secrets behind how venture financings really work. Feld, a well-known speaker and author of several books in the *Startup Revolution* series published by John Wiley & Sons, began financing technology startups in the early 1990s, first as an angel and later as an institutional investor.

In this course, together with an international network of entrepreneurs, you will learn the best strategies for getting a fair deal. While learning, you will be making connections with your classmates that can help take your pitch or deal to the next level. Whether you're looking for financing for your venture, or looking to fund an entrepreneur, you'll get smarter about the process by taking *Venture Deals*.

In addition to professionals wanting to enter the venture capital field and entrepreneurs looking to raise venture capital funding, this course also benefits anyone who wants to learn more about financing, including lawyers, accountants, angel investors, bankers, policy makers, regulators and educators.

This course will enable you to:

- Network with entrepreneurs and financiers from around the world with whom you will work with on real projects
- Get a firm grasp of how venture capital deals and other financings come together
- Find the right VC for your company
- Learn the strategies for getting the best deal possible
- Determine what's negotiable and what's not in a venture deal
- Structure financings using term sheets, capitalization tables, and syndication all with the goal of minimizing risks.

Raising Startup Capital

Instructors: Clint Korver, COO of NovoEd, Jenny Rooke, Former Senior Program Officer, Gates Foundation

In this course, instructors from the leading venture capital training program, the Kauffman Fellows Program, teach you how to manage the fundraising process--from

identifying potential investors, to making your investment pitch, to driving a funding to closure.

In addition to entrepreneurs who are raising funds or who anticipate raising funds in the near future, this course is also for anyone who works with the venture community, including lawyers, accountants, angel investors, bankers, policy makers, regulators and educators.

In this online course, you will learn what type of investment is best for your startup: venture capital, angel capital, grant funding, friends-and-family funding or self-funding. You will learn from experienced Silicon Valley entrepreneurs and investors specific strategies for approaching investors and techniques for managing the fundraising process for success. Our goal in this course is for you to become more efficient and effective in raising capital for your startup.

This class focuses on venture capital fundraising in particular as it requires the most sophistication and planning. If you understand how to raise venture capital, you are in good shape for raising capital from other sources.

Through this course you will understand:

- The goals and investment criteria for venture capitalists, angels, friends and family, and philanthropic organizations.
- When you should raise funding from each source and the pros / cons of each.
- How to use your network to get a first meeting.
- How to create forcing functions to drive a funding to closure.
- Common mistakes and how to avoid them.
- How to be more efficient in fundraising by minimizing time spent on low probability funding sources.
- How to be more effective in fundraising by making the best use of your limited time with investors.

The Startup Pitch

Instructor Chris Lipp, Communications Coach at Stanford Graduate School of Business

The Startup Pitch is the most complete reference source for pitch skills used in today's startup world. You will learn the proven formula for a successful pitch based on case studies of pitches that worked. You will also gather insights on slide development and delivery. This course is designed to improve your pitch and win funding faster.

Venture Capital 101

Instructors: Clint Korver, Director, Kauffman Fellows Academy; Partner, Ulu Ventures, Miriam Rivera, Partner, Ulu Ventures, Phil Wickham, CEO, Kauffman Fellows, Trish Costello, Founding CEO, Kauffman Fellows, Ade Mabogunje, Senior Researcher, Stanford University.

Venture Capital 101 is based on the most respected private training program for aspiring venture capitalists, the Kauffman Fellows Program. This online course on venture capital covers both the mechanics of venture capital investment and the important role investors play in shaping the culture of successful startups.

Leonardo da Vinci Projects on Entrepreneurship Education

The European Centre for Women and Technology has been during recent years involved in several of the approved LLL program projects on entrepreneurship education. The projects have been primarily targeting young and 50+ unemployed people, women, people with multicultural background.

The aim of the **CONNECT** project¹ was to design, develop and test an innovative e-learning 2.0 environment targeting unemployed, women under the age of 45, or women looking for part-time work and telework, people 50+ who need to re-qualify and migrants.

Older Women in Learning and Enterprise (OWLE50+)² (200-2011) the EU funded Grundtvig project provided a program of workshops and support for women 50+ in the UK, Italy and Sweden enabling them to play an active role in the community for the rest of their lives. OWLE50+ responded to each woman's needs through learner-centered up-skilling so they can contribute to society, themselves and the economy by ageing wisely.

ECWT was years 2011-2012 involved in the Grundtvig Learning Partnership Project **European Women Interactive Learning (EWIL)**³ together with organisations from Italy (Lead Partner), France, Greece, Hungary and Turkey. The project has been included both on a European level and by the Italian National Agency in the 5 Grundtvig "Star projects" in 2013.

EWIL organized meetings between partners to share best practices and competences for the identification of methods and tools and created a PILOT LEARNING EXPERIENCE combining ICT tools for human-computer interaction (including Interactive Multimedia Technologies and Social Networks), learning methods, specific contents as a learning toolset to motivate and to be easily used by women for learning purposes within the cultural/tourism field (with a potential impact on their employability in these sectors).

The **Women's e-Business Enterprise Learning (e-BEL)** project (2011-2013)⁴ led by the Women's Organization, UK and partners from IE, SI and NO (ECWT) has helped women entrepreneurs to better use information and communication technologies (ICT) to improve their business competitiveness. The project has

¹ <http://www.connect-project.eu>

² <http://www.owle50plus.eu/news.php>

³ http://www.europeansharedtreasure.eu/detail.php?id_project_base=2010-1-IT2-GRU06-1397

⁴ <http://www.thewomensorganisation.org.uk/e-business-enterprise-learning>

developed innovative modules for Marketing planning, Business on-line, Use of website and social media.

Women's Entrepreneurship on the verge of ICT (ladybizIT)⁵ carried out in 2011-2012 presented 12 best practice projects funded by funded by the LLP (LdV, KA3 ICT, Grundtvig) and focusing on women's entrepreneurship and demonstrating how ICT can be the best tool to increasing the efficiency of businesses.

The ENTER project⁶ running from November 2012 to October 2014 focuses on the young unemployed who are facing particular difficulties in accessing the labour market. ENTER consists of experienced partners led by the City of Wolverhampton College, UK and partners from Austria, Greece, Hungary, Portugal and Spain. The project supports young people to access the labor market through entrepreneurship EU key competences complemented by an Enterprise Award curriculum and Learning Empowerment guidelines, toolbox and exercises. In addition the project developed EC VET curricula for youth entrepreneurs, based on EQF learning outcomes, defined in terms of knowledge, skills and competences, and allocation of EC VET points, taking into account European recommendations.

The project **Competences of Entrepreneurship for Youth – (CEFY)⁷**, is a transnational project running 2013-2015 by Partners in Spain, Italy, Czech Republic, Poland and Latvia.

The aim is to transfer innovative solutions, already proved and validated, for the identification and practice of entrepreneurship competences by young vocational training students, using the approach of an educational game.

CEFY intends to stimulate self-employment among the youth, at the natural process of transition from education environment to the active social and labour life, contributing this way to tackling the problem of unemployment.

The project started 26 March 2013 and the pilot of the game for testing purposes was presented the 28 April 2014. After the validation phase planned before the summer, the final version of the game will be publically released.

Training of older workers in Entrepreneurship (TOWER50+)⁸ led by Iceland in collaboration with partners from Sweden, Denmark and Latvia. The project aim is to motivate and help the age group 50+ to get new skills which enables them to start own businesses. Project modules developed were a full range training program from pre-course interview, idea generation, business plan, legal issues, financial

⁵ <http://www.gender-it.eu>

⁶ <http://www.enterproject.eu/>

⁷ <http://www.cefy.eu/>

⁸ <http://www.tower50plus.eu/>

management, sales and marketing, network and partnership, assertiveness and self-confidence, management and leadership.

Cyprus

Cyprus has 3 public Universities, The University of Cyprus, The Cyprus Technology University and the Open University, and numerous private Universities and colleges.

Public Universities

At the main public University, the **University of Cyprus** offers two courses in entrepreneurship are offered as mandatory courses at the undergraduate level. Namely: at the Business School – Undergraduate level: mandatory course in Entrepreneurship and Innovation (464 course code). This course is mandatory for students in Business Management degree and the Degree offered by the School of Business and the School of Finance. Students of Computer Science, Electrical Engineering and Accounting have to take the mandatory course in Entrepreneurship (434 course code).

The **Cyprus University of Technology** and **Open University of Cyprus** do not offer courses or concentration in entrepreneurship.

The **Mediterranean Institute of Management (MIM)**, run by the Cyprus Productivity Center of the Ministry of Labor, offers a course on Entrepreneurship (Entrepreneurship Development, Value Proposition, Lean Startup Methodology, and Pitching) in their Post graduate degree in Business Management.

Private Universities

The **University of Nicosia** offers the following courses in entrepreneurship:

Course Code MGT 282 Small Business & Entrepreneurship at the Department Management and MIS. This is a Concentration course in the Field of Management.

The main objectives of the course are to:

- To develop the skills of engaging in the strategic analysis of the business environment of an organization and for the identification of its strategic strengths/weaknesses which may enable the small business to survive and grow in a competitive environment
- Develop the capability to be more entrepreneurial, or more able to support the entrepreneurial process, in privately owned small and medium-sized businesses.
- The broad issues and practice of business start-up and development from both a conceptual and practical viewpoint
- Personal strengths and weaknesses in relation to elements of the entrepreneurial process
- Aspects of the process of business development on the exploration of an issue.

Course Code MBA-707 Entrepreneurship and SME's at the School of Business, This is an Elective course in the Field of Management. The overall objective is to develop the capability to be more entrepreneurial, or more able to support the entrepreneurial process, in privately owned small and medium sized businesses. Participants should gain knowledge and understanding of:

- The broad issues and practice of business start-up and development from both a conceptual and practical viewpoint
- Personal strengths and weaknesses in relation to elements of the entrepreneurial process
- Aspects of the process of business development on the exploration of an issue.

The University of Nicosia offers a 4year, Bachelor of Business Administration with Concentration on Entrepreneurship & Innovation. This degree is a new degree.

The following courses are the concentration courses offered:

ENTR-150 Introduction to Entrepreneurship
 ENTR-170 Business Plan
 ENTR-200 Creativity
 ENTR-215 Project Management
 ENTR-282 Small Business & Entrepreneurship
 ENTR-300 Social Entrepreneurship
 ENTR-372 Management of Innovation & Technology
 ENTR-390 E-Business
 ENTR-435 Business Intelligence
 ENTR-472 Change Management

The **European University Cyprus** does not offer courses or concentration in entrepreneurship.

In the MBA degree of the **Cyprus International Institute of Management (CIIM)** the following courses are offered as electives for the entrepreneurship track of their MBA:

MB725 Business Ventures - From Idea to Execution
 MB615 Entrepreneurship & Innovation
 FB585 Financing of New Ventures
 MB750 Starting a New Business

In the MSc of Human Resource Management and Organizational Behavior the following courses are offered as electives:

HR455 Entrepreneurship and Innovation
 MA540 Starting Yours Own Business or Professional Practice

At the **Frederick University** the course MBA 528 Entrepreneurship and Innovation Management is offered as an elective in the MBA degree and their Distance learning MBA degree. In this course the students will learn how to manage innovation process and recognize business opportunities. The course focuses on the skills necessary for the planning, development and launch of entrepreneurial and innovative ventures. The material covered includes managerial strategies to shape innovative performance, opportunity recognition, foundations of entrepreneurship, techniques for creative thinking, processes for developing, planning and launching a new venture, developing innovative business models, and raising finance. The course utilizes relevant case-studies and will result in the development of a business plan by the groups of students.

At the **UCLAN University**, in the Business Administration program (undergraduate level) of UCLAN Cyprus the following course is offered as an elective: CD3114 Start a Business

In their MBA and MSC in Marketing Management degree the following course is offered: MD4060 New Enterprise Venture Development. The module aims to develop the students' ability to integrate and synthesize the information, knowledge and skills acquired in the other modules in the program and apply these to a current practical problem faced by an early stage local business. The module will enhance their problem-solving and team working skills and demonstrate their understanding of the particular challenges facing new ventures

Some of the colleges in Cyprus (all private) offer a course in starting a new business as part of their Business degrees, predominantly as an elective.

The research performed did not indicate a University or College offering an entire degree in Entrepreneurship or New Business Venture Development in Cyprus.

Entrepreneurship Education at Secondary Level

Junior Achievement (JA) Cyprus⁹ was founded as a non-profit organization in 2011. Its aim is to provide young people in schools across Cyprus with experiences that promote the skills, understanding and perspective that they will need to succeed in a global economy. Junior Achievement activities always involve a partnership between schools and the community so that students make the connection between what they are learning in school and the real world around them. JA Cyprus is a member of JA-YE Europe.

⁹ <http://jacyprus.org.cy/about-us#about-us>

JA Cyprus purpose is to inspire and prepare young people to succeed in a global economy.

JA Cyprus Values:

- Belief in the boundless potential of young people
- Commitment to the principles of market-based economics and entrepreneurship
- Passion for what we do and honesty, integrity, and excellence in how we do it
- Respect for the talents, creativity, perspectives, and backgrounds of all individuals
- Belief in the power of partnership and collaboration
- Conviction in the educational and motivational impact of relevant, hands-on learning

Informal Entrepreneurship Education with an impact in Cyprus

In Cyprus in the last 2 years there has been an intensive increase in startup events and unconventional or informal entrepreneurship training which was welcomed, especially by the technology community of the island.

Open Coffee Cyprus¹⁰ events run every 1.5 – 2 months where founders of startups from the island and abroad are invited to present their lessons learned and their story. These are very immediate and informal presentations which allow for practical knowledge to pass over 5-10 minutes, which is the usual duration of a presentation.

Startup Live Cyprus¹¹ where talented people with ideas have the opportunity to pitch-cooperate-plan-get feedback from mentors and startup in 3 days. At SLCY participants have the opportunity to pitch their ideas, build a team, get feedback from mentors and coaches, network, get useful contacts, find future partners, get to know coaches, business angels, start-up entrepreneurs and all other participants in 3 informal, busy, fun days, present their ideas and impress judges/angels/investors and win valuable prizes.

The first Startup Live Cyprus, took place in Nicosia in June 2013. DISY partner coordinator, Stavriana Kofteros, was one of the organizers.

Startup Weekend Cyprus¹². Startup Weekend is a global grassroots movement of active and empowered entrepreneurs who are learning the basics of founding startups and launching successful ventures. It is the largest community of passionate entrepreneurs with over 1800 past events in 120 countries around the world in 2014.

¹⁰ www.opencoffeecyprus.org, <https://www.facebook.com/OpenCoffeeCyprus>

¹¹ <http://startuplive.in/cyprus/1/>, <https://www.facebook.com/StartupLiveCyprus>

¹² <http://cyprus.startupweekend.org/>, <https://www.facebook.com/StartupWeekendCyprus>

The non-profit organization is headquartered in Seattle, Washington but Startup Weekend organizers and facilitators can be found in over 200 cities around the world. From Mongolia to South Africa to London to Brazil, people around the globe are coming together for weekend long workshops to pitch ideas, form teams, and start companies.

All Startup Weekend events follow the same basic model: anyone is welcome to pitch their startup idea and receive feedback from their peers. Teams organically form around the top ideas (as determined by popular vote) and then it's a 54 hour frenzy of business model creation, coding, designing, and market validation. The weekends culminate with presentations in front of local entrepreneurial leaders with another opportunity for critical feedback.

Whether entrepreneurs found companies, find a cofounder, meet someone new, or learn a skill far outside their usual 9-to-5, everyone is guaranteed to leave the event better prepared to navigate the chaotic but fun world of startups.

The first Startup Weekend Cyprus took place in December 2013. DISY partner coordinator, Stavriana Kofteros, was one of the organizers.

Hack Cyprus¹³ claims to be the biggest technology and startup happening in Cyprus. Includes a Youth Day, an Insights Conference and a two day hackathon. The Youth Day is a day dedicated to young Cypriots (aged 13-19), where they will teach them the basics of programming through games and robots. The Insights Conference is a full-day startup conference with 10+ speakers. The hackathon is where creative developers, designers and ideators come together for 30 hours of hacking awesomeness.

Hack Cyprus was created by the Cypriot Enterprise Link (CEL), with a clear ambition in mind — putting Cyprus on the technology map. They think Cyprus is able to attract and produce world-class technologists, and they envision Cyprus being a prominent startup hub in Europe and the world.

¹³ <http://2013.hackcyprus.com/>

Entrepreneurship and Entrepreneurship Education in Ireland today

Some facts

- The prevalence of owner managers of established businesses in Ireland is higher than it is across the OECD and EU.
- Successful entrepreneurs continue to be well considered in Irish society, and success at entrepreneurship is considered to confer considerable status.
- The educational attainment level among early stage entrepreneurs in Ireland is one of the highest internationally.
- More than half of all early stage entrepreneurs are focused on overseas markets
- The growth expectations among women entrepreneurs have considerably increased and there is no longer a significant gender gap in this area.

The Irish Policy Context

The '**Entrepreneurship in Ireland**' Report published by Forfas in 2008 found that that the school system did not sufficiently support the idea of working for oneself as a realistic option and that the Irish education system was perceived by entrepreneurs to have played a very limited role in supporting entrepreneurship to date.

Since then, there has been a cascade of publications including the **Enterprise Strategy Group Report, 2004**, the **Small Business Forum Report**, various reports by the **Global Entrepreneurship Monitor (GEM)** and the 2007 '**Towards Developing an Entrepreneurship Policy for Ireland**'. All have argued for the development of entrepreneurship education across all levels of the Irish education system to ensure there is a sustainable source of locally-grown entrepreneurs.

Building Ireland's Smart Economy - A Framework for Sustainable Economic Renewal 2008 recognized the need to foster entrepreneurial imagination. An objective under '**Action area 2 is Building the ideas economy – creating 'the innovation island'**' is to "*Foster an entrepreneurial culture at second, third and fourth levels*"

The Innovation Taskforce's **Report of the Innovation Taskforce' Report published in 2010** has taken the goals of the SSTI (**Strategy for Science, Technology and Innovation**) 2006 – 2013 a step further by outlining the need for a step change in Ireland's ability to develop new enterprise and jobs based on the entrepreneur. The recommendations in the Report are being implemented through an Innovation Taskforce implementation group.

The **National Strategy for Higher Education to 2030** was published in 2011 (also known as the Hunt Report) and highlights the central role to be played by HEIs in nurturing creativity and entrepreneurship.

The Entrepreneurship Forum was established in 2014 to support the Government to meet its goal that, by 2016, Ireland will be the best small country in the world for doing business. Towards this ambition, the Forum identified 6 distinct goals of a successful entrepreneurship policy:

1. Strengthen the startup community in Ireland
2. Increase the pipeline of entrepreneurs
3. Energize job creation
4. Continue growth of the indigenous export sector
5. Capitalize on Ireland's strengths in growth industries
6. Use underemployed resources

Building a strong indigenous enterprise sector is not the sole responsibility of government and its agencies. Rather, it requires the contribution – and leadership - of many different actors in the economic ecosystem (e.g. entrepreneurs, schools, third-level colleges, banks, industry associations, investors, voluntary organizations, etc) to increase the chances that more people discover the opportunity to start and grow their own successful business. Developing this 'entrepreneurial ecosystem' is the focus of the Forum's recommendations. To date, various targeted reports, recommendations and initiatives have been implemented to support specific cohorts in the high tech, life-sciences and medical devices sectors, a strategy sometimes considered the 'picking winners' approach.

This leads many budding entrepreneurs to believe that if they don't fit perfectly into these 'winners' categories, then they are not a valued member of the entrepreneurial community. The Forum's approach is based on the view that policies and actions are required to improve the culture and support of *all* entrepreneurial startup ventures across all business sectors.

The philosophy of the Forum also recognizes that people establishing not-for-profit or social enterprises use many of the same skills as people starting a for-profit business, and they create jobs and social value that is essential to building an inclusive and supportive culture in Ireland.

Some examples

- Bizworld runs 2-3 day immersion events in primary schools where students are put into teams and expected to set up a company, raise money, pitch to

investors, and have an actionable result. Bizworld also organizes summer camps and works with educators and teachers to introduce entrepreneurial concepts to students. Bizworld currently partners with schools in Dublin, Kildare, Wicklow, Galway, Cork and Limerick.

- Network for Teaching Entrepreneurship (NFTE), a worldwide youth entrepreneurship education and development program, and Foroige, Ireland's youth organization, have partnered for over a decade to deliver in-school and out-of-school courses, workshops, and awards at the secondary school level
- CoderDojo is a not for profit movement that runs free coding clubs with regular weekly sessions for people aged 7 to 17. At CoderDojo youth learn how to code, develop websites, apps, programs, games and more. Dojos are set up, run by and taught by volunteers. Dojos organize tours of technology companies, bring in guest speakers to talk about their career and what they do, and organize events. Every week, roughly 5,000 kids develop their computer skills in 100 CoderDojos throughout Ireland.

In general, Ireland has an enviable wealth of accessible programs to support business creation, more so than in many other countries.

In Ireland, adhoc groups and activities like ITLG, Startup Ireland, Startup Grind, Activate Dublin, Open Ireland, Accelerator programs like HealthXL, Selr8r, Endeavour, Propeller, and industry groups like IT@Cork, ISA, IIA and others provide the sparks that power the entrepreneurial ecosystem.

In the small island of Ireland there are 31 LEOs (Local Enterprise Office) offering support (incl. financial) and enterprise education to would-be entrepreneurs. Courses like "Start your own Business" and several other tailored programs.

Accelerators' are sometimes considered 'the new MBA'. Rather than students paying to go to a business school to learn case studies on how companies succeeded or failed, an accelerator pays the students (through equity investments in their nascent businesses) to develop their idea into a company over a period of typically 3-6 months. Accelerators running in Ireland include **NDRC Launchpad, Endeavor, Wayra, Health XL, DCU Ryan Academy's Propellor Program, New Frontiers, Selr8r, and Synbio Axlr8r.**

New Frontiers (*mentioned above*) for example is a 6 month rapid incubation program that is funded by Enterprise Ireland and is offered in 14 Institutes of Technology throughout Ireland. It takes in 10 entrepreneurs in each program giving workspace, a mentor, €15k grant, and a full training program.

In 2011, three of Ireland's accelerators were ranked in the top eight in Europe. These programs generally invite experienced entrepreneurs to lecture and interact and mentor the 10-12 startups in each class.

In Ireland, accelerators are generally only available to high-tech and high-growth companies with multimillion-dollar global revenue potential. A significant proportion of 'accelerated' companies do grow much faster and achieve more (most founders estimate that they make more than one year's worth of progress in the time-compressed duration of these programs).

It is well-established that many companies are formed because of accelerators that would never have been created without them (dozens per year in Ireland alone).

At the culmination of the accelerator program, there is typically a Demo Day where investors come to consider the possibility of backing one or more of the launching companies. Ireland is already benefitting hugely from the presence of several leading accelerator programs.

Entrepreneurship: Support and educational initiatives in Greece

Introductory remarks

This report has been drafted within the frame of the EU co-funded project "Innovative training material to INSPIRE and Empower Young and Women to Startup (INSPIREYoWUP)" (2013-2015). The objective of the project is to develop educational material on entrepreneurial skills for women and young people across Europe, and to empower them to start-up or successfully keep up their own enterprise. The project partnership consists of an international mix of organizations and companies in Norway, Cyprus, Greece, Ireland, the Netherlands and Spain. The aim of the report is to provide an overview on the overall scope and impact of entrepreneurship education, training and support in Greece, which will be consolidated with similar material collected and commented upon with respect to the state-of-the-art in the rest of the participating countries. This was deemed necessary, in order to have a solid grip on the available provisions and impact of entrepreneurial training in the countries in question, facilitating the development of appropriate educational material and methodologies, matching certain learning needs and notions about entrepreneurial involvement, especially among women and the young.

In an attempt to provide an overview of the situation regarding educational/supporting initiatives in the field of entrepreneurship in Greece, it has to be noted that in most of the cases, there is not a clear-cut distinction between those supportive mechanisms that up to some extent deal exclusively with women or the young, and those that address undifferentiated audiences.

Furthermore, in close association with the previous point, it has to be taken into consideration that certain identified practices and models have been assessed on the basis of their support potential and scope regarding the encouragement/support of start-ups. Thus, methodologically, this report aims to provide a concise overview of the overall tendency and provisions in entrepreneurial support in Greece – especially for women and the young – including remarks on the inclusion of entrepreneurial education across the formal educational system of the country, the field of VET and lifelong learning, as well as supporting practices and models made available by certain actors in the private sector. Special mention will be made on certain initiatives in the field of entrepreneurial mentoring, involving predominantly female aspiring or new entrepreneurs.

In order to gain a better understanding of education/support initiatives in the field of entrepreneurship as developed and implemented in Greece, the report will provide information and remarks according to the following structure:

- The important role of entrepreneurship as transcending EU's approach to economic development
- The perceived notions of the Greek society about entrepreneurship, which is a central factor substantially influencing learning attitudes and priorities
- The inclusion of entrepreneurship as a learning object in the educational system and the subsequent introduction of entrepreneurial training and support at the institutional, public or private level

Entrepreneurship as an EU priority

Entrepreneurship has been acknowledged as a critical factor in fostering economic development in the EU and globally, especially under the light of the economic backlash due to the financial crisis. In recent times, more than ever, targeted supporting of entrepreneurship at all levels constitutes an integral part of European policies. This is being made evident in the corpus of the latest EU priorities, especially as declared in the [Entrepreneurship 2020 Plan](#) which is built on three main pillars:

1. Entrepreneurial education and training
2. Creation of an environment where entrepreneurs can flourish and grow, and
3. Developing role models and reaching out to specific groups whose entrepreneurial potential is not being tapped to its fullest extent or who are not reached by traditional outreach for business support.

This echoes the main objectives of the Lisbon Strategy as adopted in 2000, portraying a nascent but clear urge for entrepreneurship to be integrated in the educational systems of the EU Member-States. Eventually, this approach came to represent the central role of entrepreneurship as an economic development mechanism and practice, as well as a way out of the financial crisis, focusing on the mid-term and long-term benefits of inducing 'entrepreneurial mindsets' to diverse social groups (e.g.

women, the young, the unemployed, the disadvantaged, various social groups at risk). Within this scope, supporting schemes, models and practices for entrepreneurship have deepened and widened their methodological apparatus, in order to include the widest possible pool of beneficiaries, providing them with the appropriate tools, either through funding mechanisms supported by the European Union's structural funds, as well as national funds, or through co-funded initiatives towards the provision of targeted educational, counselling, training initiatives to be implemented in all Member-States addressing the development of entrepreneurial activities and the start-up of new enterprises.

At this point, it is of great importance to mention that the cross-cutting philosophy which paves the way for the development and implementation of initiatives towards the support of entrepreneurship, is based on a rather novel approach of entrepreneurship as a concept that should be dealt with against its cultural aspects, i.e. its properties as an entrepreneurial spirit to be encouraged, rather than its mere technical/managerial/practical nature, which although remain in focus as an 'educational' target¹⁴. In a nutshell, this accounts for the approach of entrepreneurship beyond its conception as a professional alternative, but rather as a field of social and economic action in need of dedicated support to induce 'entrepreneurial mind-sets' to diverse social groups, through supporting schemes, models and practices, which have to constantly deepen and widen their methodological apparatus beyond the support in mere technical/financial aspects for starting up a business, into fostering entrepreneurial attitudes. It is thus also against this central issue that certain initiatives, programmes, and practices in Greece supporting women and youth entrepreneurship are going to be commented upon.

The perceived notions of the Greek society about entrepreneurship

Recent studies¹⁵ have shown that Greek society appraises self-employment to a much larger extent than the EU average. More than 50% of the population – both women and men- prefer self-employment against 37% at EU level. However, almost 1/3 of the Greeks believe that the current economic environment is rather prohibitive for taking up an entrepreneurial activity against 12% at EU level. This is however more or less justified, considering the impact of the economic crisis, which is pushing towards a vicious circle of high unemployment, combined with restricted economic activity, access to and availability of initial capital, widespread feelings of insecurity and lack of mid- and long-term economic and financial planning potential. However, whereas entrepreneurial support would be expected to draw more attention of entrepreneurs and would be entrepreneurs under these circumstances, especially among women who are being much harder hit by unemployment, a staggering 83% declares that they have never received any form of education or training in entrepreneurship.

¹⁴ European Commission Communication, Fostering Entrepreneurial Mindsets Through Education and Learning, COM(2006) 33 final.

¹⁵ Source: Eurobarometer 2013

Moreover, at a more qualitative level, and according to the same source, 7 out of 10 Greek citizens believe that entrepreneurs are mainly motivated by purely personal and monetary advantage. Lastly, with respect to the profile of Greek entrepreneurship, it seems to be rather introvert, focusing disproportionately on consumer goods and services, not seriously accounting for the production of added value whatsoever. These contrasting aspects can lead to sufficiently safe conclusions as follows:

- Greek society has not decided if entrepreneurship is a 'good' or 'bad' word
- It is not a clear concept, often confused with self-employment, employer, business owner
- Greek entrepreneurship is introvert and necessity-based, consisting mostly in small and very small family firms
- Entrepreneurial activity is ruled rather by a push than a pull factor i.e. rather self-employed than being an employee

Entrepreneurship as a 'learning' subject

Entrepreneurship in secondary education

In alignment with EU priorities and directives, entrepreneurship as a learning subject has been introduced in secondary education curricula in Greece no sooner than 2001. Following subsequent position and communication papers at a later stage¹⁶, entrepreneurship has been however included in courses curricula dealing with the topics of Economy and Business Management, thus not yet considered as a cross-disciplinary, overarching subject of teaching, encouraging entrepreneurial attitudes as a personal asset and mode of thinking and acting. At another level, considering the timing of the introduction of entrepreneurship in secondary education, we can easily come to the conclusion that during this period of heightened interest in boosting entrepreneurship at EU level, Greek citizens older than approximately 28 have never heard a word about entrepreneurship while at school!

Furthermore, restricting the scope of the concept of entrepreneurship within the boundaries of economy, finance and business management, eventually leads to blurred representations of what 'entrepreneurship' and 'entrepreneur' stand for, that is, conflating – while over-exposing - the technical issues of management and technical/financial skills and competences, with those of entrepreneurship as a state of mind, a way of economic reasoning and social action in general.

¹⁶ European Commission Communication, Fostering Entrepreneurial Mindsets Through Education and Learning, COM(2006) 33 final E.C. "Entrepreneurship Education at School in Europe. National Strategies, Curricula and Learning Outcomes", March 2012

However, in the very recent years, and in line with the need to develop an entrepreneurial culture starting at the level of secondary education, the following indicative, wide-ranging initiatives have been implemented:

1. The 'Youth Entrepreneurship Observatory' of the General Secretariat Of Youth which is:

- Creating a mechanism for collecting macro-economic and micro-economic data and additional information regarding the general entrepreneurial environment.
- Co-operating with the Youth Entrepreneurship Support Structures in order to collect data and spread information.
- Processing the data collected in order to produce structured information.
- Conducting research related to entrepreneurship and promoting results.
- Providing information to anyone interested, particularly through the internet, but also through any other available means.
- Cooperating with institutions activating in the field of employment and entrepreneurship with the aims of exchange of know-how and information as well as coordination of activities.
- Preparing a series of annual conclusive reports and identifying areas of intervention in order to improve the overall business environment.
- Assuming initiatives with the intent to inform the public opinion, especially young people.
- Planning and implementing programmes within the context of the educational system aiming to promote business spirit in schools and universities and encourage young people to become the entrepreneurs of tomorrow.

2. The 'Virtual Enterprises' project of the Sivitanidios Public School of Trade and Vocations offering personalized consulting and supporting in the beginning of a new entrepreneurial activity, information about financial figures and statistical data of employment, and further education or training on special fields in order to cultivate skills and abilities

3. The functioning of Youth Entrepreneurship Summer Schools providing experiential, real-life involvement for young people in the entrepreneurial world.

This kind of initiatives exhibit a will at the institutional level, to start dealing with entrepreneurship as a prominent learning and teaching topic, preparing to some extent the ground for further involvement of present and future young generations in the world of entrepreneurship. In the most of the cases, the initiatives are of have been supported by EU and national funds, aligning the development goals of Greece with those of the EU, and more specifically with the overall aim of cultivating entrepreneurial cultures among the population before the entrance to the labour market.

The assessment of the impact of those initiatives cannot be easily followed, due to limited available data. Quantitative or qualitative indicators which would provide an overall overview on how these initiatives have been received and fertilised by the actual beneficiaries are missing, whereas it is estimated that approx. 50000 secondary education students and young people have participated in those or similar programs in the period between 2005 and 2013.

Entrepreneurial training: Attitudes and practices focusing on women and youth entrepreneurship

It has already been stated, that entrepreneurship is still a rather ambiguous concept in the case of Greece, often carrying along negative connotations, or being interchangeably used by common wisdom with the concepts of business owner or employer. Moreover, entrepreneurship in Greece is rather necessity-based, lacking features of a high-quality, innovative entrepreneurial environment. Thus when considering training models and methodologies in the field of entrepreneurship, we come across a certain mix of training initiatives which focus on the technical, managerial, business-aspects of entrepreneurship, however engulfing to some extent transversal aspects thereof, closer to an approach which aims to foster entrepreneurial spirit *alongside* technical and practical support. Indicative initiatives allowing to obtain an overview of the scope and the directions of entrepreneurial support in Greece are as follows:

The support of entrepreneurship at all levels, including targeted training and education to include a wide range of social groups, especially women and the young, has been a general strategic objective of the **NSRF (National Strategic Reference Framework) 2007–2013**, which constitutes the reference document for the programming of European Union Funds at national level for the 2007–2013 period. There have been numerous initiatives implemented at national and regional level, providing entrepreneurial support in general, as well as focusing on women and the young, within the wider scope of labour inclusion in Greece, especially with respect to the unemployed and disadvantaged groups. More specifically, the **Operational Programme «Competitiveness and Entrepreneurship» (OPCE II) as part of the NSFR** has had as a central development objective to improve the competitiveness and extroversion of enterprises and industry, with an emphasis on innovation, providing alongside multi-faceted support in taking up and initiating entrepreneurial activity. The nature and philosophy of these projects rested on the objective to create

long-lasting structures of entrepreneurial support, forming Development Partnerships consisting of actors coming from the public and the private sectors. However, these initiatives, although providing the opportunity to beneficiaries to receive support and training in entrepreneurship, they are confined within the structural properties of finite projects – i.e. they have a certain duration depending on project life-span and budget.

On-going initiatives at a similar level include the action of the **Greek Manpower Employment Organisation** providing on-going counselling in taking up entrepreneurial activities, targeting mostly unemployed women

A further initiative with national impact is **Start up Greece** (<http://www.startupgreece.gov.gr/>), which is supported by the Ministry for Development and the Greek Government in collaboration with communities of young entrepreneurs. It is a network-building, on-going programme which:

- provides entrepreneurs with the information necessary to start their own business (motivation, funding, legal framework, research material)
- utilises social media to bring together people, ideas, corporations, universities, organizations, and create creative partnerships and investment opportunities
- provides citizens with valid and timely answers
- promotes online democracy, dialogue and accountability

Startup Greece is a "no stop shop" aimed at inspiring young people to believe in their own ideas, to cultivate novelty and innovation, and start their own business.

In the field of women entrepreneurship support, one of the most prominent, on-going initiatives is the action of the **Ergani Center** (www.ergani.gr). The Ergani Centre was established in 1991 after receiving funds from the EU Initiative, Employment NOW. The Centre is the outcome of a mixture of ideas from a number of organizations and authorities of Northern Greece, all focusing on enhancing female participation in the workforce and on eliminating factors that lead to women's exclusion from the labour market. The *Entrepreneurship Service* of Ergani supports women who are contemplating the creation of their own business and also active businesswomen who seek the redesigning and further development of their company. Candidate entrepreneurs are supported in clarifying their business idea, in step-by-step guidance on how to establish a company and in exploring funding opportunities for the future sustainability of the company. In the case of already active businesspeople, counselling is offered concerning issues of special interest to entrepreneurs (advertising, marketing, customer relations) and the interested parties are assisted in identifying and solving problems with their company's administration and in deciding the best plan for future development. The provided services are as follows:

- Business counselling by experts on business planning and operation (available in individual or group counselling). Counselling is offered on all topics of interest to potential entrepreneurs (formulation of business ideas, business plan design, legal issues on the launching of a business, marketing and finance, human resource management, public relations and networking).
- Flexible training: candidate entrepreneurs in groups of 15-20 people are trained by a specialised trainer on the theoretical and practical aspects of establishing a business and have the opportunity to share their questions and ideas with the rest of the group. The basic criterion for participating in this kind of training is the existence of a clear business idea even at an initial stage, from which topics for discussion originate.
- Membership to the Network of Women Entrepreneurs of the Ergani Centre (including the organization of publicity events aiming at the creation of networking opportunities and opportunities for cooperation).

Moreover the Ergani Centre is a founding member of the European Network of Women Resource Centres – WINNET Europe that was established in Brussels in 2006. WINNET Europe aims at the European cooperation of Women Resource Centres, the exchange of know-how and the promotion of gender issues particularly emphasizing on regional development, social integration and new technologies.

In the field of tertiary education, a wide range of Universities provide long-term training in entrepreneurship (3-5 months) for University graduates, however not targeting women and the young in particular, through the operation of Vocational Training Centers, leading to accreditation certificates. In the same vein, **private and public Institutes for Vocational Training (IEK) and Centers for Vocational Training (KEK) addressing mainly lifelong learning** across the country provide courses in entrepreneurship, in the field of post-secondary, non-tertiary education.

Fostering start-ups in particular, the **Hellenic Federation of Enterprises** is implementing the action '**Together in starting up**' (<http://sev4enterprise.org.gr/>) which provides:

- Entrepreneurial support to students, young scientists/researchers
- Alliances with tertiary education institutions
- Entrepreneurship incubators
- Networking with the world of entrepreneurship and financing
- Support through online platform designed by Google
- Mentoring services to future young entrepreneurs

Looking at further **support initiatives**, and especially those which are addressing **women existing and aspiring entrepreneurs**, a special mention should be made on several actions in the field of **mentoring and professional guidance** provided by several actors coming mostly from the private sector. The methodology of mentoring and entrepreneurial mentoring in particular has gained much popularity in the recent years, however, it is still a quite novel practice in the Greek case. Following the overall trend at EU level with respect to the importance of mentoring in entrepreneurial support, a nascent but however quite well-established and promising field in entrepreneurial support through mentoring and guidance has been established in Greece. The methodology of mentoring, relational and highly interpersonal in nature, seems to fit well to the overall goal of developing entrepreneurial mind-sets, which goes far beyond the traditional approaches of transmitting technical/managerial knowledge to present and future entrepreneurs. On the other hand, both in Greece as well at EU level, mentoring seems to be very attractive to women in particular, judging from the number, the outreach and impact of activities, initiatives and networks such as the **European Coaching and Mentoring Council (EMCC)**, the **European Network to Promote Women's Entrepreneurship (WES)** which is active in 31 countries, the **European Network of Female Entrepreneurship Ambassadors** supporting women entrepreneurship in 22 EU member-states, the **European Network of Mentors for Women Entrepreneurs** which is represented at national level in 17 EU member-states, while in Greece in particular it is represented by Militos Consulting S.A. which is the Hellenic representative and Coordinator of the European Network of Mentors for Women Entrepreneurs.

Some indicative on-going initiatives in the field of entrepreneurial mentoring services in general, but also targeting women in particular in Greece are the following:

- **Endeavor Greece** (www.endeavor.org): Part of Endeavor Global supporting existing enterprises, Offering networking opportunities at international level upon evaluation by an International Selection Panel.
- **Womenontop** (www.womenontop.gr): Provision of long-term mentoring to women over 16 years old on a voluntary basis, utilising a basic mentoring system (i.e. applications, matching, monitoring of mentoring sessions)
- **IforU Greek mentoring Network** (www.iforu.gr): Provision of long-term mentoring to women 2 hours per month on 12-months long basis)

Conclusion

The aim of this report is to provide an overview on the overall scope and impact of entrepreneurship education, training and support in Greece, which will be consolidated with similar material collected and commented upon with respect to the state-of-the-art in the rest of the participating countries. In order to gain a better understanding of education/support initiatives in the field of entrepreneurship as developed and implemented in Greece, the report provided information and remarks according to the following structure:

- The important role of entrepreneurship as transcending EU's approach to economic development
- The perceived notions of the Greek society about entrepreneurship, which is a central factor substantially influencing learning attitudes and priorities
- The inclusion of entrepreneurship as a learning object in the educational system and the subsequent introduction of entrepreneurial training and support at the institutional, public or private level

As it was made evident, a set of contrasting aspects with respect to entrepreneurship as a concept and practice in Greek society can lead to sufficiently safe conclusions as follows:

- Greek society has not decided if entrepreneurship is a 'good' or 'bad' word
- It is not a clear concept, often confused with self-employment, employer, business owner
- Greek entrepreneurship is introvert and necessity-based, consisting mostly in small and very small family firms
- Entrepreneurial activity is ruled rather by a push than a pull factor i.e. rather self-employed than being an employee
- Entrepreneurship is not yet firmly considered and/or institutionalized as a 'learning/teaching' subject

Initiatives and support mechanisms ranging from overarching national projects, to private sector or mixed actions exhibit to some certain extent a will at the institutional, formal or even informal level, to start dealing with entrepreneurship as a prominent learning and teaching topic, preparing the ground for further involvement of present and future generations in the world of entrepreneurship.

The most important issue to be tackled, is the fact that whereas more than 50% of the population – both women and men- prefer self-employment against 37% at EU level, a staggering 83% declares that they have never received any form of education or training in entrepreneurship. Thus, in order to fully realize the possible benefits of certain support mechanisms and models to encourage entrepreneurship, especially among women and the young, there is first a clear need in developing an entrepreneurial culture among the population at large, which should start at the level of the educational system of the country, then reach beyond it into the level of lifelong learning, providing a balanced mix of technical/financial/managerial support, and also maybe more importantly, targeted, qualitative support in nurturing entrepreneurial mind-sets, which in turn can result in innovative entrepreneurial activities.

Status Quo of Entrepreneurship stimulation in Dutch Education

The description below provides an impression of how the attention for entrepreneurship has penetrated into formal and informal education in the Netherlands. Combining forces with specialist (outside) organizations has been popular in recent years.

In general

The collaboration between VET institutions and enterprises has been stimulated a lot in the last years. There are some good results of these collaborations. The chamber of commerce organizes a lot of activities to stimulate these activities. It organizes workshops and gives presentations about starting entrepreneurs, it offers also a template for a business plan.

Entrepreneurship of students

Many students start a business during their training, but they don't receive the guidance from their college or university they wish. The Chamber of commerce and the Young Entrepreneurs Foundation support this assumption. Only 26 percent of the surveyed students reported that they receive support. The promotion and knowledge within the educational institutions is quite poor. When asked whether students are sufficiently encouraged to start their own business, only 7% say that it is enough. A mere 12% of the students reported that there is sufficient knowledge at school. These are, at best, very remarkable results, certainly when one considers that in 2009 the number of entrepreneurs, younger than 25 years, has almost doubled. The minors and workshops about doing business are increasingly attracting students in colleges and universities.¹⁷

Entrepreneurship In VET

Example of start-up program in cooperation with external organisation #1

Jong Ondernemen¹⁸ is a non-profit organization, founded in 1990 as a combined initiative of the ABN AMRO bank, VNO-NCW (Employers Association) and MKB Nederland (SME Association) in close association with the NOvAA (Order of Accountants), Chamber of Commerce and the Ministry of Economic Affairs. Jong Ondernemen aims to help as many young people as possible (pupils and students) become aware of entrepreneurship and develop an entrepreneurial attitude as well as putting these skills into practice, learning about both the opportunities and challenges of running a business, during their study.

¹⁷ <http://www.adviesbedrijf.nl/onderwijs.html>

¹⁸ <http://www.jongondernemen.nl/english-version.html>

This foundation developed two main programs for students of VET institutions during their school time. These programs are called as 'College Company' and 'Enterprise Practice'. College Company is a program developed for students which keep a real company going within a team for a maximum of one year. The students will be supported by a support team, which consists of a teacher, a company supervisor and a financial counselor. The capital which the student works with is derived from the sale of shares and the student is accountable to shareholders. The study load of the College Company will take about 180 hours a year. Enterprise Practice consists of two parts: playing a virtual entrepreneurs game and - associated with the entrepreneur's game - writing a business plan. The coaching is done by the teacher and there is no accountability to third parties. The study load of Enterprise Practice is approximately 90 hours.¹⁹

Learning by doing is the method of choice at Jong Ondernemen. This is the most effective means to let the participants develop their entrepreneurial skills. Jong Ondernemen has therefore chosen for a form applicable to all the differing educational levels in the Netherlands. A concept whereby the students set up and manage a company or a comply academic year. Concepts have been developed for primary education and HAVO/VWO, VMBO, MBO, HBO and WO.

Every year thousands of pupils and students start up a student company. These companies form an excellent preparation for independent entrepreneurship, or for those who join existing companies, an entrepreneurial attitude which enables them to succeed in their chosen function and careers.

Example of start-up program in cooperation with external organization #2

Inqubator Leeuwarden²⁰ teams up with a passionate entrepreneur to visit universities of applied science and VET institutions in Leeuwarden in order to inform and inspire students about entrepreneurship. Inqubator Leeuwarden strives to visit all educational institutes twice per year.

The road show takes about two hours and aims at students that have affinity with entrepreneurship, for example students who are studying for a minor in entrepreneurship. In the weeks before the road show event, the teacher gears up the content of lessons towards this event.

Within these two hours the Inqubator team starts by informing about possibilities for students within Inqubator Leeuwarden; students starting up a company can use our office space and facilities, receive coaching and utilize the BDF/incubator network. This is especially for the first stage within the Inqubator, which focuses specifically on student entrepreneurs, for which the costs of participation are being funded by the

¹⁹ <http://www.jongondernemen.nl/scholieren-studenten/mbo-twee-programmas/essentiele-verschillen.html>

²⁰ www.inqubator.nl

municipality of Leeuwarden. Students can therefore join the Incubator for free and work in the shared office facility on their business plan while being coached by the incubator team.

After the introduction about Incubator Leeuwarden an experienced entrepreneur will hold a lecture about starting your own company. The speaker's experience is always related to the type of education of the students, to make sure students are inspired to start their own company, which is one of the most important goals of a roadshow.

To make a road show interactive the students will form small groups and brainstorm for 20 minutes about starting up a company (Incubator supplies the format for this), after which the students pitch their ideas. The teacher, the guest lecturer and the incubator team provide feedback to the students.

Similar initiatives take place in other parts of the Netherlands on local or regional scale as well.

State of the Art in regard to Entrepreneurship Education and Training in Norway

Background

Entrepreneurship is the most powerful driver of economic growth in economic history. With 4 million new jobs created every year, new companies, especially small and medium-sized enterprises (SMEs), create the most new jobs in Europe.

Women constitute 52% of the total European population but only 34.4% of the self-employed or of all business starters in the EU. Women thus represent a large pool of entrepreneurial potential in Europe. When establishing and running a business, women face more difficulties than men, mainly in access to finance, training, networking, and in reconciling business and family.²¹

Today Norway has the highest number of young, fast-growing companies in the Nordic countries. Norway also has the highest proportion of startup companies. Young Nordic gazelles have a considerable impact on job creation in relation to their number. In the whole region, a total of 602 gazelles created 29.588 new jobs during the period of 2006-2009.

For instance, in Norway, 214 gazelles increased the employment with 10.594 new jobs and in Finland 92 gazelles alone created 7.617 jobs. Nordic gazelles are mainly active

²¹ See, e.g., O. Bekh, ETF Women's Entrepreneurship Development, Policy Brief (2012); A. Lesina, F. Lotti, 'Do Women Pay More for Credit? Evidence from Italy', NBER Working Paper (2008); 'women in business and decision-making', Eurochambres (2004).

in the service sector. In Denmark somewhat more gazelles are active in knowledge-intensive services in comparison with the other Nordic countries.²²

Norway's success story is the outcome of considerable efforts made in the last 15-20 years to become a major player in promoting entrepreneurship.

Primary and secondary education – entrepreneurship strategy

In 2004 the Directorate for Primary and Secondary Education, Norway under the leadership of Inger Karin Røe Ødegård, Adviser, presented '*See the Opportunities and Make them Work! – Strategic Plan for Entrepreneurship in the Education System (2004-2008)*'.

The Strategy has been prepared in collaboration by three Ministries: Ministry of Research and Education, Ministry of Local Government and Regional Development, Ministry of Trade and Industry with the goal to motivate and inspire educational institutions, municipalities and counties/regions to plan and firmly establish education for entrepreneurship, in collaboration with industry and other relevant players in the local environment. The strategy clearly states that '**Developing Entrepreneurial attitudes and Entrepreneurship-competence has to be a task for ALL areas in every local society.**'

The Norwegian entrepreneurship education strategy discusses the following future challenges: increasing entrepreneurship education research at different levels of education, enhancing equality in entrepreneurship opportunities regardless of geographic location, increasing the value of entrepreneurship among key actors (teachers, students, educational administration), examining entrepreneurship together with international partners in cooperation, establishing the position of entrepreneurship, integration and quality assurance in educational institutions, raising the entrepreneurial competence level of teachers and those studying to be teachers, developing contacts outside the school community, and coordination and follow-up of entrepreneurship-oriented activities.

The most important part of the entrepreneurship education strategy 2004-2008 described entrepreneurship goals for all educational levels, and indicators created for them. The indicators followed e.g. the development of basic knowledge on entrepreneurship, the number of entrepreneurship conferences organised, sharing best practices, and cooperation with the third sector and different networks. The responsibility for implementation of the strategy plan for entrepreneurship in education lies with owners of the educational institutions.

²² <http://www.nordicinnovation.org/publikasjoner/nordic-growth-entrepreneurship-review-2012/>

The responsibility for coordination lies with the Ministry of Education and Research, the Ministry of Trade and Industry & Ministry of Local Government and Regional Development, Norway.

The European Commission and the Norwegian government jointly organized the conference '**Entrepreneurship Education in Europe: Fostering Entrepreneurial Mindsets through Education and Learning**' the 26-27 October 2006 in Oslo with over 320 participants from 33 countries; policy makers and representatives from different public departments, organizations promoting programs and activities, business associations, relevant stakeholders and representatives from schools and universities, experts and researchers in this field.

The topics of the workshops reflected the EU-level approach to entrepreneurship education:

- Entrepreneurship in Primary Education
- Entrepreneurship in Secondary Education
- Entrepreneurship in Higher Education
- Mini-companies and Students' Activities Based on Project Work
- Fostering Quality and Impact Assessment
- Bridging Policy Measures and Practice

Through the workshops and presentations of Good Practice cases, the conference elaborated concrete initiatives on how to put the recommendations of the recent Commission Communication into practice.

The main outcome of the Oslo Conference is the '**Oslo Agenda for Entrepreneurship Education in Europe**'. The ideas advanced in Oslo by a broad representation of stakeholders result now in **a detailed catalogue of initiatives**. The Agenda is a menu of proposals, from which all responsible actors can pick actions at the appropriate level, and adapt them to the local situation.

The strategy document was evaluated in 2008 and a new strategy document 'Entrepreneurship in Education and Training' was adopted for the period 2009-2014.

The new strategy emphasizes that 'Entrepreneurship in education and training may be both theoretically and practically oriented. Training in entrepreneurship can be organised as a separate subject or be integrated as a way of working in other subjects.

Entrepreneurship can be a tool and a working method to stimulate learning in different subjects and in basic skills. Entrepreneurship in education and training may also further develop personal characteristics and attitudes. The training may focus on imparting knowledge on how to start one's own business and about innovative and ground-breaking processes in existing enterprises

Junior Achievement – Young Enterprise (JA-YE) Norway's Company Program

Interesting facts have been revealed by the **national evaluations** carried out by Nord-Trøndelag Research Institute years 2003 and 2005 **of the Junior Achievement – Young Enterprise (JA-YE) Norway's Company Program.**

The survey: **'What happened later'** is carried out among former students (back to 1990) in the JA-YE Company Program in Upper Secondary Schools indicated that:

- More than 11.000 young students establish their own mini-company related to the upper secondary school every year in Norway.
- Pupils and students who have taken part in the Company Program tend to establish businesses more often (17 %) than the population in general (7,5 %).
- Results shows that the start-up rate in the study in 2005 is 16,6 % compared to 9,7 % in the 2002-study. This shows an increase of over 50 %. For the age group 29 years and older the start-up rate is 26,6% due to 19,6% in the 2002-study and 20 % in a similar Swedish study from 1998.
- 75 % of the pupils think that the Company Program has made school attendance more interesting and exciting.
- Getting practical experience in establishing and running a company when you are young increases the ability and interest in establishing your own company considerably. 30,8 % carries on with the same kind of idea as they had in their mini-company in school, and 62,3 % of the established enterprises is still in operation.
- 80 % percent of the teachers have positive experiences teaching in the Company Program. The result shows that many of the teachers who teach youth enterprise have another work experience than teaching. About 20,4 % of the teachers has a background as self-employed. Out of these does 51,9 % have experience from private enterprises and 14,4 % experience from other public services. Experience from the private sector seems to be a suitable and special experience for teaching youth enterprises.
- The study shows that the teachers find it professional and pedagogic demanding to teach youth enterprises.
- There are also many teachers who answer that teaching this way creates a better collaboration between the pupils, which also will affect the pedagogic arrangement.
- As many as 40 % of the leaders of the companies were female.

'Creative and entrepreneurship education in schools' - Nordplus Horizontal program

Since 2008/2009 the Nordic Council of Ministers supports the project **'Creative and entrepreneurship education in schools'** through the Nordplus Horizontal program. The project involves 5 countries: Norway, Estonia, Latvia, Lithuania and

Finland and focuses on the marketing as a tool for entrepreneurship and business, as well as teaching entrepreneurship at school.

The Innovation Camp, as a European programme, started to spread after the meeting when the Norwegian representative spoke about their attempts to organise a new learning-by- doing programme in Norway. JA-YE Finland joined the program shortly thereafter and Estonia followed quickly.

Dealing with **Relationship Marketing** as a subject has helped participants focus very precisely on their main target group: students, but also teachers, parents and the local community. They have shared methods for teaching at school so that all those involved can get the most out of entrepreneurship education in our region. Finding resources for getting information about Relationship Marketing enables participants to enrich the lessons carried out at school.

All knowledge, new skills, methodologies, teaching tips that participants obtain are extremely valuable but what count even more are the **relationships among people participating in the process**. Educators have become friends with one another and started to communicate even outside the meetings. Various things are discussed and problems of everyday school life are solved in the meetings. Finnish and Estonian youth organisations (JA-YE alumni) have started to help each other in organising national events. Latvia, Estonia and Lithuania are writing proposals together for solving their common problems in the Baltic States. Schools are cooperating by sending students to visit schools of partner countries.

Norwegian University Entrepreneurship Start-up program - Gründerskolen

In 1999 professor Nils D. Christophersen at the department of Informatics, Centre for Entrepreneurship, University of Oslo founded the award winning Norwegian Entrepreneurship program Gründerskolen <http://grunderskolen.no/english/> .

The program involves all the universities and several university colleges in Norway and includes several prominent international partners. The program started with six students and has today more than 1000 alumnis and is by far the biggest network in its kind in Norway.

In 2006 the program was selected as "*Best learning environment*" at the University of Oslo and in 2007 the program won the first price for '*Best quality in higher education*' awarded by the Norwegian Ministry of Education and Research.

Structure of the Program

The Norwegian Entrepreneurship program is divided into three parts, and offers students the opportunity to gain first-hand experience of entrepreneurship by working as an intern within a high-tech start-up company overseas.

Introductory course

The Introductory course is held in Norway, gives the students a theoretic understanding of the elements of a business plan.

Work placement in a start-up company

The students spend 3 months working in a start-up company. The company should have a technological focus. The work placement is non-paid and will give the students understanding of practical Entrepreneurship in practice.

Academic courses

Beside the work placement, the students follow classes at partner universities. Classes are usually held evenings, but could also be during weekends depending on the destination. The students have several assignments during the period.

Destinations and partners abroad:

Boston - Boston University
Houston - Rice University
San Francisco - University of California Berkeley
Singapore- National University of Singapore

Academics

Educational partners are chosen from a pool of the best universities in the country of origin, where students spend the months of June, July and August abroad and in addition to the work placement, must undertake approximately 40 hours of evening lectures in entrepreneurship at an acknowledged university.

Lectures

During the work placement period the students will undertake lectures at a partner University, which normally are held one or twice in the evenings per week. Here the group is trained to write and produce a complete business plan (not related to the companies). The course explores the various options for start-up financing and resource allocation, organizational structures, sales and marketing approaches, and the myriad of other complex decisions and challenges facing hi-tech startups. The

lecturer(s) mentor and advise the students in the preparation of their plans and monitor their progress and provide critical feedback. At the end of the program the students, who are working in groups, are assessed, both orally and in writing, on their business plans. The partner university issues a certificate of attendance, a critical appraisal of the business plan and a final grade.

The work placement can be within a product or service company, preferably involved in a hi-tech field and not more than three years old. The students are not allowed to receive payment for their work within the work placement company.

Seminars

All the students are also gathered for a seminar in Oslo upon travelling to the different destinations. The seminar consists of a number of lectures and team building sessions, where they are introduced to creativity, international business culture and a meeting with the a student from last year's program.

The students

The students participating in the Gründerskolen program are educated to at least Bachelor's Degree level, and there is a stringent selection process in Norway. Gründerskolen is open to students from all academic disciplines, but the program focuses on high-tech start-ups, and many of the work placements are with companies in the IT, biotech or other technology sectors. However, as the intention is specifically to learn about companies in a start-up situation, it is not necessary that the students have a technical background.

Norwegian domestic partners

The Norwegian Entrepreneurship program involves all the Norwegian universities and several university colleges:

- University of Oslo
- Norwegian University of Science and Tecnological
- University of Stavanger
- Agder University
- University of Bergen
- University of Tromsø
- University of Life Sciences
- Norwegian school of Management -BI
- NHH – Norwegian School of Economics

The latest Entrepreneurship Program at BI, Norwegian School of Management is the Bachelor in Entrepreneurship.

The BE Program Structure allows students to establish and develop their own company as part of the program, and the students develop their own network of central actors.

The integrated approach to Entrepreneurship Education is enhanced by the Centre for Entrepreneurship's ability to provide an active network, thus ensuring students needed help from advisors, incubators, venture companies etc.

The Entrepreneurship Education is based on Active Participant Learning, meeting with actors in the field and practical learning by doing when the students develop a real company. For those being at an earlier stage of developing themselves as entrepreneurs, the integrated approach involves possibilities to participate in Business Plan competitions, Youth Enterprise activities, or other practical activities enhancing learning by practical assignments.

The students are systematically introduced to investors and other actors valuable to entrepreneurs. This is done partly in the classroom, and partly by visiting the actors in their own environment. The students have also experienced how entrepreneurs meet and discuss with consultants and investors when a Connect Springboard was presented in the classroom with the entire class sitting ringside. The students have also experienced Real Time Live Cases when the entrepreneurs develop business plans together with the class, for instance before the company was to seek refinancing.

REAL - Rural Enterprises for Action Learning as a professional and pedagogical tool

REAL was initially developed in the US in rural areas in the 80s; Sogn og Fjordane University College owns the rights to the material in Europe, and offers courses and training using it.

REAL builds on evidence that entrepreneurship education practices, where students teach and use material immediately after learning it, lead to a retention rate of 90%, compared to just 5% from lectures. The REAL teaching technique follows the experiential learning model. This is based around the idea that, as regards learning: **'Tell me, and I forget; show me, and I remember; involve me, and I understand'**. It considers the relation between reflection, expansion, application and experience. Crucial, is that the learner has 'a concrete experience', an event in which they actively participate. The learning is then reinforced by reflections on the experience, and then expanded as the learner identifies the abstract ideas, theories and principles behind

the learning activity. Lastly, the learner transfers his/her newly acquired language and skills to situations in the 'real world'.

REAL focuses on schools in both rural and more urban areas, where building a local identity is seen as particularly key, a way of incentivising pupil to one day return to the area and start businesses. The syllabus focuses on two broad areas; life skills and attitude related topics, and business related topics. The aim is to focus initially on attitudes, from which key competences then stem. They aim to develop communication, critical and creative thinking, problem-solving, working effectively with others, and a local identity. On the business side, they promote knowledge of market analysis; the broader economy, and marketing and sales.

REAL – contents:

Life skills and attitude related topics:

- Communication
- critical and creative thinking
- problem-solving
- working effectively with others
- local knowledge – local identity

Business related topics:

- market analysis – business opportunities
- economy – budgets and accounts
- marketing and sales

REAL focuses on partnerships with external institutions/ organisations, and support from Faculty Deans/ Presidents of the University College. They further develop and road-test novel ideas with 'Model schools' who help to develop the material. The ideas of REAL are spread throughout the institution through training colleagues and selling the idea of entrepreneurship education. The need for patience is emphasized.

Preconditions for success

It is important that teachers have support from the school to implement and that teachers have patience and clearly:

- Identify learning objectives for the exercise
- Organize the time and materials needed to carry out the exercise
- Create a procedure, mostly based on group activity, which results in a presentation

- Build in reflection on what the learners have done, learned, and how this relates to their objectives
- Get learners to consider real world application, and how bridges can be made between learning in work, and in one's daily life

Impact of activity

- ✓ Most local communities and schools in Sogn og Fjordane County are teaching entrepreneurship and using the material
- ✓ Student opinion reviews show students are satisfied with the REAL experience.
- ✓ REAL was mentioned as a best practice in a 2004 Nordic survey. It was also mentioned in Government plans (2004/2006).
- ✓ A research report by Kunnskapsparken, Bodø in 2009 gave REAL a high score/rating, and it has been part of teacher training in Sogn og Fjordane since 2007

supports the concept that entrepreneurship is a lifelong learning process that has at least five distinct stages of development. This lifelong learning model assumes that everyone in our education system should have opportunities to learn at the beginning stages, while the later stages are targeted at those who may specifically choose to become entrepreneurs. Each of the following five stages may be taught with activities that are infused in other classes or as separate courses.

State of play of entrepreneurship education in Spain

Entrepreneurs and business owners in Spain have to make greater efforts all the time. As a result of the factors mentioned below, business owners are currently going through a particularly trying time.

- **A lack of liquidity.** Due to restrictions imposed by financial entities on the granting, maintenance and expansion of credit lines used to maintain business operations or for investments in new companies or products.
- **Increased payment delays.** Directly related to the above as it adds to the problem. In many cases, payments for products supplied or services provided are either not made or the payment term is considerably increased.
- **Higher unemployment.** The main result is the lower disposable income of consumers. This loss of buying power leads to consumption stagnation which directly affects companies' sales.

- **Decreased consumption.** Directly related to the higher unemployment, among other issues. Higher unemployment levels involves a drop in the people's buying power and, therefore, a drop in consumption.
- **A lack of operating capacity in businesses.** Difficulties maintaining or renewing credit lines through private entities.

Despite this obviously unfavourable scenario, positive aspects have been found in some cases. These positive aspects include:

- There are still sectors that are keeping afloat and enterprising people with a desire and impetus to get new projects up and running.
- In Spain, the entrepreneur and business owner profile is becoming younger and more qualified: 32% of all entrepreneurs have university degrees.
- The higher education level of our business owners means they are more aware of the need for training in their workers: 10.5% of all workers took some type of continuous education course in 2010, which is above the European average of 9.5%.
- The drop in interest rates is also an incentive for investments. Whoever has capital or resources is in a good place to invest given the decreasing prices (property, machinery, services, etc.).
- Although it's a very debatable subject lately, there has also been reference to crises meaning opportunities. It can be an excellent time for young people to put into practise innovative ideas related to the present market environment and with a view towards the future recovery.

The entrepreneurial activity rate by regions shows different evolutions between the years 2011 and 2012, with nine regions indicating drops in activity and the other eight with increased activity.

Specifically, the TEA increased in Andalusia, Asturias, the Balearic Islands, Cantabria, Catalonia, Galicia, the Basque Country and La Rioja, with the case of the Balearic Islands particularly impressive as that is where the greatest increase was seen; whereas it decreased in Aragón, the Canary Islands, Castilla y León, Castilla La Mancha, Madrid, Valencia, Extremadura, Murcia and Navarre.

Entrepreneurship is a topic that is currently being introduced at all levels of the education system. This situation has totally changed after the starting point of the financial crisis. Primary and medium educational levels, including VET, are being introduced entrepreneurship topics in their respective curricula, however, at this stage are superior educational levels the most devoted to entrepreneurial education and training. Spain has a total of 111 universities, 58 of which are public and 53, private. Some examples of its public universities include: the University of Burgos, the

University of Salamanca, University Rey Juan Carlos and the University of Barcelona. One example of a private university is the University of Deusto.

University Of Burgos

The University of Burgos is located in Castilla y León and has a Faculty of Economics and Business where it offers degrees in business administration and management as well as degrees in finance and accounting. After obtaining these degrees, this education can be supplemented with theoretical courses in auditing, the stock exchange, an introduction to marketing and foreign trade or business administration.

Expert Course in Accounts Auditing

The main objectives of this post-graduate course are:

- Theoretical training in auditing which must be undertaken by degree holders who wish to be auditors in the future.
- To provide adequate training for those who do not wish to exercise the profession of an auditor but are highly dependent on accounting and accounts auditing due to their work in business or academics.

Master's Degree in Business Administration (MBA-UBU)

- To train current and potential executives by providing them with the necessary knowledge and skills to make decisions in any type of organisation so they may develop the skills they have acquired and increase their capacities.
- A close and ongoing tie with the business world by offering students internships at companies and with the active participation of executives as professors.

Stock Exchange Training Course

Introduction to Marketing and Foreign Trade

University Of Salamanca

The University of Salamanca offers three degrees at its Faculty of Economics and Business which are: A degree in business administration and management, a degree in economics and a degree in small and medium enterprise management. Following these studies, students can supplement their education with the following courses:

A practical course on the stock futures, options and warrants as well as the raw materials and currencies markets

The objective of this course is to study financial products known as derivatives or hybrid instruments. These products include options and futures; in fact, today's economy cannot be understood without understanding these products. They have been the basis of the economic bonanza of recent years and their poor use is partially responsible for the current crisis.

Research in Business Economics

This Master's degree aims for:

- Students to obtain the degree after having proven a systematic understanding of the field of business economics
- Proficiency in the research skills, analytical tools and methods used to analyse complex situations in highly uncertain environments.

This allows them to work as researchers or business administration professors in higher education, executives at national and international specialised consulting firms, research centres owned by financial entities and foundations as well as to work in public organisations that focus on supporting business.

University Rey Juan Carlos

The University Rey Juan Carlos offers a series of business-related degrees. They include a degree in business administration and management, a degree in accounting and finance, a degree in economics and a degree in financial and modern economics. Students can take the following courses to further their education:

Business Management

- Setting up comprehensive business plans.
- Understanding the inter-relations between all areas of a business for effective management.

Business Assistant Course

This course offers a specialisation in the administrative and business field. It provides the knowledge and skills necessary in the different areas of a business organisation.

University Of Barcelona

International Business and Foreign Trade Course:

The course in International Business and Foreign Trade reflects the results of the work of one of the major academic departments of the Business School and is aimed at providing specialised training in business management techniques to university graduates who wish to exercise a profession related to businesses known for strong foreign trade relations or that work in a transnational environment.

Business Management Course

The objectives of the course are:

- To gain the capacity to make complex analyses of the business realities in the current environment.
- To develop the capacity to lead and coordinate an area of work with all other business divisions.

- To gain the capacity to design strategies, define objectives, plan actions and apply them in coherence with all of the other organisational structures.

University Of Deusto

Marketing and Sales Management Course

- To develop and update one's knowledge on the methods and concepts applicable in marketing and sales.
- To gain awareness for competitive strategies and positions in turbulent environments.
- To share and debate current trends and future evolutions in sales management within companies.
- To establish contacts with executives in other sectors or industries that are facing similar challenges.

Entrepreneurship and Innovative Leadership Course

This course allows participants to foster their talent and develop the skills they need to create and assess innovative projects, making them responsible for their own personal and professional development, managing their own learning and creating innovations as part of a team.

Besides Universities and Business Schools other organizations such the Business Innovation Centres (BICs), offer in Spain different training programs aiming at entrepreneurs. [www. http://www.ances.com/](http://www.ances.com/)

Taking into account the relative novelty of entrepreneurship topics, training programs exclusively oriented to entrepreneurship, outside organizations such the BICs, were not very common in Spain till the outbreak of the 2008 crisis.

PART 2: National Content Standards for Entrepreneurship Education Development²³

This Toolkit for the National Content Standards for Entrepreneurship Education is designed to give trainers the standards and Performance Indicators framework necessary for developing curriculum for entrepreneurship programs as a lifelong learning process.

Along with the standards, the Toolkit contains background information on Entrepreneurship Education and the Lifelong Learning Model for Entrepreneurship Education, sample applications of the standards, and information about the research used to develop the standards.

Entrepreneurship education is a lifelong learning process, starting as early as elementary school and progressing through all levels of education, including adult education. The Standards and their supporting Performance Indicators are a framework for teachers to use in building appropriate objectives, learning activities, and assessments for their target audience. Using this framework, students will have: progressively more challenging educational activities; experiences that will enable them to develop the insight needed to discover and create entrepreneurial opportunities; and the expertise to successfully start and manage their own businesses to take advantage of these opportunities.

In addition to an extensive literature review, the standards were developed through a series of focus groups with entrepreneurs. We asked them "what they do as an entrepreneur, and what they need to know how to do to become an entrepreneur."

The Standards are designed to describe the entire field of entrepreneurship as a lifelong learning process with many purposes including:

- As a FRAMEWORK for many levels of curriculum development – in elementary, secondary, postsecondary, and adult education programs.
- As a guide for measuring KNOWLEDGE AND SKILLS gained from entrepreneurial activities.
- As a vehicle for acquisition and application of CORE ACADEMIC SKILLS.
- Both as a CONTEXT FOR LEARNING and as SUBJECT MATTER for CURRICULUM.

The Standards are not designed to be delivered in a single course or program. Similar to English, computer skills, and other fundamental subjects, entrepreneurial skills are part of a lifelong learning journey. They must be repeatedly applied and practiced to develop expertise. The good news is that entrepreneurial skills can be applied in

²³ As per Toolkit for the National Content Standards for Entrepreneurship Education

nearly any context - whether math, science, marketing, or career technology. And by doing so, the learner continues to move a step closer to realizing the entrepreneurial traits and behaviors needed for success in business, career, and in life.

Entrepreneurs believe that becoming an entrepreneur and then acting on this trait (or desire) is a series of non-linear processes that take place over time. Certain stages of the process require a specific skillset, while other stages require a merging of several seemingly unrelated skills. Often, an entrepreneur may be considering new business opportunities while still working on an existing venture.

The entrepreneurs in our study helped us define the entrepreneurial process as applicable to new ventures and ongoing ventures that create, drive, and change economic activity - meaning new markets, new products, and new businesses. These non-sequential, often overlapping, stages are: Discovery, Concept Development, Resourcing, Actualization, and Harvesting.

Entrepreneurship education is not simply dreaming about the possibilities of being an entrepreneur. It involves testing the reality of the dream and constantly learning from experiences. Curriculum designed around the five entrepreneurial processes, as defined by their Standards and Performance Indicators, should provide those experiences by simulating the challenges and options faced by the entrepreneur.

Students should not just learn ABOUT entrepreneurship, they should EXPERIENCE it as part of the instructional process. Curriculum at any stage of the lifelong learning model for entrepreneurship education may focus on any or all elements of the entrepreneurial process.

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Importance of Entrepreneurship Education

Entrepreneurship is a key driver of our economy. Wealth and a high majority of jobs are created by small businesses started by entrepreneurially minded individuals, many of whom go on to create big businesses. People exposed to entrepreneurship frequently express that they have more opportunity to exercise creative freedoms, higher self esteem, and an overall greater sense of control over their own lives. As a result, many experienced business people political leaders, economists, and educators believe that fostering a robust entrepreneurial culture will maximize individual and collective economic and social success on a local, national, and global scale. *It is with this in mind that the National Standards for Entrepreneurship Education were developed: to prepare youth and adults to succeed in an entrepreneurial economy.*

Entrepreneurship education is a lifelong learning process, starting as early as elementary school and progressing through all levels of education, including adult education. The Standards and their supporting Performance Indicators are a framework for teachers (and trainers) to use in building appropriate objectives, learning activities, and assessments for their target audience. Using this framework, students will have: *progressively more challenging educational activities; experiences that will enable them to develop the insight needed to discover and create entrepreneurial opportunities; and the expertise to successfully start and manage their own businesses to take advantage of these opportunities.*

Benefits of Entrepreneurship Education

The Consortium for Entrepreneurship Education -sponsored Think Tank worked on group consensus about the different outcomes for entrepreneurship programs at various levels of education. The Think Tank is a voluntary "future thinking" group composed of a wide selection of educators who are practitioners in a variety of settings, educational levels, and locations throughout the US and beyond. While the results are not based on formal scientific research, they are provided in the Standards for the purposes of discussion and orientation to the concepts underlying the National Content Standards for Entrepreneurship Education.

Benefits to Elementary Students

- Increased attendance
- Higher academic achievement
 - Standardized Tests
 - Pre & Post Tests
 - Portfolio
- Fewer discipline referrals

- Increased sense of "locus of control"
- Awareness of career and entrepreneurial options
- Acquire basic economic understanding
- Acquire basic financial concepts
- Define entrepreneurs' contribution to society
- Use opportunity recognition/ problem solving skills
- Explore ethics issues
- Consider steps in business startup

Benefits to Middle School Students

- Continue on to high school
- Improved academic skills - 4 Rs
- Experience entrepreneurship across the curriculum
- Increased self-esteem and respect
- Increased number of students identifying entrepreneurship as a career choice
- Heightened awareness of the role of entrepreneurs
- Encourage risk-taking & learning from failure
- Learn to identify and recognize opportunities
- Decrease in teen pregnancies and substance abuse
- Improved economic literacy and understanding of capitalism
- Improved financial literacy
- Develop workplace literacy
- Understand entrepreneurship process/ business plan
- Become an educated, empowered consumer
- Learn about opportunity cost
- Embrace diversity/ socialization skills
- Demonstrate conflict resolution/ negotiation/ sales-marketing/persuasion skills
- Learn how entrepreneurs give back
- Learn how to make money
- Recognize the contributions of entrepreneurs (they started small)
- Foster and value idea generation

Benefits to High School Students

- Creation of entrepreneurial thinkers who also have the skills and tools to start their own businesses.
- Write a business plan
- Apply economic principles
- Determine individual entrepreneurial interests
- Apply basic marketing skills
- Use strategies for idea generation
- Assess feasibility of ideas
- Manage risk
- Identify legitimate sources of capital
- Evaluate ownership structures

- Translate problems into opportunities
- Apply principles of human relations management
- Speak "business" & "entrepreneurship"
- Apply basic accounting principles
- Engage in ethical business practices
- Demonstrate financial management

Benefits to Post-Secondary and Adult Students

- Demonstrate skills in business startup
- Demonstrate skills in maintaining business longevity
- Demonstrate knowledge of business closings versus failure
- Ability to find next level of training or access other resources and services
- Demonstrate business management/ operation skills
- Use components of a business plan
- Determine impact on unemployment
- Changed attitude toward entrepreneurship as a means of making a living
- Changes in personal and career attitudes including
- Self-worth
- Ability to control one's own life
- Self awareness
- Self management/ personality responsibility
- Transfer of learning
- Motivation
- Teamwork
- Interpersonal communications
- Problem solving
- Creativity

As can be seen, Entrepreneurship education can positively impact a learner at all levels in a wide number of contexts. This may explain why there are such a wide variety of entrepreneurship education programs, all of which can provide important outcomes at various stages of a learner's life. As supporters of entrepreneurship education the Consortium for Entrepreneurship Education applauds the great diversity of programs that fall under the framework of the National Standards for Entrepreneurship Education.

Nurturing the Entrepreneurial Spirit

As we move forward into the 21st Century it is important to reflect on the great contributions that entrepreneurs have made to the wellbeing of our people and the wealth of our economy. Where would we be without the persistence and creativity of such notable entrepreneurs as Henry Ford, Bill Gates, and Joe Dudley? For the past 22 years the Consortium for Entrepreneurship Education (the Consortium) has provided leadership to those who teach our youth and adults about their country, their career

opportunities, and the skills needed to be successful. Educators have created a wide variety of programs and activities to provide students with the experiences that nurture the spirit of entrepreneurship everywhere.

"Entrepreneurs are not 'born'....rather they 'become' through the experiences of their lives."

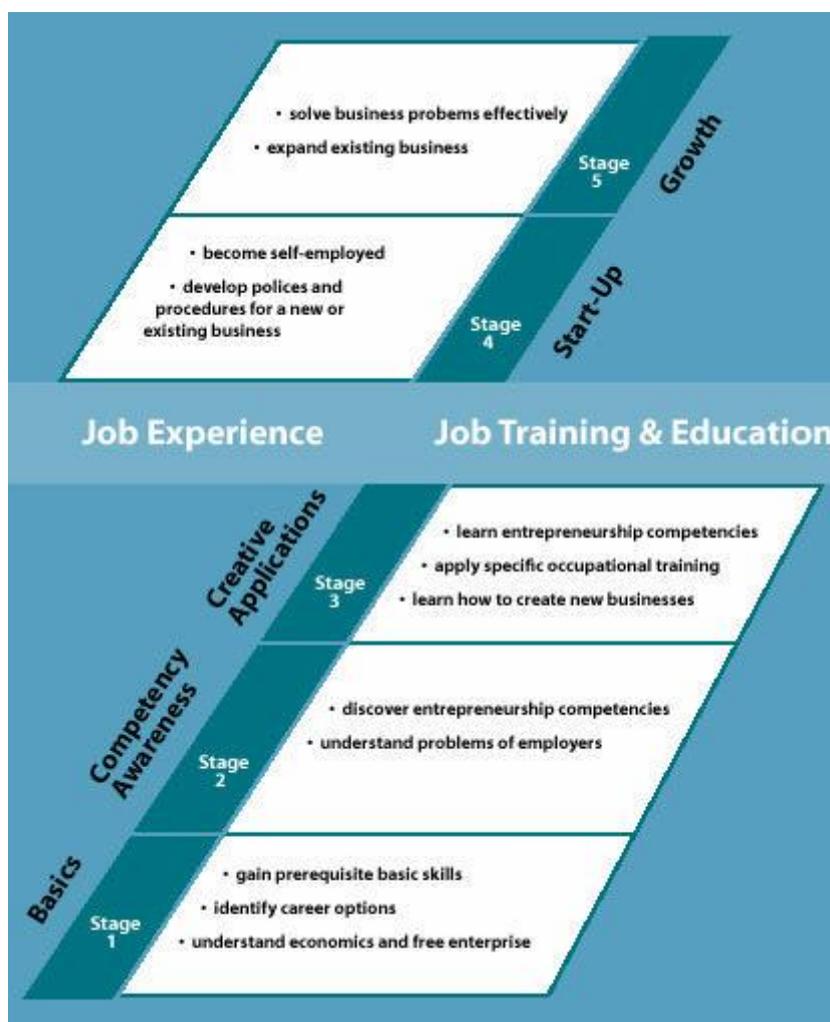
Professor Albert Shapiro, Ohio State University

The Consortium has seen our special role in sharing interesting entrepreneur-building activities and innovative programs from elementary schools through secondary and post-secondary education. Through our national conference, our newsletter, and our website, we have encouraged the replication of these innovative educational ideas. We have supported our members - leaders in the field at local, state, and national levels. And we have built bridges between the Consortium and other organizations that are part of the potential delivery system that enables youth and adults to explore their entrepreneurial opportunities.

Based on the vision of our original mentor, Professor Albert Shapiro at The Ohio State University (deceased in 1985) the Consortium created the Lifelong Learning Model to demonstrate that entrepreneurship is a developmental process. We recognize the importance of nurturing the entrepreneurial spirit from early ages, and continuing it right through all educational levels. In most cases entrepreneurship is infused in classes where it provides the context for learning other basic skills and motivating students to want to learn. In the more advanced grades it also has become a separate course supporting the outcomes of the higher levels of the lifelong learning model. Entrepreneurship education means many different things to educators - from primary schools to university, from vocational education to a university MBA. At each level of education, it is reasonable to expect different outcomes as students mature and build on previous knowledge. But the overall purpose remains to develop expertise as an entrepreneur.

A Lifelong Learning Process

The Consortium supports the concept that entrepreneurship is a lifelong learning process that has at least five distinct stages of development. This lifelong learning model assumes that everyone in our education system should have opportunities to learn at the beginning stages, while the later stages are targeted at those who may specifically choose to become entrepreneurs. Each of the following five stages may be taught with activities that are infused in other classes or as separate courses.



Stage 1 - Basics

In primary grades, junior high and high school, students should experience various facets of business ownership. At this first stage the focus is on understanding the basics of our economy, the career opportunities that result, and the need to master basic skills to be successful in a free market economy. Motivation to learn and a sense

of individual opportunity are the special outcomes at this stage of the lifelong learning model.

Stage 2 - Competency Awareness

The students will learn to speak the language of business, and see the problems from the small business owner's point of view. This is particularly needed in career and technical education. The emphasis is on beginning competencies that may be taught as an entire entrepreneurship class or included as part of other courses related to entrepreneurship. For example, cash flow problems could be used in a math class, and sales demonstrations could be part of a communications class.

Stage 3 - Creative Applications

There is so much to learn about starting and running a business it is not surprising that so many businesses have trouble. We expect future doctors to learn their profession through years of formal study, yet we have expected small business owners to learn everything by attending weekend seminars.

At this stage, students can take time to explore business ideas and a variety of ways to plan the business. Although, it is still only an educational experience, students must gain a greater depth and breadth of knowledge than they may have from previous stages. This stage encourages students to create a unique business idea and carry the decision-making process through a complete business plan. The best programs enable students to actually experience the operation of a business as well. This stage may take place in advanced high school career and technical programs, two-year colleges where there are special courses and/or associate degree programs, and some colleges and universities. The outcome is for students to learn how it might be possible to become an entrepreneur and to practice the processes of business.

Stage 4 - Startup

After adults have had time to gain job experience and/or further their education, many are in need of special assistance to assemble a business idea. Community education programs focusing on business startup assistance are widely available in career and technical programs, community-based assistance programs, community colleges, 4 – year colleges and universities. The U.S. Small Business Administration sponsors many of these training programs.

Stage 5 - Growth

Often, business owners do not seek help until it is almost too late. A series of continuing seminars or support groups can assist the entrepreneur in recognizing potential problems and how to deal with them in a thorough and timely manner. Many community colleges and continuing education programs at universities or colleges offer such seminars and workshops for their business community. They recognize that the best economic development plan is to help the community's existing businesses grow and prosper.

Educators at each of these stages of entrepreneurship should focus on their own special outcomes, and reach out for partnerships with educators at other levels of this lifelong learning process. There is room for entrepreneurship in some way everywhere in our educational system.

The Consortium for Entrepreneurship Education believes ...

In meetings with entrepreneurs across the years, the Consortium has established the following concepts that we believe are the basic foundation for the importance of entrepreneurship education:

1. Entrepreneurs are not "born"...they "become" through the experiences of their lives
2. Entrepreneurs have a great diversity of personal characteristics, the common one: being willing to take a risk in return for a profit.
3. Anyone can be an entrepreneur at any time of one's life.
4. Although there is no educational degree requirement to become an entrepreneur, it is helpful to have developed good support skills including communications, interpersonal abilities, economic understanding, digital skills, marketing, management, and math/finance skills.
5. Entrepreneurial ventures are the major source of new jobs in the economy...for the owner and for new employees.
6. Entrepreneurship is NOT learned by reading a textbook and then taking a test to prove you are one.
7. Young people can build confidence in their abilities to become entrepreneurs in their future as a result of a variety of entrepreneurial activities provided throughout education.
8. Entrepreneurship education activities are a real-life vehicle for developing academic skills.
9. Entrepreneurship Education enables employees to be more successful as a result of understanding the operations of a small business and the problems of their boss.
10. Entrepreneurs are found in every occupation or career cluster
11. Entrepreneurship education opportunities are important at all levels of education, from experiences for elementary school children through skill development for existing entrepreneurs.
12. The definition of "entrepreneurship success" varies with reaching the goals of the individual, from part-time income to fast-growing corporate structures.

The Consortium for Entrepreneurship Education suggests that you use these beliefs as the foundation for a discussion about the importance of entrepreneurship education in your community and educational setting.

The Standards - Overview

There are fifteen major standards, which are divided into the following three major sections:

Entrepreneurial Skills

The unique traits, behaviors and processes that differentiate an entrepreneur from an employee or manager.

Ready Skills

The business, or entrepreneurial, knowledge and skills that are prerequisites or co-requisites for the study of entrepreneurship.

Business Functions

The business activities performed in starting and running a business.

Overlying the Ready Skills and Business Functions are the Entrepreneurial Skills, the processes and traits/behaviors applicable to new ventures and ongoing ventures that create/drive/change economic activity - new markets, new products, new businesses, etc. These nonsequential, often overlapping, stages of the entrepreneurial process are:

Discovery

The stage in the entrepreneurial process in which the entrepreneur generates ideas, recognizes opportunities, and determines the feasibility of ideas, markets, ventures, etc.

Concept Development

The stage in the entrepreneurial process in which the entrepreneur plans the venture, identifies needed resources using a business plan, identifies strategies .to protect intellectual property, etc.

Resourcing

The stage in the entrepreneurial process in which the entrepreneur identifies and acquires the financial, human, and capital resources needed for the venture startup, etc.

Actualization

The stage in the entrepreneurial process in which the entrepreneur operates the venture and utilizes resources to achieve its goals/objectives.

Harvesting

The stage in the entrepreneurial process in which the entrepreneur decides on the venture's future (growth, development, demise).

These five stages of the entrepreneurial process, along with the individual traits and behaviors associated with the successful entrepreneur, comprise the set of "Entrepreneurship Skills" listed in the National Content Standards for Entrepreneurship Education.

The Standards – Summary

Ready Skills

The basic business knowledge and skills that are prerequisites or co-requisites for becoming a successful entrepreneur.

Entrepreneurial Skills

The Processes and Traits/Behaviors associated with entrepreneurial success.

A	<p>Entrepreneurial Processes</p> <p>Understands concepts and processes associated with successful entrepreneurial performance</p>
<p>Discovery</p> <p>Concept Development</p> <p>Resourcing</p> <p>Actualization</p> <p>Harvesting</p>	
B	<p>Entrepreneurial Traits/Behaviors</p> <p>Understands the personal traits/behaviors associated with successful entrepreneurial performance</p>
<p>Leadership</p> <p>Personal Assessment</p> <p>Personal Management</p>	

C	<p>Business Foundations</p> <p>Understands fundamental business concepts that affect business decision making</p>
<p>Business Concepts</p> <p>Business Activities</p>	
D	<p>Communications and Interpersonal Skills</p> <p>Understands concepts, strategies, and systems needed to interact effectively with others</p>
<p>Fundamentals of Communication</p> <p>Staff Communications</p> <p>Ethics in Communication</p> <p>Group Working Relationships</p> <p>Dealing with Conflict</p>	
E	<p>Understands concepts and procedures needed for basic computer operations</p>
<p>Computer Basics</p> <p>Computer Applications</p>	
F	<p>Understands the economic principles and concepts fundamental to entrepreneurship/small-business ownership</p>
<p>Basic Concepts</p> <p>Cost-Profit Relationships</p> <p>Economic Indicators/Trends</p> <p>Economic Systems</p> <p>International Concepts</p>	
G	<p>Understands personal money-management concepts, procedures, and</p>

	strategies
	<p>Money Basics</p> <p>Financial Services</p> <p>Personal Money Management</p>
H	<p>Professional Development</p> <p>Understands concepts and strategies needed for career exploration, development, and growth</p>
	<p>Career Planning</p> <p>Job-Seeking Skills</p>

Business Functions

The business activities performed by entrepreneurs in managing the business.

I	<p>I Management</p> <p>Understands the financial concepts and tools used in making business decisions</p>
	<p>Accounting</p> <p>Finance</p> <p>Money Management</p>
J	<p>Human Resource Management</p> <p>Understands the concepts, systems, and strategies needed to acquire, motivate, develop, and terminate staff</p>
	<p>Organizing</p> <p>Staffing</p> <p>Training/Development</p> <p>Morale/Motivation</p>

Assessment	
K	<p>Information Management</p> <p>Understands the concepts, systems, and tools needed to access, process, maintain, evaluate, and disseminate information for business decision-making</p>
<p>Record keeping</p> <p>Technology</p> <p>Information Acquisition</p>	
L	<p>Marketing Management</p> <p>Understands the concepts, processes, and systems needed to determine and satisfy customer needs/wants/expectations, meet business goals/objectives, and create new product/service ideas</p>
<p>Product/Service Creation</p> <p>Marketing-information Management</p> <p>Promotion</p> <p>Pricing</p> <p>Selling</p>	
M	<p>Operations Management</p> <p>Understands the processes and systems implemented to facilitate daily business operations.</p>
<p>Business Systems</p> <p>Channel Management</p> <p>Purchasing/Procurement</p> <p>Daily Operations</p>	
N	<p>Risk Management</p> <p>Understands the concepts, strategies, and systems that businesses implement and enforce to minimize loss</p>

Business Risks	
Legal Considerations	
O	<p>Strategic Management</p> <p>Understands the processes, strategies, and systems needed to guide the overall business organization</p>
Planning	
Controlling	

The Standards - Detail

Entrepreneurial Skills	
The Processes and Traits/Behaviors associated with entrepreneurial success.	
A	Entrepreneurial Processes Understands concepts and processes associated with successful entrepreneurial performance
Discovery	
A.01	Explain the need for entrepreneurial discovery
A.02	Discuss entrepreneurial discovery processes
A.03	Assess global trends and opportunities
A.04	Determine opportunities for venture creation
A.05	Assess opportunities for venture creation
A.06	Describe idea-generation methods
A.07	Generate venture ideas
A.08	Determine feasibility of ideas
Concept Development	
A.09	Describe entrepreneurial planning considerations
A.10	Explain tools used by entrepreneurs for venture planning
A.11	Assess start-up requirements
A.12	Assess risks associated with venture
A.13	Describe external resources useful to entrepreneurs during concept development
A.14	Assess the need to use external resources for concept development
A.15	Describe strategies to protect intellectual property
A.16	Use components of a business plan to define venture idea

Resourcing	
A.17	Distinguish between debt and equity financing for venture creation
A.18	Describe processes used to acquire adequate financial resources for venture creation/start-up
A.19	Select sources to finance venture creation/start-up
A.20	Explain factors to consider in determining a venture's human-resource needs
A.21	Describe considerations in selecting capital resources
A.22	Acquire capital resources needed for the venture
A.23	Assess the costs/benefits associated with resources
Actualization	
A.24	Use external resources to supplement entrepreneur's expertise
A.25	Explain the complexity of business operations
A.26	Evaluate risk-taking opportunities
A.27	Explain the need for business systems and procedures
A.28	Describe the use of operating procedures
A.29	Explain methods/processes for organizing work flow
A.30	Develop and/or provide product/service
A.31	Use creativity in business activities/decisions
A.32	Explain the impact of resource productivity on venture success
A.33	Create processes for ongoing opportunity recognition
A.34	Adapt to changes in business environment
Harvesting	
A.35	Explain the need for continuation planning
A.36	Describe methods of venture harvesting
A.37	Evaluate options for continued venture involvement
A.38	Develop exit strategies

B	Entrepreneurial Traits/Behaviors
	Understands the personal traits/behaviors associated with successful entrepreneurial performance
Leadership	
B.01	Demonstrate honesty and integrity
B.02	Demonstrate responsible behavior
B.03	Demonstrate initiative
B.04	Demonstrate ethical work habits
B.05	Exhibit passion for goal attainment
B.06	Recognize others' efforts
B.07	Lead others using positive statements
B.08	Develop team spirit
B.09	Enlist others in working toward a shared vision
B.10	Share authority, when appropriate
B.11	Value diversity
Personal Assessment	
B.12	Describe desirable entrepreneurial personality traits
B.13	Determine personal biases and stereotypes
B.14	Determine interests
B.15	Evaluate personal capabilities
B.16	Conduct self-assessment to determine entrepreneurial potential
Personal Management	
B.17	Maintain positive attitude
B.18	Demonstrate interest and enthusiasm
B.19	Make decisions
B.20	Develop an orientation to change

B.21	Demonstrate problem-solving skills
B.22	Assess risks
B.23	Assume personal responsibility for decisions
B.24	Use time-management principles
B.25	Develop tolerance for ambiguity
B.26	Use feedback for personal growth
B.27	Demonstrate creativity
B.28	Set personal goals
Ready Skills The basic business knowledge and skills that are prerequisites or co-requisites for becoming a successful entrepreneur.	
C	Business Foundations Understands fundamental business concepts that affect business decision making
Business Concepts	
C.01	Explain the role of business in society
C.02	Describe types of business activities
C.03	Explain types of businesses
C.04	Explain opportunities for creating added value
C.05	Determine issues and trends in business
C.06	Describe crucial elements of a quality culture/continuous quality improvement
C.07	Describe the role of management in the achievement of quality
C.08	Explain the nature of managerial ethics
C.09	Describe the need for and impact of ethical business practices
Business Activities	
C.10	Explain marketing management and its importance in a global economy

C.11	Describe marketing functions and related activities
C.12	Explain the nature and scope of operations management
C.13	Explain the concept of management
C.14	Explain the concept of financial management
C.15	Explain the concept of human resource management
C.16	Explain the concept of risk management
C.17	Explain the concept of strategic management
D	<p>Communications and Interpersonal Skills</p> <p>Understands concepts, strategies, and systems needed to interact effectively with others</p>
Fundamentals of Communication	
D.01	Explain the nature of effective communications
D.02	Apply effective listening skills
D.03	Use proper grammar and vocabulary
D.04	Reinforce service orientation through communication
D.05	Explain the nature of effective verbal communications
D.06	Address people properly
D.07	Handle telephone calls in a businesslike manner
D.08	Make oral presentations
D.09	Explain the nature of written communications
D.10	Write business letters
D.11	Write informational messages
D.12	Write inquiries
D.13	Write persuasive messages
D.14	Prepare simple written reports
D.15	Prepare complex written reports

D.16	Use communications technologies/systems (e.g., e-mail, faxes, voice mail, cell phones, etc.)
Staff Communications	
D.17	Follow directions
D.18	Explain the nature of staff communication
D.19	Give directions for completing job tasks
D.20	Conduct staff meetings
Ethics in Communication	
D.21	Respect the privacy of others
D.22	Explain ethical considerations in providing information
Group Working Relationships	
D.23	Treat others fairly at work
D.24	Develop cultural sensitivity
D.25	Foster positive working relationships
D.26	Participate as a team member
Dealing with Conflict	
D.27	Demonstrate self control
D.28	Show empathy for others
D.29	Use appropriate assertiveness
D.30	Demonstrate negotiation skills
D.31	Handle difficult customers/clients
D.32	Interpret business policies to customers/clients
D.33	Handle customer/client complaints
D.34	Explain the nature of organizational change
D.35	Describe the nature of organizational conflict
D.36	Explain the nature of stress management

E	Digital Skills Understands concepts and procedures needed for basic computer operations
Computer Basics	
E.01	Use basic computer terminology
E.02	Apply basic commands of operating system software
E.03	Employ desktop operating skills
E.04	Determine file organization
E.05	Demonstrate system utilities for file management
E.06	Compress or alter files
E.07	Use reference materials to access information
E.08	Use menu systems
E.09	Use control panel components
E.10	Access data through various computer drives
Computer Applications	
E.11	Demonstrate basic search skills on the Web
E.12	Evaluate credibility of Internet resources
E.13	Demonstrate file management skills
E.14	Communicate by computer
E.15	Solve routine hardware and software problems
E.16	Operate computer-related hardware peripherals
E.17	Explain the nature of e-commerce
E.18	Describe the impact of the Internet on business
E.19	Develop basic website
F	Economics Understands the economic principles and concepts fundamental to entrepreneurship/small-business ownership

Basic Concepts	
F.01	Distinguish between economic goods and services
F.02	Explain the factors of production
F.03	Explain the concept of scarcity
F.04	Explain the concept of opportunity costs
F.05	Describe the nature of economics and economic activities
F.06	Determine forms of economic utility created by business activities
F.07	Explain the principles of supply and demand
F.08	Describe the concept of price
Cost-Profit Relationships	
F.09	Explain the concept of productivity
F.10	Describe cost/benefit analysis
F.11	Analyze the impact of specialization/division of labor on productivity
F.12	Explain the concept of organized labor and business
F.13	Explain the law of diminishing returns
F.14	Describe the concept of economies of scale
Economic Indicators/Trends	
F.15	Explain measures used to analyze economic conditions
F.16	Explain the nature of the Consumer Price Index
F.17	Explain the concept of Gross Domestic Product
F.18	Determine the impact of business cycles on business activities
Economic Systems	
F.19	Explain the types of economic systems
F.20	Describe the relationship between government and business
F.21	Assess impact of government actions on business ventures

F.22	Explain the concept of private enterprise
F.23	Assess factors affecting a business's profit
F.24	Determine factors affecting business risk
F.25	Explain the concept of competition
F.26	Describe types of market structures
F.27	Determine the impact of small business/entrepreneurship on market economies
International Concepts	
F.28	Explain the nature of international trade
F.29	Describe small-business opportunities in international trade
F.30	Determine the impact of cultural and social environments on world trade
F.31	Explain the impact of exchange rates on trade
F.32	Evaluate influences on a nation's ability to trade
G	Financial Literacy Understands personal money-management concepts, procedures, and strategies
Money Basics	
G.01	Explain forms of financial exchange (cash, credit, debit, etc.)
G.02	Describe functions of money (medium of exchange, unit of measure, store of value)
G.03	Describe the sources of income (wages/salaries, interest, rent, dividends, transfer payments, etc.)
G.04	Recognize types of currency (paper money, coins, banknotes, government bonds, treasury notes, etc.)
G.05	Read and interpret a pay stub
G.06	Explain the time value of money
G.07	Describe costs associated with credit
G.08	Explain legal responsibilities associated with use of money

G.09	Use money effectively
Financial Services	
G.10	Describe services provided by financial institutions
G.11	Explain legal responsibilities of financial institutions
G.12	Explain costs associated with use of financial services
G.13	Select financial institution
G.14	Open account with financial institution
Personal Money Management	
G.15	Set financial goals
G.16	Develop savings plan
G.17	Develop spending plan
G.18	Make deposits to and withdrawals from account
G.19	Complete financial instruments
G.20	Maintain financial records
G.21	Read and reconcile financial statements
G.22	Correct errors with account
G.23	Explain types of investments
G.24	Invest money
G.25	Develop personal budget
G.26	Build positive credit history
G.27	Improve/repair creditworthiness
Professional Development	
H	Understands concepts and strategies needed for career exploration, development, and growth
Career Planning	
H.01	Evaluate career opportunities based on current/future economy

H.02	Analyze employer expectations in the business environment
H.03	Explain the rights of workers
H.04	Select and use sources of career information
H.05	Determine tentative occupational interest
H.06	Explain employment opportunities in entrepreneurship
Job-Seeking Skills	
H.07	Utilize job-search strategies
H.08	Complete a job application
H.09	Interview for a job
H.10	Write a follow-up letter after job interviews
H.11	Write a letter of application
H.12	Prepare a résumé
H.13	Describe techniques for obtaining work experience (e.g., volunteer activities, internships)
H.14	Explain the need for ongoing education as a worker
H.15	Explain possible advancement patterns for jobs
H.16	Determine skills needed to enhance career progression
H.17	Utilize resources that can contribute to professional development (e.g., trade journals/ periodicals, professional/trade associations, classes/seminars, trade shows, and mentors)
H.18	Use networking techniques for professional growth
Business Functions	
The business activities performed by entrepreneurs in managing the business.	
I	Financial Management Understands the financial concepts and tools used in making business decisions
Accounting	

I.01	Explain accounting standards (GAAP)
I.02	Prepare estimated/projected income statement
I.03	Estimate cash-flow needs
I.04	Prepare estimated/projected balance sheet
I.05	Calculate financial ratios
I.06	Determine and deposit payroll taxes
I.07	File tax returns
Finance	
I.08	Explain the purposes and importance of obtaining business credit
I.09	Make critical decisions regarding acceptance of bank cards
I.10	Establish credit policies
I.11	Develop billing and collection policies
I.12	Describe use of credit bureaus
I.13	Explain the nature of overhead/operating expenses
I.14	Determine financing needed to start a business
I.15	Determine risks associated with obtaining business credit
I.16	Explain sources of financial assistance
I.17	Explain loan evaluation criteria used by lending institutions
I.18	Select sources of business loans
I.19	Establish relationship with financial institutions
I.20	Complete loan application process
I.21	Determine business's value
Money Management	
I.22	Establish financial goals and objectives
I.23	Develop and monitor budget

I.24	Manage cash flow
I.25	Explain the nature of capital investment
I.26	Foster a positive financial reputation
I.27	Implement procedures for managing debt
I.28	Supervise/implement regular accounting procedures and financial reports
J	Human Resource Management Understands the concepts, systems, and strategies needed to acquire, motivate, develop, and terminate staff
Organizing	
J.01	Develop a personnel organizational plan
J.02	Develop job descriptions
J.03	Develop compensation plan/incentive systems
J.04	Organize work/projects for others
J.05	Delegate responsibility for job tasks
Staffing	
J.06	Determine hiring needs
J.07	Recruit new employees
J.08	Screen job applications/résumés
J.09	Interview job applicants
J.10	Select new employees
J.11	Negotiate new-hire's salary/pay
J.12	Dismiss/Fire employee
Training/Development	
J.13	Orient new employees (management's role)
J.14	Conduct training class/program
J.15	Coach employees

Morale/Motivation	
J.16	Exhibit leadership skills
J.17	Encourage team building
J.18	Recognize/reward employees
J.19	Handle employee complaints/grievances
J.20	Ensure equitable opportunities for employees
J.21	Build organizational culture
Assessment	
J.22	Assess employee morale
J.23	Provide feedback on work efforts
J.24	Assess employee performance
J.25	Take remedial action with employee
J.26	Conduct exit interviews
K	Information Management Understands the concepts, systems, and tools needed to access, process, maintain, evaluate, and disseminate information for business decision-making
Record keeping	
K.01	Explain the nature of business records
K.02	Maintain record of daily financial transactions
K.03	Record and report sales tax
K.04	Develop payroll record keeping system
K.05	Maintain personnel records
K.06	Maintain customer records
Technology	
K.07	Explain ways that technology impacts business
K.08	Use Personal Information Management/Productivity applications

K.09	Demonstrate writing/publishing applications
K.10	Demonstrate presentation applications
K.11	Demonstrate database applications
K.12	Demonstrate spreadsheet applications
K.13	Demonstrate collaborative/groupware applications
K.14	Determine venture's technology needs
Information Acquisition	
K.15	Select sources of business start-up information
K.16	Conduct an environmental scan to obtain marketing information
K.17	Monitor internal records for marketing information
K.18	Determine underlying customer needs/frustrations
L	<p>Marketing Management</p> <p>Understands the concepts, processes, and systems needed to determine and satisfy customer needs/wants/expectations, meet business goals/objectives, and create new product/service ideas</p>
Product/Service Creation	
L.01	Explain methods to generate a product/service idea
L.02	Generate product/service ideas
L.03	Assess opportunities for import substitution
L.04	Determine product/service to fill customer need
L.05	Determine initial feasibility of product/service ideas
L.06	Plan product/service mix
L.07	Choose product name
L.08	Determine unique selling proposition
L.09	Develop strategies to position product/service
L.10	Build brand/image

L.11	Evaluate customer experience
Marketing-information Management	
L.12	Explain the concept of market and market identification
L.13	Describe the role of situation analysis in the marketing-planning process
L.14	Determine market segments
L.15	Select target markets
L.16	Conduct market analysis
L.17	Explain the concept of marketing strategies
L.18	Describe the nature of marketing planning
L.19	Set a marketing budget
L.20	Develop marketing plan
L.21	Monitor and evaluate performance of marketing plan
Promotion	
L.22	Describe the elements of the promotional mix
L.23	Calculate advertising media costs
L.24	Select advertising media
L.25	Prepare a promotional budget
L.26	Develop promotional plan for a business
L.27	Write a news release
L.28	Obtain publicity
L.29	Select sales-promotion options
L.30	Write sales letters
L.31	Manage online (www) activities
L.32	Evaluate effectiveness of advertising
Pricing	

L.33	Calculate breakeven point
L.34	Explain factors affecting pricing decisions
L.35	Establish pricing objectives
L.36	Select pricing strategies
L.37	Set prices
L.38	Adjust prices to maximize profitability
Selling	
L.39	Acquire product information for use in selling
L.40	Analyze product information to identify product features and benefits
L.41	Prepare for the sales presentation
L.42	Establish relationship with client/customer
L.43	Determine customer/client needs
L.44	Determine customer's buying motives for use in selling
L.45	Differentiate between consumer and organizational buying behavior
L.46	Recommend specific product
L.47	Convert customer/client objections into selling points
L.48	Close the sale
L.49	Demonstrate suggestion selling
L.50	Plan follow up strategies for use in selling
L.51	Process sales documentation
L.52	Prospect for customers
L.53	Plan strategies for meeting sales quotas
L.54	Analyze sales reports
L.55	Train staff to support sales efforts

L.56	Analyze technology for use in the sales function
L.57	Manage online sales process
M	Operations Management Understands the processes and systems implemented to facilitate daily business operations.
Business Systems	
M.01	Plan business layout
M.02	Determine equipment needs
M.03	Document business systems and procedures
M.04	Establish operating procedures
M.05	Develop project plans
M.06	Analyze business processes and procedures
M.07	Implement quality improvement techniques
M.08	Evaluate productivity of resources
M.09	Manage computer-based operating systems
Channel Management	
M.10	Select business location
M.11	Select distribution channels
M.12	Develop and implement order-fulfillment processes
Purchasing/Procurement	
M.13	Explain the buying process
M.14	Describe the nature of buyer reputation and vendor relationships
M.15	Establish company buying/purchasing policies
M.16	Conduct vendor search
M.17	Choose vendors

M.18	Negotiate contracts with vendors
M.19	Place orders
M.20	Barter with vendors
Daily Operations	
M.21	Schedule staff
M.22	Maintain inventory of products/supplies
M.23	Organize shipping/receiving
N	Risk Management
	Understands the concepts, strategies, and systems that businesses implement and enforce to minimize loss
Business Risks	
N.01	Describe types of business risk
N.02	Determine ways that small businesses protect themselves against loss
N.03	Establish controls to prevent embezzlement/theft
N.04	Establish and implement systems to protect customer/employee confidentiality
N.05	Determine business's liabilities
N.06	Explain ways to transfer risk
N.07	Obtain insurance coverage
N.08	Develop strategies to protect computer (digital) data
N.09	Develop security policies and procedures
N.10	Establish safety policies and procedures
N.11	Protect assets from creditors
N.12	Establish parameters for staff responsibility/authority
N.13	Develop continuation plan
Legal Considerations	
N.14	Explain legal issues affecting businesses

N.15	Protect intellectual property rights
N.16	Select form of business ownership
N.17	Obtain legal documents for business operations
N.18	Describe the nature of businesses' reporting requirements
N.19	Adhere to personnel regulations
N.20	Implement workplace regulations (including OSHA, ADA)
N.21	Develop strategies for legal/government compliance
O	<p>Strategic Management</p> <p>Understands the processes, strategies, and systems needed to guide the overall business organization</p>
Planning	
O.01	Conduct SWOT analysis
O.02	Conduct competitive analysis
O.03	Evaluate business acquisition options
O.04	Develop company goals/objectives
O.05	Develop business mission
O.06	Forecast income/sales
O.07	Conduct break-even analysis
O.08	Develop action plans
O.09	Develop business plan
Controlling	
O.10	Use budgets to control operations
O.11	Develop expense-control plans
O.12	Analyze cash-flow patterns
O.13	Interpret financial statements
O.14	Analyze operating results in relation to budget/industry

O.15	Track performance of business plan
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Curriculum - Educational Issues

Following is an overview of current educational issues and the role of the National Entrepreneurship Content Standards.

Integration of the Standards into the curriculum, whether as subject specific content or as context for a broader range of educational learning objectives, can help address many of the issues facing elementary, secondary, higher and adult education programs. Educators who can demonstrate the link between incorporating the Standards and achieving the goals identified by many of these issues will be more successful in implementing the Standards into their curriculum.

Standards-based education requires that instruction be based upon a clear and complete listing of the skills and knowledge the student should be able to demonstrate at the completion of the instructional program. The Standards provide this listing in the form of standards and performance indicators that should be used to develop curriculum appropriate for the learner and program. The Standards set out a commonality of content and performance for entrepreneurship education programs. For additional information about standards based education visit www.battelleforkids.org/bfk/rt/reform/sbr

Mastery of academics is the basis for life-long learning. The Standards can contribute to this mastery by providing the context for learning and applying academic skills and knowledge. Contextual learning theory states that learning takes place when students can process new information or knowledge in such a way that it makes sense to them in their own frame of reference. Students learn best when they can make the connection between what they are learning and how that knowledge will be used. Educators who use the Standards to define context for the teaching and learning of academic skills are using applications that are familiar to students of all ages. The result is improved achievement of all students, which is the focal point of education legislation in many states and the federal No Child Left Behind legislation. Learn more about mastery of academics and the federal legislation at www.ed.gov/nclb/landing.jhtml?src=pb

Performance-based Assessment requires that students apply the skills and knowledge they have gained in such a way as to demonstrate mastery. The Standards provide guidance for the design of many performance-based assessment activities, both as context for the application of academic skills and to demonstrate mastery of specific entrepreneurship standards and performance indicators. Whether it's communication arts in the writing and presenting of the business plan, mathematics in the analysis of the financial statement and projections, science in the development

of prototype products, economics in the understanding of the effect of supply and demand on potential sales, or marketing and business skills required for success as an entrepreneur, these standards can be used to design performance-based assessments for a wide range of subjects and students at all levels. More about performance-based assessment can be found at [www.ericfacilitynet/databases/ERIC Digests/ed410229.html](http://www.ericfacilitynet/databases/ERIC_Digests/ed410229.html)

21st Century Learning Skills emphasize academic skills and learning skills, as well as curriculum content that has been largely overlooked in the past but is essential to the 21st century. The Standards can assist educators in developing a curriculum which addresses these and the other essential elements of learning for the 21st century. In addition to gaining academic skills as described above, entrepreneurship education develops the skills to learn. Information and communications technology skills are acquired as students conduct research, communicate with others, and prepare written and visual presentations of their work. Thinking, problem-solving, interpersonal, and self-directional skills are inherent in a curriculum that includes the Standards and Performance Indicators. By using the real world of entrepreneurship to apply 21st Century skills, students are learning the content and context necessary to adapt to our changing world. The 21st Century Partnership, an alliance of education, business and government leaders working to fully address the education needs and challenges of work and life in the 21st century, has accepted an additional statement to their document supporting 21st Century Content related to "Financial, Economic, and Business Literacy." Specifically they advocate "Developing entrepreneurial skills to enhance workplace productivity and career options." Details are on their website at www.21stcenturyskills.org

Workforce Development programs can benefit from the implementation of the Standards. The Standards can serve as a basis to prepare people for creating their own businesses by establishing the skills and knowledge that are required for success. Programs can focus their resources on meeting the needs of the clients identified by review of the Standards and Performance Indicators, thereby best utilizing the limited resources to meet specific client needs. In addition to preparing individuals for their own futures as entrepreneurs, the Standards can serve as a basis for programs which develop employee skills and knowledge to make them more effective and efficient. Understanding the components of business ownership and acquiring the entrepreneurial spirit increases employee productivity, improves customer satisfaction, and moves business forward. Using the Standards as a framework for program curriculum will assist local communities, states and the nation better compete in the world marketplace through building a skilled workforce with life long learning skills and work training. A summary of the Workforce Investment Act can be found at www.nga.org/center/divisions/1,1188,C-ISSUE-BRIEF^D-1758,00.html

Higher Education programs in community colleges and four-year colleges and universities will find the Standards helpful for establishing a commonality of program content across departments and institutions. The Standards and Performance

Indicators also provide a basis for accountability of learning goals required for effective program management and review. The Standards will allow various programs and departments to integrate the appropriate components to support their curricular offerings and degree programs. Institutions can achieve leadership in economic development and support one-stop career training offerings by using the Standards and related programs as a vehicle for community outreach. A summary of issues related to higher education can be found at www.sheeo.org/issues/htm

Curriculum - Examples

The National Content Standards for Entrepreneurship Education describe the general content base for educational programs in Entrepreneurship. The supporting Performance Indicators derived from the Standards provide direction as to what students should know and be able to do related to each standard. These components alone do not constitute a curriculum, but rather should serve as the basis for curriculum development. Curriculum developers should use these Standards and Performance Indicators as guides for preparing curriculum for their specific programs and clientele. The first step in curriculum development is to select Standards and Performance Indicators which are appropriate for the program and its purpose in relation to the Life-Long Learning Model. Once these have been chosen, specific instructional objectives must be developed. These instructional objectives define the curriculum and set expectations for student success. The instructional objectives establish the framework for developing assessments, incorporating teaching strategies, and selecting appropriate delivery resources.

Assessments, whether formative as part of the instructional process or summative at the conclusion of instruction to demonstrate competency, must align directly to the expectation established by the instructional objective. Likewise the instructional process must be focused on student achievement at the level of learning described in the objective and the mastery level expected on the assessment. For example, an objective that requires analysis and explanation would best be assessed through a project or role play with specific rubrics for evaluation, as opposed to a multiple choice or true-false test. Instruction should provide ample opportunity for the student to develop the analytical and evaluative skills required, and to practice those skills prior to summative assessment.

Many resources are available to support instruction for entrepreneurship education. Resource selection should be made based on the match between resource, instructional objective, the program level, and student needs. The Standards Toolkit includes references to many sources of instructional materials. When possible, curriculum development for entrepreneurship education should incorporate the principles of experiential and contextual education. Students can best develop the knowledge and skills necessary through the application of curriculum objectives in situations which replicate the business world. Simulations, role plays, community

based learning projects, student enterprises, and competitive events can all be powerful instructional activities when linked closely to the curriculum. Entrepreneurs "become" through the experiences of their lives, and surely education can provide some of the most beneficial experiences when delivered through a well-planned and properly facilitated curriculum.

The following examples show how the National Content Standards for Entrepreneurship Education can be incorporated into a curriculum at various educational levels. These examples are provided as illustration only, and not necessarily as recommended models. For additional information on programs represented by the examples, please contact the provider referenced.

1. [How Marketplace for Kids Meets Standards and Benchmarks for Grades 4, 5 & 6 in North Dakota](#)
2. [CFED-REAL Youth and Adult Activities Matrix](#)
3. [Consortium – Risks & Rewards](#)
4. [GoVenture Business and Life Simulations](#)
5. [Junior Achievement – Company Program](#)
6. [MarkED – Own Your Own](#)
7. [MarkED – Ready, Set, Compete](#)
8. [MarkED – Taking Care of Business](#)
9. [New York State SBDC – EntreSkills 1](#)
10. [NFTE – How To](#)
11. [Ohio State University – PACE](#)
12. [Youth Entrepreneurs of Kansas](#)

About the Consortium for Entrepreneurship Education

The **Consortium for Entrepreneurship Education** (the Consortium) has been providing leadership and gathering enthusiasm for teaching entrepreneurship in our schools since 1982. The Consortium was formed in response to a Policy Paper from the US Department of Education, signed by then Secretary Terrell Bell. His concept was that entrepreneurship should be part of the curriculum for all vocational programs in secondary and post –secondary education.

Membership in the Consortium started with State Directors of Vocational Education who continue to be part of the Consortium leadership. Over the years, as the concept of entrepreneurship education spread to the broader K-12 education system and higher education, membership has expanded to include colleges and universities, local school systems, foundations, private businesses, and national organizations of many

different types. Currently over 60 institutions and organizations – from inside and outside the US - are members of the Consortium.

Vision

An organization recognized as the national leader in advocating entrepreneurship education.

Mission

To champion entrepreneurship education and provide advocacy, leadership, networking, technical assistance, and resources nationally across all levels and disciplines of education, while promoting quality practices and programs.

Entrepreneurship programs meet the needs of many diverse groups:

- Areas in need of economic development consider developing an entrepreneurial culture a significant long-term strategy for creating jobs and wealth.
- Individuals who lose or give-up their jobs for any of a wide variety of reasons need to have the option to become self-employed, should the opportunity or need arise.
- Youth that come from economically disadvantaged backgrounds can be motivated to learn and achieve once they are provided with the understanding that they can indeed accomplish their goals and dreams through entrepreneurship.
- Minorities who feel disenfranchised need experiences that enable them to see that they can make their own opportunities.
- Administrators who are anxious to prove the effectiveness of their schools should explore the possibility of motivating student learners by introducing the concept that they can be their own boss someday.
- Young women who have succeeded in corporate careers until they meet the "glass ceiling" find that starting their own business is an important option.
- Rural communities that lose their "best and brightest" youth to larger cities can see the importance of creating businesses at home, using the advantages of modern communications and transportation.
- Global business opportunities engaged by local entrepreneurial businesses may be the answer to losing local jobs. Creating new jobs is considered more effective than holding onto inefficient old jobs.
- Reducing business failure as a result of better education and training of our entrepreneurs is an economic benefit to all.

Consortium Goals

- Promoting the incorporation of entrepreneurship education across all levels of career technical and academic education, through infusion within existing courses and by the support of separate courses developed in entrepreneurship.

- Encouraging participation of partnerships with business, industry, agency and trade associations, and bringing together diverse groups within the consortium whose interests foster economic development through entrepreneurship education.
- Encouraging teacher education institutions and accrediting groups to incorporate competencies of entrepreneurship into teacher training curricula.
- Modeling research projects to recognize successful ventures into entrepreneurship and developing competencies of entrepreneurship.
- Sharing with consortium members the educational activities, programs and strategies being implemented to incorporate entrepreneurial concepts into the instructional and guidance service activities.
- Providing a focal point for the planning, organizing and promoting of entrepreneurship education efforts.
- Attracting members committed to the development and promotion of entrepreneurship education across the nation and the world.
- Positioning as the primary advocacy and resource group for entrepreneurship education for grades K -14 and adult ed.
- Striving to meet the needs of its members for materials and models of teaching entrepreneurship.

ANNEX I: Curriculum - Sources

The following organizations offer entrepreneurship related curriculum resources and may offer just what you need to immediately begin implementing the Standards.

Adams Media Corporation

Holbrook, MA 02343
800-872-5627 Fax: 781-767-0994
www.adamsmedia.com

Agency For Instructional Technology

Bloomington, IN
800-457-4509
www.ait.net

Appalacian Regional Commission On Line Resource Center

Washington DC
www.arc.gov/index.do?nodeId=1238

Cameo Press

Rochester, NY
716-244-1550

Centre for Entrepreneurship Education and Development

Halifax, Nova Scotia, Canada
www.ceed.info/programs/curriculum.php

Complete Teacher Academy

Rockaway, NJ
973-627-3159 , completeteacher.com

Consortium for Entrepreneurship Education

Columbus, OH
614-486-6538
www.entre-ed.org

Creative Education Foundation

Buffalo, NY
www.cef-cpsi.org

Curtis and Associates, Inc.

Kearney, NE
1-800-658-4399
www.selfsufficiency.com



Lifelong
Learning
Programme

Dearborn Trade Publishing

A Kaplan Professional Company, Chicago, IL
1-800-621-9621, ext. 4304
<http://www.dearborn.com/trade/>

DECA, Inc. Reston VA

703-860-5000
www.deca.org

Economic Development Administration

U S Department of Commerce, Washington DC
www.eda.gov/Research/EntrepAndBusDev.xml

EDTEC, Inc.

Camden, NJ
<http://www.edtecinc.com>

Ewing Marion Kauffman Foundation

Kansas City, MO
www.kauffman.org
or EntreWorld, www.entreworld.org

The Extreme Entrepreneurship Education Corporation

New York, NY
1-800-872-5627
www.successmanifesto.com

FastTrac

Kansas City, MO
www.fasttrac.org/programs.cfm

Glencoe/McGraw-Hill

Westerville, OH
<http://www.glencoe.com/>

John Wiley & Sons

Hoboken, NJ
<http://www.wiley.com/WileyCDA/>

Junior Achievement, Inc

Colorado Springs, CO
(719) 540-8000
www.ja.com

Making Cents

Washington DC
(202-783-4090)

<http://www.makingcents.org>

MarkEd/Career Paths Resource Center

Columbus, OH
1-800-448-0398

www.mark-ed.com

Marketplace for Kids

Mandan, North Dakota
(701) 663-0150

www.marketplaceofideas.org

Maryland Interactive Technologies

Reisterstown, MD
1-800-526-0526 or 410-526-0502

www.businessdisc.com

MediaSpark Inc. and GoVenture Simulations

Sydney, NS Canada
1-800-331-2282

www.goventure.net

MicroSociety, Inc.

Philadelphia, PA
215-922-4006

www.microsociety.org

National Council on Economic Education

New York, NY

www.ncee.net/resources/

National Foundation for Teaching Entrepreneurship (NFTE)

New York, NY
212-232-3333

www.nfte.com

NxLevel(tm) Training Network

Salt Lake city, UT
800-873-9378

www.nxlevel.org



Lifelong
Learning
Programme

The Ohio State University

Center on Education and Training for Employment
Columbus, OH
1-800-848-4815 or 1-614-292-4277
www.cete.org/products

Prentice-Hall

Lebanon, IN
1-800-435-3499
[www.phschool.com/career technical](http://www.phschool.com/career_technical)
www.prenhall.com

PSI Research/Oasis Press

Central Point, Oregon
541-479-9464
www.psi-research.com/oasis.htm

Quorum Books - Greenwood Publishing Group

Westport, CT
203-226-351, Ext. 384
www.greenwood.com

REAL Enterprises, Inc.

Durham, NC
1-800-798-0643
www.realenterprises.org

Small Business Notes,

www.smallbusinessnotes.com

South-Western Thomson

Cincinnati, OH
1-800-824-5179
www.swlearning.com

Ten Speed Press

Berkeley, CA
510-559-1600, ext. 3029
www.tenspeed.com

United States Association for Small Business and Entrepreneurship

www.usasbe.org/knowledge/innovation/index.asp

YoungBiz EDGE

Atlanta, GA
www.kidsway.com

Magazines/Newspapers

American Demographics Magazine

203-358-9900
www.demographics.com

Black Enterprise

www.blackenterprise.com

Business 2.0

www.business2.com

Business Week

Published weekly by McGraw -Hill, Inc, New York, NY,
212-512-3598
www.businessweek.com/smallbiz

The Economist

Published weekly, New York, NY
212-541-5730
www.economist.com

Entrepreneur Magazine

Published monthly in Irvine, CA,
714-261-2325
www.entrepreneurmag.com

Fast Company

www.fastcompany.com

Fortune Small Business

www.fortune.com/fortune/smallbusiness

Hispanic Business Magazine

www.hispanstar.com

Home Business Magazine

www.homebusinessmag.com

Inc Magazine

Published monthly in Boston, MA,



Lifelong
Learning
Programme

617-248-8000

www.inc.com:80

Success Magazine

Published 10/year in New York, NY

914-937-9600

www.successmagazine.com

USA Today

www.usatoday.com

Wall Street Journal

Published daily in New York, NY

212-416-2000

www.wsj.com

Classroom Edition, Published monthly

<http://info.wsj.com/classroom>

ANNEX 2: Annex Enterprise & Entrepreneurship Education EEE IRELAND



DRAFT GUIDELINES AND KEY CRITERIA FOR THE REVIEW OF

ENTERPRISE AND ENTREPRENEURSHIP EDUCATION (EEE)



Higher Education and
Training Awards Council
Comhairle na nDámhachtainí
Ardoideachais agus Oiliúna



This draft document will be used as a basis for establishing the Guidelines and Key Criteria for the review of Enterprise and Entrepreneurship Education (EEE) following a consultation process which will remain open up to May 2012. The Guidelines refer to all activities in higher education and training institutions (HEIs). The purpose of the consultation is to gather further feedback from a broader range of stakeholders prior to publication.

The Guidelines are in draft form. The advisory group consulted with a group of entrepreneurs working closely with the full range of Irish higher education institutions for feedback on the Guidelines. The Guidelines have borrowed from the best of international practice.



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Executive Overview

GUIDELINE OBJECTIVES

The Guidelines aim to assist Higher Education Institutions (HEIs) to sustain healthy 'entrepreneurial ecosystems'¹.

An institution's entrepreneurial ecosystem is the environment including all of its entrepreneurship-relevant people, resources, facilities, processes etc. that contribute to the support of enterprising activity and the development of entrepreneurial skills and attitudes. It involves layers of mutually-interacting organisational initiatives and practices, engaging external as well as internal parties.

The Guidelines include selected examples of Enterprise and Entrepreneurship Education (EEE) initiatives from Ireland and other countries.

They also attempt to draw attention to some of the less obvious benefits of enhancing enterprise and entrepreneurship education. For example, how it can lead to improvement of an institution's capacity for creativity and innovation generally.

WHAT SHOULD THE GUIDELINES BE USED FOR?

The Guidelines may be used by institutions to identify and evaluate EEE activity and opportunities and will assist them in developing strategy. They include self-evaluation criteria (Section 2), organised under five headings:

- » Outcomes
- » Leadership
- » Culture
- » Learning
- » Assessment

WHO SHOULD USE THE GUIDELINES?

The Guidelines are for staff at all levels in HEIs and for anybody interested in the effectiveness of EEE in those institutions. This includes those involved in the design, delivery, procurement, quality assurance and management of higher education and training institutions and programmes. It includes teachers, pedagogy specialists, academic and administrative managers, external examiners, those involved in the provision of general support functions such as technology transfer services, innovation services, alumni services, careers services, and human resources development services.

WHAT CONCEPTUAL FRAMEWORK SUPPORTS THE GUIDELINES?

There are many different definitions and perceptions of enterprise and entrepreneurship. The specific definitions presented in these Guidelines are not a primary focus. However, the conceptual framework for analysing EEE is a focus and the concept of the entrepreneurial ecosystem is emphasised.

1 Lerner, Josh (2009) "The Boulevard of Broken Dreams" Princeton University Press

WHAT ARE THE BENEFITS OF EEE FOR HEIs AND STUDENTS?

The potential benefits to organisations and individuals from EEE activity are manifold. These benefits may apply in any context of an individual's life: social, academic and professional.

The development of the entrepreneurial mindset and skills are of particular value in the creation of new enterprises. This includes business creation; social enterprises; intra-organisational initiatives; and artistic productions.

Some of the potential benefits are stated below:

- » Assist the institution to achieve its ambitions and thrive in a globalised competitive environment involving high uncertainty and complexity
- » Assist in the creation of more entrepreneurially-minded staff
- » Assist in the creation of more entrepreneurially-minded students
- » Enhance the institution's capacity for innovation and creativity and the development of new synergies from existing resources
- » Enhance knowledge transfers (in and out)
- » Increase cross-institutional and multi-disciplinary activity, resulting in more trans-disciplinary organisation of knowledge
- » Increase the creative use of knowledge and the development of outputs from research activities.
- » Promote an ethos of learning by doing
- » Enhance and diversify the teaching and learning experience by encouraging the development of innovative ways of teaching and supporting learning
- » Promote multi-disciplinary learning experiences for students and staff across a range of diverse subject areas, enriching the student experience on campus
- » Enhance graduate employability, student satisfaction and, therefore, alumni relations
- » Provide new opportunities for deploying the knowledge and expertise of the institution's general functional units such as careers and other support services, incubation centres, student placement services and students' unions and associations
- » Enhance the institution's engagement with external stakeholders including the local community, wider society, the public service and commercial enterprises
- » Assist in developing a genuine understanding of small and medium enterprises (SMEs) and the enhancement of supports for them
- » Serve local, regional, national and global social and economic objectives
- » Enhance the institution's reputation, standing and competitive position

If the goal of EEE is to produce more new enterprises by producing more and better entrepreneurs, then the realisation of this goal will bring obvious benefits to society in social, cultural and economic terms. A more entrepreneurial society can be expected to be:

- » More knowledgeable, innovative, creative and, therefore, more productive and prosperous
- » More adaptable by coping with, and indeed embracing and exploiting, uncertainty and complexity
- » Strong in continually growing new indigenous enterprises
- » Motivated, confident and self-reliant, with self-employment and enterprise creation being seen as a realistic option by many of its members
- » Better able to provide employment
- » More competitive
- » More strategic and opportunistic

WHAT DOES THE NATIONAL STRATEGY FOR HIGHER EDUCATION TO 2030 SAY?

The *National Strategy for Higher Education to 2030* highlights the central role to be played by HEIs in Ireland in nurturing creativity and entrepreneurship. It calls for changes both at the programme level and the institutional level:

“.. undergraduate curriculum needs to place more emphasis on generic skills, especially those required for the workplace and for active citizenship. Creativity and entrepreneurship must be encouraged to a much greater extent; and institutions should facilitate reflective learning, applied knowledge, practical laboratory experience, and scientific skills. Various surveys, nationally and internationally, show that students, academics and employers believe that higher education has an important role to play in preparing students for the workplace and for their role as citizens, and that undergraduate education should explicitly address the generic skills required for effective engagement in society and the workplace”

[At the strategic level of the organisation, institutions should be] *“internally adaptive in order to be externally responsive and to develop strong engagement with the wider community”* This, it says, will require:

- » *Strong institutional leadership*
- » *Change in the culture and internal business processes of institutions, and*
- » *Recognition of the importance of engagement activities in resource allocations, in promotion criteria and in the metrics used to assess progress at institutional, regional and national level*

Enhanced institutional engagement with community groups, industry and other stakeholders is a core feature of EEE activity.

“The institutional benefits of greater engagement with the wider community groups are significant, not least in the establishment of a platform for the advancement of social, civic and economic entrepreneurship. ... Higher Education Institutions need to become more firmly embedded in the social and economic contexts of the communities they live in and serve. Achieving this will help them become more relevant and responsive, and will also enhance their diversity and distinctiveness as institutions”.

[Cultural change is a typical part of any change programme and according to this strategy, flexible, responsive systems embedded at the institutional level will result in] *“greater freedom to innovate with more customised employment relationships for those Higher Education Institutions which progress towards a more entrepreneurial and autonomous model of operation”.*

(http://www.heai.ie/files/files/DES_Higher_Ed_Main_Report.pdf)

HOW WILL THE GUIDELINES HELP?

The Guidelines are primarily for use by institutions. They help identify existing areas of strength and areas for improvement. The selection of examples will, hopefully, provide some ideas for what actions might be taken or what existing initiatives may be developed further.

The Guidelines stress the identification and development of knowledge, skills and competencies that are likely to be needed in the *process* of creating a new enterprise, including their application to enhance creativity and innovation in the institution as a whole. There is a strong exhortation to embed the development of these learning outcomes in the core of all programmes and to avoid the pitfall of relying exclusively on add-on entrepreneurship modules. This kind of transition typically requires cultural change and needs to be led with clarity and understanding.

HOW WERE THE GUIDELINES DEVELOPED?

The Guidelines were developed with the help of an advisory group comprising representatives from the Institutes of Technology (including DIT); the university sector; the independent provider sector; an independent consultant on entrepreneurship and an overseas expert working closely with the UK National Centre for Entrepreneurship in Education (NCEE, formerly the National Council for Graduate Entrepreneurship [NCGE]).

The Guidelines rely heavily on a number of published sources and these are cited.

The Structure of the Guidelines and Key Criteria are set out as follows: **Section 1** provides the context for EEE, definitions and a brief outline on the national and international developments in enterprise and entrepreneurship initiatives and strategies. The Criteria in **Section 2**, together with the tools in **Section 3**, are the core sections for self-evaluation. The tools were devised by Emeritus Professor Allan Gibb OBE, Academic Adviser, NCEE². The examples in **Section 4** are provided to help generate ideas.

2 NCEE – The UK - National Centre for Entrepreneurship in Education - UK <http://www.ncee.org.uk/> NCEE was formerly referred to as NCGE National Council for Graduate Entrepreneurship.

Acknowledgements

HETAC and its advisory group are grateful to the HEIs which submitted examples of EEE activity. Unfortunately, it has not yet been possible to include all submissions. However, the possibility of establishing an online repository will be explored.

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Liz Carroll, Training and Development Manager, ISME

Joe Kennedy, Retired Managing Director, Medite Europe Ltd

Dr Emer Ní Bhrádaigh, Lecturer in Entrepreneurship, Fiontar, DCU

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Professor Frank Roche, Deputy Principal, Michael Smurfit Graduate Business School.



SECTION 1

Setting the Context for Enterprise and Entrepreneurship Education

1.1 WHAT IS ENTREPRENEURSHIP?

Defining entrepreneurship is complex and there is no universal theory of it. Research suggests that it is more productive to shift focus towards an examination of the entrepreneurial process, the heart of which is the exploitation of opportunity by the entrepreneur (Timmons and Spinelli 2009) and away from the characteristics and personality of the entrepreneur.

The 2008 European Commission Report entitled '*Entrepreneurship in higher education, especially within non-business studies*'³ favours the following definition –

"Entrepreneurship refers to an individual's ability to turn ideas into action. It includes creativity, innovation and risk taking, as well as the ability to plan and manage projects in order to achieve objectives. This supports everyone in day-to-day life at home and in society, makes employees more aware of the context of their work and better able to seize opportunities, and provides a foundation for entrepreneurs establishing a social or commercial activity".

The same report also has:

"Entrepreneurial programmes and modules [which offer] students the tools to think creatively, be an effective problem-solver, analyse a business idea objectively, and communicate, network, lead, and evaluate any given project. Students feel more confident about setting up their own business as they can now test their own business ideas in an educational, supportive environment" (P10-11 European Commission - Entrepreneurship in higher education, especially within non-business studies – Final Report of the Expert Group, March 2008).

One of the great myths surrounding entrepreneurship is that it is concerned solely with the creation of a new business. In fact *"The need to embrace change as an opportunity explains the growing importance of entrepreneurial imagination in recent years."*⁴ The reality is that entrepreneurship is about:

- » a way of thinking and behaving
- » identifying opportunities
- » realisation of value
- » building and learning from relationships
- » gathering resources
- » being positive and taking risks
- » building for the future

3 European Commission (2008), '*Entrepreneurship in higher education, especially within non-business studies*', European Commission, Brussels

4 citation

1.2 WHAT IS ENTREPRENEURSHIP EDUCATION?

One's understanding of the meaning of entrepreneurship has implications for entrepreneurship education.

"Entrepreneurship education refers to activities aimed at developing enterprising or entrepreneurial people and increasing their understanding and knowledge about entrepreneurship and enterprise" (Heinonen and Poikkijoki, 2005).

It is particularly important to appreciate that EEE is not the same as business studies. The previously cited European Commission report⁵ elaborates:

"Entrepreneurship education should not be confused with general business and economic studies; its goal is to promote creativity, innovation and self-employment, and may include the following elements:

- » *developing personal attributes and skills that form the basis of an entrepreneurial mindset and behaviour (creativity, sense of initiative, risk-taking, autonomy, self-confidence, leadership, team spirit, etc.)*
- » *raising the awareness of students about self-employment and entrepreneurship as possible career options*
- » *working on concrete enterprise projects and activities*
- » *providing specific business skills and knowledge of how to start a company and run it successfully"*

Current thinking views entrepreneurship education as having three roles, depending on the context:

- » *"To learn to understand entrepreneurship – knowledge about entrepreneurship as a concept*
- » *To learn to become entrepreneurial - entrepreneurial skills and competencies development*
- » *To learn to become an entrepreneur – knowledge and entrepreneurial skills pertaining to business start-up and new venture creation" (Heinonen and Poikkijoki 2005; Bridge, Hegarty and Porter 2010)*

The extent to which a graduate can be expected to become more enterprising as a result of their entrepreneurship education will inevitably vary from person to person. It depends on the extent to which they demonstrate some, or all of, the following:

'... personal skills, attributes, behavioural and motivational capacities which can be used in any context (social, work, leisure etc). Prominent among these are: intuitive decision-making, capacity to make things happen autonomously, networking, initiative taking, opportunity identification, creative problem-solving, strategic thinking, self-efficacy, ability to cope with ambiguity) and having empathy with entrepreneurial ways of doing, thinking, feeling, communicating, organising and learning. (NCEE definition of Entrepreneurship)

1.3 WHAT IS AN ENTREPRENEURIAL ECOSYSTEM?

Engel and Charron (2006) from the *Lester Centre for Entrepreneurship and Innovation* maintain that an institution cannot plan entrepreneurship, but can support pedagogy, skills development and good relationships and, to do so, it needs to build a strong entrepreneurial ecosystem within the institution.

An institution's entrepreneurial ecosystem is the environment including all of the institution's entrepreneurship-relevant people, resources, facilities, processes etc. that contribute to the support of enterprising activity and the development of entrepreneurial skills and attitudes. It involves layers of mutually interacting organisational initiatives and practices, engaging external as well as internal parties.

⁵ European Commission - Entrepreneurship in higher education, especially within non-business studies – Final Report of the Expert Group, March 2008

"It is envisaged that both top management and academic [service, administrative and other] staff need to work together in order to bring about an entrepreneurial ecosystem and this effort can be facilitated by having supportive infrastructures at the institution [some examples include entrepreneurship centres, departments, incubators, etc] and introducing cross-discipline structures which can complement such entrepreneurial education. Indeed, it has been noted that PhD students do not have many possibilities for entrepreneurship education and institutions should cater for this level and not just Undergraduates and Masters' students" (Cooney 2011).

1.4 WHY IS LEADERSHIP ESSENTIAL?

Leadership is a strong influence on organisational culture and culture is the entrepreneurial ecosystem's oxygen. This culture must be genuinely understanding and supportive of entrepreneurship and enterprising activity. It involves external as well as internal stakeholders. For example, entrepreneurs can be involved in programmes to enhance students' learning experience and external enterprises can provide student placements and/or provide material for case studies (NESTA, 2008).

Leaders at all levels in an institution will need to share the responsibility for the sustenance of the entrepreneurial ecosystem. It is particularly important that the institution's top management unequivocally understand and champion the cause of EEE.

A healthy entrepreneurial ecosystem equips an organisation to cope with uncertainty and change.

"The entrepreneurial concept is centrally concerned with the means of coping with and creating all of the pressures for change in a time of growing uncertainty and complexity" (NCGE 2009).⁶

The following quotations elaborate on the leadership role:

"The strategic and symbolic importance of strong visible leadership in a [higher education institution] ... is vital to transform the understanding and perceptions of those who shape an institution's strategic direction and the environment in which change can be enabled. Here, the [President] Vice-Chancellor, [CEO] and the senior management team are crucial.

They must give an explicit demonstration of their strong commitment to entrepreneurship education if others are to take it seriously. This includes, due reward and recognition for members of staff who work well in partnership with entrepreneurs, businesses and social enterprises. Institutions can consider:

- » *Demonstrating how adopting a vision and purpose for 'entrepreneurship education' across the campus is crucial to re-positioning the role of the university in the economy of the future.*
- » *Designing the overall student experience to ensure that graduates are more employable, enterprising and innovative, and are more able to make a social and economic contribution.*
- » *Demonstrating the importance of the entrepreneur's real-life experiences, understanding business and venture creation, and developing graduate entrepreneurial capacities." (NCGE Report)⁷*

"...The success of such an enabling environment will depend on the extent to which it is part of the day-to-day operations of the [institution]. Enterprise and entrepreneurship should not be set apart, but established as a core part of [the life of the institution]. Achieving this will be contingent upon a range of factors:

- » *A shared and integrated institutional framework for enterprise and entrepreneurship.*
- » *Personnel and recruitment policies.*
- » *Faculty-level recognition in career development, performance and rewards of the value of engagement in entrepreneurship" (NCEE - 15)*

6 Leading the Entrepreneurial University – NCGE 2009

7 Developing Entrepreneurial Graduates – Putting Entrepreneurship at the Centre of Higher Education (NCGE 2008)

1.5 THE IRISH POLICY CONTEXT

The ‘**Entrepreneurship in Ireland**’ Report published by Forfas in 2002⁸ found that the school system did not sufficiently support the idea of working for oneself as a realistic option and that the Irish education system was perceived by entrepreneurs to have played a very limited role in supporting entrepreneurship to date.

Since then, there has been a cascade of publications including the **Enterprise Strategy Group Report, 2004**⁹, the **Small Business Forum Report**¹⁰, various reports by the **Global Entrepreneurship Monitor (GEM)**¹¹ and the 2007 ‘**Towards Developing an Entrepreneurship Policy for Ireland**’¹². All have argued for the development of entrepreneurship education across all levels of the Irish education system to ensure there is a sustainable source of locally-grown entrepreneurs.

Building Ireland’s Smart Economy - A Framework for Sustainable Economic Renewal 2008 recognised the need to foster entrepreneurial imagination. An objective under ‘**Action area 2. Building the ideas economy – creating ‘the innovation island**’ is to “*Foster an entrepreneurial culture at second, third and fourth levels*” http://www.taoiseach.gov.ie/attached_files/BuildingIrelandsSmartEconomy.pdf

The Innovation Taskforce’s **Report of the Innovation Taskforce’ Report published in 2010**¹³ has taken the goals of the SSTI (**Strategy for Science, Technology and Innovation**) 2006 – 2013 a step further by outlining the need for a step change in Ireland’s ability to develop new enterprise and jobs based on the entrepreneur. The recommendations in the Report are being implemented through an Innovation Taskforce implementation group. <http://www.djei.ie/publications/science/2008/firstreportonSSTI.pdf>

The **National Strategy for Higher Education to 2030** was published in 2011 (also known as the Hunt Report) and highlights the central role to be played by HEIs in nurturing creativity and entrepreneurship. It recommends widespread reforms of the higher education system at all levels.

While acknowledging higher education’s achievements, it needs to be recognised that much more can be achieved before its full potential is actualised. A survey of entrepreneurship education in Ireland¹⁴ (carried out in April 2011) commissioned by the South-East Regional Authority (SERA) as a partner in the EU INTERREG IVC part-funded project “*Youth Entrepreneurship Strategies (YES) Forum*” indicates that the potential for providing enterprising and entrepreneurship activity within HEIs is underdeveloped. The findings highlight *inter alia* the need for:

“a national entrepreneurship policy and a national entrepreneurship education policy”.

1.6 INTERNATIONAL POLICY CONTEXT

HEIs in the European Higher Education Area and beyond have increasingly been exhorted to ensure that all faculties, not just the business faculties, include EEE. Calls to expand EEE across the whole of HEIs are to be found in the World Economic Forum (2009) report, the EU report on Entrepreneurship in Higher Education Institutes (2008) and the Hunt Report, Ireland (2011).

8 Goodbody Report (2002), ‘*Entrepreneurship in Ireland*’, Forfas, Dublin

9 Enterprise Strategy Group (2004), ‘*Ahead of the Curve: Ireland’s Place in the Global Economy*’, Forfas, Dublin

10 Small Business Forum, (2006), ‘*Small Business is Big Business*’, Forfas, Dublin

11 The Global Entrepreneurship Monitor (GEM) project is an annual assessment of the entrepreneurial activity, aspirations and attitudes of individuals across a wide range of countries: Global Entrepreneurship Monitor (2008), Global Entrepreneurship Monitor (2005), Entrepreneurship in Ireland 2005, UCD, Dublin; Global Entrepreneurship Monitor (2007), Entrepreneurship in Ireland 2007, Dublin City University Business School

12 ‘Towards Developing an Entrepreneurship Policy for Ireland’ 2007, Forfás publication

13 Innovation Taskforce Report <http://www.enterprise-ireland.com/en/About-Us/News/Report%20of%20the%20innovation%20task%20force.pdf>

14 “Youth Entrepreneurship Strategies (YES)” Project - Entrepreneurship Education in Ireland - Research Mapping and Analysis, April 2011 - involving eight regions from eight EU Member States. (Tom Martin & Associates TMA)

Many countries are currently addressing the challenge of understanding and developing entrepreneurship education. Recent policy initiatives in other countries have seen support for embedding entrepreneurship in education, driven from the highest levels.

Ireland is a small country on the periphery of the European continent and both of these factors present challenges for the creation of new indigenous enterprises. It is particularly instructive to consider how similar countries are supporting entrepreneurship and enterprise creation through education and training. Finland, Norway, Denmark and Scotland, for example, share some similarities with Ireland. All have implemented policies to ensure that all students receive some form of entrepreneurship education during their formal education years, viz.:

- » In **Finland**, entrepreneurship education is a thematic entity, not a subject. In 2004, the Finnish Ministry of Education produced an Action Plan for Entrepreneurship Education that covered all levels of the education system and, working together with the Ministry of Trade and Industry, appointed a working group entitled 'From Higher Education Institutes to Entrepreneur'. The Ministry of Education also appointed an Entrepreneurship Steering Group to ensure that the agreed programme of action was properly implemented.
- » The **Norwegian** Government has developed an action plan for *Entrepreneurship in Education and Training - from compulsory school to higher education 2009-2014*. The plan refers to a number of measures that will be taken at policy level to strengthen the quality and scope of entrepreneurship education at all levels. Norway "*shall be a leading force when it comes to entrepreneurship in education and training*"¹⁵. In Norway, entrepreneurship has been included in the curricula at all levels, and three Government Departments are involved in its delivery (Ministry of Education and Research, Ministry of Trade and Industry and Ministry of Local Government and Regional Development). In addition to the co-operation occurring between the Ministries and the directorates, there are also partnership agreements with businesses as part of the action plan. The primary goals of the Norwegian strategy are to develop knowledge and competencies in students related to entrepreneurial activities, strengthen young people's belief in and capabilities of their own creative forces, and foster a culture for entrepreneurship
- » The **Danish** *National Strategy for Education and Training in Entrepreneurship November 2009* states that "*in the future Law, executive orders and performance/development contracts will address education and training in entrepreneurship wherever relevant*"¹⁶
- » In **Scotland**, a policy called '*Investing in Scotland's Future: Creating a Culture of Enterprise in Our Schools 2008-2011*'¹⁷ was introduced, which detailed the actions that would be taken by the Scottish Government to embed entrepreneurship into the national schooling system. As part of its action plan, it contained a section entitled 'What success will look like' which highlighted how the programme would be measured.

Other examples of support include:

- » In the **United States**, enterprise education in higher education has grown dramatically since the early 1980s. As far back as 2001, an OECD report¹⁸ cited - "*today a person must make some effort to avoid entrepreneurship awareness or training*"
- » The same applies in the **United Kingdom** where there exists a range of enterprise and entrepreneurial activities in the many universities and HEIs that could be broadly described as part of an entrepreneurial

15 Entrepreneurship in Education and Training – from compulsory school to higher education 2009-2014, pg. 13. Ministry of Education and Research, Norway

16 *Danish Strategy for Education and Training in Entrepreneurship - November 2009 – introduction – Ministry of Education; Ministry of Culture; Ministry of Economic and Business Affairs*

17 http://www.education.ea.argyll-bute.sch.uk/docs/investing_in_scotlands_future_sm.pdf

18 OECD (2001) Putting the Young in Business....

environment in higher education. These are supported and fostered by national organisations such as the National Council for Graduate Entrepreneurship (NCGE) [now known as the National Centre for Entrepreneurship in Education (NCEE)]. According to the NCEE (2010)

“it is a sign of optimism to note that all educational institutions in England have now embraced the concept of entrepreneurship more in their mission statements, action plans and strategic policies where student enterprise is being supported with the growth in enterprise clubs”. <http://www.ncee.org.uk/>

1.7 HOW HAVE HEIs APPROACHED THE CHALLENGE?

Often, initiatives are encouraged from the top with support for entrepreneurship being established as a strategic goal. Initiatives stemming from entrepreneurial activities of individual students and/or staff at all levels are crucial.

Examples of support for entrepreneurship include innovation centres, champions of entrepreneurship in senior posts, supportive curricula, supportive pedagogies and assessment, and engagement with the community, industry and the public service.

Sections 2 and 3 will elaborate by proposing relevant criteria and self-evaluation tools.

IRISH EXAMPLE

The **Accelerated Campus Entrepreneurship (ACE)** programme involves Dundalk Institute of Technology, IT Blanchardstown, IT Sligo, Cork IT and NUI Galway. It is funded under the Higher Education Authority (HEA) SIF programme. ACE aims to create entrepreneurial graduates by embedding entrepreneurship education into all programmes and effecting organisational change within and between the institutions to reflect entrepreneurial processes. Among other things, this involves encouraging greater cross-collaboration between the academic units and incubation and technology transfer units.

http://ww2.dkit.ie/research/innovation_and_enterprise/ace/ace_initiative_news



SECTION 2

Key Criteria for the Review of EEE Activity

The health of an institution's entrepreneurial ecosystem is subject to multiple interacting internal and external influences including cultural, academic, social, organisational, regional, physical, economic, pedagogical, partnership, and infrastructure factors. This list is not exhaustive. The relative importance of, and inter-play between influencing factors can differ markedly between institutions and will likely vary with time. Nevertheless, experience has taught that it is possible to identify general criteria that help characterise entrepreneurial ecosystems in HEIs, diagnose their problems and contribute information to help improve them. This section presents such criteria which can be used by an institution to help evaluate the health of its entrepreneurial ecosystem in its entirety or elements of it.

The criteria are ambitious and designed to prompt analysis that will help drive continual improvement—they are not all necessarily to be interpreted as minimum standards to be achieved immediately.

The criteria are set out below and each is discussed in turn in the remainder of this chapter:

OUTCOMES

- » The intended learning outcomes of the institution's major education and training programmes (e.g. bachelor's degree programmes) include knowledge, skill and competency associated with entrepreneurial behaviour in employment including self-employment

LEADERSHIP

- » The institution's leadership is entrepreneurial and enterprising and understands the factors involved in creating and sustaining an entrepreneurial ecosystem
- » There are co-ordinated, mutually supporting, focused and realistic strategies at all the main levels within the institution and in all the main discipline areas that address the development and sustenance of the entrepreneurial ecosystem for the principal purpose of ensuring that the education and personal development of learners supports their achievement of the relevant expected learning outcomes
- » Initiatives implemented to promote and support EEE are periodically evaluated and actions are identified which may deliver greater benefits

CULTURE

- » The institution's staff members and particularly those with teaching or research duties (educators) are entrepreneurial and enterprising and understand the factors involved in creating and sustaining an entrepreneurial ecosystem
- » A range of diverse and innovative pedagogical approaches is implemented by all faculties to stimulate and nurture the development of entrepreneurial attributes and this is supported by the necessary staff development systems

- » Staff career development and reward structures recognise and encourage contributions towards developing and sustaining the entrepreneurial ecosystem and the effectiveness of educators' teaching in helping learners achieve the desired outcome
- » There is training and support for those who wish to identify, evaluate and exploit an idea and/ or start a venture (commercial or social).

LEARNING

- » There are authentic learning opportunities which enable learners to acquire knowledge, skills and competencies associated with entrepreneurial behaviour in employment, including self-employment
- » Learners are provided with opportunities to gain awareness of the world of self-employment and new venture creation
- » There are diverse learning opportunities that encourage 'self-efficacy' in learners
- » There are learning opportunities for learners and staff to develop their understanding of the diverse world of micro and small enterprises
- » Peer-to-peer student-led entrepreneurship-focused initiatives are encouraged and have been established across the institution

ASSESSMENT

- » EEE outcomes are validly and reliably assessed and contribute to the classification level of each graduate's award.

2.1 OUTCOMES

The intended learning outcomes of the institution's major education and training programmes (e.g. bachelor's degree programmes) supports entrepreneurial behaviour in employment, including self-employment.

EVIDENCE

Evidence relevant to this criterion is likely to include programme and award specifications including their intended/expected learning outcomes, overarching expected learning outcomes set out at institutional level for major awards, assessment strategies and assessment tasks.

This criterion is about having articulated learning outcomes which are statements of what the students know, understand and can do in relation to enterprise and entrepreneurship.

The principal goal of enterprise and entrepreneurship education is that graduates of HEIs' major education and training programmes (e.g. bachelor's, master's and doctoral degree programmes) acquire the knowledge, skills and competencies (learning outcomes) required to support their entrepreneurial activity in employment, including self-employment.

Section 3.1 presents a list of such outcomes organised under the following headings:

- » Entrepreneurial behaviour, attitude and skill development
- » Creating empathy with the entrepreneurial life world
- » Key entrepreneurial values
- » Motivation and entrepreneurship career
- » Understanding of process of business entry and tasks
- » Generic entrepreneurship competences

- » Key minimum business how-to
- » Managing relationships

The learning outcomes in **Section 3.1** are presented in a generalised NFQ¹⁹-level-independent format. These can be used in the development and review of institutions, schools, faculties, degree programmes and modules.

To apply these learning outcomes to a programme, they first need to be translated into more concrete (assessable) intended programme learning outcomes set in the context of the relevant discipline area and qualification.

Section 3.1 also provides a related template to help identify which outcomes are addressed by programmes.

Many of the outcomes in **Section 3.1** are common skills and it is likely that they are being achieved to some level within any higher education programme. However, it is important to keep in mind the overarching criterion (in the box above) when analysing intended learning outcomes in this context because component outcomes are only effective when they are integrated to provide support for effective entrepreneurial behaviour.

2.2 LEADERSHIP

The institution's leadership is entrepreneurial and enterprising and understands the factors involved in creating and sustaining an entrepreneurial ecosystem.

EVIDENCE

Evidence includes the institution's strategy, interviews with the leadership and with relevant stakeholders, particularly enterprise-related stakeholders.

Typically, many staff in any HEI are enterprisingly engaged with the external stakeholder community. However, the recent survey of Entrepreneurship Education in Ireland (2011) indicated:

"It is very good to have EE 'champions' in an institution, indeed they are indispensable catalysts in the EE process, but 'bottom up' efforts will never carry the day until they are blessed with the visible endorsement of top management. This is true at all levels of education, but is particularly vital in third level where the individual disciplines have such a degree of autonomy that only a concerted strategic campaign driven from the very top management level will sustain the collaboration required to embed EE across disciplines."(p134)

There are co-ordinated, mutually-supporting, focused and realistic strategies at all the main levels within the institution and in all the main discipline areas that address the development and sustenance of the entrepreneurial ecosystem for the principal purpose of ensuring that the formation of learners supports their achievement of the relevant expected learning outcomes.

EVIDENCE

Evidence includes the comprehensive multi-dimensional institutional review.

Most graduates, regardless of their discipline will at some point in their careers be employed in some form of enterprise as employees or be self-employed. Typically, enterprise workplace environments are multi-disciplinary. This contrasts with the discipline-focused environment typical of traditional higher education programmes where it would be rare for students outside business schools to be exposed to enterprise or entrepreneurship education.

It is now widely accepted that all students require enterprise and entrepreneurial skills. To bring this about, it is important to recognise diverse disciplinary cultures that exist within HEIs. This diversity requires that EEE is distributed rather than exclusively centralised. Moreover, the generic nature of the skills involved requires that a large part of enterprise and entrepreneurship-relevant education is embedded in programmes and modules. This latter point may be counter-intuitive because it is often assumed that generic skills can be taught in a context-free (or discipline-independent) way - in reality, there is always a context.

Accordingly, it is necessary to tailor entrepreneurship education to take the culture, context and circumstance of the student into consideration. Entrepreneurial opportunities arise from “the everyday practice of individuals and [...]the pedagogy of enterprise education should, therefore, be personalised.” (Blenker et al. p1 2011)

While acknowledging the necessity for disciplines to maintain distinct cultural identities, engagement in collaborative problem-solving with other disciplines in the context of one’s higher education can be both stimulating and educationally rewarding²⁰. The benefits of a collaborative cross-campus EEE process might include:

- » Smarter use of the organisation’s resources and the potential to create many new synergies from existing resources
- » Students experience the attributes and benefits of cross-discipline team-working, collaboration and co-operation
- » Opening up opportunities to share best practice between departments, schools, faculties and other units including units operating in international jurisdictions
- » Instilling entrepreneurial thinking and doing across campuses
- » Fostering the emergence of for-profit and social enterprise with good corporate citizenship and inclusive community dimensions in mind
- » Providing a more holistic education for students
- » Greater multi-discipline insights for educators
- » Increasing the opportunity for research application and commercialisation for staff, students, and graduates
- » Developing more rounded, knowledgeable staff and graduates
- » Integrating higher education organisations more into the communities within which they operate
- » Improving the attractiveness of staff, organisation, students and graduates for employers in public and private sector organisations
- » Enhancing the competitive position of the institution

Section 3.3 provides questionnaire developed by the International Entrepreneurship Educators Programme (IEEP²¹) for the assessment of the entrepreneurial nature of one’s own institution. This detailed questionnaire may also assist staff of a HEI to identify strategic gaps and pursue specific objectives to enhance the entrepreneurial nature of the HEI.

Initiatives implemented to promote and support EEE are periodically evaluated and actions are identified which may deliver greater benefits.

20 For example, Harrington and Douglas (2005) suggest that cross-campus collaboration promotes learning and innovation. Blenker et al. (2011) claim that opportunities (new ideas, creativity, and innovation) arise from the everyday practice of individuals and what is done with these ideas depends on individuals’ abilities to capture anomalies and disharmonies in their own personal lives. This richness of embracing anomalies and disharmonies can only be achieved by exposing students to the multi-faceted dimensions of life and work experiences through a cross-disciplinary education process.

21 IEEP is an international programme designed to develop enterprise educators working in higher and further education institutions. The programme is run by the National Centre for Entrepreneurship in Education (NCEE <http://www.ncee.org.uk/>)

2.3 CULTURE

The institution's staff members, and particularly those with teaching or research duties, are entrepreneurial and enterprising and understand the factors involved in creating and sustaining an entrepreneurial ecosystem.

Institution's.....

EVIDENCE

Evidence to be completed.....

Staff should be conscious of the intended programme-level and module-level enterprise and entrepreneurship learning outcomes and recognise their importance to the student's career. Teaching and learning is more likely to be effective when the teacher and student have a clear concept of what they are required to achieve.

They should understand the need to integrate the development of entrepreneurship and enterprise-related learning outcomes into programmes rather than relying exclusively upon add-on courses and modules.

In highly-modularised systems, this clarity of purpose and team approach to instruction can easily be lost unless there are specific processes for ensuring their presence.

A range of diverse and innovative pedagogical approaches is implemented by all faculties to stimulate and nurture the development of entrepreneurial attributes and this is supported by the necessary staff development systems.

EVIDENCE

Evidence to be completed.....

The mainstreaming of EEE is likely to require innovative pedagogical approaches if curricula are not to be overloaded. Novel approaches are also likely to be required to stimulate and simulate the practice of entrepreneurial behaviours and the world of the entrepreneurial organisation.

According to the EC Survey of Entrepreneurship Education (2008)²², it is arguable that experience-based teaching approaches (with the lecturer facilitating learning as opposed to lecturing) are most effective in fostering entrepreneurial skills. It is also beneficial to have entrepreneurs involved in both teaching and in the development of the curriculum. In these regards, it would seem that HEIs could benefit from greater co-operation, pooling of knowledge of effective practices and other resources.

EEE needs to:

- » Be provided in a wider context than business studies
- » Involve an holistic approach to knowledge
- » Emphasise pedagogical variety and experiential learning
- » Develop an understanding of how to design entrepreneurial organisations of all kinds
- » Focus upon creating empathy with 'thinking in an entrepreneurial way'

Such approaches need to be supported and encouraged in staff development programmes. Such programmes can help familiarise teaching staff with effective pedagogical approaches for the efficient integration of EEE into programmes. Staff may sometimes need convincing of the benefits of integrating EEE into their programmes and, indeed, of their own capacity to achieve this.

The UK National Centre for Entrepreneurship in Education (NCEE), for example, has developed educator programmes [www.ncee.org.uk] designed to stimulate staff from any/all departments in an institution to develop more entrepreneurial approaches to their curriculum and programme development. Of particular importance is the simulation of the entrepreneurial life-world of:

- » Ownership, intuitive decision-making and risk-taking, initiative-taking
- » Holistic project management
- » Know-who network development and relationship management, and
- » Commitment over time to see things through.

In the context of e-learning, there are additional challenges.

Staff career development and reward structures recognise and encourage contributions to developing and sustaining the entrepreneurial ecosystem and the effectiveness of their teaching in helping learners achieve related learning outcomes.

EVIDENCE

Evidence includes role/job-descriptions, promotion criteria, performance management and development system, development programmes and opportunities.

There is a need for institutions to build career development and reward structures for academics who are heavily engaged with the wider stakeholder environment. Here, it is noteworthy that research demonstrates that such personal interfaces are not confined to vocational, professional or business-related disciplinary areas as might be assumed.

A major challenge in moving an institution towards a more entrepreneurial stance is identifying and encouraging staff to play the role of change agents in faculties and other units across the institution. This was found to be a key factor for the successful development of cross-campus EEE initiatives in the US.²³

There is effective training and support for those who wish to identify, evaluate and exploit an idea and/or start a venture (commercial or social).

EVIDENCE

Evidence includes the creation of new ventures following such support.

There will always be some staff and students with ideas they wish to pursue. The provision of training and supports for those who have identified a realistic opportunity encourages entrepreneurship. Such support can be internal or in partnership with external stakeholders such as support agencies or existing businesses or wholly external.

It is important that such support is co-ordinated by the institution and targeted appropriately and subject to its governance, quality and evaluation procedures.

In Ireland, the development of incubation and innovation centres on HEIs' campuses and the Enterprise Ireland funding of related activities provides some of this support.

2.4 LEARNING

There are authentic learning opportunities which enable learners to acquire knowledge, skills and competencies associated with entrepreneurial behaviour in employment, including self-employment.

EVIDENCE

Evidence includes interviews with students and programme co-ordinators, visits to facilities and resources, technology demonstrations, perusal of project work, programme and specifications, assessment strategies and assessment tasks.

EEE outcomes require deep learning developed over time and in a range of contexts pertinent to the student's discipline or major field.

Students benefit from the availability of environments in which they can safely practise the entrepreneurial skills that they are acquiring.

This requires programme-level co-ordination. As already stated, such opportunities are more likely to support the achievement of the desired EEE learning outcomes if they are integrated within programmes and the broader learning environments (physical, social, intellectual) and underpinned by multi-disciplinary collaboration.

Authentic learning opportunities cannot effectively be provided exclusively through the provision of discrete 'entrepreneurship' modules.

Learners are provided with opportunities to gain awareness of the world of self-employment and new venture creation.

EVIDENCE

Evidence includesto be completed.

Even where learners are not currently planning self-employment or new venture creation, there is benefit in providing them with the opportunity to consider what might be involved in such processes in the future, should a suitable prospect arrive.

The provision of such opportunities can be driven from within programmes viewing self-employment as a realistic option for graduates and/or by involvement of other units such as business incubation centres.

The involvement of entrepreneurs as mentors or advisors and of external support agencies is especially appropriate here.

There are diverse learning opportunities that encourage 'self-efficacy' in learners.

EVIDENCE

Evidence includesto be completed.

Self-efficacy in this context means having the self-belief, consciousness, know-how and confidence to recognise and exploit opportunities for commercial and/or social gain.

Self-efficacy learning opportunities in particular should focus on know-how, know-who, and know-why rather than just know-about. They might, for example, be attuned to the learner's discipline, viz.:

- » Media and Music: how to manage and present a portfolio of work
- » Design: how to set up a design company
- » Engineering: how to establish a project management service or consulting company
- » Art: how to set up an art gallery

There are opportunities for learners and staff to develop their understanding of the diverse world of micro and small enterprises.

EVIDENCE

Evidence includesto be completed.

This might be achieved through internship and/or student project activities. Such learning opportunities might be focused upon gaining insight into what is involved in running a successful small enterprise in a relevant field. The student can develop an understanding of what differentiates the small independent enterprise from the large one and explore the relative advantages and disadvantages of employment in, and ownership of, each.

Peer-to-peer student-led entrepreneurship-focused initiatives are encouraged and have been established across the institution.

EVIDENCE

Evidence includesto be completed.

Even without encouragement or support, it is not unusual to find a number of students already actively engaged in enterprise activities, e.g. running their own micro-business. They represent the potential for peer-led student engagement in entrepreneurial activity.

The institution can facilitate this process by recognising, encouraging and supporting suitable forums, such as:

- » Enterprise Societies
- » Innovation Societies
- » Lateral Thinker Groups, and
- » Creativity Clubs

In the UK, for example, the number of such societies is growing and there is now a national student-led network of support through the National Consortium of University Entrepreneurs (NACUE, www.nacue.com). Launched in 2009, it now has links with over 50 university student societies. It provides society start-up support, leaders' training, and entrepreneurs' portals, links to investors, conferences, guides to events, awards courses for societies and mentorship courses. The initiative has its origins in the success of the Oxford student entrepreneurs' society - *Oxford Entrepreneurs* - which has several thousand members, a full-time president and a wide range of programmes and activities, as indicated above, including an incubator. Student societies are in some cases supported financially by the institution - often a key component in their start-up success is support from institution staff champions.

The ACE (Accelerating Campus Entrepreneurship www.aceinitiative.ie) project internship programme is another relevant peer-led example. This involves the appointment of a student who is funded in the role of an *enterprise intern* in the institution. The intern is enrolled on a programme at the institution and spends sixteen hours each week promoting enterprise. Promotion activities might include, for example, arranging competitions, guest speakers and such like. ACE has found this programme to be remarkably successful.

Currently, student-led initiatives typically do not attract academic credit. It is desirable that ways be found to give due academic recognition to relevant student-led learning outcomes.

Finally, **Section 3.2** provides an entrepreneurship questionnaire for students developed by Professor Allan Gibb. Students are invited to estimate the importance of a range of attributes in relation to their career plans and to assess the extent to which their participation in the institution has helped them develop in these areas.

2.5 ASSESSMENT

EEE outcomes are validly and reliably assessed and contribute to the class of each graduate's award.

EVIDENCE

Evidence includes programme assessment strategies which should point to the existence of authentic assessment tasks (i.e. tasks which present real-world challenges to the students with all the complexity and uncertainty that this brings) for intended EE learning outcomes.

A key issue for programme teams in designing the assessment is the integration of real-life experience into the assessment process. The relationship between learning outcomes, teaching and learning activities and assessment is critical and it is important to ensure that appropriate modes of assessment are designed that can authentically test the stated EE learning outcomes. This challenge needs to be addressed at module and programme level and articulated in the programme assessment strategy.

DISCUSSION

Overall, these criteria require strong internal cohesion, engagement with the community and capacity to build and sustain external relations. The pursuit of these goals will demand active engagement with social and business entrepreneurs, advisory service providers, development organisations and business associations in the region.

SECTION 3

Templates and Tools for Determining Outcomes

INTRODUCTION

This section contains four templates which may be useful in the design, development, delivery and organisation of Higher Education in Entrepreneurship Education as follows:

- » Template 1 sets out a number of entrepreneurial outcome competencies
- » Template 2 embodies a checklist of entrepreneurial behaviours that might be used in assessing students' needs
- » Template 3 is a 'review framework' that might be used by educators to assess the existing 'state of entrepreneurial capacity' in their institution
- » Template 4 provides a suggested framework for assessing the institution's relations with the broader stakeholder environment

3.1 OUTCOMES FROM ENTREPRENEURIAL LEARNING

1. WHAT ARE THE OUTCOMES FROM ENTREPRENEURIAL LEARNING?

Much of the focus of traditional Entrepreneurship Education courses is upon delivering 'inputs' into the entrepreneurial process. For example, in business-oriented education, there will be conventional subject inputs of marketing, finance, operations, control, leadership, etc. There is also much emphasis on the business plan. There seems, however, to be a major absence of a concept frame relating to the Entrepreneurial Person which in turn lends itself to production of a template of outcomes designed to support the concept. Such a frame has been constructed as the basis for the development of an NCEE approach which, to some substantial degree, challenges the conventional business-focused concept of the entrepreneur. This construct focuses upon:

- » Entrepreneurial behaviours, skills and attributes, including emotional intelligence
- » Preparation for the 'way of life' of the entrepreneur
- » Entrepreneurial values and ways of doing things, feeling things, organising things, communicating things and learning things experientially
- » Entrepreneurial behaviour and management in different contexts – not just business
- » Ideas harvesting, grasping and realisation of opportunity
- » Managing in an entrepreneurial way, holistically and strategically (know-how)
- » Managing and learning from relationships (know-who)

The above constitute key proposed target outcomes from entrepreneurial learning and are embedded in the Outcomes Framework (adopted by the NCEE) and set out below.



2. HOW IS THE OUTCOMES FRAMEWORK CONSTRUCTED?

Following the construct above, eight major areas of outcome are set out as follows.

A. Entrepreneurial behaviour, attitude and skill development

To what degree does a course have activities that seek clearly to develop?

- » opportunity-seeking
- » initiative-taking
- » ownership of a development
- » commitment to see things through
- » personal locus of control (autonomy)
- » intuitive decision-making with limited information
- » networking capacity
- » strategic thinking
- » negotiation capacity
- » selling/persuasive capacity
- » achievement orientation
- » incremental risk-taking

B. Creating empathy with the entrepreneurial life world

To what degree does the course help students to 'feel' the world of?

- » living with uncertainty and complexity
- » having to do everything under pressure
- » coping with loneliness
- » holistic management
- » no sell, no income
- » no cash in hand – no income
- » building know-who and trust relationships
- » learning by doing, copying, making things up, problem-solving
- » managing inter-dependencies
- » working flexibly and long hours

C. Key entrepreneurial values

Does the course seek to inculcate and create empathy with entrepreneurial values?

- » strong sense of independence
- » distrust of bureaucracy and its values
- » self-made/self-belief
- » strong sense of ownership
- » belief that rewards come with own effort
- » 'hard work brings its rewards'
- » believe that one can make things happen
- » strong action orientation
- » belief in informal arrangements

- » strong belief in the value of know-who and trust
- » strong belief in freedom to take action
- » belief in the individual and community, not the State

D. Motivation to Entrepreneurship career

To what degree does the course help students' to:

- » understand the benefits from an entrepreneurship career?
- » compare with an employee career?
- » acquire some entrepreneurial 'heroes' as friends, acquaintances?
- » develop images of entrepreneurial people 'just like them'?

E. Understanding of processes of business entry and tasks

To what degree does the course take students through:

- » the total process of setting-up an organisation from idea to survival and provide understanding of:
- » what challenges will arise at each stage?
- » how to handle them?

F. Generic entrepreneurship competencies

To what degree does the course build the capacity to?

- » find an idea
- » appraise an idea
- » see problems as opportunities
- » identify the key people to be influenced in any development
- » build the know-who
- » learn from relationships
- » assess business development needs
- » know where to look for answers
- » improve emotional self-awareness, manage and read emotions and handle relationships
- » constantly see yourself and the business through the eyes of stakeholders and particularly customers

G. Key minimum business how-to

To what degree does the course help students to?

- » see products and services as combinations of benefits
- » develop a total service package
- » price a product service
- » identify and approach good customers
- » appraise and learn from competition
- » monitor the environment with limited resource
- » choose appropriate sales strategy and manage it
- » identify the appropriate scale of a business to make a living
- » set standards for operations' performance and manage them
- » finance the business appropriately from different sources



- » develop a business plan as a relationship communication instrument
- » acquire an appropriate systems to manage cash, payments, collections, profits and costs
- » select a good accountant
- » manage, with minimum fuss, statutory requirements

H. Managing relationships

To what degree does the course help students to?

- » understand the needs of all key stakeholders at the start-up and survival stage
- » know-how to educate stakeholders
- » know-how to learn from them
- » Know-how best to build and manage the relationship

3. SUMMARY - BENCHMARKING TEMPLATE OF POTENTIAL KEY OUTCOMES

This following template²⁴ provides a basis for:

- » a focused debate upon the concept of entrepreneurship in an educational context
- » a dialogue with all key stakeholders, particularly policy-makers and funding agencies
- » the development of a course of education and training for policy-makers, organisers and deliverers of entrepreneurship education.

A	Key entrepreneurial behaviours, skills and attitudes have been developed.
B	Students clearly empathise with, understand and 'feel' the life-world of the entrepreneur.
C	Key entrepreneurial values have been inculcated.
D	Motivation towards a career in entrepreneurship has been built and students clearly understand the comparative benefits.
E	Students understand the process (stages) of setting up an organisation, the associated tasks and learning needs.
F	Students have the key generic competencies associated with entrepreneurship (generic 'how-to').
G	Students have a grasp of key business how-to associated with the starting and running of an organisation.
H	Students understand the nature of the relationships they need to develop with key stakeholders and are familiarised with them.

24 Drawn from the NCGE (now NCEE) Policy paper 'Developing Entrepreneurial Graduates – Putting entrepreneurship at the centre of higher education, 2008'. Available under 'Publications' at www.ncee.org.uk

3.2 A TEMPLATE ENTREPRENEURSHIP QUESTIONNAIRE FOR STUDENTS

An assessment of the importance of entrepreneurial capacity to your future

The questions²⁵ focus upon a mix of key entrepreneurial or enterprising capacities/attributes. Can you provide an estimate of the importance of these in relation to what you want to do when you leave the institution (work, leisure, social life)?

The same list can subsequently be used to ask students to assess the contribution, formal and informal, of institution life to the creation of these capacities. The answers usually lie some way to the left. The checklist can also be used to question students on their perceived areas of need for personal development.

Overall the instrument can be used to articulate students' needs to institution authorities.

Please complete quickly, circling the appropriate number. 7 = highly important; 1= Unimportant.

	CAPACITY/ATTRIBUTE	IMPORTANCE						
		1	2	3	4	5	6	7
1	Ability to see opportunities in problems	1	2	3	4	5	6	7
2	Ability to take initiatives	1	2	3	4	5	6	7
3	Ability to analyse data quickly	1	2	3	4	5	6	7
4	Ability to think creatively	1	2	3	4	5	6	7
5	Be forward looking	1	2	3	4	5	6	7
6	Being optimistic	1	2	3	4	5	6	7
7	Sense of ownership (of events)	1	2	3	4	5	6	7
8	Determined to be independent	1	2	3	4	5	6	7
9	Capacity to make judgments on the basis of limited information	1	2	3	4	5	6	7
10	Ability to persuade others	1	2	3	4	5	6	7
11	Ability to use social networks for career advantage	1	2	3	4	5	6	7
12	Can control own destiny	1	2	3	4	5	6	7
13	Capacity to work independently	1	2	3	4	5	6	7
14	Imaginative use of knowledge	1	2	3	4	5	6	7
15	Desire to see things through	1	2	3	4	5	6	7
16	Manage projects holistically	1	2	3	4	5	6	7
17	Having lots of ideas	1	2	3	4	5	6	7
18	Strong orientation to achieve	1	2	3	4	5	6	7

²⁵ Drawn from: Centre for Entrepreneurial Learning (2009) 'A study of graduate aspirations to, and understanding of, entrepreneurial behaviour' Durham University UK.

3.3 A TEMPLATE CHECKLIST TO ENABLE INTERNATIONAL ENTREPRENEURSHIP EDUCATORS' PROGRAMME (IEEP) PARTICIPANTS [STAFF OF HEIs] TO ASSESS THE ENTREPRENEURIAL NATURE OF THE INSTITUTION

This template is drawn from that used by higher education and further education educator participants in the International Entrepreneurship Educators' Programme (IEEP) to assess their knowledge of the entrepreneurial nature of their own institution, to be used thereafter as a basis for developing their own leadership strategy.

Develop the metrics for:

How does the institution define and measure its excellence? (key points)

- » the importance of its concern for relevance of its work to the needs of society, current and future
- » the degree to which it seeks to integrate knowledge – numbers of inter-disciplinary centres and degrees. Centres and degrees focused upon societal problems
- » who it sees as its key stakeholders and how it seeks to define and meet their needs (not just the research councils and students, parents etc. but also regional organisations, the local communities, international organisations)
- » how strong are its global linkages - not just research?

How entrepreneurial is the institution's strategy? (examine the institution's strategy statement – key points as below)

- » the strength of the enterprise commitment in its strategy documents
- » the strength of its concern for preparing students for employability and personal development in an entrepreneurial life-world
- » the emphasis given in the above respect to the global market places
- » has it a regional development contribution strategy?
- » has it a strong commitment to knowledge exchange and transfer?
- » how much does it seek to leverage its public funding? – not just by student fees, but by consultancy, research and development contracts with industry, EU, RDA and other public funding (beyond HEFCE²⁶)
- » in respect of the above, how strong is its alumni linkage? (does it, for example, know how many of its alumni are entrepreneurs, how strong is the commitment to communication and engagement with alumni?)

Do you see your institution as an entrepreneurial institution? (pick up points)

- » funding – does it have a clear strategy in this respect?
- » does it have a rewards system that rewards active engagement partnerships with the community, the implementation of research findings, success of staff in getting funding for development as opposed to research?
- » does it have rewards for teaching/pedagogical innovation?
- » does it have high level executive responsibility for enterprise?
- » does it have a commitment to taking entrepreneurship across the institution curriculum?
- » where is entrepreneurship taught – outside of the business school?
- » does it have a clear IP policy?
- » does it have a strong technology transfer office and incubator facility?

26 The Higher Education Funding Council for England (HEFCE) works in partnership to promote and fund high-quality, cost-effective teaching and research, meeting the diverse needs of students, the economy and society.

- » are its staff and students actively engaged with this (often there is little real engagement of staff and students with technology centres and science parks)?
- » does it have a system of professors/fellows of practice – giving status to business and entrepreneur persons?

How strong/active is the stakeholder engagement?

- » is there a strong student entrepreneurship activity (a club, large numbers, lots of activity, finding its own funding etc.)?
- » how active is the careers department in entrepreneurship activity (not just entrepreneur seminars but also links with small local businesses, does it use alumni)?
- » does the institution have a venture fund for investing in new ventures?
- » does it have a loan fund to support student start-ups?
- » does it actively engage alumni in entrepreneurship activity?
- » does it actively engage local entrepreneurs – in what?

How strong is entrepreneurship in the curriculum?

- » is there a programme to develop teachers of entrepreneurship in the institution?
- » is there a programme of staff development to increase use of entrepreneurial pedagogies?
- » how strong is the focus upon experiential learning (secondments, years out) projects, active learning partnerships with business and social enterprise organisations? Are there Entrepreneurial Education Champions in each faculty?

3.4 A TEMPLATE CHECKLIST ON ENGAGEMENT WITH INDUSTRY AND OTHER STAKEHOLDERS

The production of this template was requested following engagement with a group of entrepreneurs currently engaged with HEIs. It provides a suggested framework for assessing the institution’s relations with the broader stakeholder environment.

1. Is there a complete record of the current level of engagement with industry/stakeholders? Is it linked to each department/school/faculty/ academic unit? This record would involve a comprehensive review of:

- » What stakeholders should be engaged locally and regionally?:
 - ~ The number and type of SMEs/PLCs, large multi-nationals, service organisations and other local and regional, community organisations/stakeholders that are appropriate for links with the HEI
 - ~ Does the HEI actively engage alumni in entrepreneurship activity
 - ~ Does the HEI actively engage local entrepreneurs in HEI activity
- » What current links are in place? :
 - ~ The number and type of established links with small and medium local and regional businesses
 - ~ The number and type of established links with large multi-national companies
 - ~ The number and type of established links with Public Limited Companies
 - ~ The number and type of established links with community and public sector organisations.
- » Analysis of links in terms of gaps and future potential links not yet established:
 - ~ Does the institution have a balanced level of engagement or is all of the engagement focused on one sector e.g. large multi-national companies?
 - ~ What potential exists for developing further links and embedding the HEI in local regional stakeholders for mutual benefit?

2. Supports - An analysis of the supports provided at the local academic unit level and institutional level to create links:

- » Is there a strong strategic imperative to create links with external stakeholders and what rewards or recognition exist for teaching and other staff?
- » How active and integrated are the internal HEI services in creating links e.g. careers office; industrial liaison officer; innovation/campus managers, other development officers?
- » Do the internal HEI policies and procedures provide guidance on how to engage with industry, business and other stakeholders? e.g. professional project engagement templates/contracts and other supports which define the roles and responsibilities and timeframe for third party engagements?

3. The 'type' of links refer to the form (informal/formal relationships), structure and content, for example, how formal are the links, what activities are they related to?:

- » student placement
- » joint research projects
- » joint business projects
- » industry/service company mentors on programmes/projects
- » joint supervision of research dissertations
- » industry/business/community tutors/lecturing staff
- » in-company programme delivery or training by HEI
- » corporate sponsorship of prizes/academic scholarships
- » shared high technology equipment arrangements
- » industry/company membership of industrial liaison committee
- » industry/company/community members of governing bodies and other consultation forums e.g. new programme development boards or industry engagement on programmatic reviews
- » Careers mentoring for learners by external stakeholders



SECTION 4

Practical Examples of Embedding Enterprise and Entrepreneurship

The examples of current practice set out in this section are presented as brief summaries of programmes, projects and other activities and represent samples of current practice relating to some, but not all, of the criteria set out in section 2. Further contact details are provided to allow for follow-up by interested parties. The examples do not represent an exhaustive list of current practice. It is hoped that the practical examples in this section will continue to grow as new kinds of successful EE learning environments are developed in and between diverse institutions and enterprises nationally and internationally.

Other recent publications where case studies of further examples of current EEE activities include:

TABLE 1: INDEX OF CURRENT PRACTICE EXAMPLES OF EEE ACTIVITY

CRITERION	EXAMPLES
OUTCOMES	<ul style="list-style-type: none">» CIT Inter-disciplinary New Product Development Module» DKIT Podcasting Entrepreneurship in the Healthcare Sector» IADT Developing Social Entrepreneurship in an Undergraduate Curriculum» IADT Entrepreneurial Project-Based Learning Module» IT Blanchardstown Pilot Final Year Programme in Science, Technology and Engineering to create entrepreneurial graduates» IT Sligo Semester Six Option Humanities» DCU Dice» DCU Entrepreneurship modules for different disciplines» Griffith College Small Business Development» UL Establishing New Ventures» UL Family Business; Generational Challenges and Growth» UL Enterprise formation – integrating entrepreneurship into non- business disciplines» UL Masters in International Entrepreneurship Management» Griffith College Small Business Development» Griffith College Enterprise Development» Griffith College SPA in SME Management
LEADERSHIP	<ul style="list-style-type: none">» IT Tralee International Programme on Female Endeavour and Entrepreneurship» UL New Venture Programme» Griffith College SPA in SME Management



CULTURE	<ul style="list-style-type: none"> » ACE train the Trainers » ACE Irish Case Studies in Entrepreneurship » Developing Entrepreneurship Educators' Capacity: IEEP, Babson, EFER » IT Tralee The Young Entrepreneurs Programme » IT Tralee The Connect Programme » IT Tralee Steps to Success » IT Tralee International Programme on Female Endeavour and Entrepreneurship » CIT Student Enterprise Internship Programme » CIT The Rubicon Summer Intern Programme » CIT Towards Creative Entrepreneurship » CIT Industry Sponsored Innovation Competition » DKIT Student Interns » DKIT Bright Ideas Lab Student Incubator » DKIT Bright Ideas Programme » DKIT Student Innovation Fund » ITS CEIM Enterprise Development Programme » NUI Galway Enterprise Development Programme » NUIG Commercialisation » DCU Invent » Griffith College Small Business Development » Griffith College Enterprise Development » Griffith College SPA in SME Management » University of Ulster Staff Development Activity » Developing Entrepreneurship Educators' Capacity » NICENT » UU Rewarding Engagement with Enterprise Education/ Academic Enterprise » UL Enterprise formation – integrating entrepreneurship into non-business disciplines » UL New Venture Programme
LEARNING	<ul style="list-style-type: none"> » ACE Entrepreneurship in Residence » CIT Prize for Innovation » CIT Towards Creative Entrepreneurship » CIT Inter-disciplinary New Product Development » CIT Industry Sponsored Innovation Competition » IT Tralee The Connect Programme » DKIT Bright Ideas Lab Student Incubator » DKIT Bright Ideas Programme » DKIT Student Mobile Shop Molly Malone » NUIG SEEN Student Enterprise Exchange Network » NUIG Technology Validation Module » DCU Marketing and Business Management Practicum » DCU Entrepreneurship and Ecommerce » DCU Green Business Competition » IADT Creativity and Ideas Generation Workshops » NICENT » Griffith College Small Business Development » DIT Organise a Charity Event » IT Tralee Steps to Success » IT Tralee The Young Entrepreneurs Programme » IT Tralee International Programme on Female Endeavour and Entrepreneurship » CIT Student Enterprise Internship Programme » DKIT Student Interns » University of Wolverhampton SPEED » Turku University Practise Enterprise Project » DCU Next Generation Management » Lahti Business Succession School » DCU Intra Programme » DCU New Product Development and Innovation Studies » DCU Invent » UL Business Consulting » UL Enterprise and Finance Society – promotion, entrepreneurship across disciplines and linking with industry collaboration » UL New Venture Programme » UL Enterprise formation – integrating entrepreneurship into non-business disciplines

ASSESSMENT	<ul style="list-style-type: none"> » IADT The Stalls Project » IADT Developing Social Entrepreneurship in an Undergraduate Curriculum » IADT Entrepreneurial Project-Based Learning Module » IT Blanchardstown Pilot Final Year Programme in Science, Technology and Engineering to create entrepreneurial graduates » IT Sligo Semester Six Option Humanities » DCU Entrepreneurship modules for different disciplines » UL Establishing New Ventures » UL Family Business; Generational Challenges and Growth » Griffith College Small Business Development » Griffith College SPA in SME Management
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ACE

(SIF PROJECT – DUNDALK INSTITUTE OF TECHNOLOGY, IT BLANCHARDSTOWN, IT SLIGO, NUIG, CORK INSTITUTE OF TECHNOLOGY)

TITLE	ACE TRAIN THE TRAINERS PROGRAMME
CRITERION	Culture
AIM	The core objective of the Accelerating Campus Entrepreneurship (ACE) Train the Trainers Programme is to provide the academic and/or research staff with an understanding of the main elements of teaching and facilitating entrepreneurial learning within third level education in Ireland
DURATION	Two-day Summer residential programme and one-day Autumn retreat
LEVEL	Assistant Lecturer, Lecturer and Head of Department/ Functional area management
GROUP SIZE	40 plus
PREPARATION AND RESOURCES	Resources were provided via the ACE consortium (led by DKIT and including input from CIT, ITB, NUIG, ITS) working in collaboration with international experts in the field to devise a customised national programme.
DESCRIPTION OF STEPS	<p>The programme was centred around 4 broad themes:</p> <ul style="list-style-type: none"> » International Trends and Practicalities in Entrepreneurship Education » Creating the Entrepreneurial Graduate » Pedagogies for enterprise education – developing a practical toolkit » Empowering the enterprise educator <p>The objectives of the programme were:</p> <ul style="list-style-type: none"> » To develop awareness and understanding of the status of entrepreneurship education at institutional level » To enhance understanding of the importance of embedding entrepreneurial education » To equip educators with a practical toolkit for delivering entrepreneurship education at institutional level » To expose educators to the possibility of delivering ready-made ACE modules in entrepreneurship » To develop the teaching abilities of staff to enhance student learning » To empower enterprise educators in developing their own unique approach to delivery of entrepreneurship education » To share best practice and develop excellence in enterprise educator networks
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	<p>Feedback and evaluation from participants was sought and positive ratings achieved on the two main modes of delivery; interactive large group seminars and smaller break-out workshop sessions. The larger group seminars concentrated on framing the content of the small group exercises. The large seminars focus on:</p> <ul style="list-style-type: none"> » An overview of enterprise education, its importance, exploring the different meanings (inputs and outcomes) of entrepreneurship education and international research, trends and challenges » Generating an understanding of the entrepreneurial graduate – meaning, practical realities, cultural/ institutional differences » The range of pedagogical tools for delivering entrepreneurship » A new outlook for the educator – developing a personal sense of mission/vision, being innovative and cultivating your own entrepreneurial mindset <p>The smaller group sessions focus on topics such as co-teaching, mentoring, experiential learning, planning creativity and entrepreneurship within the different disciplines e.g. within engineering or within the humanities. Some also gave attention to institutional strategic issues such as getting support for entrepreneurship at your institution and measuring the success of entrepreneurship education. The workshops provided a milieu for personal growth through a combination of participant interaction in action learning sets, tutor-led input and individual coaching.</p>

RISKS AND RECOMMENDATION	Recommendation to sustain programme on regular basis to train new entrants and to refresh practices and linkages between existing educators in the field of entrepreneurship.
SOURCE/KEY CONTACT PERSON	Dr. Cecilia Hegarty cecilia.hegarty@dkit.ie

ACE

(SIF PROJECT – DUNDALK INSTITUTE OF TECHNOLOGY, IT BLANCHARDSTOWN, IT SLIGO, NUIG, CORK INSTITUTE OF TECHNOLOGY)

TITLE	ACE IRISH CASE STUDIES IN ENTREPRENEURSHIP
CRITERION	Culture Learning
AIM	The aim of the publication was to publish a range of entrepreneurship case studies suitable for use in entrepreneurship education and training in Ireland: case studies which can be employed to enhance the student's practical understanding of the theory of the entrepreneurship process and new venture development, as they highlight the dynamic process of entrepreneurship, whether this is in a new start-up, a community venture or a long-established business.
DURATION	12-month period
LEVEL	Undergraduate, postgraduate and trainees in incubator space
GROUP SIZE	Group size recommended for case study work
PREPARATION AND RESOURCES	This initiative was managed by the ACE Consortium which also provided some training in case writing. A member of the Consortium edited the volume and set up a prestigious international editorial board to review the contributions received.
DESCRIPTION OF STEPS	A range of original case material was submitted to the ACE Consortium. The cases ranged from social enterprise, to high technology start-ups. Abstracts were submitted to the editorial board; successful case writers proceeded to full case submission and full cases were further reviewed and edited prior to publication. The case study book was published in March 2011 by Oak Tree Press.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	A number of cases from the publication were utilised in the 2011 Newstalk Student Enterprise Competition. The Consortium has received interest in translating the work into other European languages. The case study teaching notes have often been requested by academic staff from HEIs in Ireland. The book is also on sale directly from Oak Tree Press.
RISKS AND RECOMMENDATION	Access to sensitive company information in some instances can prove problematic. Writing skills for academic staff members who were new to publishing but who had good exposure to working with the case companies.
SOURCE/KEY CONTACT PERSON	The Editor: Dr. Cecilia Hegarty cecilia.hegarty@dkit.ie

ACE

(SIF PROJECT – DUNDALK INSTITUTE OF TECHNOLOGY, IT BLANCHARDSTOWN, IT SLIGO, NUIG, CORK INSTITUTE OF TECHNOLOGY)

TITLE	ACE ENTREPRENEURSHIP IN RESIDENCE
CRITERION	Learning
AIM	To encourage, support and advise students interested in enterprise development. To provide support and resources to academic staff in the delivery of entrepreneurship education. To act as a conduit to transfer learning, skills and resources between academic schools and incubation programmes. To make a real wealth of enterprise experience available, on an in house basis to students and academics alike.
DURATION	15 months, 15 hours per week
LEVEL	Undergraduate and postgraduate

GROUP SIZE	Varies
PREPARATION AND RESOURCES	Sponsored as part of the ACE initiative and running in Cork and Dundalk.
DESCRIPTION OF STEPS	The local institute selects the Entrepreneur in Residence. A programme of activities is developed in collaboration by the institute and the entrepreneur. The activities will be focussed on developing enterprise initiatives pertinent to the student body and will include a series of guest lecturers. On-the-ground implementation will be dictated by the needs of each institution.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Positive for both staff and students
RISKS AND RECOMMENDATION	Selection is important
SOURCE/KEY CONTACT PERSON	www.aceinitiative.ie

INSTITUTE OF TECHNOLOGY BLANCHARDSTOWN

TITLE	PILOT FINAL YEAR PROGRAMME IN SCIENCE, TECHNOLOGY AND ENGINEERING TO CREATE ENTREPRENEURIAL GRADUATES
CRITERION	Culture, Learning
AIM	To develop an alternative final year programme for science, technology and engineering students who wish to consider entrepreneurship as a future career path
DURATION	One academic year
LEVEL	Undergraduate
GROUP SIZE	16
PREPARATION AND RESOURCES	A fully-integrated, cross-disciplinary programme of 60 credits was developed with specific entrepreneurial learning outcomes designed to reflect the background and discipline focus of the students. It involved engineering, science and business staff working with local support agencies.
DESCRIPTION OF STEPS	Programme learning outcomes devised, specific modules developed to reflect the programme learning outcomes. Students were located in the LINC (incubation centre) Students attended numerous LINC events including workshops, guest lecturers and clinics. Specific entrepreneurial learning activities were organised for the students. Mentorship was provided by the local county enterprise board.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Positive feedback from students. Paper delivered to Society for Engineering Education Conference.
RISKS AND RECOMMENDATION	Requires input and good relationships with stakeholders across the campus and external to the campus. Buy in from Heads of Department important.
SOURCE/KEY CONTACT PERSON	Claire MacNamee Claire.macnamee@itb.ie

DUBLIN INSTITUTE OF TECHNOLOGY

TITLE	ORGANISE AN EVENT FOR CHARITY
CRITERION	Learning
AIM	The primary objective of this assignment is to give the students the experience of behaving in an entrepreneurial manner while also contributing to society. The assignment requires the students to generate their own ideas, run the event, and write a paper reflecting their experiences.
DURATION	This exercise is used as a Term Assignment and so usually students have 12 weeks to complete every element of the assignment.
LEVEL	Undergraduate
GROUP SIZE	The events will be organised by teams of no more than 3 students, but the reflection paper must be submitted on an individual basis. There is no limit to the class size that can undertake the exercise.
PREPARATION AND RESOURCES	There is an intense amount of work and resources required for this exercise, all of which needs to be generated by the participants. It is not possible to list the resources required since each event will be significantly different.
DESCRIPTION OF STEPS	<ul style="list-style-type: none"> » The exercise begins with students breaking into self-selecting groups of no more than 3. » The next step is to undertake a brainstorming session in which they must generate ideas for a charity event and then select one through which they believe they can achieve greatest benefit. » Once the charity event has been determined, the students must then select the charity to whom they wish to donate the monies generated and seek the charity's permission to get support for the event. » For the group to get approval to run the event, they must first complete an online DIT Health and Safety module and then complete some forms which require signatures from representatives of the chosen charity and from the venue at which the event is taking place, plus from the students themselves. These forms are first evaluated by the course lecturer and then by the Insurance Company to ensure that the event is viable and that issues surrounding public liability are kept to a minimum. » Once the students receive clearance to go ahead with their proposed event, they then must undertake all of the usual activities associated with organising a charity event, with workshop support provided by the course lecturer. » Once the event has occurred, the students must write an individual reflective paper which also contains a letter of certification from their chosen charity stating that they asked for permission to undertake the event, confirming the date of the event, and confirming the amount of money that the charity received. » Any losses incurred are the sole responsibility of the group. » The written assignment will follow the style and formatting of academic papers required for the student's programme (e.g. declarations, student numbers, etc) with a word count between 3,000 and 4,000 words.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	This exercise has proved enormously popular with students and has been highlighted in an EU Report as an example of best practice (go to http://ec.europa.eu/enterprise/newsroom/cf/itemsshortdetail.cfm?item_id=3366).
RISKS AND RECOMMENDATION	There are many risks to this exercise, most notably the possibility of the event being highly unsuccessful (as has happened on many occasions). However, this is considered part of the learning process. Another concern is that the money collected may not be given in totality to the charity and there is no solution to this other than trust.
SOURCE/KEY CONTACT PERSON	Thomas Cooney thomas.cooney@dit.ie

INSTITUTE OF TECHNOLOGY TRALEE

TITLE	STEPS TO SUCCESS
CRITERION	Culture Learning
AIM	This programme aims to explore the individual's internal and external strengths and weaknesses and to challenge their role as an individual and team player in a future organisation or as a self-employed entity. The participants will be provided with the opportunity to take a pro-active approach to securing employment. They will learn about their personality, how to improve their verbal and non-verbal communication skills along with their written self-representation both offline and online. During the programme, the participants will engage in networking events, pitching to a panel of employers and researching potential job opportunities.
DURATION	One Semester
LEVEL	Undergraduate
GROUP SIZE	16

PREPARATION AND RESOURCES	Careers office working in conjunction with the IT Tralee Management and the School of Business
DESCRIPTION OF STEPS	This is a careers education programme which will assist in the transition from third level to the workplace. It includes the following steps: <ul style="list-style-type: none"> » Getting Motivated » Persona Profiling » Mentoring » Career Profiling » Networking » Self-Employment » Panel Pitching
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Submitting a curriculum vitae for a pre-assigned position Presenting and pitching to a panel of experts Evaluation of the key learnings from the experience. Graduates of this programme have secured employment through the mentoring and networking events.
RISKS AND RECOMMENDATION	Lack of mentoring and/or business employment opportunities.
SOURCE/KEY CONTACT PERSON	Breda O'Dwyer breda.odwyer@staff.ittralee.ie Mary Lucey mary.lucey@staff.ittralee.ie Louise Nagle louise.nagle@staff.ittralee.ie

INSTITUTE OF TECHNOLOGY TRALEE

TITLE	THE YOUNG ENTREPRENEUR PROGRAMME
CRITERION	Culture Learning
AIM	The programme aims to increase awareness of entrepreneurship as a valid career choice and build basic skills in enterprise development. The Young Entrepreneur Programme is a unique opportunity to explore and develop the talents of all participants.
DURATION	Each year from September to April
LEVEL	2 nd and 3 rd level
GROUP SIZE	Class sizes vary. Business plans may be submitted by an individual and/or a group.
PREPARATION AND RESOURCES	This is a collaborative effort involving a number of key stakeholders. It complements traditional learning by layering workshops, case studies, mentoring and interaction with key business leaders on top of participants' own ideas at BlueSky Day and Business BootCamp. A fully-resourced website and templates are made available to all participants. Those taking part will become members of the growing and resourced YEP alumni.
DESCRIPTION OF STEPS	From the period from September to March of each year, the following is provided: <ul style="list-style-type: none"> » Fully-resourced Website and Templates » Teacher Training at the beginning of each year » Mentor Training at the beginning of each year » Academic based programme » 3 collaborative event days – Bluesky Day – setting it all in motion, Business Plan Workshop – more intensive review of the financial viability of the proposed business ideas; Business Bootcamp – pitching and applied support for certain aspects of the business plan proposal » Business Stress Test short-listing panels It concludes with an Awards Evening and Showcase. Each participant receives a Certificate of Participation.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	The metrics below indicate the success of the programme 2007 - 2011 <ul style="list-style-type: none"> » 3,000 students » 40 local entrepreneur mentors » 20 national global entrepreneurs » 35 educators » 2,500 business ideas
RISKS AND RECOMMENDATION	Requires a significant degree of investment and collaboration to get up and running. Ongoing commitment of all stakeholders to sustain the initiative.
SOURCE/KEY CONTACT PERSON	Breda O'Dwyer breda.odwyer@staff.ittralee.ie



INSTITUTE OF TECHNOLOGY TRALEE

TITLE	THE CONNECT PROGRAMME
CRITERION	Culture Learning
AIM	To facilitate student interaction with companies located in the Tom Crean Business Centre and Kerry Technology Park.
DURATION	One Semester
LEVEL	Level 8
GROUP SIZE	Maximum 10
PREPARATION AND RESOURCES	This is a work placement initiative where students of the Creative Media and Arts Programmes set up a consultancy business for the duration of twelve weeks. During this time, they work with the local and global companies located in the Shannon Development's Kerry Technology Park and Tom Crean Business Centre providing a suite of multimedia-related services, including web site development, logo design, graphics, interactive video and sound engineering.
DESCRIPTION OF STEPS	From the period of January to May, students will have: <ul style="list-style-type: none"> » Completed a selection process » Set up the office » Promote the service to companies located in the Park » Meet with the client to design the brief » Design and Implement the brief » Evaluate outcomes with the client.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Graduates of this programme have experienced working with clients at the coal face and have learned to deliver successful outcomes. Some of the graduates have been head-hunted by the companies for subsequent work.
RISKS AND RECOMMENDATION	Students' clarification of the client's requirements, deliverables and milestones. Important that students are equipped with the state-of-the-art technologies prior to the work placement opportunity. Management of the clients' expectations.
SOURCE/KEY CONTACT PERSON	Philip Doyle philip.doyle@staff.ittralee.ie

INSTITUTE OF TECHNOLOGY TRALEE

TITLE	AN INTENSIVE RESIDENTIAL 2-WEEK COLLABORATIVE INTERNATIONAL PROGRAMME ON FEMALE ENDEAVOUR AND ENTREPRENEURSHIP (FEE).
CRITERION	Learning Culture Leadership
AIM	This Programme is jointly delivered by five HEIs, namely Hochschule Heilbronn (Germany), Hogeschool Windesheim (Netherlands), Vilnius Gedeminas Technical University (Lithuania), Institute of Technology Tralee (Ireland) and Dokuz Eylül University, Izmir (Turkey). The IP subject area is that of a female entrepreneurship, an area which has long been academically marginalised. The cognitive programme contents rely on two pillars: the country-specific facts and figures relevant to female entrepreneurship (e.g. the different types of female entrepreneurs as well as their motivation and business cultures) and the project-related research findings available in this field. The materials produced for and during the seminars will explore innovative female business ventures and their economic impact, identify the qualities of women business leaders and sum up successful corporate equality programmes. Successful organisations led by women (and female student entrepreneurs) of the participating countries will be directly involved in the development work. The lectures will be accompanied and supplemented by cross-cultural team development and communication exercises. Moreover, there will be a focus on decision-taking (i.e. problem-solving) and planning routines, idea generation, creativity pitching (constructing the story) and feedback development.
DURATION	Fourteen Days inclusive.
LEVEL	Level 9
GROUP SIZE	Maximum 7 from each institute, 35 in total. The teams are integrated and work virtually prior to meeting on site.

PREPARATION AND RESOURCES	FEE has been conceived as an initiative that explores an exciting and innovative angle on entrepreneurial studies which is gaining more and more momentum, given the fact that an increasing number of business students are young women with different ethnic and economic backgrounds. This programme provides a learning experience for students who are interested in self-development and entrepreneurship. On completing this intensive seminar, students will have gained a deeper insight into the areas specified in the lecture plan. Moreover, they will understand the various forms of female entrepreneurship and the contribution this sector can make to national economies at different stages of development. They will have encountered successful businesswomen, know the areas in which they operate and understand the skills and competencies required to do so.
DESCRIPTION OF STEPS	The national student groups prepare country presentations which highlight the characteristic features in their native language. These findings are compared to OECD and European statistics. The weeks involve intensive cross-cultural workshops and learning.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	The project will develop meaningful teaching materials that reflect current demographic developments and also take into account the increasing demand for gender-specific approaches to teaching and learning, producing project reports for each IP stage. The research findings and the learning materials (such as the case studies developed) will be jointly published and disseminated.
RISKS AND RECOMMENDATION	European Funding.
SOURCE/KEY CONTACT PERSON	Breda O'Dwyer breda.odwyer@staff.ittralee.ie Clare Rigg clare.rigg@staff.ittralee.ie

CORK INSTITUTE OF TECHNOLOGY

TITLE	STUDENT ENTERPRISE INTERNSHIP PROGRAMME
CRITERION	Learning Culture
AIM	The programme aims to re-define enterprise to the student body and to encourage peer-to-peer learning.
DURATION	Academic year
LEVEL	Undergraduate and postgraduate
GROUP SIZE	Activities are organised by Student Interns and are open to entire student body as extra-curricular activities.
PREPARATION AND RESOURCES	The programme is organised by the Industrial Liaison Office. Resources to fund the programme come from local Enterprise Boards and Cork Institute of Technology.
DESCRIPTION OF STEPS	Student Interns are recruited in time to commence activities at the start of the academic year (September) and hold the post for two years. Their brief is as follows: <ul style="list-style-type: none"> » First point of contact for students with business ideas » Building links between on-campus business incubator and student population » Organising competitions that will challenge students in different ways – selling skills, planning a project, leadership skills, etc. » Holding seminars and business master classes for the students, using successful business people and celebrities from industry e.g. “Warts and All” stories. » Recruiting students for the institute’s enterprise society e.g. idea hub, where students can network with like-minded individuals, form collaborations or discuss their business ideas. » Create links with second level students e.g. ‘Bright Ideas’ competition » Maintain online presence e.g. Facebook
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	A number of different metrics will be used to determine the success of the programme, which include: <ul style="list-style-type: none"> » Tracking the participation levels in competitions, master classes and seminars » Tracking the numbers of students joining the ‘Idea Hub’ Society » Numbers of enquiries being made and referrals to the Rubicon Centre/Enterprise Boards » PR stories » Number of business start-ups from CIT’s Student population
RISKS AND RECOMMENDATION	Low risk
SOURCE/KEY CONTACT PERSON	Carole O Leary ilo@cit.ie

CORK INSTITUTE OF TECHNOLOGY

TITLE	THE RUBICON SUMMER INTERN PROGRAMME
CRITERION	Culture
AIM	To provide a range of supports over the summer period to take an idea from concept to product launch. The range of supports includes access to space, training, mentoring, a project manager and €5,000 seed funding.
DURATION	12 weeks
LEVEL	Undergraduate
GROUP SIZE	Individuals or teams of 2-3 with a target of 4-5 projects, subject to funding.
PREPARATION AND RESOURCES	Rubicon Management (incubation centre) and School Management evaluation of applications and screening, interviewing and selecting of candidates. Provision of formal training, space, seed funding, mentoring and time with Entrepreneur in Residence.
DESCRIPTION OF STEPS	The programme is advertised to the entire student body. Students submitted application with micro-business plans. A number of projects were shortlisted and interviewed. Projects were selected and students attended 2 half-day formal training sessions on a weekly basis. Mentors were assigned to projects. Entrepreneur in Residence works with the projects. Investment ready business plans are developed by each project.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Significant development of two out of three projects to date. One project entrepreneur returned to college to complete studies and is now skilled to further pursue entrepreneurial ventures. Level of interest at application stage was high and representative of a wide range of disciplines.
RISKS AND RECOMMENDATION	Low risk, as it runs in parallel to existing provision.
SOURCE/KEY CONTACT PERSON	Carole O'Leary ilo@cit.ie

CORK INSTITUTE OF TECHNOLOGY

TITLE	INTER-DISCIPLINARY NEW PRODUCT DEVELOPMENT MODULE
CRITERION	Outcomes Learning
AIM	The aim is to formally bring together engineering, business, accounting and marketing students through an action-learning project in which teams made up of engineering and business students collaborate in developing an innovative product, estimate its commercial potential and plan for its exploitation.
DURATION	An academic Year – two semesters
LEVEL	Undergraduate module – Level 8 /Advanced
GROUP SIZE	Typical class size: 20 business students and 50 engineers.
PREPARATION AND RESOURCES	The new module Inter-disciplinary New Product Development was developed in CIT in association with the ACE Initiative. ACE (Accelerating Campus Entrepreneurship) is a collaborative project funded by SIF to foster the development of enterprise teaching and approaches in HEIs. Full details of MGMT8026 and MGMT8028 Inter-disciplinary New Product Development 1 & 2 modules can be found at http://courses.cit.ie Both modules are credit bearing and involve collaborative teaching between Engineering, Finance and Marketing. The module is linked to the CIT Prize for Innovation and includes a multimedia presentation.
DESCRIPTION OF STEPS	The students from the different disciplines share workshops on idea generation, teamworking and project management. The engineers, liaising on a continual basis with the business students, take responsibility for design and manufacturing issues. Business and accounting students investigate market potential, sources of finance and prepare a business plan in conjunction with their engineering team members. Classes for all students involved are timetabled together including project group meeting time.

FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	The capacity to enter multi-disciplinary team projects into a variety of local and national enterprise competitions. Student take-up of module where it is an elective option. Academic standard attained in module.
RISKS AND RECOMMENDATION	Low risk once resources and teaching support in place. Need to consider module level, positioning as a mandatory or elective and appropriateness for group and students stage i.e. final year versus non-final year students.
SOURCE/KEY CONTACT PERSON	Brian McGrath brian.mcgrath@cit.ie

CORK INSTITUTE OF TECHNOLOGY

TITLE	CIT PRIZE FOR INNOVATION
CRITERION	Culture Learning
AIM	The aim is to reward students whose inventions and business ideas are innovative and have the potential to succeed in the marketplace.
DURATION	Annual event
LEVEL	Undergraduate and Postgraduate
GROUP SIZE	Individual or teams – open to all registered students
PREPARATION AND RESOURCES	Collaboration with Cork County and City Enterprise Boards who put up a prize fund of €10,000. Entrepreneur in Residence delivers a series of workshops covering four key topics on developing a business plan. 230 students attended for the 2011/2012 academic year. The event requires dedicated staff resources, a venue, keynote speakers, external adjudication panel and an open-to-the-public exhibition day.
DESCRIPTION OF STEPS	The competition is advertised on campus annually. The competition is open to all students from across the Institute. Students can use a project that forms part of their coursework as their entry to the competition. Entry is a business plan and shortlisted candidates are interviewed by an adjudication panel. Entrants also erect a business stand on Innovation Day.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	It has run for 9 years 2012 has 24 project entries with over 100 students approximately. Established link to 'Think Outside the Box' National Enterprise Competition crowning student entrepreneur of the year. Ongoing support from Enterprise Boards Consistent and growing support from the student body Expansion of disciplines becoming involved in the competition.
RISKS AND RECOMMENDATION	Low risk with appropriate resources in place
SOURCE/KEY CONTACT PERSON	Glynis Dennehy glynis.dennehy@cit.ie

CORK INSTITUTE OF TECHNOLOGY

TITLE	INDUSTRY SPONSORED INNOVATION COMPETITION
CRITERION	Culture Learning
AIM	The aim is to have an industry partner sponsor a business plan competition within a module on Entrepreneurship that results in the development of a business plan of interest to that industry partner and receives academic credit.
DURATION	One semester

LEVEL	Undergraduate
GROUP SIZE	Teams of 3 – 4 students with interdisciplinary membership if possible. Max number of entrants in final phase of competition is five. No limit to number of initial team entries.
PREPARATION AND RESOURCES	This project required liaison between two educational institutions and an industry partner to develop an appropriate piece of coursework linked. Industry partner allocates prize money, Institutes absorb the administrative costs and manages the operation of the competition.
DESCRIPTION OF STEPS	The module is taught over 13 weeks in a semester. Mode of delivery is a combination of lecture, idea generation workshops, group discussion, industry visits and Q&A opportunities with industry partner for business idea discussion. Mode of assessment is 100% CA, including presentation and business plan submission which is vetted by industry partner at feasibility and final stage.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Evaluation of students to the experience was positive Review of academic standard attained and industry feedback was very positive.
RISKS AND RECOMMENDATION	Must be credit bearing to get student engagement at final year. Industry partners focus on one sector was limiting for some students. Managing expectations for involvement of industry partner is important. Balancing the issues of academic quality assurance and industry needs and matching timelines can be challenging
SOURCE/KEY CONTACT PERSON	Caroline O'Reilly, caroline.oreilly@cit.ie

CORK INSTITUTE OF TECHNOLOGY

TITLE	TOWARDS CREATIVE ENTREPRENEURSHIP PROGRAMME
CRITERION	Culture Learning
AIM	The aim is to promote business acumen and entrepreneurial know-how among students intending to pursue careers in the creative industries. During the twelve days, 40 students from various countries and backgrounds e.g. music, fine art, design, multimedia, public relations and business come together and learn about creative entrepreneurship. Website: www.tce.ie
DURATION	Annual Event – 12 days Erasmus IP (Intensive Programme)
LEVEL	Undergraduate and Postgraduate
GROUP SIZE	Teams of 6-8 students from different countries work in multi-disciplinary teams for the duration. 40 students and 10 staff/mentors participate.
PREPARATION AND RESOURCES	The programme requires liaison between five educational partners in the EU with a lead partner hosting and managing the programme each year. Resources to fund the programme come from Erasmus with some costs covered by each partner.
DESCRIPTION OF STEPS	The programme is taught over 12 days but is also assessed as a module and students are awarded ECTS credits. Students connect to each other through social media prior to commencement and come to the programme with ideas. Students learn by doing, through a series of interactive lectures, group discussions and workshops. The students have access to mentors who comprise the programme's lecturing team and creative entrepreneurs to offer advice, suggestions and general guidance. At the end of the programme, the students take their commercial idea to market and sell to paying customers. Mode of assessment is 100% CA including participation/ contribution to the programme, peer review, case study analysis, presentation and reflective journal.

FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	<ul style="list-style-type: none"> » Programme running successfully for 3 years. » Independent evaluation of students yearly is very positive. » Each educational partner would like to include more students and continue the programme in the future. » Some groups have continued their collaboration and commercial idea after the programme.
RISKS AND RECOMMENDATION	<ul style="list-style-type: none"> » Low risk, once funding resources are in place from EU. » Exploring the possibility of specific themes which students could focus on in generating ideas.
SOURCE/KEY CONTACT PERSON	Gerard O'Donovan gerard.odonovan@cit.ie

DUNDALK INSTITUTE OF TECHNOLOGY

TITLE	PODCASTING: ENTREPRENEURSHIPS IN THE HEALTHCARE SECTOR
CRITERION	Outcomes
AIM	The programme, developed as part of the ACE initiative, seeks to expose students in non -business disciplines to the opportunity of studying entrepreneurship
DURATION	One Semester
LEVEL	Undergraduate
GROUP SIZE	14
PREPARATION AND RESOURCES	<p>Subject experts worked to develop 5 podcasts contextualised to the discipline of the students who were targeted. These were designed to be flexible. Five themes were identified:</p> <ul style="list-style-type: none"> » Entrepreneurial mindsets and characteristics » The entrepreneurial team » Role modules and supports (for relevant sector) » Resourcing and managing a new venture project » Round-table discussion <p>Two staff members involved, moderator and assessor</p>
DESCRIPTION OF STEPS	The programme is divided into 5 podcasts of 45 mins approx. Upon finishing listening, the student completes and submits a worksheet via email which is checked by the relevant academic. Each student then receives feedback on the completed worksheet. A certificate of completion from DKIT is then issued to the student.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Two cohorts, 14 in total, 8 receiving completion certification.
RISKS AND RECOMMENDATION	<p>Levels of familiarity with technology can vary.</p> <p>Project was a pilot outside of normal duties of those involved.</p> <p>Some costs incurred by the participants in relation to completion certification.</p>
SOURCE/KEY CONTACT PERSON	Dr. Cecilia Hegarty cecilia.hegarty@dkit.ie

DUNDALK INSTITUTE OF TECHNOLOGY

TITLE	STUDENT ENTERPRISE INTERN
CRITERION	Learning Culture
AIM	The programme aims to re-define enterprise to the student body. It allows students discover and practise their enterprising skills in a safe, low-risk environment and in a social setting.
DURATION	Academic year
LEVEL	Undergraduate and postgraduate
GROUP SIZE	4

PREPARATION AND RESOURCES	Budget of about €6k per student enterprise intern and marketing investment of about €4k
DESCRIPTION OF STEPS	<p>Student enterprise interns are recruited from the student body. An intern is also awarded a scholarship to study for a relevant master's over a 2-year period. Interns devote 18 hours per week to developing and promoting enterprise to the student body on campus. Examples of initiatives lead by the student interns include:</p> <ul style="list-style-type: none"> » Master classes and seminars » Organising guest speakers » Running business ideas, 'Dragon's Den' type and business plan competitions » Developing PR stories and referrals for Regional Development Centre » Promotion of Student Innovation Fund » Promotion of Bright Ideas Lab and Programme » Developing enterprise support website for interns
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	<p>Run over 4 years, engagement by student population in enterprise activities run by the interns is in the region of 30.</p> <p>10 ideas have been explored and written up.</p> <p>In region of 10 -20 start-ups have been generated.</p>
RISKS AND RECOMMENDATION	<p>Successful execution requires good organisation and total commitment by all stakeholders.</p> <p>Funding needs to be provided.</p> <p>Recruitment of right intern is important.</p>
SOURCE/KEY CONTACT PERSON	<p>Sean Mac Entee sean.macentee@dkit.ie</p>

DUNDALK INSTITUTE OF TECHNOLOGY

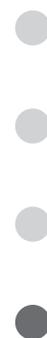
TITLE	BRIGHT IDEAS LAB STUDENT INCUBATOR
CRITERION	Learning Culture
AIM	The aim of the Bright Ideas Student Incubator is to provide dedicated space to students where they can work on their business idea while receiving mentoring from experienced entrepreneurs
DURATION	15 weeks
LEVEL	Undergraduate and postgraduate
GROUP SIZE	15
PREPARATION AND RESOURCES	<p>Good interview and selection of serious candidates is very important</p> <p>Budget of about €10k required</p>
DESCRIPTION OF STEPS	<p>There are a number of steps in the process:</p> <ul style="list-style-type: none"> » Advertise the opportunity » Screen and interview the candidates » Establish the successful candidates' needs » Provide regular mentoring and feedback to candidates » Review final ideas
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	<p>15-20 ideas researched and explored</p> <p>6 start-ups generated out of this process</p>
RISKS AND RECOMMENDATION	Low risk of space abuse
SOURCE/KEY CONTACT PERSON	<p>Sean MacEntee sean.macentee@dkit.ie</p>

DUNDALK INSTITUTE OF TECHNOLOGY

TITLE	THE BRIGHT IDEAS PROGRAMME
CRITERION	Learning Culture
AIM	This programme aims to provide a structured programme to assist student and graduate entrepreneurs to evaluate their business concept with a view to developing it into a business.
DURATION	4 week period - summer
LEVEL	Undergraduate and graduate
GROUP SIZE	18
PREPARATION AND RESOURCES	The programme is devised by the Regional Development Centre, in conjunction with the Dundalk Credit Union.
DESCRIPTION OF STEPS	There are a number of stages involved in the process: <ul style="list-style-type: none"> » Advertise the opportunity » Screen and interview the candidates » Establish the successful candidates' needs » Provide structured programme 2 days per week – workshops, guest speakers and industry experts » Provide regular mentoring and feedback to candidates » Post-programme evaluation
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Success rate and satisfaction rates high. 25 plus ideas have been explored and written up. 6/8 start-ups emerged from the programme.
RISKS AND RECOMMENDATION	Getting initial student engagement can be challenging.
SOURCE/KEY CONTACT PERSON	Sean MacEntee sean.macentee@dkit.ie

DUNDALK INSTITUTE OF TECHNOLOGY

TITLE	STUDENT MOBILE SHOP MOLLY MALONE
CRITERION	Learning
AIM	To provide a forum through which students can sell their products and services on campus.
DURATION:	Ongoing
LEVEL:	Undergraduate
GROUP SIZE	N/A
PREPARATION AND RESOURCES	The concept of the mobile shop emerged from a Masters in Entrepreneurship project. A specially-designed, all-wooden wheelbarrow is now available to students as a vehicle to sell their products and services.
DESCRIPTION OF STEPS	The Student Interns run the scheme. Interested students apply to rent the mobile shop which they can locate around the campus in high footfall, high visibility areas. They are responsible for selling their own goods and services, and any profit from the venture remains with the sellers.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	30 students involved so far Satisfaction rating of the "hirers" has been ????????
RISKS AND RECOMMENDATION	Cost is low... set-up cost approx. €300.
SOURCE/KEY CONTACT PERSON	Sean MacEntee sean.macentee@dkit.ie

**DUNDALK INSTITUTE OF TECHNOLOGY**

TITLE	STUDENT INNOVATION FUND
CRITERION	Culture
AIM	The aim is to provide a source of seed capital to 3 rd Level Students with business ideas
DURATION	On-going
LEVEL	Undergraduate and postgraduate
GROUP SIZE	N/A
PREPARATION AND RESOURCES	The scheme is administered by DKIT Regional Development Centre in conjunction with Dundalk Credit Union. A maximum of €1,000 allocated per project for marketing, feasibility and /or prototyping.
DESCRIPTION OF STEPS	The steps are as follows: <ul style="list-style-type: none"> » Opportunity advertised » Written application received » Interview conducted » Funding granted » Mentoring provided
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Running for 3 years. 20 students engaged in this to date. More than 20 ideas explored and written up. 8 start-ups emerged.
RISKS AND RECOMMENDATION	Money may not be well spent. However, this can be circumvented by paying on receipt of expenses
SOURCE/KEY CONTACT PERSON	Sean MacEntee sean.macentee@dkit.ie

INSTITUTE OF ART, DESIGN AND TECHNOLOGY, DUN LAOGHAIRE

TITLE	THE STALLS PROJECT
CRITERION	Outcomes Assessment
AIM	The aim is to give students “a real-world” experience and to meet two of their programme entrepreneurial learning outcomes <ul style="list-style-type: none"> » “to plan and run a small enterprise” » “to contribute constructively to a structured team in a non-structured entrepreneurial environment”
DURATION	One academic year to include idea generation, planning, execution and post-event evaluation
LEVEL	Undergraduate
GROUP SIZE	50 per class, 2 class groups participate, 100 students in total
PREPARATION AND RESOURCES	This is an integral part of their assessment strategy. It involves class preparation by the lecturer, with input from the Market Co-ordinator at Dun Laoghaire Co Co Markets. Support is provided by two other lecturers.
DESCRIPTION OF STEPS	Students are briefed on the project early on: <ul style="list-style-type: none"> » Ideas are generated and screened in conjunction with the lecturer and the Market Co-ordinator » Trading dates are set » Students form teams, meet and plan for their enterprise » The project is executed in Jan/ Feb over a number of weeks » Students are assessed in a number of their modules, (management, accounting, learning etc) on the activities undertaken » Feedback is provided by lecturers from the perspective of their module
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Has run for 5 years. 300+ students have had the experience.

RISKS AND RECOMMENDATION	Important to work closely with stakeholders, in this case, the county council. Programme and institutional risk to reputation as this project is performed in a public setting.
SOURCE/KEY CONTACT PERSON	Conor Heagney conor.heagney@iadt.ie

INSTITUTE OF ART, DESIGN AND TECHNOLOGY, DUN LAOGHAIRE

TITLE	DEVELOPING SOCIAL ENTREPRENEURSHIP IN AN UNDERGRADUATE CURRICULUM
CRITERION	Outcomes Assessment
AIM	The aim is to create experiential learning opportunities for students and to allow them to develop their entrepreneurial skillsets in the context of social, rather than private enterprise.
DURATION	One academic year
LEVEL	Undergraduate
GROUP SIZE	30-40 students
PREPARATION AND RESOURCES	This project is an integral part of the module assessment strategy
DESCRIPTION OF STEPS	<p>The process is as follows: the underlying principle is that the projects that are selected must add value and/or enhance the lives of others in some way:</p> <ul style="list-style-type: none"> » Students explore the concept of social entrepreneurship » They develop social enterprise ideas that they can realise and execute in a timeframe of 4/5 months » They self-select into teams which develop project plans and are facilitated through the process by the lecturer » Each team takes their idea from conception through planning, implementation and post-project evaluation <p>Examples of projects undertaken in the past include More Cents – a free-sheet finance magazine for young people, Recession recipes – a cookbook for students, Enterprise trip to Shanghai World Expo for budding entrepreneurs.</p>
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Students enjoy the practical nature of the module.
RISKS AND RECOMMENDATION	A key issue is the management of the teams. It is also critical that the lecturer shifts into a facilitative mode of operation. It works best when integrated with other modules and more than one lecturer is involved in the implementation.
SOURCE/KEY CONTACT PERSON	Therese Moylan therese.moylan@iadt.ie

INSTITUTE OF ART, DESIGN AND TECHNOLOGY, DUN LAOGHAIRE

TITLE	ENTREPRENEURIAL PROJECT-BASED LEARNING MODULE
CRITERION	Outcomes Assessment
AIM	To present opportunities to students in their final year that allows them to research and develop an enterprise idea/problem in-depth.
DURATION	One academic year
LEVEL	Undergraduate
GROUP SIZE	12

PREPARATION AND RESOURCES	This project is an integral part of the programme of study and has a fully-developed module assessment strategy. 30 credits out of 60 are assigned to this module.
DESCRIPTION OF STEPS	Students identify the enterprise problem/idea/innovation that they wish to work on. They self-select into small groups of 2/3 but each individual is assessed separately. They are facilitated through the modules with inputs from lecturers, industry speakers and support agencies. Reflection and feedback are key components of the module.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	12 students participated. One business start-up emerged from the module. Currently being rolled out as part of the Springboard Initiative in conjunction with the County Enterprise Board.
RISKS AND RECOMMENDATION	Is resource intensive and requires the input of a number of different staff. Students indicate the levels of support that they need in order to complete the work they have undertaken. Requires a high level of self-direction from students, underpinned by high levels of support from staff.
SOURCE/KEY CONTACT PERSON	Therese Moylan therese.moylan@iadt.ie

INSTITUTE OF ART, DESIGN AND TECHNOLOGY, DUN LAOGHAIRE

TITLE	CREATIVITY AND IDEA GENERATION WORKSHOPS
CRITERION	Learning
AIM	To enable students to work in multi-disciplinary teams to generate new ideas in a creative and fun environment.
DURATION	One month
LEVEL	Level 8
GROUP SIZE	30 approx.
PREPARATION AND RESOURCES	Collaboration across three different schools. This project involved students from business, psychology and visual arts. External Facilitator
DESCRIPTION OF STEPS	This project involved students from business, psychology and visual arts. In one instance, the project was run as a Continuous Assessment for two groups of students, and in one instance, it was run as an extra-curricular activity to which students volunteered. There are advantages and disadvantages to both modus operandi which are highlighted below in the risk section. The steps involved were as follows: <ul style="list-style-type: none"> » Initial scoping by lecturing staff to agree and arrange the details of the project. » Briefing of the external facilitator. » The facilitator runs a series of creativity workshops – multidisciplinary teams are formed. » Groups meet and work on refining ideas between workshops. » A pitch for each idea is developed by each team and presented to an external panel comprising business people, academics and agency staff
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Students experience what it is like to work in a multi-disciplinary context.
RISKS AND RECOMMENDATION	If not graded and run as extra-curricular activity, it can be difficult to recruit. However, if run in this way, those who attend tend to be highly motivated. When incorporated into continuous assessment work, there is an immediate payback visible to the students. Serious management and logistical issues in getting timetables to synchronise in a way that lends itself to running such a programme.
SOURCE/KEY CONTACT PERSON	Therese Moylan therese.moylan@iadt.ie Orla Byrne orla.byrne@iadt.ie

**GENERAL: DEVELOPING CAPACITY**

TITLE	DEVELOPING ENTREPRENEURSHIP EDUCATORS' CAPACITY
CRITERION	Culture
AIM	To develop the capacity of staff to engage in entrepreneurial education
DURATION	Varies – one week to one Academic year
LEVEL	Assistant Lecturers, Lecturers
GROUP SIZE	20
PREPARATION AND RESOURCES	There are a number of options available to staff to upskill in this area – nationally and internationally.
DESCRIPTION OF STEPS	International Entrepreneurship Educators Programme IEEP is an 18-month programme specifically aimed at enterprise educators who work in higher or further education. This is run by the NCEE. Babson Symposium for Entrepreneurship Educators – annual week-long symposium on entrepreneurship education. EFER – European Entrepreneurship Colloquium – annual week long residential programme on entrepreneurship education. ACE – Train the Trainers – Irish-based.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Over the past 5 years, a significant number of lecturers have undertaken these programmes. 10 staff from Irish HEIs have completed the IEEP. An estimated 60 others have been involved in other programmes. An increased number of EE activities across campuses in Ireland.
RISKS AND RECOMMENDATION	Costs and time can be a barrier to participation.
SOURCE/KEY CONTACT PERSON	www.ncce.org.uk ; www.babson.edu www.efer.eu ; www.aceinitiative.ie

INSTITUTE OF TECHNOLOGY, SLIGO

TITLE	SEMESTER SIX OPTION – HUMANITIES
CRITERION	Outcomes Assessment
AIM	To equip Humanities students with skills and knowledge required to start an enterprise, with a particular emphasis on social entrepreneurship.
DURATION	One semester as an alternative to third year placement.
LEVEL	Undergraduate, open to all Humanities students.
GROUP SIZE	Maximum intake 50 , optimum project group 5/6
PREPARATION AND RESOURCES	Semester 6 Co-ordinator, staff mentors. Specialist guest entrepreneur lecturers, materials/publications/ prototypes.
DESCRIPTION OF STEPS:	Module designed with cross disciplinary team. Specific entrepreneurial learning outcomes developed relevant to the discipline of the students. Module assessment strategy developed. Module piloted.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Positive feedback from students. 4 ideas explored and written up. 1 start-up identified, with one further potential in the pipeline.
RISKS AND RECOMMENDATION	Resistance from students to the business modules of financial planning, earlier allocation of groups and agreement on project or product and a more structured timetable with mandatory participation in Enterprise and Innovation Week.
SOURCE/KEY CONTACT PERSON	Roisin McGlone mcglone.roisin@itsligo.ie



INSTITUTE OF TECHNOLOGY, SLIGO

TITLE	CÉIM (COMMERCIALISING ENTREPRENEURSHIP IDEAS AND MANAGEMENT) ENTERPRISE DEVELOPMENT PROGRAMME
CRITERION	Culture
AIM	To bring relevant, tangible support to people with innovative ideas that have high commercial and export potential.
DURATION	12 months.
LEVEL	Graduate.
GROUP SIZE	10 /12
PREPARATION AND RESOURCES:	This is a collaboration between IT Sligo and Letterkenny Institute of Technology.
DESCRIPTION OF STEPS	<p>A full-time, innovative business start-up programme delivered over twelve months in collaboration between the two partners. It assists entrepreneurs to establish and manage their own business. It draws on links between the third level institutions, the business community and enterprise support agencies. The programme provides:</p> <ul style="list-style-type: none"> » Training in all areas of business » Access to Institute Facilities and Personnel » Mentoring from experienced business advisors and practitioners relevant to participant's projects » Office and other business incubation facilities » Networking with other entrepreneurs and business development agencies » Introduction to seed and early stage capital investment organisations
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	<p>It is in operation since 2004 and is now in its eight programme</p> <p>71 participants</p> <ul style="list-style-type: none"> » 56 businesses » Employing 200 people » Turnover in excess of €12m + » 25 companies exporting
RISKS AND RECOMMENDATION	<p>Labour force changes including an increase in the older age category, more female participation in the labour force.</p> <p>Rising operation costs.</p> <p>Access to future funding for the programme.</p>
SOURCE/KEY CONTACT PERSON	Janette Gillen gillen.janette@itsligo.ie

NUI GALWAY

TITLE	ENTERPRISE DEVELOPMENT PROGRAMME
CRITERION	Culture
AIM	To provide emerging potential HPSU companies with the skills to take the first step
DURATION	12 month
LEVEL	Graduate
GROUP SIZE	26
PREPARATION AND RESOURCES	This is a collaborative programme and includes Enterprise Ireland, FAS, the Lionra network, working with Athlone IT, Galway Mayo IT, NUIG, IT Sligo and Letterkenny IT.
DESCRIPTION OF STEPS	<p>This is a tailored programme designed to support new entrepreneurs to bring their novel innovative technology business ideas to reality.</p> <p>Entrepreneurs were selected from three geographical centres in the Midlands, North-West and West.</p> <p>The entrepreneurs are assisted in: exploring the market opportunity, developing strategic intent, managing the operational issues, planning for hiring of staff and managing teams, examining growth, developing action plans.</p>

FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	
RISKS AND RECOMMENDATION	Subject to new and un-secure funding. Leadership is needed to embed this type of activity centrally and strategically. On-the-ground practical support very important.
SOURCE/KEY CONTACT PERSON	Clodagh Barry clodagh.barry@nuigalway.ie

NUI GALWAY

TITLE	TECHNOLOGY VALIDATION MODULE
CRITERION	Learning
AIM	To equip participants with the skill-set to validate their technology ideas in the marketplace.
DURATION	3 months, 8 days attendance on campus.
LEVEL	Graduate
GROUP SIZE	15 per instance of delivery.
PREPARATION AND RESOURCES	Developed in-house with appropriate staff from business and technology..
DESCRIPTION OF STEPS	<ul style="list-style-type: none"> » Participants commit to 8 full days over a 3-month period. The schedule can be organised to suit those working part-time. » The module focuses on the commercial viability of a concept. It is a practical, interactive module whereby the participants are required to commit to their concept by demonstrating progress on a weekly basis. » The participants are encouraged to network with their group peers. » Participants develop and submit a secondary market research report, present an oral presentation and submit a progress paper at the end.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Since 2007 – currently about 10 live businesses. 79% of participants have kept in touch with fellow programme participants. 94% would recommend the programme to someone else.
RISKS AND RECOMMENDATION	Resource-heavy for small number of participants. Securing funding for ongoing iterations. Centralised support and leadership required to ensure buy-in. Has the potential to be offered on a wider scale.
SOURCE/KEY CONTACT PERSON	Clodagh Barry clodagh.barry@nuigalway.ie

NUI GALWAY

TITLE	COMMERCIALISATION
CRITERION	Culture
AIM	To cater for graduates who want to understand and familiarise themselves with the commercialisation process.
DURATION	One semester.
LEVEL	Graduate
GROUP SIZE	15 participants at one time.
PREPARATION AND RESOURCES	Developed in conjunction with the Technology Transfer office and the Business School, this module is now being considered as part of the Structure PhD in the Centre of Innovation for Structural Change.

DESCRIPTION OF STEPS	The programme was developed with a focus on commercialisation and developed with a cross-campus, cross-faculty approach. The programme is delivered not only by academics but with industry practitioners, experienced successful and non-successful entrepreneurs who had moved technologies from research to the market place, State agencies' support system and technology transfer staff. The module blends the technical with management and soft skills development. Networking is an integral part of the module. Participants research and report on the market opportunity for a specific technology, propose and develop a commercialisation strategy.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Overall, high level of satisfaction with the programme. 25% of the ideas were explored and written up. 11 start-ups generated from the process
RISKS AND RECOMMENDATION	Challenge to sustain funding to embed the module. Central academic support and leadership important to ensure buy-in across the campus.
SOURCE/KEY CONTACT PERSON	Clodagh Barry clodagh.barry@nuigalway.ie

NUI GALWAY

TITLE	STUDENT ENTERPRISE EXCHANGE NETWORK (SEEN)
CRITERION	Learning
AIM	To facilitate, enable and support the Entrepreneurial Graduate.
DURATION	One academic year.
LEVEL	Undergraduate/graduate – catered for all levels.
GROUP SIZE	80 students.
PREPARATION AND RESOURCES	SEEN is an enterprise support service based on campus in NUI Galway. It was set up as part of the SIF ACE initiative and was supported by the Research Office, the Technology Transfer Office, the Careers Office, CKI, Graduate Studies and Enterprise Ireland.
DESCRIPTION OF STEPS	A key objective is to foster the creation of student enterprise, to create enterprising individuals with skills to contribute to their own personal and professional development and create a peer-to-peer learning environment. Three Student interns worked across the campus and delivered a number of initiatives which were team-based, cross-campus and inter-disciplinary. The events were informal, had an emphasis on fun and were orientated towards a "Learning by doing" approach. Examples of such events include: SEEN Boot Camp – an intensive weekend enterprise activity, €10 Challenge – start with €10 and see how much you can make in 3 days, The SEEN Series – lunch-time networking and talks on different aspects of the entrepreneurial journey. www.seen.ie
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Positive feedback from participants. 6 potential start-ups explored. 2/3 start-ups generated.
RISKS AND RECOMMENDATION	Staying relevant and in touch with student needs is important. Embedding this across the campus is challenging, needs leadership and a function head committed to Enterprise Education for all students, as opposed to the College of Business only. Needs some dedicated space.
SOURCE/KEY CONTACT PERSON	Clodagh Barry clodagh.barry@iadt.ie



LAHTI UNIVERSITY OF APPLIED SCIENCE

TITLE	BUSINESS SUCCESSION SCHOOL
CRITERION	Learning
AIM	To link students with business owners who are looking for a successor and to train business successors and assist retiring companies in organising the hand-over process.
DURATION	N/A
LEVEL	Undergraduate and postgraduate.
GROUP SIZE	32 students.
PREPARATION AND RESOURCES	This is operated by the University in the area of Applied Science and was developed in conjunction with FINPIN.
DESCRIPTION OF STEPS	A questionnaire was developed and completed by over 600 students; 112 were interviewed and 32 selected. Activities are organised around three themes, educating business successor, practical work experience and assistance with business succession.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Has expanded to include seven other universities of applied sciences. Graduates are awarded a nationally-recognised certificate issued by FINPIN, the respective university and the Finnish Ministry of Employment and Economics (15ECTS). Involvement of the private and public sectors in the initiative.
RISKS AND RECOMMENDATION	Selection of candidates is critical.
SOURCE/KEY CONTACT PERSON	http://www.jatkajakoulu.fi http://www.finpin.fi

UNIVERSITY OF WOLVERHAMPTON

TITLE	SPEED (STUDENT PLACEMENTS FOR ENTREPRENEURS IN EDUCATION)
CRITERION	Learning
AIM	To provide self-employed placements as an alternative to traditional industrial placements. It aims to deliver an additional skill-set to potential enterprise students.
DURATION	36 / 48 weeks on a part-time basis.
LEVEL	Undergraduate.
GROUP SIZE	750 students over a 2-year period in a consortium of HEIs.
PREPARATION AND RESOURCES	This involved a consortium of 12 universities and was led by Wolverhampton.
DESCRIPTION OF STEPS	Initially, a series of core objectives was formulated and a minimum level of core deliveries set. Selection model for SPEED is based upon a friendly Dragon's Den where students present their ideas. During their placement, students will have a combined personal/ business development plan which will identify key milestones for their business, together with an appreciation of their development and training needs. At the end of their placement, students have a closing session when they are assisted to consider their choices for continuing their business or not, and how they then see their future education and career pathways.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	The project has developed beyond the pilot phase.
RISKS AND RECOMMENDATION	Resourcing and funding.
SOURCE/KEY CONTACT PERSON	http://www.speedwm-wlv.org/



TURKU UNIVERSITY OF APPLIED SCIENCES

TITLE	PRACTICE ENTERPRISE PROJECT
CRITERION	Learning
AIM	To give a practical understanding of the basic processes of running a company from start-up to daily operations, bringing together students from different disciplines.
DURATION	25 -30 weeks.
LEVEL	Undergraduate.
GROUP SIZE	200 per annum.
PREPARATION AND RESOURCES	Requires consultation between real businesses and academic teams in order to develop the foundation of the project.
DESCRIPTION OF STEPS	Practice Enterprise is a simulated enterprise formed by students from different disciplines and with a different cultural background. There is a real business backing the simulated practice enterprise, in order to support planning and to provide real-life information for business start-ups. The actions, products and services of the Practice Enterprises are similar to those for the real business. Practice Enterprises do business with each other in a global network. The project is divided into three phases, start-up, business phase and closing the books and evaluation phase. The Practice Enterprise project is based on applied problem -based learning and 'learning by doing' approaches.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Positive feedback from participants.
RISKS AND RECOMMENDATION	Timetabling and logistics.
SOURCE/KEY CONTACT PERSON	Ville Marjanen ville.marjanen@turkuamk.fi

UNIVERSITY OF LIMERICK

TITLE	FAMILY BUSINESS: GENERATIONAL CHALLENGES AND GROWTH
CRITERION	Assessment Outcomes
AIM	The aim of this course is to understand the complex workings of businesses that are family-owned and run. The course explores the unique personal and inter-personal issues, as well as the business issues associated with the family-owned and managed firm.
DURATION	One semester.
LEVEL	9
GROUP SIZE	20
PREPARATION AND RESOURCES	One Lecturer.
DESCRIPTION OF STEPS	Students are introduced to the issues and challenges that surround family businesses. Their self-direct work includes a thought paper on what is a family business and what are the differences between a family business and a non-family business. Students also develop a family business case, which they are responsible for writing. It is based on either a national or international family business they have identified and can be solely secondary-based or combined with primary research. 10% peer assessment is the remaining percentage.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	The critical success factors are that an understanding of the operations and management of a family business is achieved. Typically, there are 5 – 10 students who either are from family businesses and/or work in family businesses and therefore have a greater understanding of the type of business they are working in/with.
RISKS AND RECOMMENDATION	Research ethics approval is required for this module and subject to approval by the Committee can determine whether or not the students can study a certain family business.
SOURCE/KEY CONTACT PERSON	Dr. Naomi Birdthistle naomi.birdthistle@ul.ie

UNIVERSITY OF LIMERICK

TITLE	ESTABLISHING NEW VENTURES
CRITERION	A - Defined EE Learning Outcomes B - Authentic Assessment of EE Learning Outcomes
AIM	To enable students develop the analytical and conceptual skills to test the feasibility of a business concept.
DURATION	One Semester.
LEVEL	9
GROUP SIZE	20
PREPARATION AND RESOURCES	One lecturer.
DESCRIPTION OF STEPS	<p>This module is about developing analytical and conceptual skills required to test the feasibility of a business concept. In broad terms, the focus of a feasibility analysis involves undertaking activities that may help determine whether one should go forward with an opportunity. The process of feasibility analysis involves identifying, evaluating and determining whether to exploit an opportunity. In this module, students learn a number of practical skills and techniques that are applied to opportunities that they will explore. The feasibility analysis forces the students to: undertake a significant amount of field research; develop and think critically about business concepts; answer fundamental questions about strategic, marketing, financial, operational, and human resource issues about business concepts; and then reach a decision about going forward to start the business(es) that is (are) proposed.</p> <p>This is a 100% project-based module. The assessment will centre on the completion of a number of interim reports and student's involvement, interaction and learning. The assignments are to be completed in groups of 4 and the members of the group must remain throughout the module.</p>
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	<p>Critical success factors are the completion of a feasibility study which is then pitched to a panel of experts (Dragon's Den-like scenario).</p> <p>Typically there are 2 - 3 spin-outs per annum from this module.</p>
RISKS AND RECOMMENDATION	Low risk.
SOURCE/KEY CONTACT PERSON	Dr. Naomi Birdthistle naomi.birdthistle@ul.ie

UNIVERSITY OF LIMERICK

TITLE	ENTERPRISE AND FINANCE SOCIETY – PROMOTING ENTREPRENEURSHIP ACROSS DISCIPLINES AND LINKING WITH INDUSTRY COLLABORATIONS
CRITERION	Learning
AIM	The objective is to create awareness about enterprise and entrepreneurship across the student population and providing seminars etc. to connect students with entrepreneurs and policy-makers in this area.
DURATION	Ongoing
LEVEL	Level 8 and 9.
GROUP SIZE	Varies
PREPARATION AND RESOURCES	Mostly sponsorship and benefit-in-kind by staff and students.
DESCRIPTION OF STEPS	<p>Events and activities organised by students. with support from the staff. The main emphasis is on generating awareness and having a greater discussion on entrepreneurship and exposing students to the practice and realities of starting a new business whose success is gauged by increased number of students getting involved and a greater number of events being organised and attended.</p> <p>The activities are designed to create greater awareness of the role and importance of entrepreneurs to the Irish economy, the characteristics of entrepreneurs, how business ideas are generated and developed, the role of development agencies and educational institutions in facilitating entrepreneurship.</p>

FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Running for two years and in that time, approx. five formal events and a number of informal ad hoc events.
RISKS AND RECOMMENDATION	Low.
SOURCE/KEY CONTACT PERSON	Dr. Briga Hynes Briga.Hynes@ul.ie

UNIVERSITY OF LIMERICK

TITLE	ENTERPRISE FORMATION – INTEGRATING ENTREPRENEURSHIP INTO NON-BUSINESS DISCIPLINES
CRITERIA	Outcomes Learning Culture
AIM	The aim of the module is to provide an in-depth understanding of entrepreneurs, owner-managers and the stages involved in starting and growing a sustainable new venture and the support infrastructure that exists for those who wish to start a new business. The students engage in and experience the stages of business development and the production of a feasibility study. It is not expected that a feasible business is set up from completion of this module and it is important to ensure that students develop entrepreneurial learning skills and knowledge that can be applied in different contexts and not just in the establishment of a new business.
DURATION	One Semester
LEVEL	Level 8
GROUP SIZE	105
PREPARATION AND RESOURCES	One Lecturer and one support staff
DESCRIPTION OF STEPS	Students work in teams and approx. 20 ideas are generated, screened and researched for their feasibility.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Extremely high satisfaction rates expressed by students on their module evaluation form which is completed independent of the lecturer by the Centre for Teaching and Learning. Further evaluation of the reflective pieces from the students would endorse the positive learning experience of the students, particularly emphasizing the skills development and the opportunity to engage in the entrepreneurial process in a real sense. From this year, three projects are going to the next stage of more in-depth research.
RISKS AND RECOMMENDATION	Low
SOURCE/KEY CONTACT PERSON	Dr. Briga Hynes Briga.Hynes@ul.ie

UNIVERSITY OF LIMERICK

TITLE	NEW VENTURE PROGRAMME
CRITERION	Culture Learning Leadership
AIM	To assist individuals who are interested in starting their own business with the key knowledge and skills to successfully navigate their way through the idea generation to commercialisation process. In particular, this initiative will also address the broader focus of the University that wishes to strengthen its role in the creation of sustainable high-growth campus firms and develop ongoing working relationships with development agencies. The programme will establish a pipeline of full-scale client firms who are ready to take up residence in the University of Limerick Incubator Centre.

DURATION	One academic year
LEVEL	n/a
GROUP SIZE	12
PREPARATION AND RESOURCES	2 Staff
DESCRIPTION OF STEPS	Participants are facilitated to prepare interim reports which form constituents of the overall investor-ready document. They are also provided with personal development and mentoring sessions. The focus is on personal development of the entrepreneur and business development in the form of the business plan.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	10 business ideas have been researched and are still working on R&D. 2 start-ups in progress.
RISKS AND RECOMMENDATION	Low
SOURCE/KEY CONTACT PERSON	Dr. Briga Hynes Briga.Hynes@ul.ie

UNIVERSITY OF LIMERICK

TITLE	BUSINESS CONSULTING
CRITERION	Learning
AIM	The aim is to introduce students to the nature and role of business consulting through engagement with a real-world business client.
DURATION	One Semester.
LEVEL	8.
GROUP SIZE	120.
PREPARATION AND RESOURCES	One faculty member + Teaching Assistants (4 + where possible).
DESCRIPTION OF STEPS	The focus of this course is on the nature and role of business consulting, along with specific issues common to business consulting. Students engage with a real-life business client who has a problem and would like it solved. Special attention is given to firms that have or show interest in developing international market potential. Attention is also given to understanding and developing the unique skills required for the consulting process. Research ethics approval is required for this module and, subject to approval by the Committee, can determine whether or not the students can carry out the research. This is a 100% project-based, non-repeatable module. The assessment will centre on the completion of a number of interim reports and students' involvement, interaction and learning.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Success can be measured in two ways – what the business gets and what the students get. Businesses will have a 'new' direction to take the business. Businesses will have a greater knowledge and understanding of the market/industry in which they will be operating in. Businesses will be able to answer the question – do we enter this market, do we go international? Do we launch this market? Do we know our customers? Do we understand the competition? etc. Students are consistently positive about this module. They are of the belief that the module is extremely demanding during the term. However, after the completion of the module, they see the value of it.
RISKS AND RECOMMENDATION	A key challenge is getting companies to participate in the programme; however, this programme has been running for over 20 years and does not have to be marketed – in fact, it has to operate a 'reserve list'.
SOURCE/KEY CONTACT PERSON	Ms Yvonne Costin yvonne.costin@ul.ie



UNIVERSITY OF LIMERICK

TITLE	MASTER'S IN INTERNATIONAL ENTREPRENEURSHIP MANAGEMENT
CRITERION	Outcomes Assessment
AIM	The primary aim of the programme is to provide students with the specialist knowledge and a practical understanding of the key tasks required to establish, manage and grow a new venture in a challenging international business environment and thus enhance an entrepreneurial mindset to prepare students for careers as entrepreneurs, as owner- managers, policy-makers in support services or in entrepreneurial management in different types of organisations.
DURATION	12 months.
LEVEL	9.
GROUP SIZE	20.
PREPARATION AND RESOURCES	Staff input.
DESCRIPTION OF STEPS	<ul style="list-style-type: none"> » There is a focus on action and experiential learning including interactive presentations, industry-specific case studies, team-work, individual assignments and entrepreneurship and small business-related projects which stimulate innovative thinking and more effectively develop the students' entrepreneurial potential. In addition, external speakers from the small firm world, Government agencies, professional organisations and financial institutions will challenge participants' thinking and provide an enhanced network of contacts for future personal and business development opportunities. » The opportunity to work with and solve business problems for small and medium firms will further equip students with the best practices in small firm formation and growth and thus better prepare them to engage in entrepreneurial activity either personally or in an established business context. The completion of a research paper allows the students to deepen their knowledge and expertise in a chosen subject of interest or alternatively, completion of the Strategic Commercialisation Project provides students with the opportunity to transition a business idea and evaluate its commercialisation options by developing a two-year strategic growth plan. » A key feature of this Master's programme is the linkages and working collaborations with local and regional communities, Government agencies, professional organisations and the small and medium enterprise sector through completion of in-company research projects, management consultancy assignments and the inclusion of practitioners as guest speakers and their participation in panel discussions.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Cycle not completed.
RISKS AND RECOMMENDATION	
SOURCE/KEY CONTACT PERSON	Dr. Briga Hynes Briga.Hynes@ul.ie

DUBLIN CITY UNIVERSITY

TITLE	INTRA (INTEGRATED TRAINING)
CRITERION	Learning
AIM	To formally combine the students' academic study with closely co-ordinated realistic jobs, based on the work abilities of the student and the objective of each programme.
DURATION	Up to 1 academic year, 2 semesters.
LEVEL	Undergraduate.
GROUP SIZE	n/a
PREPARATION AND RESOURCES	The University has a dedicated unit which manages the INTRA programme.

DESCRIPTION OF STEPS	Job descriptions and profiles are developed. Students apply, are interviewed and commence work. An academic tutor will visit the student once during the placement and will make an interim report. The students' employers complete an assessment questionnaires ranking their performance at the end of the placements. Students are required to complete a report on the placement. Students must get a satisfactory rating in all three elements of the programme.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Positive, has been an integral part of many degrees since the foundation of the University.
RISKS AND RECOMMENDATION	N/A
SOURCE/KEY CONTACT PERSON	Dr. Colm O'Gorman www.dcu.ie

DUBLIN CITY UNIVERSITY

TITLE	DICE (DIGITAL INNOVATION, CREATIVITY AND ENTERPRISE)
CRITERION	Outcomes
AIM	To introduce first years to the concepts, processes and methods relating to innovation, creativity and enterprise.
DURATION	Two semesters.
LEVEL	Undergraduate.
GROUP SIZE	Split into groups of 4 or 5.
PREPARATION AND RESOURCES	Involves input from cross-disciplinary teams of academics. Requires mentoring from postgraduate students. Postgraduate students require training to mentor and facilitate the teams. The establishment and management of inter-disciplinary teams.
DESCRIPTION OF STEPS	Students attend both seminars and group meetings throughout the semester where they will develop knowledge and skills pertaining to project management. They undertake a number of assessments including developing an online blog, mobile app designs and partake in the IBM City online simulation game.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	448 students are partaking in this initiative. 96 postgraduate mentors.
RISKS AND RECOMMENDATION	Timetable constraints.
SOURCE/KEY CONTACT PERSON	Dr. Colm O'Gorman www.dcu.ie

DUBLIN CITY UNIVERSITY

TITLE	NEXT GENERATION MANAGEMENT (NGM)
CRITERION	Learning
AIM	This is a 20-credit module which aims to develop students' competencies in their respective disciplines and encourages leadership and teamwork and promotes personal and career development.
DURATION	Two semesters.
LEVEL	Postgraduate.
GROUP SIZE	Individual and group work (currently nearly 100 students take this module).

PREPARATION AND RESOURCES	The module is a mixture of core sessions, provided by NGM staff and invited experts, and student-identified activities, called Personal Opportunities for Development (PODs). Requires inter-disciplinary teaching teams. Postgraduate mentors need to be trained sufficiently to facilitate groups.
DESCRIPTION OF STEPS	The core sessions are delivered using a combination of teaching tools, including lectures, workshops, computer labs and focus on the four central themes of the module which are: a) personal and career development, b) leadership, teamwork and corporate accountability, c) global and societal awareness, d) research, media and communication. Students must then complete 40 PODs i.e. activities which, together with the relevant reflection, are intended to help build knowledge, skills and competency under each of the four themes.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Running for three years. 96 students involved.
RISKS AND RECOMMENDATION	Timetable constraints. Very high level of time required from staff.
SOURCE/KEY CONTACT PERSON	Dr. Colm O’Gorman www.dcu.ie

DUBLIN CITY UNIVERSITY

TITLE	MARKETING AND BUSINESS MANAGEMENT PRACTICUM
CRITERION	Learning
AIM	To expose the student to ‘real-world’ problems in order to allow the theoretical work covered in the modules to be put into practice. It aims to afford postgraduate students the opportunity to exercise their creative, questioning, analytic and writing skills in a focused and practical manner.
DURATION	One semester.
LEVEL	Postgraduate.
GROUP SIZE	3-4 students per group.
PREPARATION AND RESOURCES	Students either work on a problem for an industry-sponsored project or on an original project they identify.
DESCRIPTION OF STEPS	<ul style="list-style-type: none"> » Having identified the problem, students work in teams, research the problem, identify solutions and where possible, prototype or pilot the solutions. The students are responsible for establishing what work is done and how it is undertaken. A panel consisting of the research advisor and two other DCUBS staff members assess each practicum. » Each group develops a ‘practicum poster’, an advertisement, a short presentation, participates in a Q&A session with their class, staff and relevant stakeholders, and undergoes an oral examination.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Running for 4 years.
RISKS AND RECOMMENDATION:	Teamwork/group problems. Client and student relationships.
SOURCE/KEY CONTACT PERSON	www.dcu.ie

DUBLIN CITY UNIVERSITY

TITLE	ENTREPRENEURSHIP AND E-COMMERCE
CRITERION	Learning
AIM	To provide students with the unique opportunity to learn and practise the skills and expertise involved in the successful commercialisation of new ICT technologies by developing a commercialisation plan for a product, process or service idea generated by university researchers.

DURATION	One semester.
LEVEL	Postgraduate.
GROUP SIZE	Groups of 3 to 4.
PREPARATION AND RESOURCES	
DESCRIPTION OF STEPS	Students are introduced to the various research ideas. They select the project to work on. They identify the best route to market and undertake extensive research on competitors, markets and customers. Students develop a feasibility plan and make a final presentation of their findings. All projects are entered into the Commercialisation of University Research Student Project Awards.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Successfully running for a number of years.
RISKS AND RECOMMENDATION	Identifying suitable projects.
SOURCE/KEY CONTACT PERSON	Dr. Colm O’Gorman www.dcu.ie

DUBLIN CITY UNIVERSITY

TITLE	ENTREPRENEURSHIP MODULES FOR DIFFERENT DISCIPLINES: <ul style="list-style-type: none"> » Entrepreneurship in Education and Training » High Technology Entrepreneurship » Innovation and Entrepreneurship » Media Innovation and Enterprise » Multimedia and Educational Innovation
CRITERION	Outcomes Assessment Learning
AIM	To introduce the students to theory and practice of entrepreneurship as it relates to their discipline and in the context of their chosen studies.
DURATION	One semester.
LEVEL	Undergraduate.
GROUP SIZE	Varies.
PREPARATION AND RESOURCES	N/A
DESCRIPTION OF STEPS	Students are introduced to the theory of entrepreneurship. Their assessments include a range of practical projects that allow students to explore discipline-specific business opportunities with a view to developing a business plan and business pitch specific to their own context.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Running successfully in many programmes for a number of years.
RISKS AND RECOMMENDATION	Important to relate the material to the context of the students.
SOURCE/KEY CONTACT PERSON	Dr. Colm O’Gorman www.dcu.ie

**DUBLIN CITY UNIVERSITY**

TITLE	NEW PRODUCT DEVELOPMENT AND INNOVATION STUDIES
CRITERION	Learning
AIM	To introduce the student to the concept of innovation and new product development.
DURATION	One semester.
LEVEL	Undergraduate???????
GROUP SIZE	165 students in any one academic year take this module.
PREPARATION AND RESOURCES	N/A
DESCRIPTION OF STEPS	The module places a strong focus on research and development. The process of new product development is explored, as well as the management issues that result from NPD. The assessment of this module includes a multi-disciplinary project whereby students bring a product from its design phase to roll-out as a commercial commodity. Students will have the opportunity to integrate aspects of other modules with the specific concepts examined within this module.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Positive feedback from students.
RISKS AND RECOMMENDATION	N/A
SOURCE/KEY CONTACT PERSON	Dr. Colm O’Gorman www.dcu.ie

DUBLIN CITY UNIVERSITY

TITLE	GREEN BUSINESS COMPETITION
CRITERION	Learning
AIM	The Green Business Plan Competition gives students the opportunity to present their ideas to professionals from the world of business who are interested in new green initiatives.
DURATION	One semester.
LEVEL	Undergraduate, post-doctoral researchers and research assistants.
GROUP SIZE	Individual or teams up to 4.
PREPARATION AND RESOURCES	Business School, the Enterprise Society. External sponsorship from Mason Hayes and Curran Solicitors.
DESCRIPTION OF STEPS	1 st Stage: each team submits an entry form. Entries are short-listed for stage 2. 2 nd stage: short-listed entries deliver a 5-minute pitch to a panel of judges. Five semi-finalists are selected. 3 rd stage: the semi-finalists are invited to submit a Business Plan, and make a 15-minute presentation to a panel of judges.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	47 teams entered in 2011.
RISKS AND RECOMMENDATION	Internal advertising. Non-credited – get entries on campus.
SOURCE/KEY CONTACT PERSON	Dr. Colm O’Gorman www.dcu.ie

DUBLIN CITY UNIVERSITY

TITLE	INVENT
CRITERION	Culture Learning
AIM	To work with DCU faculty and students, industry, Government agencies and the local community to support and encourage the transformation of cutting-edge research into innovative and commercially-exploitable products and services.
DURATION	Ongoing.
LEVEL	Undergraduate, postgraduate, post-doctoral and alumni.
GROUP SIZE	N/A
PREPARATION AND RESOURCES	Ongoing collaboration with wide range of stakeholders, both within and outside of the University.
DESCRIPTION OF STEPS	INVENT works with DCU researchers to identify innovations with commercial potential. They evaluate and protect the University's research-based IP through technology transfer, licensing and spin-outs. The project also provides business and marketing strategies for possible commercialisation. INVENT uses its extensive links with industry to help forge business and research partnerships. One of its primary ambitions is to foster the creation and growth of new businesses. It is investing significant resources in helping budding entrepreneurs navigate the challenges of early stage innovation. This is done by working one-on-one with students, researchers, inventors and investors to foster the necessary innovation ecosystem to successfully transition new enterprises into self-sufficient businesses.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	40 entrepreneurs on site.
RISKS AND RECOMMENDATION	N/A
SOURCE/KEY CONTACT PERSON	Dr. Colm O'Gorman www.dcu.ie

NICENT

TITLE	THE NORTHERN IRELAND CENTRE FOR ENTREPRENEURSHIP (NICENT)
CRITERION	Learning Culture
AIM	Promote the agenda for Entrepreneurship learning and practice within different contexts. Build awareness and to encourage engagement with Entrepreneurial New Venturing (ENV). Stimulate greater efforts around Innovation. Support the commercialisation of primary research, particularly within Science, Engineering and technology faculties.
DURATION	2000 - 2009
LEVEL	Undergraduate and postgraduate.
GROUP SIZE	University of Ulster and Queen's University – all students.
PREPARATION AND RESOURCES	Multiple resources working across faculty and across both institutions, including the development of on-line learning resources in "entrepreneurship". Core central NICENT team of ten, lecturing staff and administration support, responsible for the development and implementation of the agenda.
DESCRIPTION OF STEPS	NICENT's agenda was made operational through the following steps: <ul style="list-style-type: none"> » Curriculum Development Activity in entrepreneurship » Staff Development Activity in entrepreneurship learning » Entrepreneurial New Venturing Engagement; the commercialisation of the research agenda

<p>FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)</p>	<p>Over the course of the project:</p> <ul style="list-style-type: none"> » >90% of degree programmes at UG level have “Entrepreneurship LOs” embedded within them. » >17, 000 at undergraduate level » >1900 at postgraduate level » over 200 new venture projects were brought forward since 2000 and an estimated twenty new businesses were established » Some 214 staff at ULSTER alone attended a variety of programmes on “Teaching Entrepreneurship”
<p>RISKS AND RECOMMENDATION</p>	<p>Key barriers to the adoption of the entrepreneurship agenda within HEIs:</p> <ul style="list-style-type: none"> » Ignorance and myopia about what <i>Entrepreneurship</i> is and who entrepreneurial people are » Pre-conceived notions about its associations with starting a new business and with the profit motive » Pre-determination that agenda poses a threat to traditional university values » The credibility of the subject vis-à-vis “real” academic subjects » Perceived as additional effort and a distraction from proper university work <p>Key responses:</p> <ul style="list-style-type: none"> ~ Support from Senior Management within HEIs ~ An additional basis for promotion with HEIs ~ Identify champions and support them ~ Invest adequate resources, adopt realistic time-table for a return
<p>SOURCE/KEY CONTACT PERSON</p>	<p>Dr. Pauric McGowan p.mcgowan@ulster.ac.uk</p>

UNIVERSITY OF ULSTER

<p>TITLE</p>	<p>REWARDING ENGAGEMENT WITH ENTERPRISE EDUCATION/ACADEMIC ENTERPRISE</p>
<p>CRITERION</p>	<p>Culture</p>
<p>AIM</p>	<p>To motivate, encourage and reward engagement with Enterprise Education/Academic Enterprise.</p> <p>Promotion from L to SL and higher is traditionally based on Teaching and Research. At ULSTER, a further criterion is engagement with the Academic Enterprise Agenda and for activities to build at the interface between the University and the Business Community.</p>
<p>DURATION</p>	<p>Since 2000.</p>
<p>LEVEL</p>	<p>All levels and across all faculties.</p>
<p>GROUP SIZE</p>	<p>At least one award per year up to three.</p>
<p>PREPARATION AND RESOURCES</p>	<p>A Fellowship Award is normally £2Ksterling.</p>
<p>DESCRIPTION OF STEPS</p>	<p>Engagement with Academic Enterprise/Enterprise Education revolves around the challenges to commercialise primary research and engagement in business enterprise competitions and to develop the competencies of those involved. Examples of such competitions are the <i>£25K competition</i> and the <i>Global Entrepreneurship Competition</i>; both open to members of the Research Active community within ULSTER in specific areas of Hitech, Biotech, Cleantech and Digital Media and Software, the <i>all-Ireland Student Enterprise Competition</i> and, historically, the <i>UKSEC’s UK National Enterprise Competition</i>, both open to the wider student body with no specific restrictions.</p> <p>Efforts in this area were initially developed through the Northern Ireland Centre for Entrepreneurship, (NICENT), at ULSTER, but are currently being managed through the University’s “Office of Innovation” in collaboration with the Northern Ireland Science Park, (NISP).</p> <p>Building at the interface between the University and the Business Community can involve the management of:</p> <ul style="list-style-type: none"> » Industrial placements » KTPs/FUSION projects » Visiting faculty/lecturers/guest speakers programmes » Business Practitioners as members of Advisory Boards » As Mentors/Business Angels » As sponsors of research » In research and case study development » As participants on educational and PDP programmes » As event sponsors » Research and Consultancy <p>In addition, the University presents a number of Fellowship Awards to academic members of staff across faculties, in recognition of their efforts in Teaching Innovations, Community Development and Business and Enterprise.</p> <p>In 2006, the University established a Chair in Entrepreneurship and Business Development</p>

FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	Examples: Of the top ten winners in the £25K competition over the past five years, (total 50 potential start-ups) over half continue in their efforts to develop and grow. University Fellowship Awards reflect peer-reviewed recognition. Many staff seek promotion on the basis of their efforts in Teaching, Research and Academic Enterprise.
RISKS AND RECOMMENDATION	None.
SOURCE/KEY CONTACT PERSON	Professor Paoric McGowan in the first instance. p.mcgowan@ulster.ac.uk

UNIVERSITY OF ULSTER

TITLE	STAFF DEVELOPMENT ACTIVITY
CRITERION	Culture
AIM	To develop academic staff across faculties who wish to develop their competency as enterprise educators.
DURATION	Various programmes enlisted by the Northern Ireland Centre for Entrepreneurship, (NICENT) from 2000 to 2009, lasting on average a week.
LEVEL	A Professional Development programme.
GROUP SIZE	Average group size was 20.
PREPARATION AND RESOURCES	NICENT was funded to provide this training, given its commission to promote the agenda for entrepreneurship learning across its partner institutions. Investments ranged from between £ 6,000 for a one-week residential programme in the US to £700 for a more limited UK-based programme
DESCRIPTION OF STEPS	<ul style="list-style-type: none"> » Staff across faculties within ULSTER identified themselves as Champions for the Agenda, and a formal network was quickly established of Representatives within faculties, to argue for the agenda at key meetings within the faculty and particularly at Faculty Boards » Engineers, Scientist, Social Scientists and Humanities faculty members were given opportunities for professional development in aspects of the “innovation and entrepreneurship” education agenda. Some 214 staff at ULSTER alone attended a variety of programmes on “Teaching Entrepreneurship” as follows: <ul style="list-style-type: none"> ~ Programmes run at MIT, (as a part of the UKSEC network, four staff supported) ~ Babson College, as a part of the NICENT network, (10 staff supported) ~ The UKSEC training programme and in-house programmes, (>200 staff supported) » Steps involved: <ul style="list-style-type: none"> ~ Identification of need ~ Identification of appropriate programme ~ Application of candidate and agreement to fund attendance
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	All participants.
RISKS AND RECOMMENDATION	None.
SOURCE/KEY CONTACT PERSON	Prof Paoric McGowan in the first instance p.mcgowan@ulster.ac.uk

GRIFFITH COLLEGE

TITLE	SMALL BUSINESS DEVELOPMENT
CRITERION	Outcomes Assessment Learning
AIM:	To encourage the learner to consider how small businesses develop. This linear module aims to encourage, in a supportive environment, groups of learners to come up with an innovative idea, research the feasibility of the idea and then put the commercially-feasible ideas into practice.

DURATION:	Linear Module, 26 weeks.
LEVEL:	Undergraduate Level 7, Year 1.
GROUP SIZE	20-30
PREPARATION AND RESOURCES	The preparation for this module is collaborative. The module lecturer co ordinates all of the other lecturers teaching the cohort, and each lecturer is aware of the business idea each group is working on. All of the other lecturers will then make reference as to how the theory being covered in the class would apply to the business idea. Many resources are made available to the students including a full suite of online resources, guest lectures, group learning activities as well as traditional classes and reading material.
DESCRIPTION OF STEPS	<ul style="list-style-type: none"> » The module engages the learner to proactively research a number of ideas so as to identify a project that will be commercially viable. In order to do this, market research is undertaken under the lecturer's supervision. Once the business idea is decided, the group develops a group organisational plan, with each group member responsible for different areas. At this stage, depending on the group member's role, contact will be made with different stakeholders who may be able to have an impact on the project development. The business idea will then be realised. » One of the criteria for this module is that the group's project must make every effort to generate a profit. This profit is then donated to a charity that the group selects. » Upon completion of the project, the groups are requested to write up a report about the project and make a presentation outlining the steps that were taken, problems and opportunities that were identified and a reflective journal outlining what each group member learnt from the module.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	The evidence of success for this module is evident from the following: An excellent range of project ideas Positive feedback from students Positive feedback from the lecturing team Excellent feedback from external stakeholders, including charities that have benefited from the projects Excellent feedback from the external examiner
RISKS AND RECOMMENDATION	This module developed as a result of the enthusiasm of both the Module Leader and Programme Leader and was supported by the faculty as a practical approach to encourage learners to examine how small businesses operate. Risks that may occur include: <ul style="list-style-type: none"> » unless the project is well supervised, some group members may not be interested in participating and the work will be left to the other group members. » students may feel that the goals they are given are difficult to attain. » the required business skills need to be delivered in the supporting modules. Recommendations: <ul style="list-style-type: none"> » team members need to develop their own set of achievable goals. » support from the teaching team must be ongoing.
SOURCE/KEY CONTACT PERSON	Jacqui Tracey, Programme Leader

GRIFFITH COLLEGE

TITLE	ENTERPRISE DEVELOPMENT
CRITERION	Outcomes Learning Culture
AIM	The aim of this module is to give the learners a set of skills that will encourage them to be both enterprising and innovative in a variety of different enterprise development scenarios.
DURATION	Semester 2, year 2 - 12 weeks.
LEVEL	Undergraduate, Level 8.
GROUP SIZE	100-120
PREPARATION AND RESOURCES	The preparation for this module includes developing a set of proactive tools to create self-efficacy among the students. This will result in the learner identifying necessary skills that are important to enterprise development, including but not limited to networking, presentation techniques, developing competitive advantage, market opportunity identification and sales. This is supported with a number of resources including classroom learning, library and on-line resources, guest speakers and various learning activities.

DESCRIPTION OF STEPS	Each week of the semester, the learner is introduced to a different enterprise development skill-set. The module content encourages the learner to see that the skills are relevant, whether as an employee or as an entrepreneur. One key strength of this module is that the learners who participate are from a variety of different faculties.
FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	The evidence of success for this module is evident from the following: <ul style="list-style-type: none"> » Positive feedback from students » Positive feedback from the lecturing team » Excellent feedback from external stakeholders, including guest speakers » Excellent feedback from the external examiner
RISKS AND RECOMMENDATION	This module developed as a result of the enthusiasm of both the Module Leader and Programme Leader and was supported by the faculty as a practical approach to encourage learners to examine the skills that are needed in enterprise development, be that as an employee or as an entrepreneur. Risks that may occur include: <ul style="list-style-type: none"> » Apathy from the students. » No clear identification of learning outcomes. » Large class size and some learners can get lost. » Lecturer: Recommendations: In order to ensure this module is a success, the lecturing team needs to: <ul style="list-style-type: none"> » Clearly outline the learning outcomes at the start of each session. » Use engaging learning tools to keep students motivated. » Maintain strong class management with support lectures. » This module is highly dependent on the experience, enthusiasm, creativity and stamina of the lecturing team.
SOURCE/KEY CONTACT PERSON	Geraldine McGing – Module Leader

GRIFFITH COLLEGE

TITLE	SPECIAL PURPOSE AWARD IN SME MANAGEMENT
CRITERION	Outcomes Culture Leadership
AIM	The overall aim of the Special Purpose Certificate in SME Management is to equip owner-managers and senior managers with the necessary management skills, tools and techniques to advance their own personal performance as managers and to more reliably inform and guide the development of their SME. This certificate was developed in association with the Irish Small and Medium Enterprises Association (ISME).
DURATION	10 days
LEVEL	Undergraduate level 7.
GROUP SIZE	10-20
PREPARATION AND RESOURCES	This special purpose award is geared specifically to meet the needs of owner-managers of small to medium-sized businesses who may need to identify a new opportunity and/or a new market. The programme has been structured using a number of related units, all of which contribute to the development and implementation of a development plan for the SME. The programme is delivered on a unit- by-unit basis over a number of months to allow the coverage of material in the programme to be further assimilated and applied within the workplace. In addition to the delivery of the taught units, participants benefit from mentored support throughout the programme whereby a member of the teaching panel visits the candidate's SME and works with him/her in an advisory capacity in relation to guiding their development plan over the course of the entire programme. It is expected that participants will also benefit from the participation of the other participants on the course as they share and consider solutions to challenges within the SME sector in general.
DESCRIPTION OF STEPS	In all, eight taught units are proposed. Together, these will contribute to one module, SME Management. The units have been chosen on the basis of their proven relevance to the SME sector and have been revised to reflect current industry needs. The course is supported with two days mentoring for each learner on the programme.

FEEDBACK (EVIDENCE OF SUCCESS, ASSESSMENT)	The evidence of success for this module is evident from the following: <ul style="list-style-type: none">» Excellent feedback from students (see feedback attached.)» Excellent feedback from the lecturing team.» Excellent feedback from external stakeholders, including guest speakers.» Excellent feedback from the external examiner.
RISKS AND RECOMMENDATION	Recommendations: In order to ensure this module is a success, the lecturing team needs to: <ul style="list-style-type: none">» Clearly outline the learning outcomes at the start of each session.» Identify the learning needs of the students in advance of the course.» Use engaging learning tools to keep students motivated.» Maintain strong class management with support lectures.» Ensure a strong mentoring team to support the learners.
SOURCE/KEY CONTACT PERSON	Geraldine McGing – Course Director



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ANNEX 3: Annex_EntrepreneurshipForumReport2014

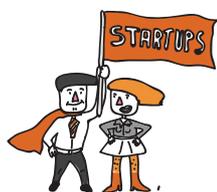


Entrepreneurship in Ireland

Strengthening the Startup Community

Report of the Entrepreneurship Forum
January 2014

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Foreword

This isn't a report to placate the population with tales of how we are punching above our weight and how the Government and other elements of the entrepreneurship ecosystem are already doing everything right.

We're not.

This isn't a report telling us that the policies of the past are at fault for all of our current problems. We have far too many unaddressed problems and far too much unproductive wastefulness in our current economy to sweep away our current situation as being mere victims of the bloated wrongdoings of previous regimes.

Instead, this is a rallying cry for likeminded folk to rise up and build the culture we need and to collectively lift ourselves above this mess due to the banking and property crisis.

In many ways, this report is simply a call for citizenship. Not the kind of citizenship where we look to the Government for what schemes we can claim entitlement to... but the kind of citizenship that calls upon all of us to realise that society is built by individuals providing generous and selfless service to others. Giving as much or more than we receive and a responsibility to each of us to create work and to support each other. No one should get a free ride and no one should pass the buck without doing their own part to solve our country's crisis.

We see real citizenship over and over in Ireland. Programmes such as Coderdojo, where parents and volunteers and corporations have volunteered space and time, are an example of people endlessly giving of themselves for the benefit of others. Coderdojo is also an example of how parents and others selflessly dedicate themselves to the ideal of helping youth achieve and create. That's citizenship.

Irish entrepreneurs have set up networking and mentoring organisations like EO Ireland (Entrepreneur's Organisation Ireland), a mentoring group whereby the CEOs of companies with over €750,000 in sales spend their own time and money to 'peer mentor' each other, helping each other grow by providing advice and feedback in groups of 8-10 people, in mutually beneficial groups that stay together, without compensation, for years. That's citizenship.

Ireland's tech sector benefits from a number of aggressively progressive organisations, including IT@Cork, a networking and skills development organisation that ceaselessly advocates for the unmet needs of the tech sector in Ireland... not just raising problems for other people to solve, but proposing solutions and implementing them. Other such groups include Open Ireland, Startup Ireland, Startup Grind and many more.

What is the most interesting fact about all these widely respected and effective groups? Not one of them are actually Government sponsored or Government funded. It's people helping people, entrepreneurs helping entrepreneurs and companies coming together to respect and support each other.

Entrepreneurship is about creating meaningful businesses out of the raw materials of people, ideas and customers. These raw materials need to be forged out of what we have, what we can grow and out of what we can attract to ourselves.

Ireland needs jobs and industry in order to grow its way out of our economic crisis. Make no mistake; it is a crisis and corrective action needs to be taken immediately. Therefore the entrepreneurship policy of our country must be viewed with the sense of urgency that our economic survival and our way of life demand.

In this report we provide some recommendations for the people, the businesses and the Government of Ireland on how to build a more dynamic and productive entrepreneurial ecosystem. We advocate an approach that could generate thousands of new jobs in the next few years and hundreds of thousands of new jobs in the coming decades.

This report aims to be specific enough to be implementable, while also maintaining the clarity of the Forum's mission.

To achieve this we will:

- Identify how we expect Ireland to become great by developing an engaged and giving entrepreneurial culture. We will give concrete examples to show what this means – by identifying programmes like ‘office hours’ where hundreds of entrepreneurs in Ireland will make regular weekly and monthly time available for free consultations with any other entrepreneur in Ireland.
- Demonstrate the need for the Government to make business creation more transparent and navigable – and we’ll recommend a single point of access for anyone in Ireland to be able to call upon, to get ‘signposted’ via their Local Enterprise Office (LEO) to get through to the appropriate programmes, if any, offered by the Government.
- Highlight how finance should become more available to entrepreneurs. We will get into specifics such as terms and conditions of approval related to collateral that are being imposed for bank credit, specifically the requirement for personal guarantees. We identify new initiatives like the Diaspora Fund, where wealthy global Irish will engage as funders of a new set of investment funds for Irish businesses.
- Specify key barriers and disincentives for entrepreneurial activity that must end. First, we should take the punishment out of being an entrepreneur. Currently in Ireland, a person can pay a whole life of PAYE tax and work until age 50, but by buying or starting a business, they would lose their lifetime of welfare entitlements. There are powerful disincentives to those taking on the risk of entrepreneurship and many of these are not matched with corresponding gains. This can and must change.

We believe that Ireland has the opportunity to become the most competitive country in Europe if it adopts - and embraces - some key structural changes. Adjustments such as implementing a flat tax would have an immediate positive impact on nearly every productive worker in the nation, but would also require incredible political will and determination. Although it is unlikely Ireland will make such a move overnight, this report identifies a few longer-term issues which would eliminate overly complex tax structures and make life easier for all businesses in Ireland.

The good news is that if courageous structural changes are made, government barriers will become a thing of the past, jobs will flourish and Ireland will once again begin growing its population and gross national product, signaling a resurgence that will be the envy of Europe. It is within our grasp.

To join our call for active citizenship and learn about high impact ways that you can help the startup community, visit bit.ly/IrelandStartups.



Sean O'Sullivan
Chair of the Entrepreneurship Forum

Executive Summary

Introduction

The Entrepreneurship Forum was established by the Minister for Jobs, Enterprise and Innovation in May 2013 'to advise the Minister for Jobs, Enterprise and Innovation on policy in the area of entrepreneurship and to draft appropriate policy conclusions and recommendations which will support business startups, sustainable growth and long term job creation. The purpose of the Forum's Report is to support the Government's development of a National Entrepreneurship Policy Statement.

The Forum identified 6 distinct goals of a successful entrepreneurship policy:

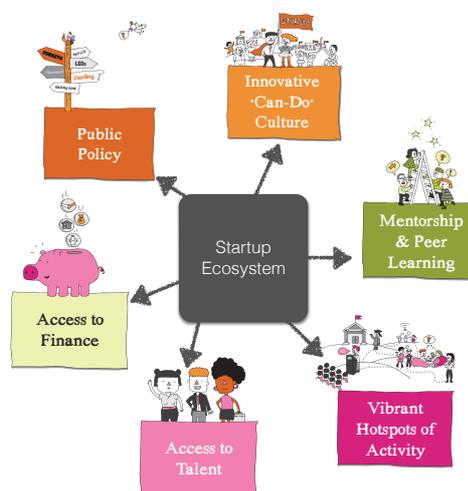
1. Strengthen the startup community in Ireland
2. Increase the pipeline of entrepreneurs
3. Energise job creation
4. Continue growth of the indigenous export sector
5. Capitalise on Ireland's strengths in growth industries
6. Use under-employed resources

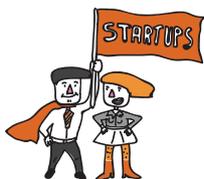
In this report, the Entrepreneurship Forum paints the picture of what a strong startup community in Ireland can look like and presents a tangible set of recommendations for businesses, Government, community organisations, and individuals. The report makes policy suggestions, but also provides a toolbox that allows each person to engage and commit themselves to building an entrepreneurial culture. There are several key principles that have guided the Forum's process and the recommendations:

- First, entrepreneurship in Ireland starts with a culture of engaged citizenship. Engaged citizens are giving of their time and ideas to promote the betterment of their peers. Engaged citizens take responsibility for their own progress and failures, and commit themselves to learning. These cultural elements cannot be overstated.
- Second, focus on people. A truly entrepreneurial Ireland is dependent on strong and self-reliant entrepreneurs, who are focused on their customers, their teams, and their networks. Entrepreneurs must look more toward their peers and less to government supports to achieve their goals.
- Third, the Irish Government's role is that of facilitator, not leader. The State certainly has a role to play in developing supportive tax, financing, and immigration policies, providing accessible and reliable information, and aligning existing education and social welfare supports to be conducive to entrepreneurial development. However, the State should take a courageous departure from past policies by looking to fill gaps rather than create new initiatives.

To achieve the Entrepreneurship Policy goals the Forum identified the main pillars of an effective startup ecosystem as:

1. Innovative 'can-do' culture
2. Mentorship & peer learning
3. Vibrant hotspots of activity
4. Access to talent
5. Access to finance
6. Public policy





Pillar 1, Innovative ‘Can-Do’ Culture

A central recommendation of this report is that Ireland should leverage our existing talent base: the entrepreneurial network and culture of startups in Ireland needs to become further engaged and intertwined. A vibrant startup culture maximises peer learning and commercialisation through a diverse range of networking events, mentoring groups, and electronic interaction and dissemination of information.

If we want to increase the pipeline of people choosing an entrepreneurial career, then Ireland must encourage entrepreneurship as a norm rather than an exception. This potential career path must be inspired from a person’s early years within the education system.



recommendations

- Develop a National Educational Strategy for Entrepreneurship at all levels of the education system.
- LEOs, in conjunction with Microfinance Ireland, should pilot a new programme for young people who set up their own business. Microfinance Ireland should ring-fence money for a Micro Youth fund to facilitate youth-led business ventures.



Pillar 2, Mentorship and Peer Learning

The biggest improvement we can make to the entrepreneurial culture in Ireland is to get more of our citizens to share their knowledge and networks. The skills gaps we have can be best addressed and the solutions scaled through collaborative networks of peer mentoring communities. Initiatives such as ‘office hours’ and peer mentoring groups are examples of successful peer mentoring models.

State involvement in the delivery of mentoring services inevitably involves formal structures and procedures, which would merely deter potential volunteers and delay the most beneficial forms of mentoring. The Forum is of the view that State resources currently focused on the provision of one-to-one mentoring services should be scaled down and resources redeployed to kickstart the development of peer mentoring groups. Broadly, this would require a State policy shift from *provision* of mentoring programmes to *facilitation* of mentoring initiatives.



recommendations

- Establish a dynamic, self-organised mentoring network, driven by entrepreneurs and supported by individuals, LEOs, industry expert groups, and business institutions.
- Programme support to be geared toward enhancing a collaborative start-up community and ‘give before you get’ culture. A target of 80% delivery of unpaid mentoring initiatives and 20% paid mentoring should be pursued.



recommendations



Pillar 3, Vibrant Hotspots of Activity

Dynamic entrepreneurial ecosystems are created through a range of community-sponsored and initiated activities that speak to the needs of people from a range of backgrounds and industries. We highlight concentrations of vibrant activities, particularly in Dublin and Cork. While we applaud existing Irish programmes, even the excellent activities of today fall short of a truly healthy ecosystem, and that is particularly true in areas outside Dublin. Every region of the country needs startups and jobs. Every region can have improved startup communities.

Co-working spaces are terrific environments for the creation and acceleration of startups and so the introduction of more of these vibrant hotspots could be completely transformational to the Irish ecosystem.



Universities in many countries are hotbeds of innovation. More must be done in Ireland to optimise relationships between academia and industry around the cross-fertilisation of research and commercialisation.



recommendations

- A working group should be established to develop a policy for the promotion of the co-working model with a view to using unoccupied public buildings and NAMA buildings, and to work with the private sector to implement a pilot programme in 2014 to roll out 5 co-working spaces in Dublin, Cork, Galway, Limerick and Waterford of 10,000 square feet each.
- Adopt policies enabling the rapid sharing of Intellectual Property for the public benefit in programmes such as Easy Access IP.
- Training on commercialisation should be provided to every STEM Bachelors student as part of their degree. PhD and Post Doctorate students should also receive mandatory commercialisation instruction as part of their research programmes.

Pillar 4, Access to Talent

Access to talented people is a key enabler for all businesses. Currently, unemployed workers in Ireland are a vast, underused resource, and we must collectively find ways to engage our unemployed and reduce the rate of unemployment. Underskilled youth do not have sufficient options to gain experience.

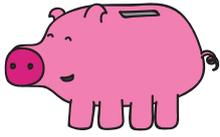


Building human capital for Ireland also means attracting foreign talent. We highlight recent improvements in immigration policy and make specific recommendations around continued visa reforms and improved global marketing.



recommendations

- Make changes to Irish law and regulations to improve Employee Stock Option Programmes. Reforms should make it easier and less expensive for companies to run employee share programmes, while making participation in these programmes more tax efficient for employees.
- Allow youth to participate in a new work experience programme, to be called an 'Apprenticeship Programme', to be funded directly by the companies.
- Enlarge the JobBridge programme by a factor of up to 20 times to help more people escape from the trap of being perpetually unemployed.
- Implement visa reforms to attract more of the world's best talent to Ireland.



Pillar 5, Access to Finance

The Forum has identified a number of improvements which could be made to encourage investment, support lending and ease cashflow strain on the startup community.



recommendations



recommendations

- Incentivise peer-to-peer lending. The first €10,000 in interest income from loans to startup businesses would be tax-free. Businesses must be less than 6 years old in order to qualify for this exemption.
- Establish Diaspora Funds to engage the global Irish community with our startups.



Pillar 6, Public Policy

An important challenge for Ireland is the coordination and integration of different government policies affecting entrepreneurship. An overall vision of how the state supports startups is needed, in conjunction with the programmes that the entrepreneurial community provides for itself.



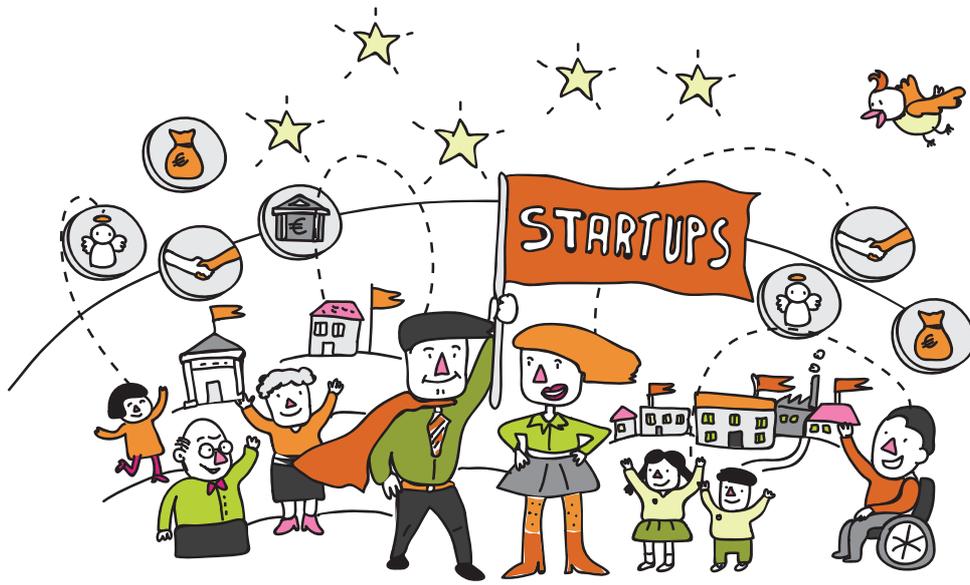
recommendations



recommendations

- Capital Gains should be taxed at 20% rather than 33% to create incentives for investment in new enterprise.
- A National Entrepreneurship Website for startups, with social media channels, should be established which contains relevant up-to-date information on services available, along with links to agencies relevant to establishing and growing a business.
- An Entrepreneurship Policy Unit should be tasked with co-ordinating government startup policy in Ireland.

A strong and welcome focus has been placed on entrepreneurship policy in 2013. However, the Forum wishes to see this action as the beginning of a permanent and on-going commitment to entrepreneurship, rather than a onetime prioritisation. We present the ideas in this document as a starting point for further work and hope that it will lead to enhanced economic activity, increased numbers of startups and increased engagement by all groups in the entrepreneurial arena. In addition, each individual can take a step toward active citizenship and learn about high impact ways that you can help the startup community by visiting bit.ly/IrelandStartups.



Introduction

1. Introduction

The Entrepreneurship Forum was established by the Minister for Jobs, Enterprise and Innovation in May 2013 'to advise the Minister for Jobs, Enterprise and Innovation on policy in the area of entrepreneurship and to draft appropriate policy conclusions and recommendations which will support business startups, sustainable growth and long term job creation. The Forum met six times over the summer of 2013. The purpose of the Forum's Report is to support the Government's development of a National Entrepreneurship Policy Statement.

As part of the focus on entrepreneurship, the Government also held a public consultation in May 2013 inviting interested parties to submit written views and suggestions to support the development of a National Entrepreneurship Policy Statement, which will be published at the end of 2013. In total, 74 written submissions were received and further face-to-face meetings were held throughout the summer and autumn with hundreds of other entrepreneurs and stakeholders. These views and discussions have been made available to the Forum and have been helpful in developing the Forum's thinking. They have provided a welcome reality check on the current environment for startups. The Forum is grateful to the many people who have contributed online, by telephone, in writing and in person. Every contribution has helped expand the level of knowledge of the Forum members and is appreciated.

Following investigation, analysis and discussions with a wide variety of stakeholders, the Forum ultimately developed a series of recommendations which are found in this report.

While this is a report commissioned by Government, entrepreneurship is not something the Government can lead. As much as we would love to think that we can appoint farsighted advisors and taste-makers to be able to predict what the marketplace will want, if there is one thing we know, it is that all plans disintegrate as soon as they hit the battlefield of the marketplace. That is particularly true given the global reality of lots of nimble companies with nimble ideas. The Forum notes that this reality is something that the Irish Government recognises and celebrates. The strength to reimagine the future will come from our citizens and their myriad of new products and services.

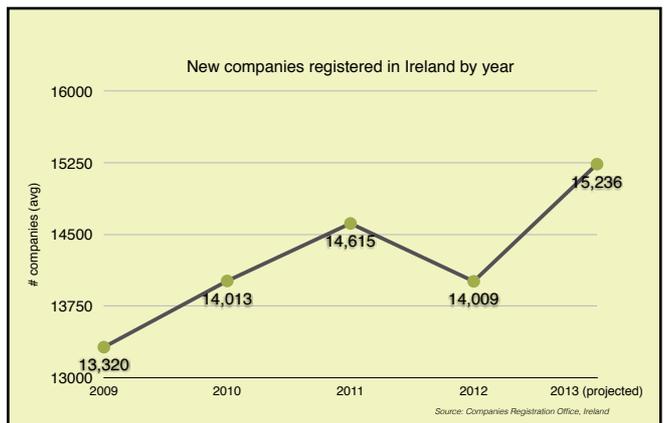
While this is a report commissioned by Government, entrepreneurship is not something the Government can lead

1.1 Importance of Entrepreneurship

Recent research underpins the need for Irish policymakers to encourage entrepreneurship. This research demonstrates that young and growing businesses rather than small 'steady' businesses generally, are the primary drivers of net job creation¹. Entrepreneurship is a fundamental driving force in any economy, but in light of the scale of the unemployment challenge that Ireland is currently facing, growing the number of entrepreneurs and startups is a primary priority to Ireland.

A significant concern to the Forum and to Government is that the pipeline of new entrepreneurs starting up businesses is too small and has fallen in recent years². Too few people in Ireland are motivated by entrepreneurship to view it as a personal career option. The rate of those setting up new businesses is very low. Figures from the Companies Registration Office indicate that in 2012, 14,009 new companies registered in Ireland, a 4.2% reduction compared to 2011(14,615). On a positive note, 2013 has seen a welcome upturn, with more company incorporations in every month than the corresponding month in 2012. To date this has resulted in 1,267 more companies being formed so far this year - an increase of approximately 11%.

Further action is required if Ireland is to encourage optimal levels of entrepreneurship in the future. To achieve this ambition, entrepreneurship policy must be given a strong and visible focus and must form an integral part of the general Government programme. Our proposals are offered in the spirit of building a strong, independent indigenous enterprise sector in Ireland. Each of the Forum's recommendations will make a contribution towards this aim.



¹ Kauffman Foundation Research Series (July 2013) 'Firm Formation and Economic Growth'.

² The 2012 Global Entrepreneurship Monitor Report shows that the rate of early stage entrepreneurship in Ireland is 6.1%, compared to the OECD average at 8.2%. The rate of early stage entrepreneurs in the US (12.8%) is over twice that of Ireland and the rate in the UK is also considerably higher (9.0%). The rate of those aspiring to be entrepreneurs in Ireland is 8%, just over half of the OECD average of 14.4%. Less than half of people in Ireland perceive an entrepreneurial career to be attractive, at 45%, less than the OECD average of 56%. The perception of entrepreneurial opportunities within the next six months in Ireland, at 26%, is lower than the OECD average of 33%.

1.2 Forum Principles and General Approach

The Entrepreneurship Forum was established to support the Government to meet the Taoiseach's goal that, by 2016, Ireland will be the best small country in the world for doing business. Towards this ambition, the Forum identified 6 distinct goals of a successful entrepreneurship policy:

1. Strengthen the startup community in Ireland
2. Increase the pipeline of entrepreneurs
3. Energise job creation
4. Continue growth of the indigenous export sector
5. Capitalise on Ireland's strengths in growth industries
6. Use underemployed resources

Building a strong indigenous enterprise sector is not the sole responsibility of government and its agencies. Rather, it requires the contribution – and leadership - of many different actors in the economic ecosystem (e.g. entrepreneurs, schools, third-level colleges, banks, industry associations, investors, voluntary organisations, etc) to increase the chances that more people discover the opportunity to start and grow their own successful business. Developing this 'entrepreneurial ecosystem' is the focus of the Forum's recommendations.

What new or alternative strategies can Ireland adopt to support entrepreneurship performance and improve this ecosystem? The forum followed several guiding principles in developing its recommendations:

Holistic vs "picking winners" approach

To date, various targeted reports, recommendations and initiatives have been implemented to support specific cohorts in the high tech, life-sciences and medical devices sectors, a strategy sometimes considered the 'picking winners' approach. This leads many budding entrepreneurs to believe that if they don't fit perfectly into these 'winners' categories, then they are not a valued member of the entrepreneurial community. Our approach is based on the view that policies and actions are required to improve the culture and support of *all* entrepreneurial startup ventures across all business sectors. The philosophy of the Forum also recognises that people establishing not-for-profit or social enterprises use many of the same skills as people starting a for-profit business, and they create jobs and social value that is essential to building an inclusive and supportive culture in Ireland.

Minimise reliance on government involvement and avoid duplication of existing supports

The Forum wishes to build its report and recommendations for action on policies and programmes already in place where possible and avoid duplication or reinvention of existing support systems. In general, the Government has an enviable wealth of accessible programmes to support business creation, more so than in many other countries. Some people feel that the state can always do more; however, the Forum's conclusion is that the state need not do more or spend more. Instead, we believe that entrepreneurs need to be self reliant

and customer-focused, rather than be looking for assistance from state agencies and governmental advisors, no matter how well-intentioned.

Start with the entrepreneurs

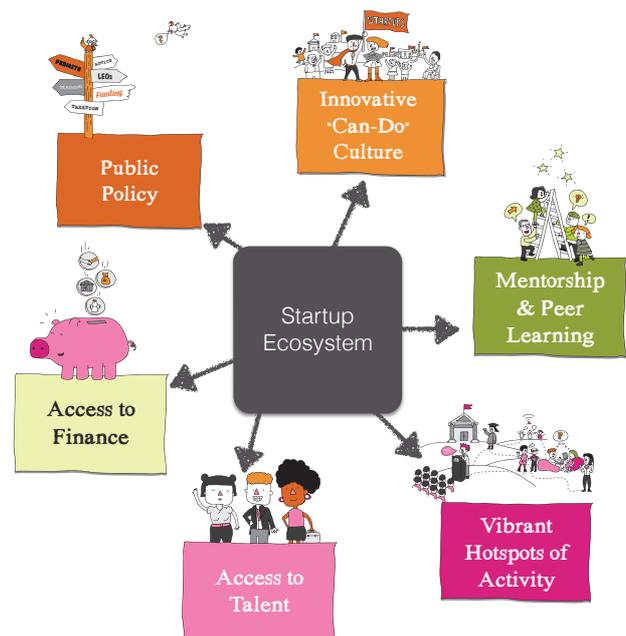
In order to boost skills and creativity among the entrepreneurial community, we target the startup ecosystem itself. The most effective experience in starting and building businesses is held by practitioners, and Ireland is blessed by having a wealth of experienced entrepreneurs who have started and run multi-billion euro industries and innovations. Are there enough such people in Ireland? No. We are a small

We believe that entrepreneurs need to be self-reliant and customer-focused, rather than be looking for assistance from state agencies and governmental advisors, no matter how well-intentioned

country. Are there enough entrepreneurs in Ireland? No, not yet. Are there enough to get started? Yes. Can we attract more, as the only English-speaking country in the Euro Zone? Absolutely! Can we cross-fertilise incoming and upcoming talent with proven Irish entrepreneurs? Yes, and we need to be far more aggressive about this.

To achieve the Entrepreneurship Policy goals the Forum identified the main pillars of an effective startup ecosystem. We will look at what we can do to strengthen each of these pillars in the upcoming chapters.

We have formed several recommendations within each of these pillars, which, if acted upon, will support



entrepreneurship in playing a greater role in Ireland's recovery. While each of these pillars is independently valuable, together they are mutually reinforcing, and therefore should all be acted upon to make the greatest sustainable impact.

We acknowledge that in a time of economic retrenchment, resourcing new interventions is particularly difficult. With this in mind, we look to implement recommendations through existing budgets, reducing duplication, and more efficiently allocating available resources.

Increasing the number of people who found companies and build international enterprises will bring real dividends via economic growth. This solid and continuous growth would solve the sovereign debt problem facing Ireland more quickly and reliably than any other means.

1.3 What is Entrepreneurship?

Is entrepreneurship self-employment? No, that's not it. The self-employed typically sell their labour to perform a set of tasks, and if they don't please the customer, fail to work long enough hours, or produce enough output, they are out of business quickly. It takes courage and determination to be self-employed, but entrepreneurship is more than an individual selling his time or expertise.

Entrepreneurs attempt to develop new enterprises: corporate entities which normally employ staff and grow. Because entrepreneurs try to build a business around a new concept or offering - whether a local bakery or a global high tech company - entrepreneurs create value that can grow and stand over time. Entrepreneurs create functioning organisations that continue to generate value even if the entrepreneur himself leaves the business.

Not only is entrepreneurship the major innovation and change agent for society, it is also the number one producer of jobs in all leading developed economies in the world. In non-communist societies, private industry generates employment and creates the products that our society needs to thrive. These jobs and outputs build wealth, which in turn provides the taxation revenue that allows for the government provision of social and infrastructural services.

1.4 What Does Success Look Like?

One of the questions that the Forum asked of itself is "what will success look like?" This is not a difficult question to *answer* but it is an extremely difficult answer to *measure*. It is the intention of the Forum that future entrepreneurship activities will grow one hundred thousand jobs in Ireland in the near future, which will create a significant, independent and strong Ireland. Leadership and collective responsibility will determine how quickly we can achieve that growth. It could happen in 5-10 years, or it could take decades... If we refuse to make adjustments, it may never happen at all.

The Forum acknowledges that the central challenge of entrepreneurship is individual leadership. We can only be

successful as a collection of private individuals working on behalf of themselves, their companies, and society at large. Success in an economy is something that requires 10,000 entrepreneurial leaders, each of whom is willing to take risks and persevere through endless turmoil to establish each single, vibrant business.

It is through swarms and swarms of these entrepreneurial leaders and their teams that we will grow our economy. This battle will not be led by government, by one person or by a handful of great industrialists. This battle must be championed by many and acknowledged and supported by all. We are dependent on a few great principles: efficiency, accountability and responsibility. We will rebuild our country on the backs of our own citizenship. That's the challenge, to compete and excel and create an Ireland of greatness, as the best small country in the world in which to do business. On this we can build a fair and just society for all of our citizens.

1.5 Next Steps

Responsibility for drafting the Entrepreneurship Policy Statement now passes to the Department of Jobs, Enterprise and Innovation and this Report will play a key role in guiding that process. The Forum would like to reconvene in one year's time for a discussion with Minister Bruton and his officials to assess progress.

A strong and welcome focus has been placed on entrepreneurship policy in 2013. The Forum wishes to see this action as the beginning of a permanent and on-going commitment to entrepreneurship, rather than a one-time prioritisation. We present the ideas in this document as a starting point for further work, and hope that it will lead to enhanced economic activity, increased numbers of startups and increased engagement by all groups in the entrepreneurial arena.

Roadmap to the report: Highlighting Recommendations

Throughout the report, we identify recommendations with a grey highlighted box and two symbols:



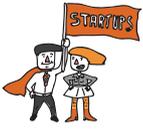
...indicates a recommendation for **Government** action



...indicates a recommendation for **the startup community or nongovernmental bodies**.

Recommendations that require **joint** action include both symbols.





2. Innovative ‘Can-Do’ Culture

“Individual commitment to a group effort:
that’s what makes a team work, a company
work, a society work, a civilization work”
-- Vince Lombardi

The first pillar of a strong entrepreneurial environment is an innovative ‘can-do’ culture. Many people in Ireland see America as a country where entrepreneurship is celebrated and ask “why can’t we have a similar culture in this country as our cousins across the pond?” For many reasons that are too complex to discuss here, Ireland’s entrepreneurial culture is markedly different to that found in America.

How can we enhance the ‘can-do’ entrepreneurial attitude to strengthen business, as well as all aspects of Irish life? A can-do attitude is about being positive and proactive, being willing to take some risk, and taking personal responsibility.

Innovation, the hallmark of entrepreneurial opportunity, is too often doubted or disregarded in favour of the safe choice. Change is sometimes viewed as something to be avoided rather than celebrated. Many people cling to their entitlements and safety blankets. Being innovative can be as simple as asking how we can do things better (faster/cheaper, etc) than the status quo.

The Forum’s concept of an innovative ‘can-do’ culture requires ambitious, high-performance, high-growth entrepreneurship, successfully commercialising new ideas on a substantial scale in a short timeframe. Innovative entrepreneurship stems from the belief that it is not sufficient for companies to be entrepreneurial and not innovative or to be innovative and not entrepreneurial, they must be both.

Innovation is not magic and it is not only about people in laboratories. It is about continuously seeking to improve product, service, operations, people, or any other facet of a business that will add value for the customer and the workflow. The following sections examine how to embed these values into all of our population, so that a multitude of entrepreneurial people will emerge in future years and build strong Irish businesses that offer exciting employment opportunities for local communities. Three specific issues are addressed: cultural values, education system reform and encouragement of under-represented groups as potential entrepreneurs.

2.1 Promote Entrepreneurship as an Irish Cultural Value

It has been suggested that Ireland has a tradition of herding our children into ‘overpaid safe havens’. We encourage our children to work in ‘guaranteed secure’ jobs in high-paying areas like the public sector, in multinational corporations or in the professional services fields (eg. accountants, lawyers, doctors).

If true, this may explain why Ireland currently has one of the lowest rates of entrepreneurship in the EU. On the other hand, Ireland also holds a high regard for those who start businesses. Approximately 75% of Irish people have a favourable image of entrepreneurs, one of the highest rates in the EU and similar to the highly entrepreneurial United States where 77% of people hold entrepreneurs in high regard.³

A strong support culture for entrepreneurship is identified as one where:

1. Startups are applauded and recognised by the general population.
2. Knowledge and connections are shared.
3. Success is not begrudged, and failure is not denigrated.
4. Activity is driven by volunteer efforts.
5. An inclusive attitude prevails.
6. The media plays its part in highlighting the importance of entrepreneurial endeavours.
7. Various competitions and awards take place to celebrate success and contributions.
8. A choice of accelerators, workshops, and training courses are available.
9. Immigrant entrepreneurs are encouraged to come to the country.
10. Government policy addresses obstacles.

In many of these regards, Ireland is doing well. Ireland is already home to a strong and diverse media, a wealth of industry groups and some of the leading accelerators in Europe.

Culture, defined by how individuals interact, is a key part of characterising the entrepreneurial community and spirit. Concepts such as ‘give before you get’, ‘pay it forward’, ‘everyone is a mentor, so share your knowledge and give back’ are essential attributes of a vibrant entrepreneurial community. Other key cultural elements include accepting and welcoming of differences, celebrating achievements, and embracing failure as part of the process.

We would point to a great book on startup culture, Brad Feld’s *Startup Communities*. This is essentially a cookbook on how to create a vibrant startup ecosystem. Many of the

³ European Commission (2012). Eurobarometer Survey on Entrepreneurship.



concepts that are covered in the book are also highlighted in this report.

If Ireland is going to 'up its game' in entrepreneurship, then this ecosystem needs to be far more robust and active. Signs of community spirit and activity are already present but more must be done. We cannot and should not look to the Government to be the leader in building this culture. However, the Government can provide a permissive and supportive environment for the ecosystem to develop and thrive.



It is necessary to promote and celebrate entrepreneurship and commend entrepreneurs who have achieved success, particularly those to whom people can relate and aspire to emulate. Inspiring people at a young age is also essential, so the education system has a crucial role to play in this development.

2.2 Education System

If we want to increase the pipeline of people choosing an entrepreneurial career then Ireland must encourage entrepreneurship as a norm rather than an exception. This potential career path should start from a person's early years within the education system. The Forum recognises that there are many initiatives currently being undertaken to enhance entrepreneurship education and skills development in Ireland, but they remain highly fragmented. EU and OECD reports over the past decade have repeatedly highlighted the lack of a coherent overarching strategy for these activities.

This demonstrates a need for an articulated entrepreneurship education policy/strategy that covers all levels of the education system. Additionally, the lack of specific entrepreneurship education modules in teacher education programmes creates challenges because most teachers lack the experience to deliver these specialised programmes. Thus we feel that teachers, as well as students, should receive some entrepreneurship education.

Research from the EU and other European countries has shown that participation in entrepreneurship programmes and activities have a positive impact on young peoples' connectedness at school, as well as their success in the job

market, their tendencies to innovate and their likelihood to start their own companies.⁴

Much progress has been made in Ireland with initiatives such as the County & City Enterprise Boards 'Student Enterprise Awards'⁵, RTÉ's Junior Dragons' Den, Foróige's 'Network for Teaching Entrepreneurship', The Young Entrepreneur Programme,⁶ and the commercialisation of ideas from the BT Young Scientist & Technology Exhibition giving children role models and structures to participate in.

Indeed there is now a growing acceptance in Ireland of the need to build work-related skills at an early age. Innovative enterprises require a pool of work-aware school leavers. There is an immediate need to introduce modules, courses, bootcamps, hackathons⁷ and startup weekends at primary and secondary school levels around the country.

There are a limited number of independent parties who have piloted various efforts that are worth mentioning and endorsing:

- Bizworld runs 2-3 day immersion events in primary schools where students are put into teams and expected to set up a company, raise money, pitch to investors, and have an actionable result. Bizworld also organises summer camps and works with educators and teachers to introduce entrepreneurial concepts to students. Bizworld currently partners with schools in Dublin, Kildare, Wicklow, Galway, Cork and Limerick. Such a programme is worth expanding across the nation.
- Network for Teaching Entrepreneurship (NFTE), a worldwide youth entrepreneurship education and development programme, and Foróige, Ireland's youth organisation, have partnered for over a decade to deliver in-school and out-of-school courses, workshops, and awards at the secondary school level. The NFTE Foróige collaboration, and similar efforts, should be actively promoted in schools across the country.

Information and communications technology (ICT) skills are an essential part of any successful modern enterprise in all areas from marketing through financial systems and logistics. In fact, a recent study showed that the majority of founding CEOs of the biggest startups (39 startups between 2003-2013 that have a current day valuation of \$1 billion or more), and 90% of enterprise CEOs, have technical degrees from college. When looking at the businesses that sell

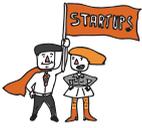
⁴ European Commission (2012) - *Entrepreneurship Education at School in Europe* - European Commission, Brussels

Danish Foundation for Entrepreneurship: Young Enterprise (2012) - *Impact of Entrepreneurship Education in Denmark 2012* - Danish Foundation for Entrepreneurship: Young Enterprise, Copenhagen

⁵ This acquaints over 16,000 students annually with the concepts behind running their own business.

⁶ Run in secondary schools and third level institutions across Ireland, the programme has held 25 events and seen 3,400 students complete a course in entrepreneurship since 2007. www.youngentrepreneur.ie

⁷ A hackathon is an event at which computer programmers and others involved in software development, including graphic designers, interface designers and project managers, collaborate intensively on software projects. The goal of such events is to enable students to understand the technology that builds our world so that they may feel engaged in it.



products to enterprise customers, the number rises to 90% of CEOs with technical degrees.⁸

If the biggest successes come from technical backgrounds, what can we do to increase the success of our startups?
Answer: Increase our technical capabilities.

In an ever-changing technological world, children should be exposed to a broad range of ICT skills to understand their application in the workplace. With English now the primary language of today's world economy, learning a programming language has arguably become more important than learning a second spoken language.

Organisations such as CoderDojo have shown that this is not an expensive initiative to put in place, especially given that most schools have significant numbers of (often under-used) internet-connected computers already in place. CoderDojo, is a not-for-profit movement that runs free coding clubs with regular weekly sessions for people aged 7 to 17. At CoderDojo youth learn how to code, develop websites, apps, programmes, games and more. Dojos are set up, run by and taught by volunteers. These volunteers are the lifeblood of the organisation. Dojos organise tours of technology companies, bring in guest speakers to talk about their career and what they do, and organise events. In addition to learning to code, members meet like-minded people to show off what they've been working on. Every week, roughly 5,000 kids develop their computer skills in 100 CoderDojos throughout Ireland. Ideally we would hope to increase this by at least a factor of 10 in the coming years.

“Sooner or later, those who win are those who think they can.”
--Paul Tournier

Lastly, the Forum is aware that many successful entrepreneurs would be willing to engage with local schools to talk to students, but this type of voluntary programme should be organised so that teachers know where to go to access entrepreneurs. A database of entrepreneurs could be established and managed by the LEOs or Enterprise Ireland, as a national registry. This registry could list volunteer entrepreneurs by industry sector to make it easier for schools to engage with the business community and for the business community to be comfortable engaging with schools. The same registry could be used for other purposes as well, such as office hours and mentoring, as will be detailed in Chapter 3: Mentorship and Peer Learning.



1. Develop a National Educational Strategy for Entrepreneurship covering all levels of the education system. Establish an Entrepreneurship

Education group to draft an Entrepreneurship Education Strategy that embeds teaching of entrepreneurship into primary, secondary and third-level schools and colleges, and also incorporates initiatives for life-long learning and skill development programmes.

2. Build ICT skills at secondary level as per the Oireachtas report on Information Communication Technology (ICT) Skills Demand in Ireland (2012) recommendations with a focus on learning web development and computer programming.
3. Introduce a National Register for volunteer entrepreneurs who would be willing to visit schools to engage with students at local level.

2.3 Encouragement for Under-Represented Groups

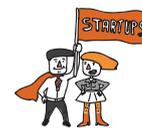
The majority of the actions being taken by Government are helpful to people who are already in the 'system' or who have already started their entrepreneurial journey. Supporting existing entrepreneurs is essential, but a strong pipeline of new entrepreneurs is also needed. As emphasised earlier in this report, we are concerned that the pipeline of new entrepreneurs creating startup businesses is too small.

There are a number of sectors of our society that are under-represented in entrepreneurship compared to some of the most entrepreneurial societies in the world. How do we inspire these under-represented groups to choose an entrepreneurial career and feed the startup pipeline? The entrepreneurial achievements of these groups must be highlighted to encourage others to follow their path. To this end, the Forum recommends running an 'entrepreneur heroes' campaign to celebrate the successes of these groups. The Forum has also developed recommendations around several specific groups: the unemployed, females, youth, immigrants, and seniors.



4. As part of an entrepreneurship cultural awareness campaign, create 'entrepreneur heroes' which highlight and celebrate role models inclusive of the under-represented profiles (female/youth/immigrants etc.) as well as the represented profiles.
5. The President or An Taoiseach annually bestows an award to one or more entrepreneurs or entrepreneurial volunteers for "meritorious service" to Ireland.

⁸ "Welcome to The Unicorn Club: Learning from Billion-Dollar Startups", Cowboy Ventures, TechCrunch 2 November 2013. <http://techcrunch.com/2013/11/02/welcome-to-the-unicorn-club/>



2.3.1 Unemployed

The Back to Work Enterprise Allowance, administered by the Department of Social Protection, is a great support for unemployed people trying to set up a business. The allowance encourages the long-term unemployed to take up self-employment, and is paid on a reducing scale over a two year period, (i.e. 100% of a person's social welfare payment in Year 1 and 75% in Year 2).

However, there are several elements of the programme that could be improved to support entrepreneurial development. Firstly, the Back to Work Enterprise Allowance is only attainable if you have been on the 'Live Register' for 12 months. Secondly, there are long waiting times for seeking approval for the allowance and the applicant must not take up self-employment until they have received written approval from the Local Development Company or the Department of Social Protection. If we are to prioritise entrepreneurship, then we must fast track those people trying to take up self-employment from the live register.

Thirdly, the payments system for entrepreneurs' grants could be improved to support unemployed people starting out in business. Currently, grants are awarded after the expenditure is incurred by the entrepreneur. This is not feasible for unemployed people trying to start a business, who cannot afford this up-front expense, and who often wait several weeks for the grant payment refund to be processed.

Upfront payment of certain grants (from LEOs and the Dept. of Social Protection Technical Assistance and Training Fund) would support unemployed people who do not have access to savings or other forms of financing for starting-up.

The Forum believes that addressing these issues would do much to enhance the entrepreneurial contribution of this section of society.



6. Reduce the time required to be on the Live Register before being eligible for the Back to Work Enterprise allowance.
7. Cut the waiting time for appointments for unemployed people seeking approval for access to the Back to Work Enterprise Allowance.
8. Improve the payments system for entrepreneurs' grants for unemployed people trying to start a business. Provide up-front payment of certain grants.

2.3.2 Women

The Government has delivered some targeted and tailored programmes in recent years to address the specific challenges facing female entrepreneurs, and to encourage and inspire an increase in female-led businesses. Many Government-led women entrepreneurs' networks exist around the country where women can share ideas for professional growth and

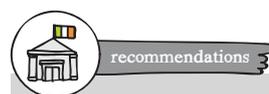
innovative entrepreneurship. Despite these efforts, only 10 percent of the high-potential startups backed by Enterprise Ireland are woman-led enterprises, indicating a need for further targeted work.

Championing woman business leaders as role models will play a key role in increasing the numbers of female entrepreneurs. A successful example of this is the 'National Women's Enterprise Day', a two-day event currently organised by Ireland's 35 County and City Enterprise Boards, an important vehicle seeking to inspire, activate and assist women across Ireland in running their own business.

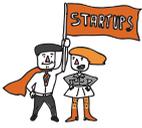
Various private sector initiatives such as the annual IMAGE Businesswomen of the Year Awards also support, encourage and inspire female entrepreneurship. The European Network of Mentors for Women Entrepreneurs is also an excellent initiative, which recognises the distinctive nature of women's business startups and ensures that newly-established women entrepreneurs can sustain their activity throughout their first years in business. The Network is co-ordinated by Galway Chamber of Commerce with partner organisations that include Dublin Chamber, Cork Chamber, Waterford Chamber and Sligo Chamber.

The Forum feels that these programmes and private initiatives must be underpinned with social welfare policies that 'even the playing field' for women. Female entrepreneurs have difficulty taking full maternity leave, given the demanding nature of entrepreneurial business. Greater flexibility in which a parent avails of the maternity leave scheme will allow parents to share in a manner that best suits the needs of the female entrepreneur. Lastly, Government should ensure that a female employer is entitled to the same welfare benefits as a female employee. Currently a female employer must have 52 weeks of PRSI contributions as opposed to a minimum of 39 for an employee. The Department of Social Protection also requires female employers to give 12 weeks of advanced notice for maternity leave, as compared to just 6 weeks by female employees.

The Forum believes that changes to these current Government approaches would enhance a supportive culture for female entrepreneurship.



9. Continue the programme of targeted and tailored supports for female entrepreneurs.
10. The maternity leave scheme should be amended to enable a woman to transfer a portion of her maternity leave and benefits to the father of the child.
11. The qualifying weeks in terms of PRSI payments to qualify for maternity leave should be the same for female entrepreneurs as for female employees and the advance notice should also be similar.



2.3.3 Youth

The percentage of youth unemployed in Ireland is currently one of the highest in Europe. Our recommendations complement existing work being done to address this critical situation. The Forum recognises that countries such as Germany with low rates of youth unemployment have excellent apprenticeship systems and that these are currently being examined by a Review Group from the Department of Education and Skills. Any new apprenticeship system adopted in Ireland should recognise and foster entrepreneurship as a valid career option. These initiatives may be particularly suitable to Early School Leavers who are the most vulnerable to long-term unemployment.

Additionally, an entrepreneurship internship programme could be established whereby a young person can spend time shadowing an entrepreneur so as to gather strong learning experiences on how to manage a business. The EU Commission's 'Erasmus for Young Entrepreneurs' is one such model, which could be replicated in Ireland. The Dublin Business Innovation Centre (DublinBIC) is willing to participate in a pilot of such a programme targeted at youth. The DublinBIC manages the Guinness Enterprise Centre, the single largest entrepreneurship facility in the country with 60,000 sq ft. of space, over 80 startup companies and 320+ employees in one building. The pilot programme would engage 50 larger and more established startup and growth companies to offer internship opportunities to 'youth unemployed' persons who are interested in entrepreneurship/startups as a career path.

The forum also proposes that the LEOs, in conjunction with Microfinance Ireland, pilot a new programme to support young people to set up their own businesses. The programme should involve facilitated learning, mentoring, peer learning and coaching. On completion, participants would be referred to the range of financial and soft supports from Enterprise Ireland/LEOs, Microfinance Ireland, Department of Social Protection, Local Development Companies, etc. Each Microfinance Ireland youth entrepreneur loan would be supported by further dedicated mentoring during and after the duration of the loan. Post-loan mentoring is imperative to provide critical support for early youth-led startups, minimise the level of write-offs, and to ensure long term sustainability of jobs and the business itself.

As a further targeted programme, and as a next step in a progressive pathway following on from the LEOs/Microfinance Ireland programme mentioned above, Enterprise Ireland should launch a Competitive Feasibility Fund for Youth Entrepreneurs.

Programmes such as these will not solve the youth unemployment problem, but they will contribute to the solution and enhance the role and perception of entrepreneurship among youth. We provide further

recommendations regarding youth in the Access to Talent chapter.



12. Entrepreneurship should be recognised as a career option within any newly designed apprenticeship system.
13. An entrepreneurship internship programme should be established based on the EU funded Erasmus for Young Entrepreneurs programme. As a pilot initiative, 50 of the larger more established startup and growth companies based in the Guinness Enterprise Centre could be engaged to take one 'youth unemployed' person each to undertake an internship.
14. LEOs, in conjunction with Microfinance Ireland, should pilot a new programme for young people who set up their own business. Microfinance Ireland should ring-fence money for a Micro Youth fund to facilitate youth-led ventures.
15. A Competitive Feasibility Fund for Youth Entrepreneurs should be established by Enterprise Ireland.

2.3.4 Immigrants

Immigrants to Ireland are generally well educated and many are under-employed in their current job, if they have one. CSO figures indicate that 31.3% of non-Irish nationals have attained a third level degree or higher compared to 27.1% of Irish nationals.⁹ Immigrants are entitled to use the services of the various enterprise support agencies, but arguably this has been a passive approach. The Forum recognises that the immigrant community is highly entrepreneurial, with 7.2% of immigrants engaged in early stage entrepreneurship¹⁰. Ireland needs to more effectively leverage immigrants' international networks and embed the entrepreneurial activities of immigrants within the fabric of Irish society.



16. Enterprise Ireland should leverage their collaboration with the Higher Education Authority (HEA) to develop a tailored enterprise programme that is targeted at immigrants who are postgraduates in Irish Higher Education Institutions (HEIs) in order to build high potential startups with export potential based on their graduate research.
17. Local Enterprise Offices should work directly with immigrant organisations, social groups and places of worship to promote the many services and supports available to any person wishing to

⁹ CSO (2012) Migration and Diversity.

¹⁰ GEM (2012) Entrepreneurship in Ireland



establish a business and to enable immigrant entrepreneurs to fully immerse their businesses in the Irish market.

2.3.5 Seniors

An often forgotten group of potential entrepreneurs are people who may have already completed one career, but who wish to continue contributing economically, perhaps by starting a new business or taking ownership of an existing business. Some of the group will also contribute by way of mentoring, investing or other direct involvement with the entrepreneurial community. We should not miss out on any potential opportunity for this group to support business growth and create jobs.

Senior Enterprise, an EU supported initiative through INTERREG IVB NWE, is specifically designed to encourage a greater involvement with enterprise by those aged over 50. While EU funding for the programme will finish in the near future, the Government should seek to maintain its presence in Ireland and extend its geographic reach. The successful programme offers tailored support for an age group that could suffer from long-term unemployment if made

redundant.¹¹ According to ageuk.org, up to 1 in 5 people aged 50 plus are now self-employed in the UK, and this group of startup entrepreneurs are more likely to succeed in business, with 70% of startups lasting over 5 years compared to just 28% of younger entrepreneurs.

It can be assumed that similar statistics would be reflected in an Irish context. The Forum believes that we must tap into this resource fully.



18. Exchequer funding for the successful EU supported Senior Enterprise initiative should be sustained when EU funding ceases.

¹¹ Figures from the UK highlight that only 1-in-10 people aged over 50 will find employment if made redundant



Mentorship & Peer Learning



3. Mentorship & Peer Learning

To create great companies, we need to train and develop great entrepreneurs. It's no different to fielding great athletes on the rugby or soccer pitches. To field a team that competes internationally, we must develop superstar startup leaders.

Various EU and OECD reports examine initiatives for building entrepreneurial capacity and capability. Many of these ideas have already been adopted in Ireland.

The Forum's stakeholder consultation process with successful entrepreneurs strongly identified mentoring as a critical success factor. Just like athletes rely on coaches, so too do founders of companies.

The single best way we can address the entrepreneurial skills gap and develop a generation of entrepreneurs in a scalable way is through developing collaborative peer mentoring networks. Many types of peer learning and mentoring opportunities emerge in a successful startup community, but in this chapter we focus specifically on peer mentoring groups.

3.1 Peer Mentoring

A central recommendation of this report is to revitalise the entrepreneurial culture of Ireland by developing strong networks of entrepreneurs helping entrepreneurs. From networking events to peer mentoring groups to shared electronic learning, Ireland needs to leverage the skills of the few for the understanding of the many.

Peer mentoring is a hugely important source of support for an entrepreneur for tapping into the business expertise of others, for advice and perspective, and as an impartial sounding board for new ideas and honest feedback.

Previous state policy approaches have recognised the importance of mentoring and skills development to startups; however many initiatives tend to provide once-off mentoring services paid for by the state. These programmes are unsustainable, as can be seen in low participation of startups in mentoring after state programme aid ends. Rarely does a company continue to pay out of its own pocket for the continuation of mentoring.

For startups, paying consultants to do executive coaching is unaffordable for the long term. Consequently, successful entrepreneurs draw other successful entrepreneurs into their network through boards or through regular peer group meet-ups.

The Forum is of the view that mentoring

“Coming together is a beginning.

Keeping together is progress.

Working together is success.

- Henry Ford”

cannot and should not be the responsibility of the State and the resources currently focused on the provision of one-to-one mentoring services should be scaled down and redeployed to kickstart the development of peer mentoring groups.

Very few if any entrepreneurs succeed at scale without a network of peers who help them diagnose their challenges and continuously fine-tune their corporate strategies. Fortunately, many inexpensive (and therefore accessible) entrepreneur networks already exist which can connect

experienced executives with each other as well as with startup founders. Much of this already happens both informally and formally and could be further encouraged and developed.

A large number of industry associations, entrepreneurial events and conferences (including the Dublin Web Summit) are built on the concept of networking and information sharing which often leads to new peer mentoring relationships.

Peer mentoring is effectively a low-cost, private sector activity. Some degree of facilitation in setting up these peer-mentoring groups could be performed by the State as a once-off activity.

Mentoring which is paid by the entrepreneur or the State greatly inhibits its effective use. Entrepreneurs either cannot afford ongoing sessions, or choose not to suffer through the

A central recommendation of this report is to revitalise the entrepreneurial culture of Ireland by developing strong networks of entrepreneurs helping entrepreneurs.



Photo Courtesy of Rude Baguette

<http://www.rudebaguette.com/2013/10/08/dublin-startup-scene-photo-essay/>



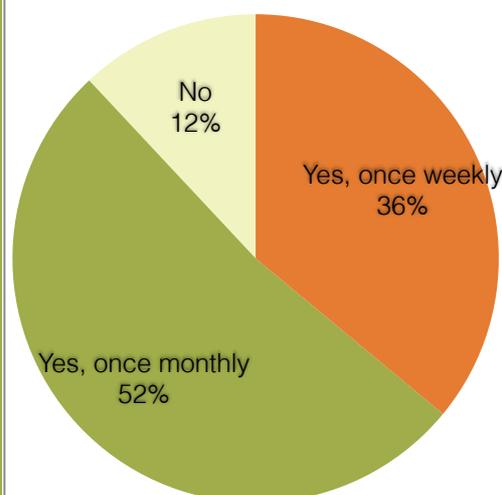
paperwork to engage in this kind of mentoring. By contrast, peer mentoring is non-monetary and community based.¹²

3.1.1 Office hours

‘Office hours’ is a simple concept whereby experienced and successful business people share their time on a voluntary basis, providing one-on-one advice to startup entrepreneurs on the various aspects of starting or running a business. A survey conducted for this report revealed that the majority of even the busiest and most successful entrepreneurs in Ireland are willing to give their time if it can be done in a well-structured and efficient manner¹³.

A central problem for many successful business people is that they are overwhelmed with dozens of requests from people in the community. Entrepreneurs are generally willing to give their advice for free to others, as long as they can fit such requests into their overloaded schedules. However, scheduling and administrative difficulties in arranging these meetings are often more time-consuming than the meetings themselves.

Willingness to join national network of entrepreneurs having “office hours”



88% of the most successful entrepreneurs in Ireland would take time to share their knowledge with other startups

Source: Survey of 2013 Ernst&Young Entrepreneur Alumni

Industry efforts to create this national registry are already underway, and will be hosted in the future at <http://www.officehours.ie>.

How does ‘Office hours’ work?

‘Office hours’ can be arranged in multiple ways. One Forum member has Saturday Skype calls of 15 minutes length between 11am and noon for anyone who wants to register for the slots via his executive assistant. For another person, office hours could be once-per-month for 3 hours at a designated coffee shop, and whoever shows up can get as much time as they need. The important thing for the mentor is for the process to have as low overhead as possible.

In other words, ‘office hours’ duplicates what university professors have known for centuries: make some regular time available, and the people who really want it will go out of their way to show up and learn. If no-one shows up, the mentoring entrepreneur gets to use the time to catch up on their own business.

The Forum recommends that a startup community effort be undertaken to create an office hours registry and system for volunteering. It seems well-suited for the private sector and unlikely to work as well or as flexibly if developed by the state. Free web services to support this are available.¹⁴



- Develop a national registry and process for ‘Office Hours’ to facilitate Entrepreneurship mentoring. Perhaps have this registry be compatible with other volunteer activity requests, such as for talks at conferences, schools, etc.

3.1.2 Peer Mentoring Groups

Peer mentoring groups are largely a volunteer activity.

Private companies seeking mentorship can also choose the highly regarded Entrepreneur Organisation model, provided in Ireland through EO Ireland¹⁵ and others. In this model, a company pays a single annual membership fee, and the CEO of the company attends monthly peer mentoring events. CEOs at roughly the same experience level share their experiences in small groups and learn and share from each other in a completely confidential environment.

Sandbox¹⁶ is another network where members are directly engaged with an international network of similarly minded

¹² Another widely employed and valuable mentoring structure is a company’s Board of Directors. In the United States, most boards are either unpaid or paid via a relatively small level (~1%) of stock options.

¹³ The Entrepreneurship Forum in conjunction with Ernst & Young surveyed some of the country’s most successful entrepreneurs (winners and finalists of the EY ‘Entrepreneur of the Year’ competition). 88% of these successful entrepreneurs indicated that would make regular time available on a weekly or monthly basis for an ‘Office Hours’ style programme. 25 Award winners alumni responded to this question.

¹⁴ Possibly using free or inexpensive off-the-shelf web services like <http://ohours.org> or <http://youcanbook.me> and an Ireland-specific registry of entrepreneurs

¹⁵ Entrepreneur’s Organization, Ireland. <http://coireland.org/>. Limited to those companies with more than €750,000 in annual sales. About 10,000 business owners worldwide meet monthly at peer mentoring activities.

¹⁶ Sandbox Network, <http://sandbox.is>



individuals. This provides an important competitive advantage and has been used to good effect by Irish entrepreneurs.

Founders often feel very isolated when not able to share their uncertainty about tough decisions internally. Often, the best place for an entrepreneur to turn to is a group of peers -- founders at a similar scale, struggling with similar issues.

We believe it would benefit the country to have more peer mentoring groups, perhaps organised and facilitated by industry representative groups around the country.

3.2 One-to-One Mentoring

Based on observations and stakeholder feedback, the Forum proposes that the State should significantly reduce its role in providing one-to-one mentoring services to achieve a target of 80% unpaid mentoring through peer mentoring groups and 20% paid delivery of one-to-one mentoring. The Forum recommends that as a matter of policy, one-to-one mentoring sessions should not be a long-term service provided by the State. Instead, participants should be encouraged to seek out peer mentors, network opportunities and expertise that *they* need.

The State could, however, play a role in facilitating a volunteer-based programme. For example, LEOs could seek volunteer entrepreneurs through the Chambers of Commerce or other networks to work as mentors to startup founders.

For founders at the earliest stage of starting a business, a handful of meetings providing once-off mentoring are available from the LEOs. While some one-to-one mentoring is highly advisable early on, affordability is a key concern for businesses at this stage particularly for unemployed people who are trying to start a business. The examples of volunteer-based mentoring programmes given above, which could be facilitated by the LEOs and other agencies, provide potential solutions to the affordability issue. If paid mentoring services continue to be delivered by State agencies, the Forum recommends cutting the charge to unemployed people trying to start a business as a specific measure.

Multinational corporate social responsibility programmes are gaining popularity whereby staff are given time off to do volunteer work in local communities. An initiative for large companies could also be facilitated to provide advice to startups.

The Forum feels that these examples of volunteer initiatives could be explored further.

3.3 Skills Development Programmes

Enterprise Ireland and others have developed courses and sessions that seek to develop the skill-sets of management teams. Currently such programmes, even when they are of the highest caliber, are often delivered in a highly

unsustainable way: through once-off, expensive executive-MBA-style programmes.

These programmes through Stanford, Cambridge, Harvard, etc., are highly regarded and are credited as good or great experiences that can provide breakthrough thinking in the participating high performance startups (HPSUs). However, only a few dozen companies, as designated by Enterprise Ireland, are able to partake of these types of programmes.

We suggest that these programmes constitute the minority of the skills development supports provided by the State and that the bulk of whatever funding is made available go toward the development of continuous, volunteer-based peer mentoring activities which would ideally make more mentoring available to 100 times as many companies.



20. A target of 80% unpaid mentoring initiatives and 20% paid mentoring should be pursued. This is a reversal of current priorities.
21. Establish volunteer peer-mentoring initiatives, organised and facilitated by individuals, entrepreneurs, and industry representative groups. Programme support to be geared toward enhancing a collaborative startup community and 'give before you get' culture.
 - a. LEOs to seek volunteer entrepreneurs through the Chambers of Commerce networks or others to work as "buddy mentors" to startup promoters.
 - b. Agencies to facilitate an initiative among large companies to allow staff to volunteer to go into startups, giving specific technical and management advice, financial expertise, mentoring etc.. (Private sector in conjunction with LEOs/EI).
22. If paid mentoring services are delivered by State agencies, the Forum recommends cutting the charge as a specific measure to support unemployed people trying to start a business.

3.4 Webinars

A recurrent theme from entrepreneurs is the need for workshops and programmes that develop their entrepreneurial skill-sets, but frequently these individuals do not have the time or money to access such learning opportunities.

The Forum holds that every effort should be made to facilitate entrepreneurs in this respect. To this end, it recommends that Agencies and industry organisations develop a rolling series of webinars that enable learning and information sharing.

The technology involved in hosting Webinars is quite inexpensive and speakers could offer their services free of charge. The Webinars could be attended live or people could watch the webinar at a later time or date via a hosted website.



recommendations



recommendations

23. One-hour webinars should be hosted by Agencies and industry organisations on a monthly basis featuring topics that enable entrepreneurs to manage their businesses more effectively, and that people can access in their own time.

Mentorship and peer to peer learning

Peer-to-peer learning between entrepreneurs is crucial to developing startup communities. This includes successful mentorship and getting entrepreneurs together to share, learn and support each other. It's about giving without the expectation of getting something back. Inevitably it always comes full circle and everyone gains from this sharing and learning. One such successful Irish Entrepreneur organisation in Ireland is www.eoireland.org

Successful mentorship programmes are those where mentees create structured, goal-driven relationships with mentors aimed at accelerating the personal and professional growth of the entrepreneur.

What mentorship is NOT:

It is NOT an unpaid babysitting role. Nor is it a consultancy or teaching role.

What mentorship IS:

It is a meeting once a month or six weeks where the mentee brings the burning issues of his or her day to the table. The mentor in turn brings non-judgemental and unconditional commitment to both the personal growth of the entrepreneur, and the success of his or her business. It is a two-way street where both parties gain something from the experience.

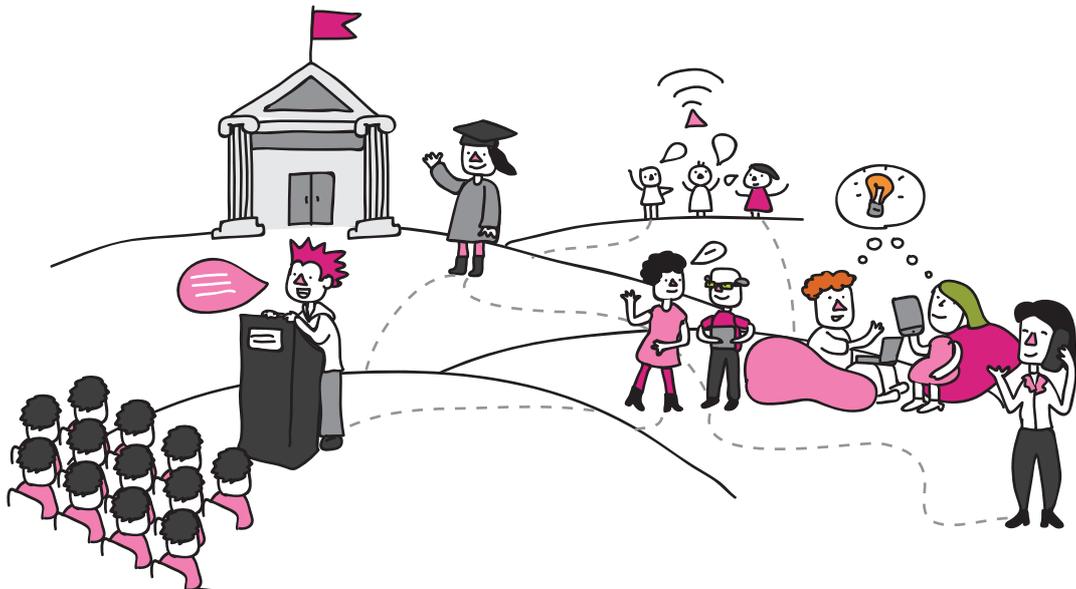
The mentee is responsible for identifying the business goals and personal growth objectives and for tracking their progress. The mentor provides an alternative perspective, reframing issues and sharing experience in a trusting, positive environment.

Successful mentorships are created through:

- Regular face-to-face meetings – scheduled monthly for 1-2 hours of uninterrupted time.
- Shared, agreed, SMART goals – focused on achieving desired outcomes.
- A twelve month timeframe – a time boundary that creates urgency.
- Mentee accountability for results.
- Mentor responsibility for relationship, integrity, and leadership by example.

Members of the Entrepreneurship Forum have all personally grown and experienced their businesses grow as a result of participation of mentors. As one related;

“After failing due to the economic downturn, the peer-to-peer support I received spurred me on to get up and start again. I honestly believe without those entrepreneurs around me during those low times, I would have most likely thrown in the towel.”



Vibrant Hotspots of Activity



Tech Entrepreneurship in 1980s and 1990s Ireland

The 80s and 90s were an exciting time in Ireland for entrepreneurship in the technology sector. The emergence of digital mobile systems (GSM) and open systems in computing and communications created an environment where even small companies could make an impact in world markets such as banking, telecommunications services and interactive learning that were traditionally the preserve of large multi-national companies.

During the late 70s and 80s, a significant proportion of the third level graduates from engineering and science courses emigrated to join multi-nationals in mainland Europe and North America. Less than a decade later many of these expatriates looked to return home and found a unique confluence of factors in Ireland that promoted innovation. With little or no funding available to small businesses from venture capital firms, banks or state agencies, the country didn't ostensibly look like fertile startup territory. What did promote innovative new businesses, however, was:

- **Availability of Skilled Staff.** Multi-national companies incubated a pool of skilled staff keen to apply their experience to new challenges. Many of these returned from working overseas or from the domestic branches of multi-national companies. They quickly identified a market or technology niche that wasn't being exploited by their existing employer and built a business around it.
- **Applied Research.** Ireland's universities in the 80s had many innovative programmes in computing and communications, which were very current with trends in the industry. This stimulated some graduates to set up businesses in these areas.
- **Skilled Graduate Pool.** Companies in the 80s and 90s had a steady stream of high quality technical graduates from engineering and science disciplines ready and willing to work in exciting new startups.
- **The Irish Trade Board.** Córas Tráchtála, with its worldwide network, provided market access especially in North America and Asia which allowed startups to punch well above their weight on a global stage.

Typical startups of this period were companies such as Kindle (Banking Systems), Aldiscon (Text Messaging), Fineos (Insurance), Iona (Enterprise Integration Software), APiON (Mobile Web), CBT & Riverdeep (Interactive Learning), ChangingWorlds (Personalisation), Network365 (Mobile Payments), Datalex (Travel Software), Trintech (Online Payments), Baltimore Technologies (Security), Glockenspiel (Compilers), Eurstix (Network Management), Mapflow (Risk Intelligence).

The environment created over the last 5 years may have placed Ireland on the cusp of a similar innovation revolution. We have exported many skilled graduates, there has been a significant increase in the uptake of STEM-related courses at third level and State development agencies have attracted key cutting edge multi-nationals to establish R&D centres here. These factors, coupled with an emerging entrepreneurial infrastructure that includes seed capital, shared working spaces and collaborative networks, bodes well for an increase in technology-focused business startups in coming years. An OECD paper on the Irish ICT cluster from 2000 provides an interesting contemporaneous perspective on this topic.*

[*http://www.oecd.org/science/inno/2754426.pdf](http://www.oecd.org/science/inno/2754426.pdf)

4. Vibrant Hotspots of Activity



A key question frequently asked about entrepreneurship is ‘why are some locations highly entrepreneurial and others poor in terms of startup activity?’ It is a deeply complex issue that can be attributed to a wide variety of historical and modern circumstances. Regardless, people can influence the rate of entrepreneurial activity in their region by being proactive from which the wider population also benefits (through increased jobs, higher wages, etc).

The book *Startup Communities* by Brad Feld offers an excellent insight into the actions and actors involved in creating vibrant hotspots of entrepreneurial activity.

We provide herein some specific examples for Irish localities who wish to enhance their own dynamic entrepreneurial ecosystems. We highlight actions that are already happening in some communities across Ireland, including vibrant activities in Dublin and Cork.

4.1 The players and their roles

There is no single leader in a truly entrepreneurial society. Rather, the ecosystem itself must be bubbling with ideas, sharing and mentoring. There is no one person, university, government organisation or financier who can possibly be the head of an entrepreneurial ecosystem.

However, one group of people are the soul of the entrepreneurial community: the 8-12 successful entrepreneurs who take time to give back who act as catalysts for entrepreneurial activity. These people form loose confederations of like-minded leaders who spontaneously set-up objectives, activities and groups.

In Ireland, adhoc groups and activities like IITLG, Startup Ireland, Startup Grind, Activate Dublin, Open Ireland, Accelerator programmes like HealthXL, Selr8r, Endeavour, Propeller, and industry groups like IT@Cork, ISA, IIA and others provide the sparks that power the entrepreneurial ecosystem. The Government can provide support for these activities through a variety of mechanisms which will be expanded upon in a later sections.

Despite entrepreneurship being perceived as a high-profit bloodsport, entrepreneurial community services are almost always given without charge or profit and a substantial proportion of entrepreneurs willingly share their time and advice with others. The best entrepreneurial communities have champions who provide support for each other and the community. These entrepreneurs, their companies, and their staff, are the heart of any entrepreneurial ecosystem. Ireland already has that heart.

Many supporting actors play active roles, such as the public sector financiers, universities, professional services organisations, etc. There are a number of highly engaged

government agencies in Ireland with plugged-in and activated people who care deeply about helping companies succeed.

In this regard Ireland is very lucky, as there is a wealth of people and programmes available to some businesses. However, grassroots efforts by entrepreneurial leaders to encourage continuous activities and events that engage entrepreneurs are essential for a strong startup ecosystem.

4.2 Networking and connections

A strong entrepreneurial community will organise events and activities that serve as fruitful ground for meeting the right people.

In this section we identify and applaud some great existing Irish programmes and activities - ‘vibrant hotspots of startup activity’ - which support these concepts of networking, connections, and knowledge sharing. These activities are conceived, initiated and managed by entrepreneurs or supporters of entrepreneurial activity without being organised by formal government process. They are exciting examples of what must happen around the country if there is

to be an increase in entrepreneurship within Irish communities. Everyone can be a part of, and can try to replicate, similar programmes in their local area.

Startup Ireland

Startup Ireland is a grassroots network connecting the startup ecosystem across Ireland. Their goal is to act as a communications center for the many aspects of startup activity happening in Ireland. Anyone can join the group via LinkedIn¹⁷. The unifying objective of all involved is to help change hearts and minds to viewing entrepreneurship as a viable career choice and to help create favourable conditions for the creation of internationally successful Irish startups. A goal of Startup Ireland is to help place Ireland in the international Startup Genome ranking of top startup ecosystems around the world.¹⁸

SpeedDating for Entrepreneurs

Many of the most successful companies have more than one founder. How do people with ideas for a business find potential partners? ‘SpeedDating’ for Entrepreneurs is a method by which aspiring entrepreneurs can interview as many as 20 possible co-founders in a single outing. Several such events have already been organised around the country. As Ireland’s community of entrepreneurs matures, more automated ways of communicating and organising these events should continue to develop.

Business Days

These types of events serve as opportunities for entrepreneurs and aspiring entrepreneurs to network with each other with the option of attending seminars from guest speakers and obtaining mentoring from experts in their field.

There is no single leader in a truly entrepreneurial society.

¹⁷ http://www.linkedin.com/company/startup-ireland?trk=company_name or <http://startupireland.ie>

¹⁸ For further information on what is happening globally with startup communities, go to worldstartupreport.com or <http://www.startupgenome.co/>.



Startup Weekend

Startup Weekend is a global grassroots movement of active and empowered entrepreneurs who are learning the basics of founding startups and launching successful ventures in an activity packed weekend. A large community of passionate entrepreneurs have organised over 400 events in 100 countries around the world since 2007. Startup weekends have been run in 2013 in both Dublin and Cork.

Anyone is welcome to pitch a startup idea and receive feedback from their peers. Teams organically form around the top ideas (as determined by popular vote) and then it's a 54-hour frenzy of business model creation, coding, designing, and market validation. The weekends culminate with presentations in front of local entrepreneurial leaders with another opportunity for critical feedback.

Startups.ie

The startups.ie website was created by entrepreneurs to be a starting place for people interested in setting up their own business. It contains a forum, blogs, startup stories and advice etc. There are also a number of other Irish websites (e.g. www.smallbusinesscan.ie, www.business-startup.ie, etc) and these websites provide detailed information regarding starting a business in Ireland.

Startup Grind Ireland

Startup Grind is a global startup community designed to educate, inspire, and connect entrepreneurs. They host monthly events featuring successful local founders, innovators, educators and investors who share personal stories and lessons learned on the road to building great companies. Their monthly 'fireside chat' interviews, startup mixers and annual conferences provide ample opportunities to connect with amazing startups and the people behind them, tap into a strong support network, form meaningful connections and gain inspiration for the startup journey ahead. In September 2012, an offshoot of Startup Grind started in Ireland¹⁹.

Smallbusinessadvice.ie

This project is a voluntary response by the business community to the challenges that recession brings for small business across the country. A panel of people, with significant business experience, volunteer their time to give practical advice to small businesses.

Having examined a broad range of networking and connections initiatives, the Forum has identified further scope for Ireland to facilitate online business matchmaking and a national website advertising various activities.



These activities and other events for entrepreneurs take place regularly across Ireland²⁰. However, awareness of and communication about events is not good enough.

recommendations



24. Introduce an online business matchmaking service to help connect those with business ideas with potential co-founders.
25. Establish a national website and e-mail list (hosted and run by volunteers in the private sector) for each part of the country, allowing activities and training postings, listings of events (eg. "What's up in Dublin", "What's Up in Galway", etc.)

4.3 Accelerators

'Accelerators' are sometimes considered 'the new MBA'²¹. Rather than students paying to go to a business school to learn case studies on how companies succeeded or failed, an accelerator pays the students (through equity investments in their nascent businesses) to develop their idea into a company over a period of typically 3-6 months.

Accelerators running in Ireland include NDRC Launchpad, Endeavor, Wayra, Health XL, DCU Ryan Academy's Propellor Programme, New Frontiers, Selr8r, and Synbio Axlr8r. In 2011, three of Ireland's accelerators were ranked in the top eight in Europe²². These programmes generally invite experienced entrepreneurs to lecture and interact and mentor the 10-12 nascent startups in each class.

In Ireland, accelerators are generally only available to high-tech and high-growth companies with multimillion-dollar global revenue potential. Like most startups, many teams that join accelerators do not ultimately become successful. However, a significant proportion of 'accelerated' companies do grow much faster and achieve more (most founders estimate that they make more than one year's worth of progress in the time-compressed duration of these programmes). It is well-established that many companies are formed because of accelerators that would never have been created without them (dozens per year in Ireland alone).

Most accelerators place their developing companies into big 'open plan' work spaces for optimal cross-learning and co-operation (in this way, accelerators and co-working spaces are very similar). At the culmination of the accelerator programme, there is typically a Demo Day where investors come to consider the possibility of backing one or more of the launching companies. In our opinion, Ireland is already benefitting hugely from the presence of several leading accelerator programmes.

¹⁹ <http://startupgrind.com/ireland/>

²⁰ Many events in Dublin and Cork are recorded on the community publication Startup Digest, but more people need to be made aware of this resource. The platform should be expanded to other Irish cities and updated and curated more frequently with more contributors.

²¹ <http://www.inc.com/flash-steinbeiser/accelerator-or-business-school-whats-best-for-young-entrepreneurs.html>, <http://birch.co/post/60844253074/startup-accelerators-are-the-new-mba>

²² <http://siliconpublic.com/startups/item/22304-ireland-home-to-three-of-eu>

To enhance the wealth of work already done in this space, the Forum proposes that further private sector involvement in accelerators would be a huge support for the startup ecosystem.



greater portion of the population. The Forum suggests that there is no better venue for early stage entrepreneurship than co-working spaces. Coworking is maturing into a promising model for economic development in cities around the world.



26. Successful entrepreneurs should consider establishing accelerator programmes in their local area, with a mind to investing or encouraging investment in the accelerated companies. Vertical market accelerators are the avenue most recommended.

The Forum proposes that the Government could use unused public buildings and NAMA buildings by introducing a co-working space initiative thereby making use of wasted resources and supporting entrepreneurship. The Office of Public Works and Government Departments have leases on unused buildings which could be used for a pilot initiative.

4.4 Co-working spaces

The unprecedented rise of co-working spaces has been well documented in some of the world's foremost entrepreneurial ecosystems. Co-working spaces are vibrant communities of individuals and startups working independently but alongside each other in shared 'open plan' offices. Some people parallel the growing popularity of co-working spaces to the popularisation of coffee spots with free Internet such as Starbucks. These locations led to a 'lightbulb' moment for many who recognised that highly productive work can be accomplished in a shared community space.

Co-working is not just about sharing a physical space. It is about establishing a community of likeminded people who share the same values and enjoy creating synergies. Co-working spaces intentionally place diversity at the heart of their culture in order to promote cross-pollination and ensure a culture of learning from different perspectives.

Co-working spaces are creative and energetic spots where entrepreneurs of all kinds interact, share, build and co-create new, improved and sometimes mutually supported projects. In the ICT hardware and maker community these are often called 'hackerspaces'. Co-working spaces are effective creation engines for startups as they lower barriers to entry for founders while increasing learning/information sharing. The benefits of reducing complexity and costs by providing no-lease per-desk flexibility for startups makes the entire startup process far more fluid and productive.

The essential requirements of an international standard co-working space are:

- Central location accessible via public transport.
- Unlimited and reliable wifi.
- Open plan, brightly lit, hot-desking/collaborative space with specially designed break-out space, meeting rooms, kitchen facilities and event space incorporated.
- 24hr access to the space.
- An incorporated coffee shop or complimentary coffee break-out area.
- Plug-and-play style services (internet, printing, telephone, postal and storage facilities) at affordable costs.

In addition, role models and visual hotspots of activity are important to accelerating the takeup of entrepreneurship by a

Co-working spaces usually range from 2,000 square feet to 10,000 square feet and typically accommodate anywhere from 20 to 100 individuals.

CO-WORKING SPACES



IADT Media Cube



Dogpatch Labs



Liffey Trust Hub



National College of Ireland



Guinness Enterprise Centre



The Digital Hub

Courtesy of:Frontline Ventures: <http://www.slideshare.net/FrontlineVC/the-irish-tech-startup-guide>



National Digital Resource Centre, Dublin. Photo Courtesy of Rude Baguette -<http://www.rudebaguette.com/2013/10/08/dublin-startup-scene-photo-essay/>



Many elements of a co-working space support the entrepreneurial ecosystem:

- Event spaces facilitate entrepreneurship education.
- Networking opportunities increase commercialisation.
- Open spaces mix early-stage entrepreneurs with accomplished serial entrepreneurs.
- Formal and informal mentoring improve startup capabilities.
- Affordable accessible spaces reduce barriers for retired professionals wanting to create startups.
- Open design plans mean more companies can be created in less space.

Currently, affordable flexible workspace does not exist in sufficient quantities for startups in all regions of the country. Specifically, landlords and office space rental in Ireland often require long fixed terms for fixed spaces which is inappropriate for most startups. Legal review of lease contracts is an additional unnecessary expense.

While a number of co-working-style spaces already exist in Ireland²³, many such spaces are in Dublin²⁴, which serves only one third of Ireland's population. The country would benefit if there were five to ten times the current capacity of co-working spaces in the next 5 years, as it would facilitate the creation and success of many hundreds of new businesses.

Local Authorities are also likely to have vacant buildings due to the forthcoming reforms. An initiative could be modelled on Limerick's 'Incentive Scheme for Businesses and Retailers to Occupy Vacant Properties', where companies are supported by way of grant relief on rates charges (See Case Study: Limerick in highlighted sidebar).

4.4.1 Community Enterprise Centres

In the past 25 years over €60 million of state funding has gone into CECs (Community Enterprise Centres) throughout Ireland. Largely real-estate development projects, some of these CECs have become community centres and some have attractions like gyms and hairdressing facilities, etc. Many people benefit from the presence of these projects, and some excellent companies are situated within them. But they have not, in large part, become centres for startups. Community Enterprise Centres have significant potential to further

Case Study - Limerick

Limerick City and County Councils have introduced a new Business & Retail Incentive Scheme providing financial incentives to encourage new businesses to open in designated areas of Kilmallock, Newcastle West, Abbeyfeale and Rathkeale. Occupiers of vacant properties are offered incentives for higher order retail and office uses. The programme is intended to address property vacancy rates, improve streetscapes and to support the business community. The grant relief provided under the programme for vacant property is:

- Year 1 – Grant relief is based on certified fit out costs subject to a maximum of 50% of the annual rates liability.
- Year 2 – Grant relief is based on original certified fit out costs (as submitted at year 1) subject to a maximum of 25% of the annual rates liability.

We understand that there has been a low take-up on this initiative, but an organised national level promotion of a co-working initiative has potential for using larger unused buildings.

Case Study - North Tipperary

The project developed by North Tipperary Food Enterprise Centre (Rearcross) Ltd was a community-led, multi-agency response to the need to exploit the food sector potential in North Tipperary. The community purchased this prominently located building on the main Thurles-Limerick road in 1999. The group, led by the local community in Rearcross and championed by Tipperary North County Enterprise Board, recognised a lack of dedicated food grade industrial workspace as a serious barrier to the establishment and growth potential of food companies in the area. An independent feasibility study was commissioned in September 2005 to develop an innovative community business model for the establishment of a viable integrated food enterprise centre in North Tipperary.

Working consistently since 2005, a legal structure was established and a funding package secured to transform an old creamery building into a premium food workspace and learning centre. Agencies sharing the vision for this important food infrastructure asset were Tipperary North County Enterprise Board (€168,500), Enterprise Ireland Community Enterprise Scheme (€337,000) and North Tipperary County Council (€100,000). The multi-agency approach to stimulate the food sector in the region could be adopted and applied in other regions across the country for startups across many industries.

²³ Most accelerator programmes have good co-working spaces, but these are time-and-membership limited programmes. Examples of great co-working spaces at accelerators are at Wayra (Dublin), Selr8r (Cork), NDRC Launchpad (Dublin). Hackerspaces in Ireland are generally not office-quality spaces, but are great workspaces for maker projects that share most of the benefits of co-working: <http://hackerspaces.ie/>.

²⁴ Digital Hub, Dogpatch Labs, Guinness Enterprise Centre, Coworkinn (IMI Campus).

facilitate startup development and we urge the relevant bodies to strengthen the focus of these Centres around innovative entrepreneurship.

We believe it is possible to spend less than €1 million to set up 5 co-working centres of 10,000 square feet each in vacant spaces in city centre locations across the country, with most of this money ultimately being repaid by the private sector.

To be effective, supports and programmes for development of co-working centres should not be real-estate projects owned by the Government, and the time scale involved in development of co-working centres could be accelerated to months rather than years.

The Forum considers that a working group representing the relevant State Departments and offices should be established to urgently consider this initiative.



recommendations

27. A working group should be created to:
 - a. develop a co-working model that will work in Ireland, to include leveraging unused public buildings and NAMA buildings;
 - b. implement a pilot programme in 2014 that would create 5 co-working centres across the country (in Cork, Galway, Limerick, Waterford and Dublin);
 - c. examine the North Tipperary Food Enterprise Centre (Rearcross) Ltd model and the Limerick model highlighted in this chapter for suitability for adoption in other areas;
 - d. encourage owners of private property to get involved in offering co-working spaces.
28. Funding that is currently directed to support CECs should be redirected, where possible, to the creation or support of far more effective 'co-working centres'.
29. Where possible, current funding for incubation spaces should be redirected to enable conversions of incubation spaces to co-working spaces, or to fund new co-working spaces.

4.5 Academia/Industry Cross-Fertilisation

A source of frustration for many people in the entrepreneurial ecosystem has been the challenge of optimising relationships between academia and industry around the cross-fertilisation of research and commercialisation.

The introduction of the Innovation Vouchers Scheme certainly helped to bring the two worlds closer together and highlighted some good results from which every stakeholder could build. Additionally, the reduction in state funding for HEIs has required academic institutions to source a greater

amount of their funding from industry (e.g. provision of training programmes, undertaking research, donations, etc). There is potential for much greater rewards for academia and industry if closer collaboration is developed. This section outlines existing challenges to developing these close working relationships and offers concrete recommendations for future actions.



4.5.1 Increase Interaction Between Industry & Academic Research Programmes

Amongst the key actors in the entrepreneurial ecosystem, universities and institutes of technology should play a critical role in being 'feeders' into the entrepreneurial pipeline. To date, however our Higher Education Institutes (HEIs) have not been a big factor in developing and supporting startup activity.

While universities' primary focus and strength in supporting entrepreneurship is to provide/develop graduates, they also have a strong role to play in leveraging their research developments to create new startups.

Enterprise Ireland pays each of the Higher Education Institutions to host Technology Transfer Offices that are charged with increasing the flow of commercialisation from academic research.

Historically, these offices have been hampered by a laborious and overly possessive legal mindset which has stymied major successes in licensing or tech spinouts. Industry engagement with academia has often stopped before any intellectual property could be grown. Engagement with industry has also been more prevalent with the big companies than with small, entrepreneurial companies. As a result of these factors, most research or patents that were developed never saw the light of day nor had an impact on society.

For our brilliant minds who toil ceaselessly to create these innovations, for the politicians who fight to support them, and for the taxpayer who has paid hundreds of millions to fund this research, this bureaucratic irony could be the single most frustrating example of unexploited wastefulness in this entire report.

A new mindset has been developing in the HEIs, Science Foundation Ireland (SFI), and Enterprise Ireland community recently: that a vibrant ecosystem requires simpler means for companies to engage without 'clouding' the Intellectual Property (IP) ownership. This is especially true when such engagements are just getting started and any IP position is undeveloped and unknown.

We encourage the new direction of HEIs that enables companies to engage directly with graduate students without any intellectual property ownership being claimed by the university, and with a policy towards easy access to IP for the public benefit²⁵.

²⁵ <http://www.easyaccessip.org.uk/>



In 2012, the Irish Research Council launched a pilot Employment Based Postgraduate Programme (including PhD and Masters) for 30 places. More recently, Science Foundation Ireland launched an Industry Fellowship Scheme in 2013 which facilitates researchers moving to industry and industry people moving into HEIs to undertake research. The Irish Research Council also offer the very successful Enterprise Partnership Scheme whereby a postgraduate student can undertake their PhD while spending one-third of their time in a company (the company pays one-third of the scholarship and IRC pays two-thirds). Each of these programmes have helped industry and academia to work more closely together to build strong working relationships and simultaneously increase direct commercialisation of research work.

We recommend that a greater proportion of our funding for PhD students be allocated to working with industry.

The Irish taxpayer has invested billions of euro in basic scientific research. SFI and the IRC have increasingly recognised that commercialisation is one of the highest and most noble ways for this research to have impact on the lives of the Irish citizen and on the economy as a whole.



recommendations

30. Triple the size of the 'Employment Based Postgraduate Programme' to 100 PhDs per annum (~10% of the Irish output). (1/3rd industry funded PhDs, 2/3rds government funded).
31. Extend the successful IRC 'Enterprise Partnership Scheme' which enables students to undertake their PhD research through an active engagement and collaboration with an industry partner.
32. Adopt policies enabling the rapid sharing of Intellectual Property for the public benefit in programmes such as Easy Access IP.
33. Introduce a Framework for companies to provide contracts to university graduate students for thesis work without clouding IP ownership.
34. Double the size of the Innovation Partnership Programme (industry/academic collaboration where industry pays for 1/3rd of research and university pays for 2/3rds of research. All of the increase in IPP funding should go to SME businesses).
35. Fund the increase in IPP by reducing the dependence on moving research funding through SFI. (having industry partners ensures that the work will have commercial impact).
36. Engagement without IP licensing requirements. Introduce a de minimus level of HEI/startup collaboration investment (up to €25k), below which

IP contracting and licensing is not required. The intent is to encourage new collaboration and cut red tape.

4.5.2 Increase Capacity for Commercialisation by Academic Researchers and Post-graduates

Formal recognition – through the academic promotion criteria - should be given to researchers for time spent in collaboration with industry. Currently, the promotion criteria in Ireland can inhibit industry collaboration because this activity does not add to researchers' CVs, and can be seen as 'real research' time lost when it comes to career advancement.

As a result, many of our most able and educated minds never gain understanding of how to commercialise their work. This must be addressed.

For example, graduate students who are commercially minded could be given an attractive option to study business studies or an MBA while conducting their thesis research at a small marginal cost to the university as the student is already enrolled.



Academic institutions should consider incentivising researchers to commercialise and to reward them not just for publications and citations but also for licenses, spin-outs, patents etc.

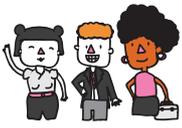
Finally, STEM students at the Bachelors level are the most likely to create valuable technology businesses. These students should have exposure to entrepreneurship or commercialisation before they graduate.



recommendations

37. Formal recognition should be given to researcher time spent on collaboration with industry in the academic promotion criteria of their institution.
38. Universities should offer their PhD students a Masters course in business at half price, while the students are conducting their thesis.
39. Training on commercialisation or entrepreneurship should be provided to every PhD student and Post Doc via mandatory programmes held every semester by the universities.
40. Every STEM student (undergraduate and postgraduate) should receive a course on entrepreneurship or product commercialisation as part of their degree.





5. Access to Talent

“ It takes two flints to make a fire.
- Louisa May Alcott ”

Modern successful entrepreneurs readily acknowledge that an engaged and talented staff is critical to their success. No single person can build thriving international businesses without having a high-quality team supporting her/him. Access to talented people is a key enabler for all businesses.

Currently unemployed workers in Ireland are a vast resource that is significantly underused, and we must collectively find ways to engage our people and reduce the rate of unemployment.

Specifically with regard to entrepreneurial activity, we offer the following recommendations to help startups attract and reward talent.

5.1 Share-based remuneration to employees

According to statistics from the Irish ProShare Organisation in the first quarter of 2013, companies that operate Employee Share Ownership Plans (ESOP) in the United Kingdom have grown by 50% more than the average growth rate of FTSE 100 companies (the UK's largest companies). Indeed there is growing evidence that share ownership in companies significantly improves employee commitment, and in turn drives stability while significantly increasing productivity.

Share ownership programmes in Ireland are fairly difficult to implement in ways that are both tax efficient and administratively efficient. It is felt that more startups would



Dogpatch Labs, Dublin. Photo Courtesy of Rude Baguette
<http://www.rudebaguette.com/2013/10/08/dublin-startup-scene-photo>

consider share incentives if there was a greater degree of implementation ease and less expense and complications involved.²⁶ Government policy in facilitation of share ownership programmes should enable the growth of employee ownership in an effective and tax-efficient manner. Currently, employee share based remuneration is not attractive to entrepreneurs. Employees must pay tax immediately (via the company payroll system) at typically 52% of the market value of shares received.²⁷ The employee would then have to sell the majority of his shares in order to cover the expense of owning them, defeating the purpose of share ownership. We propose a deferral of triggering of the tax liability in order to make employee share ownership a viable option for entrepreneurs and their staff.

In Ireland, legal requirements make it impossible for companies to repurchase their own shares unless they have positive retained earnings. Startups generally do not have positive retained earnings. ESOPs generally require repurchase of shares from departing employees. Therefore, Irish law has the unintended consequence of making it cumbersome and expensive to have ESOP programmes.

While some Irish companies have implemented repurchasing programmes through a complicated process which involves establishment of multiple companies, it is unnecessary costly and a significant barrier for entrepreneurs looking to provide share options to their staff.

We recommend that the rules of share repurchase are amended to allow ESOPs to flourish in Ireland. This will allow employees who stay with startup companies to participate more fully in their success.

We also recommend allowing stock or stock option grants to establish the basis value (for future capital gains income) but defer the income (either regular income or capital gains income) until such time as the sale of the stock is made. This will create incentives for an employee to own long-term shares in a company, rather than encouraging employees to flip ownership of any granted shares immediately, as is the current common practice in Ireland. It would also enable entrepreneurs to compete more effectively for highly skilled employees with both multinationals and other countries, since startup companies can offer more attractive terms on share ownership versus the relatively minor share holdings proffered by multinationals.



recommendations

41. Enable Employee stock ownership without creating taxable events until the time of sale of the stock.

²⁶ A typical practice requires creating a separate company to manage the ESOP share programme, which increases government reporting requirements, audit fees, inter-company accounting, bank accounts and charges, etc.

²⁷ In part the highest tax rates are triggered due to the nature of share option transactions. Unnecessarily difficult structures mean that share ownership - which could actually take more than four years to establish - is triggered on liquidity events, making what should be a long-term savings plan get taxed like bonus income.

42. Enable companies to repurchase share options for the benefit of their employees (from departing employees, etc) without requiring positive retained earnings.

5.2 Skills development programmes

Ireland currently has an unbearably high rate of unemployment. With 13.3%, or 408,670 of Irish citizens on the Live Register²⁸, one would imagine that new job openings would be immediately filled through a surplus of capable applicants.

Unfortunately, due to skills gaps for a variety of industries, that just isn't the case.

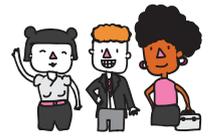
Skills development is vital for employment. As an example, throughout the general population of all ages, second level graduates have an unemployment rate of 23% and third level graduates have an unemployment rate of 13%²⁹.

One way that skills development is currently being addressed is through JobBridge³⁰, a programme that allows those who are receiving benefits on the Live Register to work for companies in Ireland for up to a period of 9 months while receiving their job seeker's allowance plus €50 per week in additional payments. JobBridge is an excellent programme for getting people off the Live Register and into the workforce, and large numbers of these workers are then graduating to full-time employment within the companies where they gain their skills, or at other companies where they take their newly refined talents. While just 5,000 unemployed people have participated in JobBridge, the Forum believes the majority of unemployed people, particularly youth, should be enabled to participate in the programme or similar programmes.

5.2.1 Youth work experience programmes

Like many EU countries, Ireland has a large number of unemployed youth annually. In 2012, 33% of youth aged 15-24 were unemployed.³¹

To respond to this challenge, we must do something to improve access to on-the-job training and alleviate existing obstacles. Unfortunately, many small companies find it extremely difficult to justify employing unskilled workers, one reason being the high minimum wage requirements. Furthermore, graduates seeking work experience are excluded from participating in the JobBridge Programme if they already have part-time evening or weekend employment. As the JobBridge Programme runs in tandem with jobseekers allowance, the applicant must be unemployed and be actively seeking work or be in receipt of a social welfare allowance.



Many companies, from multinationals to local companies, already provide internship opportunities, either paid or unpaid. These have proven to be helpful to graduates, giving them the real work experience that is generally sought by employers. We believe that formalising a programme to enable youth to develop work skills would benefit youth, employers and the economy as a whole.

Therefore the Forum recommends that companies should be allowed to offer work placements to youth (those without work experience, either out of 2nd level or 3rd level) for up to 9 months for training level pay (same rate as JobBridge, but paid for by the company rather than the Government), without a requirement to spend time on the Live Register.



JobBridge: A step up the ladder

James had been in the construction industry as a junior technician with an architect's firm until the recession hit. He was unemployed for a year and then decided to upskill by taking on a degree course in computer networking. Having finished this, he found it difficult to secure a position without having the typical requirement of 2 years experience. James joined CompuTech as a JobBridge apprentice and was given a role in the IT department. He was given responsibilities and mentorship. His role included manning the helpdesk as well as IT infrastructural duties. This allowed him to develop his knowledge base from what he had learned as a student -- which largely revolved around networking -- to include a broader sense of what is involved in the day-to-day running of a busy IT department. After only 6 months of a 9 month JobBridge placement, James was offered a permanent role in CompuTech.*

**This is an actual incident at one of the Forum member's companies as this report went to press. Names have been changed.*

²⁸ <http://www.oecd.org/science/inno/2754426.pdf>

²⁸ CSO (2013) Live Register September 2013.

²⁹ OECD (2013) Employment Outlook.

³⁰ JobBridge has a number of detractors, due to a perception that some people are being given dead-end jobs with no training, including jobs offered by public sector agencies that have no intent to hire staff at the conclusion of the programme. Some criticism is fair, however the intent of the programme and the execution at a great number of private companies is honorable and effective, and thousands of careers are getting jumpstarted through this programme every week.

³¹ OECD (2013) Employment Outlook



recommendations

43. JobBridge should be expanded to encourage up to 20 times the number of people that are in the programme (from 5,000 in 2013 to perhaps 100,000 in 2015, if the unemployment rate still warrants it).
44. Allow youth to participate in a new work experience programme, based on the rate of pay of the JobBridge Programme, perhaps called “JobBridge Corporate”, to be funded directly by the companies rather than the State. The Programme should not have a requirement for a person to spend time on the Live Register to be deemed eligible.

5.3 Immigration reform

The importance of immigrant entrepreneurs is comprehensively documented³² in Silicon Valley: more than half of startups have at least 1 foreign founder. It is not just in Silicon Valley that immigrants are entrepreneurial: immigrants to Ireland are also more likely to found businesses than natives.

The Department of Justice and Equality has developed a number of initiatives in recent years to enable immigrants to more easily establish a business or invest in companies in Ireland. The Forum welcomes the Department of Justice’s current review of the Startup Entrepreneur Programme, which is intended for immigrants who have a promising business idea and funding of at least €75,000. This is a fantastic initiative which could really use better marketing to improve the uptake.

Ireland’s accelerator programmes are also achieving success in attracting foreign entrepreneurs. As mentioned previously, 3 of the top 8 accelerator programmes in Europe are in Ireland, which draws a highly competitive and international pool of applicants. To build on this, the challenge lies in the ease at which these entrepreneurs can establish their business in Ireland on completion of an accelerator programme.

Open Ireland endeavors to establish Ireland as the top destination for English-speaking tech talent.

We believe that foreign entrepreneurs accepted into competitive accelerator programmes in Ireland should be given a one-year visa to attend the accelerator programme in Ireland as well as to begin developing the traction of their business in Ireland. At the end of this period, they should be eligible to extend their visa via the Startup Entrepreneur Programme.

Additionally, Ireland has a number of highly innovative and competitive research programmes being undertaken at graduate level, funded by SFI, the European Union and multinationals. These programmes attract a variety of foreign graduate students from outside the EU, who are forced to return to their home country after their Masters, Ph.D., or postdoc programme studies are completed. We believe Ireland should encourage these graduates to stay in Ireland and commercialise their research here. Not only is their acquired knowledge of use to the local ecosystem but their international networks make them invaluable ambassadors and dealbrokers.

The Open Ireland³³ campaign was initiated to highlight the need for high-tech foreign workers and graduates to have easier access to visas. This campaign endeavors to establish Ireland as the top destination for English-speaking tech talent. The growth of companies in Ireland becomes more possible by reducing the constraint on specific technical workers. Opening our doors to talented workers is an essential part of a dynamic startup ecosystem.

In April 2013, the Department of Jobs, Enterprise and Innovation, in conjunction with the Department of Justice, introduced the first generation of the tech visa, which dramatically sped up approval of tech visas while simultaneously reducing the complexity of the processes and paperwork. More work was envisaged in automating this process further³⁴ to provide certainty to

the employer and to the employee that the visa could be issued in a matter of two weeks or so, establishing Ireland as the most competitive country in the world for technical talent. We encourage the Department to consider extending the tech visa to other areas of unmet demand in high skilled areas, such as finance and science.

Open Ireland also envisages promoting stronger links with China. Easier access to holiday visas and encouraging Chinese graduates studying in Ireland, as well as allowing Irish companies greater access to the Chinese economy, would promote these links. Enabling more immigrants to start

³² Kaufmann Foundation, 2007 (http://www.kauffman.org/~media/kauffman.org/archive/researchreport/2007/entrep_immigrants_1_61207.pdf). It is not just the raw number of startups. It’s also the biggest: twenty-four of the top 50 venture-backed companies of 2011 were founded by immigrants (<http://upstart.bizjournals.com/news/wire/2013/02/27/immigrants-could-create-jobs.html>).

³³ <http://www.openireland.com>

³⁴ Enterprise Ireland approved companies, or IDA approved companies would be “trusted parties” to ensure that the qualifications of the employee are sufficiently advanced to qualify for the visa, bypassing a sometimes lengthy state approval process. Any company that was found in violation of the trust would be fined and the visas issued by that company could be invalidated. Effectively, apart from security checks performed by the Department of Justice, this enables a job offer from an approved company to be nearly the same as a visa, assuming the job definition meets qualifications established by the Department of Jobs, Enterprise and Innovation.

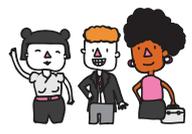
businesses in Ireland would also support the possibility of increasing export potential since immigrants already possess strong international networks in their home countries.

As mentioned above, immigrant workers have consistently added value to the entrepreneurial and academic bases of their destination country. For this reason, we believe that action around accelerator programmes, work visas and links with China are timely. The recommendations below will provide greater access to talent and lead to a stronger startup ecosystem in Ireland.



45. Accommodate Accelerator programmes by allowing up to 3 co-founders admission to come to Ireland for 1 year 'startup accelerator visa' to attend an Accelerator programme.

46. Allow those that startup companies from an Accelerator programme a process to apply for Visas to stay longer.

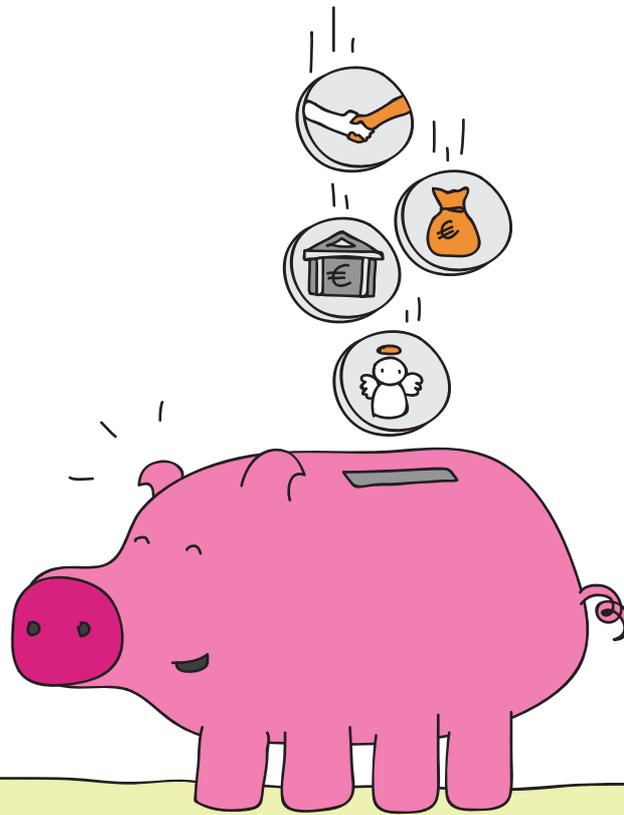


47. Seek a visa programme with China that would enable Ireland to be the first destination in Europe that allows 30 day visa-free travel by Chinese citizens. Seek to make this a reciprocal arrangement in order to facilitate Ireland in its growth of export operations to China. With first mover advantage and English as a native language, seek to establish Ireland as the European trade hub for China, in much the same way as we have served as a European trade hub for the United States.

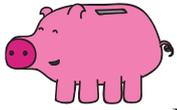
48. Implement the 'trusted parties' work visa approval process as envisioned by the Department of Jobs Enterprise and Innovation and espoused by Open Ireland.

49. Engage with a public relations agency or industry or volunteer association to promote Ireland as a destination country for entrepreneurs, high-tech workers and accelerator-related activity. Corresponding website development, campaigns and media outreach should be undertaken.

50. Expand the tech visa to talent in other areas of unmet demand.



Access to Finance



6. Access to finance

Every entrepreneur and business owner has a vision for their company, and access to finance continues to be cited as a barrier to achieving that vision. We have identified a number of improvements which could be made to encourage investment, support lending and ease cashflow strain on the startup community.

6.1 Encouraging investment in startups

A survey by the Entrepreneurship Forum with the help of Ernst & Young's Entrepreneur of the Year award winners revealed that the primary source for funding a startup is from 'bootstrapping' (that is, from customer revenue in conjunction with the entrepreneur's savings).

6.1.1 Angel finance

While bootstrapping is the primary source of funding a startup, a second source is through 'angels' and family and friends' investment. Within the last 5 years over €25M of pure private money (private cheques written by private individuals) has been invested in startups via the visible business angel marketplace through the Halo Business Angel Partnership and the associated HBAN (business angel syndicate focused) entity. Including the invisible marketplace this sum is likely to be nearer to €175M.

Excellent progress has been made in this regard in angel finance in Ireland. This was recognised at a European level. In 2013 the Halo Business Angel Partnership was short listed by EBAN (European Business Angel Network) in the category of 'Business Angel Network of the Year' and HBAN was selected as the 'Business Angel Federation of the Year'.

It is the Forum's belief that funding from the visible business angel marketplace, with the right supports, could be increased multi-fold over the coming years and this would have a significantly positive impact on the funding environment for startups.



recommendations



recommendations

51. The angel community is regarded as the most effective stimulus for internal investment. Raise awareness of the HBAN network and help its expansion.

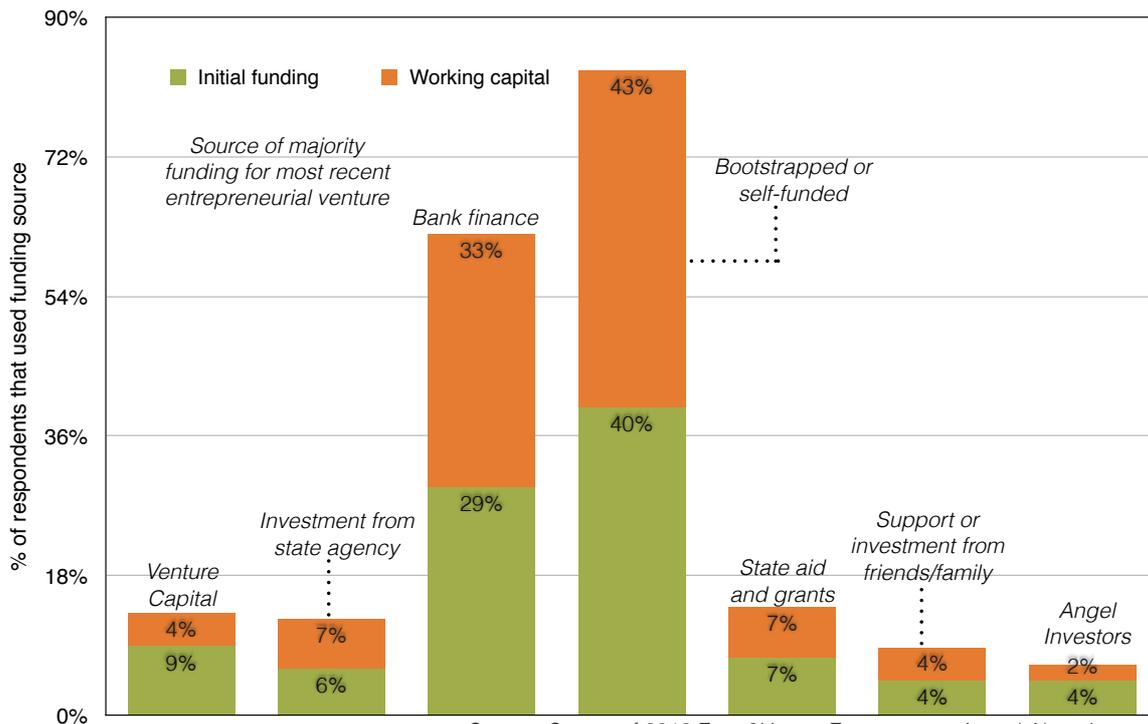
6.1.2. Venture Finance

For a small number of businesses, later stage growth can be funded by venture capital. The Department of Jobs, Enterprise and Innovation has set-aside €175 million in the 2013-2018 budget with the target of leveraging an additional €525 million in third-party capital for growing Irish startups.

Typical funding rounds for traditional venture capital range from €2m to €5m per round of funding, and are restricted to those businesses that have obtained a significant degree of marketplace traction, generally in the millions of revenue.

Most startups tend to think of venture capital as a ready source for capital. In fact, the venture capital industry these days is primarily used as business expansion capital after a company has achieved product market fit and just needs to scale. Angel funding and accelerators are more often a source

How are entrepreneurial businesses funded in Ireland?



Source: Survey of 2013 Ernst & Young Entrepreneur Award Alumni,

for cash (other than customer revenue) for early stage startup businesses.



6.1.2 Employment and Investment Incentive (EIIS)

The Forum welcomes the announcement in the 2014 Budget to remove the high earners restriction for EIIS to increase the pool of investors. However, some further improvements are required to encourage an increased level of external equity investment in companies in the seed, startup and expansion phases.



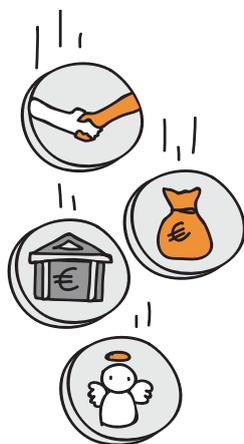
52. Improve the EIIS:

- Enable medium-sized enterprises (50-250 employees) in the non-assisted areas³⁵ to avail of the EIIS.
- The EIIS should be amended to increase the period of investment from three to five years.
- Under the EIIS, allow the full 41% relief be granted from the investment date.
- Eliminate the maximum €150k allowable qualifying investment in any one year under the EIIS. There should be no cap to this plan. If a cap is required, a higher cap of €1m could be set.
- Allow capital gains to be 'deemed' as special, regular income in order to allow capital gains to avail of the EII plan.

6.1.3 Global Irish involvement in backing Irish startups

Following discussions at the Global Irish Economic Forum in October 2013, the Irish Technology Leadership Group is to create a Global Irish Investor Group that will support scaling up Irish tech companies with capital, expertise and access to global customers.

One hundred investors will come together to create a Global Irish Investment Fund of €20m to support Ireland's high tech start-up ecosystem. Participants will also be asked to mentor entrepreneurs, serve on boards, and facilitate connections.



The participants will have the opportunity to invest in companies they choose through the investor group structure. Initial investors have pledged between €200,000 and €1m each.

Similar initiatives to create a channel for members of the Irish diaspora community to invest in other industries (biotech, agriculture, financial services, etc) should be pursued.



- Recruit 100 wealthy global Irish from the diaspora community to fund a €20m startup fund for high tech companies. Recreate this model for different industries (biotech, agriculture, financial services, etc).

6.1.4 Rebrand existing Seed Capital Scheme to Startup Refunds for Entrepreneurs (SURE)

The 'Seed Capital Scheme' enables people to reclaim income tax paid in Ireland in the previous years from the Revenue Commissioners and use those funds to start a business.

In 2012, just 58 investors availed of the Seed Capital Scheme, receiving an average income tax refund of approximately €20,000 per investor. This low participation rate (50 people per annum) indicates that the programme may be too difficult to understand and implement, or that eligibility requirements are an issue. As a start, communication and marketing about this extremely beneficial plan must be improved. A single point of contact should be made available to assist entrepreneurs in accessing this plan. Additionally, we believe the size of the average refund could be larger, up to €50,000.

The Seed Capital Scheme is currently available to companies. The Scheme should also allow for sole traders to be eligible, as many entrepreneurs may take some time before they incorporate. The programme could require sole traders to file accounts at year-end, similar to a company, without requiring them to incorporate. A second option is to provide a window of 18 months from starting up to becoming incorporated, during which sole traders are eligible for the programme.



54. Rebrand the SCS as SURE (Startup Refunds for Entrepreneurs).

- Under the principle of 'de minimus' investment, it is possible for the existing Seed Capital Scheme plan to be modified to be easier to understand, up to limits of perhaps €250k. Provide the Seed Capital Scheme in a version that provides 'capital matching' funds of up to 50% of the amount up to €250k, under the same general contribution rules (repayment of up to 6 years income tax).
- Provide a full CGT exemption as an alternative to an income tax refund, where the sales proceeds from the sale of an asset are reinvested in the Seed Capital Scheme.

³⁵ The EU Regional Aid Guidelines allow each Member State to provide enhanced rates of State Aid in the least economically developed areas of each country. These areas are known as 'assisted areas'. Under Ireland's current Regional Aid Map, regions covering 50% of our population are 'assisted areas'



6.1.5 Rewarding continuous investment with deferred CGT

The Forum welcomes the announcement in the Budget of a new CGT incentive that encourages entrepreneurs (in particular ‘serial’ entrepreneurs) to invest and re-invest in assets used in new productive trading activities. However, this incentive only applies to entrepreneurs who have previously paid CGT, and they will get no immediate relief, as they are required to pay 33%, with this credit only applying on the return of the second investment. It does not defer any taxes now. Therefore, it does not create incentives to change behaviour now.

We believe the 2014 Budget missed the boat with regard to capital gains tax and the government needs to do far more if it wants to reward growing businesses and employment in Ireland. Capital gains tax should be simple to understand and to participate in.

We recommend a simplified incentive to encourage re-investing in new startups in the form of a rolling capital gains deferral for reinvestment in active, employment generating businesses. Real estate or other asset holding companies should be excluded.

Such an incentive would energise “smart money” putting capital in new growth opportunities. Taxes would still be collected on such capital when the capital was not being redeployed in startup investment.



recommendations

55. Allow rollover (reinvestment) relief on Capital Gains into Irish companies, either through EIS, or through investment into a company. Capital gains which are reinvested within a calendar year will not be recognised as gains until such time as they are not reinvested. Capital gains would retain their original basis value and would become taxed on a final sale of the EIS stock.

6.2 Crowdfunding

Crowdfunding is an exciting new form of raising capital that offers real opportunities in the area of alternative finance for startups. This new financing model is growing in Ireland and is currently unregulated. Crowdfunding can refer both to funding through sales revenue for purchased products (as in Kickstarter), as well as to equity funding for share capital in a company.

Entrepreneurs and SMEs could ostensibly raise capital from funders, using social networks with crowdfunding platforms to finance their businesses and projects.

The United States and other markets are experimenting with crowdfunding extensively at this time. No doubt these experiments will yield both disasters and frauds, as well as successes and best practices.

The Forum is of the view that it is best to take a ‘laissez faire’ approach to crowdfunding at this time. The industry needs time to ‘establish itself’ in Ireland and should not be overburdened by regulation before the required platforms have been given the time to grow and develop. Therefore, we believe no action by Government is advisable at this time.

6.3 Access to credit

Another area of concern to entrepreneurs is access to credit. There has been widespread criticism by business lobby groups that banks are not supporting businesses at reasonable levels and that practices need to change if the entrepreneurial ecosystem is to operate in a truly supportive environment.

6.3.1 Bank lending

Irish SMEs’ external funding mix is more reliant on commercial banks than almost all other European countries.³⁶ The Forum acknowledges that various actions have been taken to increase the flow of credit to business. We welcome the Budget announcement that the threshold for loan appeals to the Credit Review Office has been increased from €500k to €3m.³⁷ Most debate still centres around the provision of bank credit, lending targets, the share of firms using bank credit, changes in the funding mix for SME working capital and investment since the crisis and the fact that Irish companies are disproportionately exposed to potential weaknesses in the banking sector, relative to our European competitors.

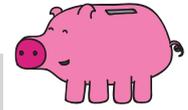
However, a key area of concern for the Entrepreneurship Forum that has received little attention is the actual terms and conditions of approval related to collateral that are being imposed for bank credit, specifically the requirement for personal guarantees. The Central Banks’ Code of Conduct for SME Lending states that “*Having due regard to the nature, liquidity and value of collateral a regulated entity must not impose unreasonable collateral requirements for providing credit facilities, having regard to the value of the credit being offered.*” The Code goes on to say “*A regulated entity must not impose unreasonable personal guarantee requirements on borrowers.*” This Code of Conduct is fine. However, the lending banks in Ireland are not following this code.

For example, even for established, profitable, non-leveraged limited companies, a requirement for personal guarantees is considered normal rather than an exception. This is outrageous and Irish banks should begin to follow international standards on this issue rather than continue this current backwater behaviour.

An expert group should be convened to examine the collateral requirements currently being imposed by lenders,

³⁶ Central Bank (2013). *The importance of banks in SME financing: Ireland in A European Context*, Vol 2013, no. 5

³⁷ The Credit Review Office to date has overturned 55% of loan rejection decisions by the bank. Successful loan appeals must then be funded by the bank. Hundreds of applications have been received and approved for financing in the three years of the CRO’s existence, providing €18.5m in funding. The increase of the ceiling of loans eligible for review from €500k to €3m should increase the effectiveness of this team.



and to declare best practice guidelines around the use of personal guarantees, which could be incorporated into the existing Code of Conduct for SME Lending. An examination of conditions of sanction of other banks in other jurisdictions may be useful in this regard to design some specific protocols around the need, the terms applied and also the management of personal guarantees. The SME Credit Demand surveys commissioned by the Department of Finance could be used to measure conditions of sanction with regard to personal guarantees to help gain evidence on the issue. Comparisons should be highlighted between the different SME Lenders to provide more information on terms and conditions likely to be imposed on potential borrowers.

Banks which continue to ignore the Code of Conduct - which would appear to be most of those currently operating in Ireland - would face sanctions and their executives would be subjected to fines.

6.3.1.1 Attracting International Banks

Ireland currently has a duopoly of banks that control and dictate the culture of banking in Ireland: AIB and Bank of Ireland. There are a small number of UK banks that have a presence in Ireland (Ulster Bank, RBS), but there is a dearth of international banks that could help provide a greater degree of competition and international standards in banking. Competition in banking would help provide better ‘manners’ to our own indigenous banks, and perhaps force banks to manage their costs and customer fees more tightly.

The Forum believes that getting one or more ‘international standard’ banks more involved in business banking in Ireland would help. Leading banks such as Silicon Valley Bank, HSBC, Citibank, Standard Chartered, Barclays, BNP Paribas, etc., most of which already have operations at the IFSC for back-office operations, could be attracted to set up local operations in Ireland. We recognise that that the lack of competition within the banking sector is difficult to solve, but it is one main reason why Ireland is in an extremely challenging financial situation. We bailed out the banks in large part because the entire economy depended on three local banks. That is a mistake we will be paying off for generations.



recommendations

56. An expert group should be convened to examine the collateral requirements currently being imposed by lenders. A best practice code of conduct should be devised for the use of personal guarantees, which should be incorporated into the existing Code of Conduct for SME Lending. Comparisons should be highlighted between the different SME Lenders to provide more information on terms and conditions likely to be imposed on potential borrowers. Sanctions and fines should be imposed

on banks and bank executives who violate the Code of Conduct.

57. One or more reputable international banks should be recruited (not subsidised, just recruited) to fill gaps in Irish business lending. Any unnecessary barriers to international banks or banking regulations that favour local banks should be removed.

6.3.2 Peer-to-peer lending

Efforts should be made to facilitate alternative forms of startup financing in Ireland. For example, Peer-to-Peer Lending supports lending to entrepreneurs, startups and small businesses by individuals.

Lenders providing peer-to-peer lending earn interest that qualifies as unearned income for taxation purposes. Individual lenders are required to show the interest received in each tax year on their self-assessment returns.

We propose to incentivise peer-to-peer lending by enabling consumers to deploy their money in higher-return activities.³⁸ One such way would be to provide a €10,000 exemption before being liable to tax on the interest income earned from loans to businesses up to 6 years old (much like the ‘rent a room relief’ which allows the rental income from renting a room to private tenants to be exempt from income tax, provided this income does not exceed €10,000 in a tax year).



recommendations

58. Incentivise peer-to-peer lending. The first €10,000 in interest income from loans to startup businesses would be tax-free. Businesses must be less than 6 years old in order to qualify for this exemption. Loans must be at non-usury market rates (10% or lower). If principal is lost, it would be deductible against any capital gains.

6.4 Ease strain on cash-flow via prompt payments

The Forum welcomes the 2014 Budget announcement to increase the VAT Cash Accounting Threshold from €1.25m to €2m to ease cashflow strains on business. However, the issue of prompt payments continues to cause cashflow problems for startups and small business.

Every year across Europe thousands of SMEs go bankrupt waiting for their invoices to be paid. Despite this, late payment of bills is often seen as a perfectly acceptable practice. Latest figures from the European Payment Index 2012 have estimated that 2.8% of turnover was lost in Ireland

³⁸ According to the Central Bank Money & Banking Statistics, March 2013, an estimated €92 billion in Irish private sector deposits is sitting in Irish bank savings accounts at very low interest rates.



in 2012 due to late payment. The average delay in days in 2012 was 35 days for transactions between businesses, and 35 days for transactions between public authorities.

Reducing the number of late payments in commercial transactions is a critical way of easing cashflow and providing a level of certainty to help businesses deal with the current difficult market. If we want to be the best small country in which to do business, we must have a culture of paying our bills on time.

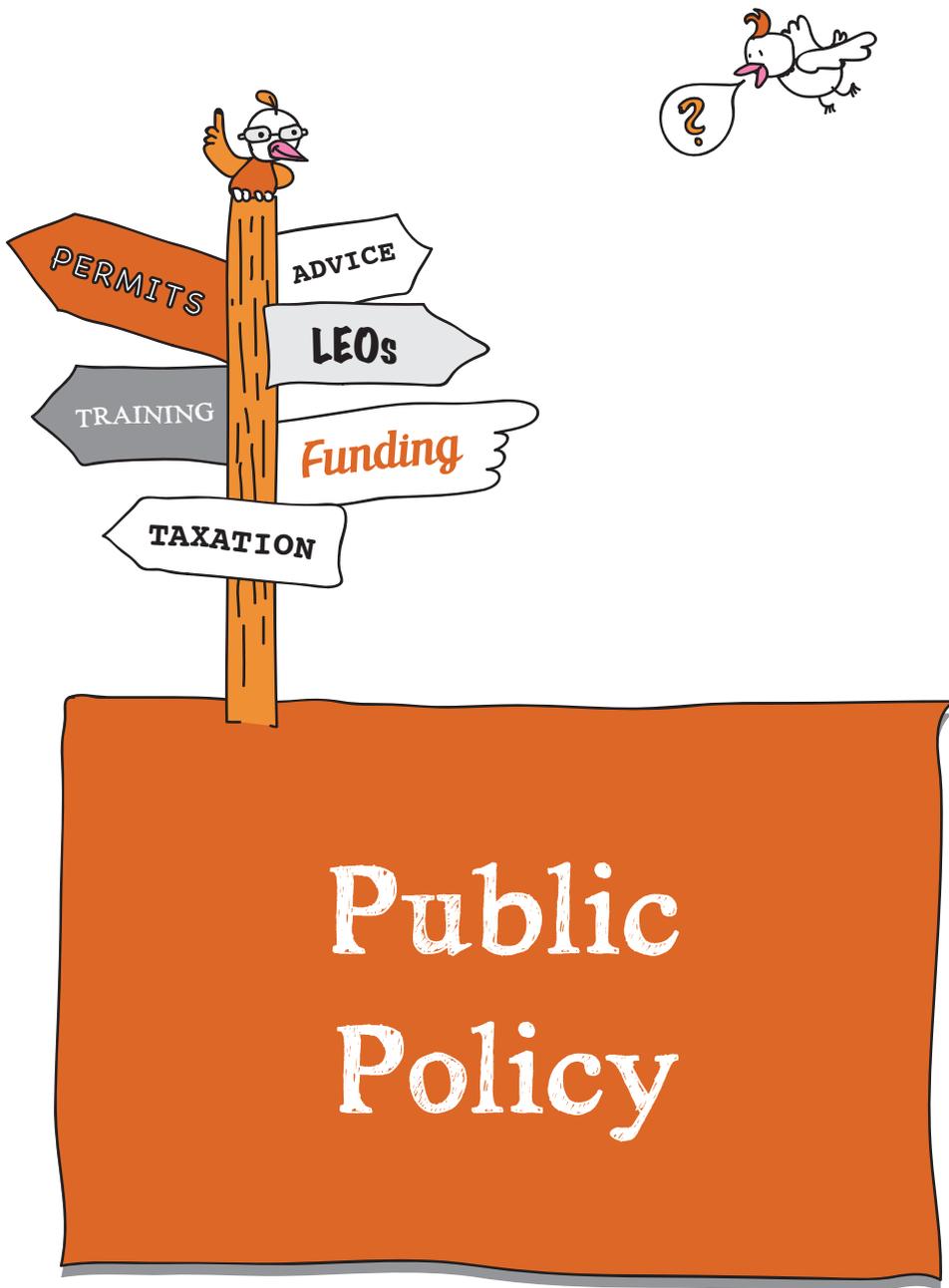
The government has made commitments in this area, with the 15 day prompt payment code applying to central Government, the HSE, local authorities, state agencies and other public bodies. The private sector also has a significant role to play. A private sector Prompt Payments Voluntary Code of Conduct is currently being established by the Business Representative Bodies in Ireland, supported by the Department of Jobs, Enterprise and Innovation. Those who

opt to sign the code will pledge to pay suppliers on time, within the terms of contract, give clear guidance to suppliers on payment procedure, and promote the adoption of the code.

This is an important way for businesses to demonstrate a supportive culture for each other. Smaller business and vulnerable startups rely on prompt payment of invoices for their working capital, therefore we feel this should be acted upon without delay.



59. Industry bodies should support the establishment of the Prompt Payments Voluntary Code of Conduct and encourage companies to sign up to the code.





7. Public Policy

The biggest role that the public sector has to play in the entrepreneurial ecosystem is in setting financial and tax policies that encourage investment and company creation.

Secondly, Ireland has quite a number of great existing programmes for capacity building for startup companies, through Local Enterprise Offices (LEOs), Enterprise Ireland and other agencies.

Thirdly, Ireland provides financial grants for a wide variety of starting businesses and individuals looking to create businesses.

We acknowledge the great work of the thousands of public sector staff who have only the best intentions to help business succeed in Ireland.

The public sector also has a huge role to play in ‘getting out of the way’ of entrepreneurs, and by making it easier for the public to navigate the apparent labyrinth of government. Governments generally require companies to fill out an unending stream of forms and financial submissions and that presents a continuing challenge for the Government to streamline these requirements.

7.1 Clear up the government structure for helping businesses

A key challenge for Ireland is the coordination and integration of different Government policies affecting entrepreneurship. The wide range of programmes impacting entrepreneurship in Ireland illustrates shared responsibilities of various departments and agencies. For example:

- There are approximately 3,000 staff currently employed in agencies related to enterprise supports.
- There are 5 agencies under the Department of Jobs, Enterprise and Innovation involved in different aspects of supports for indigenous startups.
- There are a further 8 agencies under the aegis of the Department of Community Rural and Gaeltacht Affairs, Department of Arts, Sports & Tourism and the Department of Agriculture and Food responsible inter alia for enterprise supports in specific sectors or regions.

An overall vision of how the state supports startups is needed, in conjunction with the plethora of programmes that the entrepreneurial community provides for itself.

State providers of advice and support to entrepreneurs need to act as a resource network for each other. All too often, new supports are introduced with no firm strategy in place to distribute the information across the range of key service providers. If the service providers are not kept up to date with the remits of various programmes, then they won't be able to connect the entrepreneur to resources that they need. An email alert system should be in place to inform service providers of new programmes and initiatives that are being

introduced. Social media should be used to support information sharing.

The Forum would like to see more knowledge sharing and less duplication of effort among service providers across all of the State organisations. The business community and the State place a strong emphasis on the importance of networking for SMEs and entrepreneurs. However, the State itself, in terms of the delivery of the national entrepreneurship policy, should adopt a more strategic use of networking to ensure coherence, understanding and a coordinated delivery of the policy across the country.

Unless a new National Entrepreneurship Policy is prioritised and someone is made accountable for its overall day-to-day management and co-ordination, there is a concern that the actions will not be implemented, or will be disjointed in their implementation. The Government must also be able to gather and monitor performance data to ensure that actions taken are showing positive results.

Until now, there has been no designated ‘entrepreneurship policy unit’ within the Government system that seeks to co-ordinate response and programmes across government for startups. The Forum believes that ‘joined-up’ thinking requires a central hub, which can act as the policy driver, convener, connector, and coordinator roles for entrepreneurship policy.

- **Policy driver** — builds interest and commitment among the various elements of the entrepreneurship development system,
- **Convener** — provides a resource network for building the relationships among the key service providers, and for creating and agreeing upon work plans and outcomes,
- **Connector** — ensures that departments and agencies within government are informed and engaged in the process,
- **Coordinator** — provides leadership as needed to make timely progress toward achieving the vision, reporting on progress, and standing accountable for results.



recommendations

60. The Department of Jobs, Enterprise and Innovation should create an Entrepreneurship Policy Unit.

7.2 Monitoring progress of entrepreneurship policy

It is important that the Government monitors performance to ensure that actions taken are showing positive results. It is also crucial that Government funded projects to support entrepreneurship should have metrics included from the start, to enable evaluations and assessments of progress. Basic measurements of the number of companies who employ



workers is not just useful for startups. They are general-purpose economic development measures that, surprisingly, do not currently exist. This must be fixed. The data for this information does exist; however, it is not accessible because of the variety of systems in which the data is kept -- between Revenue, the Company Registrations Office, and other sources.

Use of up-to-date performance data to monitor startup levels will be important. The Forum proposes the establishment of a 'Startup Monitor' by the Department of Jobs, Enterprise and Innovation to facilitate performance monitoring. The Department should design an appropriate structure and mechanism for the production of startup information. The collation of appropriate metrics could be supported by relevant available data obtained from the Revenue Commissioners.

The Startup Monitor should capture information on numbers of new companies created, to include:

- Numbers of individuals starting a self-employment project.
- Numbers of newly incorporated companies.
- Industry NACE code.
- Startup size classification – number of employees (<5, <10, <20, <50, etc.).

The Startup Monitor should also have capabilities to produce up-to-date information on:

- Progress of startups over time (eg. How many startups < 2 years established have over 5 employees?).
- Business survival rates.
- Trends in new enterprise creation - self employment/ companies.



recommendations

61. A 'Startup Monitor' should be produced and made publicly available, on a monthly or quarterly basis, by the Department of Jobs, Enterprise and Innovation to support the tracking of performance of the entrepreneurship policy.

7.3 Information Signposting

Entrepreneurs consistently highlight difficulties in accessing the correct information about startup programme supports from the Irish government.

Awareness and understanding of the full range of Government-supported funding programmes and incentives is not available through any one place. So many websites and sources of information are available that many people find it

confusing and inaccessible. The State Bodies Group chaired by the Department of Finance is currently developing proposals for further targeted communications/marketing of financial supports to SMEs.

While no one website can possibly answer every question at any time, a better national website resource is required, which provides information on the supports available and signposts the user to relevant agencies. We acknowledge that the development of this website could be a substantial undertaking.

The private sector have already developed several initiatives that help direct entrepreneurs to relevant events and resources³⁹. These may provide models for the agency developing the national website, and are discussed further in Chapter 4 Vibrant Hotspots of Activity.



Furthermore, there are opportunities to enhance existing interactions with entrepreneurs by providing information on Government supports at point of contact, such as the 14,000 new companies registering with

the Companies Registration Office (CRO) each year, or when companies register as self-employed or register for VAT with the Revenue Commissioners.

Ireland's eGovernment initiative could engage with the newly recommended Entrepreneurship Policy Unit to examine options for improving the workflow efficiencies of a startup when registering their business, including having a 'dashboard' for access to all major company resources and requirements (from revenue and CRO functions to supports, licensing and mentorship programmes). New Zealand is ranked now as the number 1 country in the world for ease of setting up a new business⁴⁰. We would like Ireland to beat New Zealand at business, if not at rugby.



recommendations

62. A National Entrepreneurship Website for startups should be established which contains relevant up-to-date information on services available along with links to agencies relevant to establishing and growing a business. This initiative must also use social media channels.

63. The e-Government initiative by the government should look at the various requirements for registering a business in Ireland, and recommend improvements to the workflow to simplify the

³⁹ Specifically for the tech industry, new entrepreneurs can take the first steps to find out about community resources and events by joining Startup Ireland's LinkedIn group and regularly checking the Startup Digest for events in Cork and Dublin.

⁴⁰ Ireland does relatively well, ranked #10 in the world for the ease of starting up a new business. With a solid effort on our eGovernment efforts, we could automate our way to the top.

Where does an entrepreneur go for State supports?





number of steps necessary to be a compliant business in Ireland, developing a ‘business dashboard’ for companies, and providing simplified access to government resources.

7.3.1 VAT Guides

The VAT tax code in Ireland is complex. A variety of rates are charged for different types of services and products. To simplify the burden to business, we propose that Revenue develop simple five-page guides appropriate to the top 30 sectors that create the most jobs, providing a reference of examples of the most misunderstood elements (i.e. incorrect VAT rates claimed/paid) that confuse business owners.

If common problem areas are highlighted, then entrepreneurs and small businesses can be confident of their compliance and avoid costly mistakes. There is currently no reference material for this information for new business owners⁴¹. These Guides should be made available on the Revenue website and also provided to companies when they register for VAT.



recommendations

64. Develop VAT guides highlighting the common problem areas that confuse business owners. These Guides should be made available on the Revenue website and also provided to companies when they register for VAT.

7.4 Taxation/social welfare

The Forum submitted a number of specific recommendations to Minister Richard Bruton in September 2013 with regard to Budget 2014. Within the submission, the Forum emphasised the need for new and renewed measures to allow entrepreneurship to continue to contribute significantly to jobs, competitiveness, innovation, productivity increases, wealth creation and growth in communities across the country. Currently, high capital gains and personal income taxes combine to disincentivise reinvestment in Irish enterprise, except through highly complicated financial structures and by external parties.

Of particular concern to the Forum is the fact that entrepreneurs pay a higher effective rate of tax on their earnings than other Irish citizens. Furthermore, even if they are employees of their own companies, they do not enjoy the same level of tax credits as other PAYE workers.

Improving social insurance supports for the self-employed is an important way for Government to demonstrate that entrepreneurship is a priority. Where there are less supports available for the self-employed within the social insurance

system, particularly around the concept of a ‘safety-net’, it creates a disincentive towards engagement in entrepreneurial activity. Many workers are discouraged from starting companies because of the knowledge that the self-employed don’t receive Jobseeker’s benefit. Those who have established their entitlement benefit by working for an employer for a number of years should get a longer period to retain their Jobseeker’s benefit.

Where an entrepreneurially inclined employee leaves employment, the current structure of the Jobseeker’s Benefit system encourages them to remain on JobSeeker’s Benefit for the full six/nine month JobSeeker’s Benefit entitlement period before setting up a new business. In order to encourage the early set-up of new businesses, and to extend a ‘safety-net’ for new entrepreneurs in the event of the business failing, it is recommended that such entrepreneurs would be provided with a five-year period to claim the remainder of their former JobSeeker’s Benefit entitlement as an employee.

The Forum acknowledges that we are bound by economic circumstance in the short-term. In the pre-budget submission, the Forum highlighted some improvements for the short term, and also covered some long-term issues to support an entrepreneurial spirit in the economy.

The key short term recommendations were:

1. Improvements to the EIIS and Seed Capital Scheme (as detailed in Chapter 6 Access to Finance).
2. Incentive to encourage peer to peer lending, (as detailed in Chapter 6 Access to Finance).
3. Enable a lower capital gains rate (20% vs. 33%) for money immediately re-invested in Irish businesses.
4. Enable Employee stock ownership without creating taxable events until the time of sale of the stock, (as detailed in Chapter 5 Access to Talent).
5. Universal Social Charges should be capped at €100k for self-employed just as it is for employees (the top effective rate dropping from 55% to 52%).
6. To support cashflow, extend the scope of the cash-receipts basis of accounting for VAT to the maximum turnover threshold of €2.5 million permissible under EU rules.
7. Enable those who set up corporations that employ staff to recommence claiming of their jobseeker’s benefit for up to 5 years (rather than 2 years).

41 For example: for convenience stores, provide the top 10 different issues that create problems for retailers (e.g, the different tax rates between prepared food and packaged food). For florists, provide a brochure which illustrates the different tax rates between flowers as plants and flowers as cut flowers and performing services such as planting flowers, etc.



recommendations

- 65. The Universal Social Charges should be capped at €100k for self-employed just as it is for employees (the top rate dropping from 55% to 52%).
- 66. New entrepreneurs should be provided with a five-year period to claim the remainder of their former Jobseeker's Benefit entitlement as an employee.

7.4.1 Long-term tax policy

From a long-term perspective, structural changes are necessary to make sure that the primary burden of taxes do not fall too heavily on the shoulders of the indigenous companies and the private taxpayer, as that results in a 'black hole' economy, an economy that sucks out its most successful participants. In the long term, the Forum would like to see a simplified system of taxation with a lower flat tax of between 15%-20%, which would result in less avoidance, more productivity and ultimately higher revenues and higher GNP.

Ireland's Capital Gains Tax is very high relative to other EU and OECD countries, making Ireland an unattractive place to invest in business for individuals. This is something that must change. High taxes discourage work, savings, investment, risk-taking and enterprise and therefore are neither efficient nor conducive to increasing strong economic growth. Governments everywhere try to encourage people to reinvest their earnings into the economy. A progressive policy with respect to entrepreneurship sets tax rates on invested capital at a more favorable rate (Capital Gains Tax) than income from PAYE employment, interest, dividends and other sources.

The simplest systems are the best systems. The benefit of having a low flat tax rate that everyone pays would eliminate the tax arbitrage that plagues several developed economies like Ireland. A flat tax is the best way to encourage people, especially the wealthy and higher paid people, to be direct

about how they receive their income. It also speeds the effect of market forces for a more rapid elimination of wasteful use of resources.

In the event that a flat tax is not achievable, however, everything must be done to accomplish a more streamlined system that bears its weight more equitably across those who are underpaying tax right now.⁴²

Any proceeds from these groups paying their share should then be directed at reducing Capital Gains Tax, firstly to encourage long-term thinking and investment and secondly to reduce individual income tax rates. High individual income tax rates result in higher costs of doing business for corporations. This makes Ireland less competitive for normal businesses and forcing businesses to import products from abroad or outsource their work to other countries. Thus, high income tax rates results in fewer jobs, results in more people on social welfare, and results in a dying economy.



recommendations

- 67. A flat tax on all types of income at 15-20% would be a fantastic way of attracting corporations, immigrant entrepreneurs, and keeping wealthy Irish entrepreneurs here in the country.
- 68. If a flat tax is not "achievable", all capital gains should be taxed at 20% rather than 33% to incentivise investment in new enterprise.
- 69. A more streamlined system that bears its weight more equitably across those who are underpaying tax right now. Any proceeds from these groups paying their share should then be directed firstly at reducing capital gains income tax (to encourage long-term thinking and investment), and secondly to reduce individual income tax rates.

This report has detailed six pillars to build a strong startup ecosystem in Ireland. We have the collective responsibility to make these changes a reality.

To join our call for active citizenship and learn about high impact ways that you can help the startup community, visit bit.ly/IrelandStartups.

⁴² This includes tax exiles and multinational corporations who are using the double irish structure or funneling income through havens like Bermuda, Cyprus, etc.

Recommendations

2. Innovative Can-Do Culture

2.2 Education System



1. Develop a National Educational Strategy for Entrepreneurship covering all levels of the education system. Establish an Entrepreneurship Education group to draft an Entrepreneurship Education Strategy that embeds teaching of entrepreneurship into primary, secondary and third-level schools and colleges, and also incorporates initiatives life-long learning and skill development programmes.



2. Build ICT skills at secondary level as per the Oireachtas report on Information Communication Technology (ICT) Skills Demand in Ireland (2012) recommendations with a focus on learning web development and computer programming.



3. Introduce a National Register for volunteer entrepreneurs who would be willing to visit schools to engage with students at local level.

2.3 Encouragement for Under-Represented Groups



4. As part of an entrepreneurship cultural awareness campaign, create 'entrepreneur heroes' which highlight and celebrate role models inclusive of the under-represented profiles (female/youth/immigrants etc.) as well as the represented profiles.



5. The President or An Taoiseach annually bestows an award to one or more entrepreneurs or entrepreneurial volunteers for "meritorious service" to Ireland.

2.3.1 Unemployed



6. Reduce the time required to be on the Live Register before being eligible for the Back to Work Enterprise allowance.



7. Cut the waiting time for appointments for unemployed people seeking approval for access to the Back to Work Enterprise Allowance.



8. Improve the payments system for entrepreneurs' grants for unemployed people trying to start a business. Provide up-front payment of certain grants.

2.3.2 Females



9. Continue the programme of targeted and tailored supports for female entrepreneurs.



10. The maternity leave scheme should be amended to enable a woman to transfer a portion of her maternity leave and benefits to the father of the child.



11. The qualifying weeks in terms of PRSI payments to qualify for maternity leave should be the same for female entrepreneurs as for female employees and the advance notice should also be similar.

2.3.4 Youth



12. Entrepreneurship should be recognised as a career option within any newly designed apprenticeship system.



13. An entrepreneurship internship programme should be established based on the EU funded Erasmus for Young Entrepreneurs programme. As a pilot initiative, 50 of the larger more established startup and growth companies based in the Guinness Enterprise Centre could be engaged to take one 'youth unemployed' person each to undertake an internship.



14. LEOs, in conjunction with Microfinance Ireland should pilot a new programme for young people who set up their own business. Microfinance Ireland should ring-fence money for a Micro Youth fund to facilitate youth-led ventures.



15. A Competitive Feasibility Fund for Youth Entrepreneurs should be established by Enterprise Ireland.

2.3.5 Immigrants



16. Enterprise Ireland should leverage their collaboration with the Higher Education Authority (HEA) to develop a tailored enterprise programme that is targeted at immigrants who are postgraduates in Irish Higher Education Institutions (HEIs) in order to build high potential startups with export potential based on their graduate research.



17. Local Enterprise Offices should work directly with immigrant organisations, social groups and places of worship to promote the many services and supports available to any person wishing to establish a business and to enable immigrant entrepreneurs to fully immerse their businesses in the Irish market.

2.3.6 Seniors



18. Exchequer funding for the successful EU supported Senior Enterprise initiative should be sustained when EU funding ceases.

Recommendations

3. Mentorship and Peer Learning

3.1 Peer mentoring

3.1.1 Office hours

-  19. Develop a national registry and process for 'Office Hours' to facilitate Entrepreneurship mentoring. Perhaps have this registry be compatible with other volunteer activity requests, such as for talks at conferences, schools, etc.

3.2 Skills Development Programmes

-  20. A target of 80% unpaid mentoring initiatives and 20% paid mentoring should be pursued. This is a reversal of current priorities.
-  21. Establish volunteer peer-mentoring initiatives, organised and facilitated by individuals, entrepreneurs, and industry representative groups. Programme support to be geared toward enhancing a collaborative start-up community and 'give before you get' culture.
-  a. LEOs to seek volunteer entrepreneurs through the Chambers of Commerce networks or others to work as "buddy mentors" to startup promoters.
-  b. Agencies to facilitate an initiative among large companies to allow staff to volunteer to go into startups, giving specific technical and management advice, financial expertise, mentoring etc.. (Private sector in conjunction with LEOs/EI).

-  22. If paid mentoring services are delivered by State agencies, the Forum recommends cutting the charge as a specific measure to support unemployed people trying to start a business.

3.4 Webinars

-  23. One-hour webinars should be hosted by Agencies and industry organisations on a monthly basis featuring topics that enable entrepreneurs to manage their businesses more effectively, and that people can access in their own time.

4. Vibrant Hotspots of Activity

4.2 Networking and Connections

-  24. Introduce an online business matchmaking service to help connect those with business ideas with potential co-founders.
-  25. Establish a national website and e-mail list (hosted and run by volunteers in the private sector) for each part of the country, allowing activities and training postings, listings of events (eg. "What's up in Dublin", "What's Up in Galway" etc.)

4.3 Accelerators

-  26. Successful entrepreneurs should consider establishing accelerator programmes in their local area, with a mind to investing or encouraging investment in the accelerated companies. Vertical market accelerators are the avenue most recommended.

4.4 Co-working spaces

-  27. A working group should be created to:
- develop a co-working model that will work in Ireland, to include leveraging unused public buildings and NAMA buildings;
 - implement a pilot programme in 2014 that would create 5 co-working centres across the country (in Cork, Galway, Limerick, Waterford and Dublin);
 - examine the North Tipperary Food Enterprise Centre (Rearcross) Ltd model and the Limerick model highlighted in chapter 4 for suitability for adoption in other areas;
 - encourage owners of private property to get involved in offering co-working spaces.
-  28. Funding that is currently directed to support CECs should be redirected, where possible, to the creation or support of far more effective 'co-working centres'.
-  29. Where possible, current funding for incubation spaces should be redirected to enable conversions of incubation spaces to co-working spaces, or to fund new co-working spaces.

4.5 Academia/Industry Cross-Fertilisation

4.5.1 Increase Interaction Between Industry & Academic Research Programmes

-  30. Triple the size of the 'Employment Based Postgraduate Programme' to 100 PhDs per annum (~10% of the Irish output). (1/3rd industry funded PhDs, 2/3rds government funded).
-  31. Extend the successful IRC 'Enterprise Partnership Scheme' which enables students to undertake their PhD research through an active engagement and collaboration with an industry partner.
-  32. Adopt policies enabling the rapid sharing of Intellectual Property for the public benefit in programmes such as Easy Access IP.
-  33. Introduce a Framework for companies to provide contracts to university graduate students for thesis work without clouding IP ownership.
-  34. Double the size of the Innovation Partnership Programme (industry/academic collaboration where industry pays for 1/3rd of research and university pays for 2/3rds of research. All of the increase in IPP funding should go to SME businesses.

Recommendations

 35. Fund the increase in IPP by reducing the dependence on moving research funding through SFI. (having industry partners ensures that the work will have commercial impact).

 36. Engagement without IP licensing requirements. Introduce a de minimus level of HEI/startup collaboration investment (up to €25k), below which IP contracting and licensing is not required. The intent is to encourage new collaboration and cut red tape.

4.5.2 Increase Capacity for Commercialisation by Academic Researchers and Post-graduates

 37. Formal recognition should be given to researcher time spent on collaboration with industry in the academic promotion criteria of their institution.

 38. Universities should offer their PhD students a Masters course in business at half price, while the students are conducting their thesis.

 39. Training on commercialisation or entrepreneurship should be provided to every PhD student and Post Doc via mandatory programmes held every semester by the universities.

 40. Every STEM student (undergraduate and postgraduate) should receive a course on entrepreneurship or product commercialisation as part of their degree.

5. Access to Talent

5.1 Share based remuneration to employees

 41. Enable Employee stock ownership without creating taxable events until the time of sale of the stock.

 42. Enable companies to repurchase share options for the benefit of their employees (from departing employees, etc) without requiring positive retained earnings.

5.2 Skill Development Programmes

5.2.1 Youth Apprenticeship Programmes

 43. JobBridge should be expanded to encourage up to 20 times the number of people that are in the programme (from 5,000 in 2013 to perhaps 100,000 in 2015, if the unemployment rate still warrants it).

 44. Allow youth to participate in a new work experience programme, based on the rate of pay of the JobBridge Programme, perhaps called “JobBridge Corporate”, to be funded directly by the companies rather than the State. The Programme should not have a requirement

for a person to spend time on the Live Register to be deemed eligible.

5.3 Immigration Reform

 45. Accommodate Accelerator programmes by allowing up to 3 co-founders admission to come to Ireland for 1 year ‘startup accelerator visa’ to attend an Accelerator programme.

 46. Allow those that start companies from an Accelerator programme a process to apply for Visas to stay longer.

 47. Seek a visa programme with China that would enable Ireland to be the first destination in Europe that allows 30 day visa-free travel by Chinese citizens. Seek to make this a reciprocal arrangement in order to facilitate Ireland in its growth of export operations to China. With first mover advantage and English as a native language, seek to establish Ireland as the European trade hub for China, in much the same way as we have served as a European trade hub for the United States.

 48. Implement the ‘trusted parties’ work visa approval process as envisioned by the Department of Jobs Enterprise and Innovation and espoused by Open Ireland.

 49. Engage with a public relations agency or industry or volunteer association to promote Ireland as a destination country for entrepreneurs, high-tech workers and accelerator-related activity. Corresponding website development, campaigns and media outreach should be undertaken.

 50. Expand the tech visa to talent in other areas of unmet demand.

6. Access to Finance

6.1 Encouraging investment in startups

 51. The angel community is regarded as the most effective stimulus for internal investment. Raise awareness of the HBAN network and help its expansion.

6.1.2 Employment and Investment Incentive (EIIS)

52. Improve the EIIS:

-  Enable medium-sized enterprises (50-250 employees) in the non-assisted areas⁴³ to avail of the EIIS.
- The EIIS should be amended to increase the period of investment from three to five years.

⁴³ The EU Regional Aid Guidelines allow each Member State to provide enhanced rates of State Aid in the least economically developed areas of each country. These areas are known as ‘assisted areas’. Under Ireland’s current Regional Aid Map, regions covering 50% of our population are ‘assisted areas’

Recommendations

- c. Under the EIIS, allow the full 41% relief be granted from the investment date.
- d. Eliminate the maximum €150k allowable qualifying investment in any one year under the EIIS. There should be no cap to this plan. If a cap is required, a higher cap of €1m could be set.
- e. Allow capital gains to be 'deemed' as special, regular income in order to allow capital gains to avail of the EII plan.

6.1.3 Global Irish involvement in backing Irish startups



- 53. Recruit 100 wealthy global Irish from the diaspora community to fund a €20m startup fund for high tech companies. Recreate this model for different industries (biotech, agriculture, financial services, etc).

6.1.4 Startup refunds for entrepreneurs (SURE)



- 54. Rebrand the SCS as SURE (Startup Refunds for Entrepreneurs).
 - a. Under the principle of 'de minimus' investment, it is possible for the existing Seed Capital Scheme plan to be modified to be easier to understand, up to limits of perhaps €250k. Provide the Seed Capital Scheme in a version that provides 'capital matching' funds of up to 50% of the amount up to €250k, under the same general contribution rules (repayment of up to 6 years income tax).
 - b. Provide a full CGT exemption as an alternative to an income tax refund, where the sales proceeds from the sale of an asset are reinvested in the Seed Capital Scheme.

6.1.5 Rewarding continuous investment with deferred CGT



- 55. Allow rollover (reinvestment) relief on Capital Gains into Irish companies, either through EIIS, or through investment into a company. Capital gains which are reinvested within a calendar year will not be recognised as gains until such time as they are not reinvested. Capital gains would retain their original basis value and would become taxed on a final sale of the EII stock.

6.3.1 Bank lending.

6.3.1.1 Attracting International Banks



- 56. An expert group should be convened to examine the collateral requirements currently being imposed by lenders. A best practice code of conduct should be devised for the use of personal guarantees, which should be incorporated into the existing Code of Conduct for SME Lending. Comparisons should be highlighted between the different SME Lenders to provide more information on terms and conditions likely to be imposed on potential

borrowers. Sanctions and fines should be imposed on banks and bank executives who violate the Code of Conduct.



- 57. One or more reputable international banks should be recruited (not subsidised, just recruited) to fill gaps in Irish business lending. Any unnecessary barriers to international banks or banking regulations that favour local banks should be removed.

6.3.2 Peer-to-peer lending



- 58. Incentivise peer-to-peer lending. The first €10,000 in interest income from loans to startup businesses would be tax-free. Businesses must be less than 6 years old in order to qualify for this exemption. Loans must be at non-usury market rates (10% or lower). If principal is lost, it would be deductible against any capital gains.

6.4 Ease strain on cash-flow via prompt payments



- 59. Industry bodies should support the establishment of the Prompt Payment Voluntary Code of Conduct Portal and encourage companies to sign up to the code.

7. Public Policy

7.1 Clear up the government structure for helping businesses



- 60. The Department of Jobs, Enterprise and Innovation should create an Entrepreneurship Policy Unit.

7.2 Monitoring progress of entrepreneurship policy



- 61. A 'Startup Monitor' should be produced and made publicly available, on a monthly or quarterly basis, by the Department of Jobs, Enterprise and Innovation to support the tracking of performance of the entrepreneurship policy.

7.3 Information Signposting



- 62. A National Entrepreneurship Website for startups should be established which contains relevant up-to-date information on services available along with links to agencies relevant to establishing and growing a business. This initiative must also use social media channels.



- 63. The e-Government initiative by the government should look at the various requirements for registering a business in Ireland, and recommend improvements to the workflow to simplify the number of steps necessary to be a compliant business in Ireland, developing a 'business dashboard' for companies, and providing simplified access to government resources.

Recommendations

7.3.1 VAT Guides



64. Develop VAT guides highlighting the common problem areas that confuse business owners. These Guides should be made available on the Revenue website and also provided to companies when they register for VAT.

7.4 Taxation/social welfare



65. The Universal Social Charges should be capped at €100k for self-employed just as it is for employees (the top rate dropping from 55% to 52%).



66. New entrepreneurs should be provided with a five-year period to claim the remainder of their former Jobseeker's Benefit entitlement as an employee.

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Glossary of Terms

BES: Business Expansion Scheme. Replaced by the EIIS in 2012.

BICS: Business Innovation Centre

CGT: Capital Gains Tax

CRO: Credit Review Office

CSO: Central Statistics Office

DJEI: Department of Jobs, Enterprise & Innovation

EI: Enterprise Ireland

EIIS: Employment and Investment Incentive Scheme

EO: Entrepreneurs Organisation

GNP: Gross National Profit

HBAN: Halo Business Angel Network, an angel finance group.

HEA: Higher Education Authority

HEI: Higher Education Institutions

ICT: Information and Communications Technology

IIA: Irish Internet Association

IP: Intellectual Property

IRC: Irish Research Council

ISA: Irish Software Association

ITLG: Irish Technology Leadership Group

LDC: Local Development Companies

LEO: Local Enterprise Office

NDRC: National Digital Research Centre

OECD: Organisation for Economic Co-operation and Development

PAYE: Pay as you Earn

SFI: Science Foundation Ireland

SME: Small & Medium Enterprise

STEM: Science, Technology, Engineering and Maths

VAT: Value Added Tax

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ANNEX 4: Annex_gem-report-2012

Entrepreneurship in Ireland

2012

Global Entrepreneurship Monitor (GEM)



The Annual Report for Ireland
PAULA FITZSIMONS & COLM O'GORMAN



ENTREPRENEURSHIP IN IRELAND 2012



Global Entrepreneurship Monitor (GEM)
The Annual Report for Ireland

Paula Fitzsimons

Colm O’Gorman

The GEM report is supported by Enterprise Ireland, Forfás and
the Department of Jobs, Enterprise and Innovation.

The GEM report is supported by Enterprise Ireland, Forfás, and the Department of Jobs, Enterprise and Innovation. The findings of this independent report, however, do not necessarily represent the views of these organisations.

Although data used in this report is collected by the GEM consortium, its analysis and interpretation is the sole responsibility of the authors. The authors, for their part, have attempted to ensure accuracy and completeness of the information contained in this publication. No responsibility can be accepted, however, for any errors and inaccuracies that occur.

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We are also grateful to all the entrepreneurs and expert informants that were consulted as part of this research. They gave generously of their time and their insights as always enriched our understanding of the changing environment for entrepreneurship in Ireland.

We thank our colleagues in the National GEM Teams, who undertake the research in each of almost seventy economies. We are also grateful to the coordination team in the Global Entrepreneurship Research Association (GERA). The coordination team manages to skillfully combine complex data from all the national teams, while ensuring robustness and academic rigour. We also acknowledge with thanks the assistance of Etain Ryan in the production of this report.

Finally, our sincere thanks go to the many readers of the GEM annual reports. By your comments it appears that many of you find the information of value in a wide variety of circumstances. We are grateful for your feedback and for your continued interest in the research.

Paula Fitzsimons



Colm O'Gorman





AUTHORS' DETAILS

PAULA FITZSIMONS, the founder of Fitzsimons Consulting, which specialises in entrepreneurship and growth, has been the national coordinator for the Global Entrepreneurship Monitor (GEM) for Ireland since 2000. A recognised expert on entrepreneurship, she was an expert facilitator to the Small Business Forum and subsequently advised Forfás and the Department of Enterprise, Trade and Employment on the development of a national entrepreneurship policy.

Having been actively involved in its design and development, Paula is the coordinator and communications manager for *Senior Enterprise* which seeks to increase the engagement of those in the older age group with entrepreneurship and with enterprise more generally. This initiative is receiving support from the EU through INTERREG IVB NWE. *Senior Enterprise* is being implemented through transnational cooperation by three partners, together with nine observers from across NW Europe. The initiative has attracted a great deal of positive attention from across Europe and internationally. It is perceived as highly innovative in meeting a real need. The EU 2020 Entrepreneurship Action Plan, published in January 2013, stated '*Europe could take inspiration from programmes such as Senior Enterprise (Ireland).*' The Mid-East Regional Authority is acting as Lead Partner.

Paula is also the national director of *Going for Growth*, which is focused on peer support as a means of assisting women entrepreneurs who wish to grow their businesses. Designed to address a gap in enterprise development, the *Going for Growth* initiative is being funded under the Equality for Women Measure 2010-2013, by Enterprise Ireland and by the Bank of Ireland. The Equality for Women Measure is funded by the European Social Fund (ESF) and the Department of Justice and Equality. *Going for Growth* was included in the 2009 *Good Practice* initiatives by the European Commission and voted into the Top 10 *most beneficial to implement* of those initiatives. It was selected to represent Ireland in the *Investing in Skills* category of the European Enterprise Awards 2011.

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COLM O'GORMAN is Professor of Entrepreneurship at Dublin City University Business School. His research focuses on strategy in small and medium sized enterprises (SMEs), with a particular focus on the strategic attributes of high growth firms. Specifically he has studied the growth strategies of SMEs, the nature of managerial work in high growth SMEs, mission statements in SMEs, and internationalisation processes in international new ventures, and in SMEs. He has explored the emergence of high-tech firms in the context of cluster dynamics, including a study of the factors that led to the rapid emergence of the software industry in Ireland during the 1990s. He has examined how inward Foreign Direct Investment impacts on the nature and extent of entrepreneurial activity. He has investigated the barriers to the commercialisation of university-based research via entrepreneurship.

Colm has published in international peer-reviewed journals such as *Entrepreneurship and Regional Development*, *European Planning Studies*, *Journal of Small Business Management*, *International Marketing Review*, *Organizational Dynamics*, *R&D Management*, *Small Business Economics*, and *Venture Capital*. He has completed several European Union funded research projects. He is co-author of 'Enterprise in Action', a text book on entrepreneurship for Irish students. He has co-authored eight teaching cases studies on entrepreneurship published by the European Case Clearing House, including several award winning cases.

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GEM METHODOLOGY AND DEFINITIONS

The Global Entrepreneurship Monitor (GEM) provides unique measures of the involvement of individuals in entrepreneurial activity. GEM carries out identical population surveys on an annual basis in over 69 countries.¹ The support of Enterprise Ireland and Forfás made possible the surveying of 2,000 people in Ireland in 2012.² GEM describes entrepreneurial activity as a process and measures different phases of this process from conception through firm birth to persistence.³

Unless otherwise stated, all rates discussed in this report are for those in the adult population aged 18-64 years inclusive.

Aspiring entrepreneurs

Aspiring entrepreneurs are those who expect to start a business in the next three years. The rate is for those in the adult population aged 18-64 years inclusive.

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 people are still in fulltime employment. The rate is for those in the adult population aged 18-64 years inclusive.

New business owners

New business owners 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 businesses are in the first 42 months after the new business has been set up. The rate is for those in the adult population aged 18-64 years inclusive.

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 business owners. This is because, in circumstances where respondents qualify as both a nascent and a new business owner, they are counted only once.

Owner managers of established businesses

In addition to those people who are currently involved in the early stages of a business, there are also many people who have set up businesses that they have continued to own and manage. These people are included in the established business owner index which captures the percentage of people in the 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. The rate is for those in the adult population aged 18-64 years inclusive.

¹ As part of GEM research in 2012, a total of 198,000 adults (18-64 years of age) were surveyed in 69 economies, spanning diverse geographies and a range of development levels.

² A random telephone survey was carried out in June 2012.

³ Figure 1 in Section 2 illustrates the entrepreneurial process with reference to these definitions.

FOREWORD

The Action Plan for Jobs 2013, which was published in February, contains a clear commitment to encourage entrepreneurship and support start-up activity and sets out 14 specially focused actions to continue our work to make Ireland *the* place to start a business.

To place these actions in a strategic context with a clear road map, the Government will prepare and publish a policy statement on entrepreneurship in the coming months. This statement will underpin our commitment to entrepreneurs, as we recognise the crucial role that new start-ups play in stimulating job creation, increasing competitiveness, innovation and dynamism in Ireland's enterprise base. It is vital that we create an environment where turning a good idea into a good business is a natural ambition for more people.

A twin track approach is needed. While encouraging a greater number of entrepreneurs to start sustainable businesses, we also need to support their entrepreneurial endeavours to create businesses that are innovative, capable of growth and able to match international competition on home and export markets.

Many new jobs may be expected to be created by the 19,000 people who started new businesses in Ireland in 2012. While this number could be higher, I am pleased that those who are starting a business are increasingly innovative and the majority expect to have customers in export markets.

I am particularly encouraged by the GEM results in respect of the improvement in the growth ambition and international focus evident among female entrepreneurs. This reflects well on the initiatives which have been taken in recent times with these goals in mind. The success in this area indicates that well directed targeted approaches can bear fruit.

I cannot deny that the current economic environment poses real challenges for these ambitious individuals who are starting new businesses. The Government is committed to playing its part to create an environment in which entrepreneurs can flourish and the job creation potential of their new enterprises can be maximised.

Continued over



“It is vital that we create an environment where turning a good idea into a good business is a natural ambition for more people.”

FOREWORD (CONTINUED)

“Through the Action Plan for Jobs we are committed to continue to develop and promote a range of non-bank sources of finance to meet the needs of enterprise and ultimately support growth and job creation.”

For Ireland’s dynamic and innovative community of entrepreneurs, access to early stage funding is vital. Over the past year we have developed a series of new finance instruments, including the Microenterprise Loan Fund, the Credit Guarantee Scheme, and the Seed and Venture Capital Scheme. Through the Action Plan for Jobs we are committed to continue to develop and promote a range of non-bank sources of finance to meet the needs of enterprise and ultimately support growth and job creation.

Informal investment activity is also an important source of funding for the enterprise sector. GEM estimates that the amounts invested in this way exceeded €350 million in 2012. The majority of these informal investors provided funds to family, friends or work colleagues who were starting a new business. The amounts involved may have been relatively small in most cases, but they provided not only financial support but an important confidence boost from close family and associates to those starting a new business.

I find the ten year perspective which the authors provide in this report most interesting. While the very high rates of entrepreneurship, which were associated with the early years of the decade, were not sustained as economic conditions became more difficult, it is heartening that the degree of innovation and the seeking out of customers on export markets has increased in the last three years.

I would like to thank the authors of the report, Paula Fitzsimons and Dr Colm O’Gorman, for their continued work in providing valuable information and insights into the entrepreneurial landscape in Ireland.

RICHARD BRUTON T.D.

Minister for Jobs, Enterprise and Innovation

May 2013

ENTREPRENEURS FEATURED ON THE COVER

A profile of each of the following entrepreneurs is included in Section 6. The profiles are a ten year review of the entrepreneurs and their businesses. They detail what has happened to each of them since they were last profiled in GEM in 2005.

ENTREPRENEUR: JAN BERG - MARITIME MANAGEMENT

Activity: The company offers ship management, maritime consultancy, marine surveying and associated maritime services and can provide bundled technical financial solutions to match specific requirements.

Location: Greystones, Co. Wicklow **Website:** www.bmml.ie



ENTREPRENEUR: ELAINE COUGHLAN - ATLANTIC BRIDGE

Activity: A growth equity fund focused on technology investments, with offices in Dublin, London and Silicon Valley. The firm's investors include the founders, leading institutional investors and private investors with a track record of successful technology investments.

Location: Dublin 2 **Website:** www.abven.com



ENTREPRENEUR: SEAN FITZGERALD - SENTENIAL

Activity: Sentenial is a specialist provider of SEPA payment solutions for Pan European banks and corporates. The company is recognised for its expertise and for offering the most comprehensive SEPA payments available in the market.

Location: Maynooth, Co. Kildare **Website:** www.sentenial.com



ENTREPRENEUR: MONICA NUGENT - IRELAND'S PC DOCTOR

Activity: Ireland's PC Doctor provides computer repairs, maintenance and website design. Its retail store sells computers, laptops and accessories.

Location: Donegal **Website:** www.irelandspcdoctor.com



ENTREPRENEUR: JOHN O'HARE - AZOTEL

Activity: The company's SIMPLer system equips broadband operators with the technology and automated business processes required to build out commercially successful and highly profitable networks anywhere in the world.

Location: Cork **Website:** www.azotel.com



ENTREPRENEUR: MICHAEL O'SHEA - ORION

Activity: A new health technology company providing wellness and fitness monitoring for a range of applications from monitoring equine athletic performance to detecting herd health issues that affect food production economics.

Location: Dublin **Website:** www.orionveterinary.com (coming soon)



ENTREPRENEUR: DEIRDRE UÍ CHATHMHAOIL - RÍ NA MARA

Activity: An award winning skincare company that produces its own range of products based on organic seaweed, which is hand harvested off the West Coast of Ireland.

Location: Spidéal, Co. Galway **Website:** www.rinamara.com



ENTREPRENEUR: DAVID WALSH - NETWATCH

Activity: The company uses the most advanced video processing technology to proactively monitor and protect their client's properties and assets, using live audio warnings to ward off intruders.

Location: Carlow **Website:** www.netwatchsystem.com



SECTION 1

SIGNIFICANT ASPECTS OF ENTREPRENEURSHIP IN IRELAND

2012 COMPARED TO 2011

In many respects GEM research illustrates that entrepreneurship in Ireland in 2012 continued the trends noted in 2011 and 2010. Reflecting the challenging economic environment, many of these were less positive, although there were some positive trends that could be identified.

Less positive trends.....

- The general perception of opportunities for new businesses by people in Ireland continues at historically low levels and is far below that pertaining across the OECD and EU.
- The aspiration to become an entrepreneur remains low, and is far below that generally observed across the OECD and EU, at a time when the perceived need for entrepreneurs is greater than ever.
- Fewer people are currently planning and starting new businesses in Ireland. This is particularly the case among men.
- In respect of early stage entrepreneurs, Ireland's position relative to other European countries has significantly declined.
- The prevalence of early stage entrepreneurs in Ireland is at historically low levels and is half of what it is in the United States.
- The level of early stage entrepreneurs that are motivated by necessity continues at a high rate.
- A marked lowering of growth ambition may be observed among men starting new businesses.

More positive trends.....

- Successful entrepreneurs continue to be well considered in Irish society, and success at entrepreneurship is considered to confer considerable status.
- There is a growing general perception of supportive coverage by the media of entrepreneurs and their activities.
- The educational attainment level among early stage entrepreneurs in Ireland is one of the highest internationally.
- More than half of all early stage entrepreneurs are focused on overseas markets and many expect a significant number of customers to be from overseas markets.
- The growth expectations among women entrepreneurs have considerably increased and there is no longer a significant gender gap in this area.
- The prevalence of owner managers of established businesses in Ireland is higher than it is across the OECD and EU.
- The level of growth expectation among early stage entrepreneurs remains at a high level.

A TEN YEAR PERSPECTIVE

As Ireland has been involved in the GEM research for over a decade, a ten year perspective is possible. This highlights two distinct periods - 2003 to 2008 inclusive and 2010 to 2012 inclusive, mirroring the changes in the economic environment.

The earlier period was characterised by high levels of entrepreneurial activity, with very many people perceiving opportunities to start new businesses. The culture and media were very supportive and entrepreneurship was considered a good career option.

An overall decline in the rate of early stage entrepreneurial activity, particularly among men, is apparent in the later period 2010 to 2012 compared to the earlier period. The percentage of the adult population that expects to become employers through their entrepreneurial activity has also declined. In the more recent period there has also been a decline in the rate among the general population of those stating their intention to start a business, a decline in the perception of entrepreneurship as a good career option, and a rise in entrepreneurship motivated by necessity.

Improvements in the degree of perceived innovation and intended internationalisation among those starting new businesses in the more recent period are very positive and suggest an improvement in the *quality* of the new enterprises being started. Successful entrepreneurs continue to be held in high regard.

SECTION 2

ENTREPRENEURSHIP IN IRELAND IN 2012

2.1 INTRODUCTION

This section provides an overview of entrepreneurship in Ireland in 2012 and examines certain aspects of entrepreneurship in some detail. The findings are compared with other developed countries, in particular those that were included in the GEM 2012 cycle from across the EU⁴ and OECD.⁵ For ease of reference, cross country comparisons relevant to this section (Table A through to Table O) are collected together in Section 7.

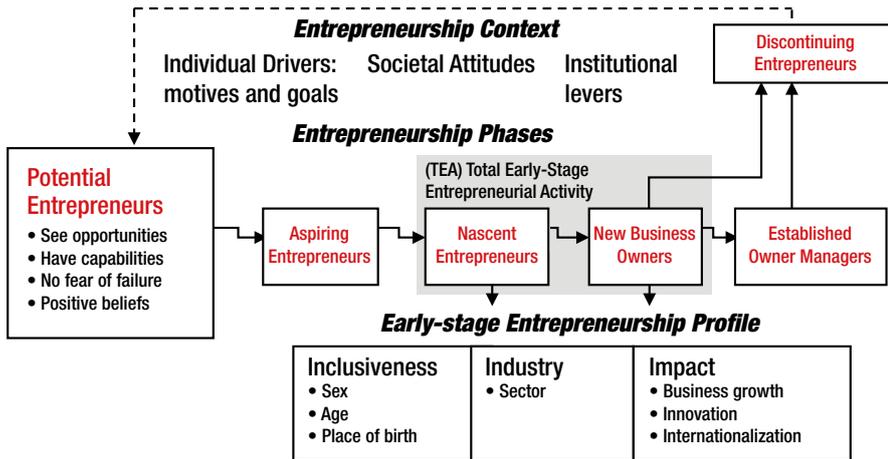
The information provided is based on the GEM research, which draws on an analysis of the facts, views and opinions gathered as part of an adult population study of 2,000 people, which was undertaken in June 2012. It also draws on the views and opinions of a panel of experts and entrepreneurs who were consulted and whose insights enriched our understanding of the prevailing entrepreneurial ecosystem (Section 2.10).

GEM research is carried out in exactly the same way in each of the sixty nine economies participating in the cycle. Accordingly, the results can be compared across countries and Ireland's relative position ascertained. For the most part, comparisons are made with OECD, EU-27 and EU-15.⁶

2.2 THE ENTREPRENEURIAL PROCESS

GEM describes entrepreneurial activity as a process and measures different phases of this process from conception through firm birth to persistence (Figure 1).

FIGURE 1: THE ENTREPRENEURSHIP PROCESS



Source: Adapted from Global Entrepreneurship Monitor 2011 Global Report, (Kelley, D., Singer, S. and M. Herrington), page 5.

⁴ Twenty two of the 27 EU countries are included. They are Austria, Belgium, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and the United Kingdom,
⁵ Twenty eight of the 32 OECD member countries are included. They are Austria, Belgium, Chile, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Israel, Italy, Japan, Korea, Mexico, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States.
⁶ Fourteen of the EU-15 countries are included. They are Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain, Sweden and the United Kingdom.

Table 1 gives a snapshot of entrepreneurial activity in Ireland in 2012 with reference to this entrepreneurial cycle. Unless otherwise stated, all rates discussed in this report are for those in the adult population aged 18-64 years inclusive.

TABLE 1: A SNAPSHOT OF ENTREPRENEURSHIP IN IRELAND IN 2012

	Aspiring entrepreneurs	Nascent entrepreneurs	New business owners	Early stage entrepreneurs⁷	Owner managers of established businesses	Entrepreneurs discontinuing businesses⁸
Percentage of adult population	8.0%	3.9%	2.3%	6.1%	8.3%	1.2%
Number of people	232,000	114,000	66,000	178,000	242,000	36,000

The proportion of people in Ireland who are early stage entrepreneurs has fallen (6.1% in 2012 from 7.3% in 2011) and Ireland's ranking against other countries has declined. Ireland is now ranked 18th among the OECD countries, 14th of the EU-27 countries and 6th of the EU-15 countries.

On a more positive note, the rate at which entrepreneurs in Ireland are exiting and discontinuing their businesses has fallen. This rate is now below the average across the OECD (1.9%), EU-27 (1.8%) and EU-15 (1.6%) and is considerably lower than the rate in Ireland in 2011 (2.8%).

2.3 POTENTIAL ENTREPRENEURS IN THE GENERAL POPULATION

Potential entrepreneurs are found among the general population and are latent entrepreneurs. They may never act on their entrepreneurial potential but they have certain aspects in their personal context which makes them more likely than others in the population to be future entrepreneurs. They tend to know recent entrepreneurs, are alert to opportunities in their environment, believe that they have the knowledge and skills to start and successfully run a new business and are less susceptible to being deterred by fear of failure.

In 2012 in Ireland:

- One in four people (26%) believe that there are opportunities to start a business in their local area in the coming six months.⁹
- Over four in ten people (45%) believe that they have the skills and knowledge to start a business.
- One in three people (37%) have an entrepreneurial role model.¹⁰
- Four in ten people (41%) report that fear of failure would deter them from starting a business.

Perception of opportunity

The current recession has had a very severe negative impact on the number of people in Ireland perceiving new business opportunities in their local area. The rate in 2012 is 26%, similar to the previous two years. This rate, however, is nearly half the rate prevailing in 2007 (46%).

This dramatic fall in the perception of opportunities for new businesses is particularly marked when Ireland is compared to other countries. The rate in Ireland (26%) is below the OECD average (33%), EU-27 average (31%) and EU-15 average (34%) (Table A in Section 7).

⁷ In some instances, this rate is less than the combined totals for nascent and new business owners. This is because, in circumstances where respondents qualify as both a nascent and a new firm entrepreneur, they are counted only once.

⁸ Closed a business in the previous 12 months and the business was discontinued.

⁹ The period referred to was July to December 2012.

¹⁰ They know someone who started a business in the past two years.

In the Nordic countries of Sweden (66%), Norway (64%) and Finland (55%) the great majority of the general public are able to identify opportunities for new businesses. In these countries, as in many others, there has been a drop in perceived opportunities since 2011. The stabilisation of the opportunity perception rate in Ireland, although at very low levels, is relatively positive. The perception of entrepreneurial opportunities by the general public in Greece (13%), Spain (14%), Portugal (16%), and Italy (20%) during 2012 were considerably lower than they were in Ireland.

More than one third of the experts and entrepreneurs, who were consulted by GEM in 2012¹¹ as part of national key informant panels, mentioned the continuing recession and the consequent drop in consumer spending as a constraint on entrepreneurial activity.¹² Many noted that the recession has created a lack of business confidence and greater pessimism.

Self confidence in own skills

Over four in ten people in Ireland believe that they have the skills and knowledge to start a business. In this, Ireland (45%) is broadly similar to OECD (42%), EU-27 (42%), and EU-15 (41%) averages (Table A). This rate has remained more or less constant in recent years.

Entrepreneurial role models

In Ireland over one third of people report knowing someone who has recently set up a new business (37%). This rate has remained more or less constant in recent years.

Ireland is higher in terms of the number knowing a recent entrepreneur (37%), compared to OECD (33%), EU-27 (33%) and EU-15 (32%) averages. This is particularly noticeable relative to certain larger but more entrepreneurial countries, such as the United States where the rate is 29% (Table A).

Fear of Failure

In terms of fear of failure deterring an individual from starting a new business, a slightly lower percentage of individuals in Ireland (41%) express this view than is the norm across the OECD (44%), EU-27 (47%), and EU-15 (47%). Interestingly, the prevalence of those reporting fear of failure as an inhibitor is more prevalent in Greece (72%), Italy (57%), Spain (52%) and Portugal (52%). The rates in the UK (41%) and the US (38%) are broadly similar to those in Ireland (Table A).

2.4 ASPIRATION TO START A BUSINESS

GEM research tells us that in 2012 the equivalent of over 230,000 individuals have clearly stated their intention to set up a new business in the next three years (Table 1). This represents 8% of the adult population and the rate is broadly similar to 2011.

Relative to other countries the rate is low, however (Table B). For example, the OECD average is 14.4%, the EU-27 average is 14.8% and the EU-15 average is 11.4%. The OECD and EU have experienced, however, a decline in general in 2012 in the rate of those aspiring to set up a new business.

In Ireland, the rate of those declaring their aspiration to set up a new business is half the rate evident in the United States (16.5%) and two thirds that of the UK (11.5%).

This is a matter of concern as the aspiration to set up a new business remains low, and lower than the norms across the OECD and EU, at a time when the perceived need for entrepreneurs is greater than ever.

¹¹ There are 36 experts and entrepreneurs on the 2012 Irish GEM key informant panel. Seventeen of these are entrepreneurs. The others are experts drawn from across academia and from the public and private sectors. All are well informed in this area and have considerable experience in dealing with entrepreneurs and their new ventures and /or with the ecosystem that impacts on them.

¹² In 2012 35% of those consulted identified the recession as a constraint. This compared to 40% in 2012.

The aspiration to set up a new business may be negatively affected not only by the significant decline in the perception of opportunities for new enterprises, referred to previously, but also by the fact that less than half the adult population (45%) considers entrepreneurship to be a good career choice. The current prevalence in Ireland of this view is considerably lower than that of many other countries. For example, the OECD average is 56%, the EU-27 and the EU-15 averages are 58% (Table C).

Successful entrepreneurs continue to be well considered in Irish society, with 81% of individuals considering that success at entrepreneurship has high status. This rate is higher than it is across the OECD (70%), EU-27 (69%) or EU-15 (72%).

The general perception that the media has been supportive in its coverage of entrepreneurs has risen slightly in 2012. It is perceived as supportive by 61% of people in Ireland. While this rate is higher than the average across the OECD (52%), EU-27 (50%) and EU-15 (52%) (Table C), the rate in Ireland has been declining year on year since 2006 and 2012 is the first year that it has risen.

The continuing high proportion of early stage entrepreneurs turning to entrepreneurship out of necessity (28%) may also be impacting on the numbers aspiring to set up a business, as it may be making entrepreneurship a less desirable option for those who have other choices. Necessity motivates a lower proportion of early stage entrepreneurs across the OECD (21%), the EU-27 (21%) and EU-15 (18%). Within the EU, Poland has particularly high levels of necessity entrepreneurship (43%), continuing the trend observed in 2011 (Table D).

2.5 EARLY STAGE ENTREPRENEURIAL ACTIVITY

In Ireland 2.3% of the adult population are new business owners and a further 3.9% are nascent entrepreneurs. Combining these rates mean that 6.1% of the adult population¹³ are engaged in some aspect of early stage entrepreneurial activity (TEA) (Table 1).

Nascent entrepreneurs are further along the entrepreneurial development cycle than aspiring entrepreneurs in that they are actively planning a new venture, although many of them may still be in employment. Nascent 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. These people will not all start a new firm. The rate is for those in the adult population aged 18-64 years inclusive. The rate of nascent entrepreneurs in 2012 was 3.9% of the adult population. This equates to approximately 114,000 people.

New business owners are entrepreneurs that have actually set up a new business, which they at least part own and manage. The business is between 4 and 42 months old and they have not paid salaries for longer than this period. These new businesses are in the first 42 months after the new business has been set up. The rate of new business owners is 2.3% of the adult population. This equates to approximately 19,000 individuals involved in starting a new business on an annual basis. As many new businesses have multiple owners, the number of new firms started is lower.

Total early stage entrepreneurship (TEA) is a combination of new business owners and nascent entrepreneurs. The TEA rate in Ireland is 6.1%. The rate in 2012 (6.1%) is lower than in was in 2011 (7.3%) and is due both to a decrease in the rate of new business owners (to 2.3% from 3.1%) and nascent entrepreneurs (to 3.9% from 4.3%). The prevalence of those setting up new businesses is at historically low levels.

Relative to other countries, Ireland's rate of early stage entrepreneurial activity is generally lower or at the average (Table B). For example, relative to OECD and EU countries, Ireland has a lower than average rate of new business ownership, nascent entrepreneurship and TEA. Relative to the EU-27

¹³ In some instances, this rate is less than the combined totals for nascent and new business owners. This is because, in circumstances where respondents qualify as both a nascent and a new firm entrepreneur, they are counted only once.

member countries, Ireland is now ranked 14th (of twenty two countries included) in terms of early stage entrepreneurial activity, having been to the fore for many years.

The rate of early stage entrepreneurs in the US (12.8%) is over twice that of Ireland and the rate in the UK is also considerably higher (9.0%).

Those in the early stages of starting a business tend to be coming from employment. This is true in Ireland as it is in other countries (Table E). In Ireland in 2012, however, the rate of early stage entrepreneurship among those in employment fell from 9.1% in 2011 to 7.7% and is lower than the average across the OECD, EU-27 and EU-15. The rate of early stage entrepreneurs among those unemployed (3.8%) is more or less the same as in 2011 and is more on a par with the averages in the comparator groups of countries.

As in previous years those living in households with high income levels tend to be the most entrepreneurial. This is true in Ireland as it is across the OECD, EU-27 and EU-15 (Table E).

The prevalence of early stage entrepreneurs with education attainment levels beyond secondary school is much higher in Ireland (73%) than it is across the OECD (49%), EU-27 (49%), or EU-15 (51%) (Table F).

2.6 OWNER MANAGERS OF ESTABLISHED BUSINESSES

Owner managers of established businesses are those that have set up businesses that they have continued to own and manage and which have paid wages or salaries for more than 42 months. There are a considerable number of owner managers in Ireland - almost 242,000 (Table 1). The rate of established owner managers in Ireland (8.3%) is higher than the averages across the OECD (6.7%), EU-27 (6.6%), and EU-15 (6.6%) (Table B). They can be found in households among all income levels at higher rates than is the norm internationally (Table G).

There is a greater prevalence of owner managers of established businesses in Ireland with relatively low levels of formal education (10.1%) than is the case across the OECD (6.0%), EU-27 (5.3%) or EU-15 (6.3%) (Table G).

2.7 ENTREPRENEURIAL TEAMS AND COLLABORATIONS

While the popular stereotype of entrepreneurs is the 'lone' entrepreneur, many entrepreneurs start new businesses as part of a team (Table H). Start-up teams of entrepreneurs in Ireland (1.7) among new business owners,¹⁴ are similar in size to those across the OECD (1.8), EU-27 (1.7) and EU-15 (1.7). Among nascent entrepreneurs in Ireland, the average start-up team of entrepreneurs is larger (2.3) and is more at the average prevailing across the OECD (1.9) and EU (2). The average number of owners is lower for owner managers of established businesses (1.6). This is lower than the OECD average (1.7), but broadly similar to the EU-27 and EU-15 average (1.8).

Entrepreneurs and owner managers might collaborate with other businesses and organisations across a range of business activities. Such collaboration can be important to innovation and business development. One third of early stage entrepreneurs in Ireland worked with other businesses or organisations to produce products or services (34%) and to procure supplies (36%), with more (41%) working with other businesses or organisations to make their business more effective (Table I). In all cases the rates in Ireland are lower than the OECD, EU-27 and EU-15 averages. With respect to working with other businesses and organisations to produce products or services Ireland ranks the lowest of all OECD, EU-27 and EU-15 countries.

Less than half of owner managers of established businesses work with other businesses or organizations to produce products or services (44%); to procure supplies (35%); to make their

¹⁴ Hence it is important to refer to approximately 1,600 **entrepreneurs** every month starting new businesses rather than the number of new businesses which they are starting, which is less (approximately 925).

business more effective (46%); to sell to existing customers (47%); and to sell to new customers (43%). Less than one third of owner managers of established businesses work with other businesses or organisation to create new products or services for existing customers (28%) or new customers (30%). That is, less than one-third of established owner-managers are engaged in this form of open innovation.

2.8 DISCONTINUED BUSINESSES AND EXITS

During the twelve month period July 2011 to June 2012, 1.2% of the population exited a business that was discontinued, while 0.5% exited a business that was continued (Table J).

The rate of exit in 2012 where the business is discontinued or closed is much lower than the rate reported in 2011 (2.8%). The rate of exit where the business was continued (0.5%) was more or less on par with the previous year.

When individuals exit from entrepreneurial activity, this may or may not result in the discontinuation of the business.¹⁵ Focussing on exits where the business is discontinued, only a very small proportion is due to retirement (2%) or is a planned exit (3%). The principal reason for exit is a lack of profitability (42%). In 2011 lack of profitability was also the principal reason, though the rate was much higher (60%).

The full list of reasons cited for exiting (where the business is discontinued) is as follows: business not profitable (42%); 'personal' reasons (20%); found another job or business opportunity (7%); difficulties in getting finance (17%); retirement (2%); and 'planned' (3%). None of those questioned cited an opportunity to sell the business as their reason to leave the business (Table K). A difficulty in getting finance was cited by a greater proportion of those closing businesses in 2012 (17%), than it was the previous year (6%).

Relative to other countries, a lower proportion of entrepreneurs in Ireland reported that their former business was closed after their departure. The rate in Ireland (1.2%) is lower than the averages across the OECD (1.9%), EU-27 (1.8%) and EU-15 (1.6%). In Ireland the rate of exit where the business is continued (0.5%) is lower than the OECD average (1.0%), the EU-27 average (0.9%) and the EU-15 average (0.7%) (Table J).

2.9 ENTREPRENEURSHIP BY IMMIGRANTS

Early stage entrepreneurship is higher among immigrant groups (7.2%) than it is among the non-immigrant population (5.8%) (Table L). This is the case in the other EU-15 countries, with the exception of the Netherlands. Immigrant early stage entrepreneurs are typically motivated by opportunity (73%), which is also the case for non-immigrant entrepreneurs (70%).

More specifically, a higher percentage of first generation (3.0%) and second generation immigrants (2.9%) have recently started a business in Ireland, compared to the non-immigrant population (2.2%).

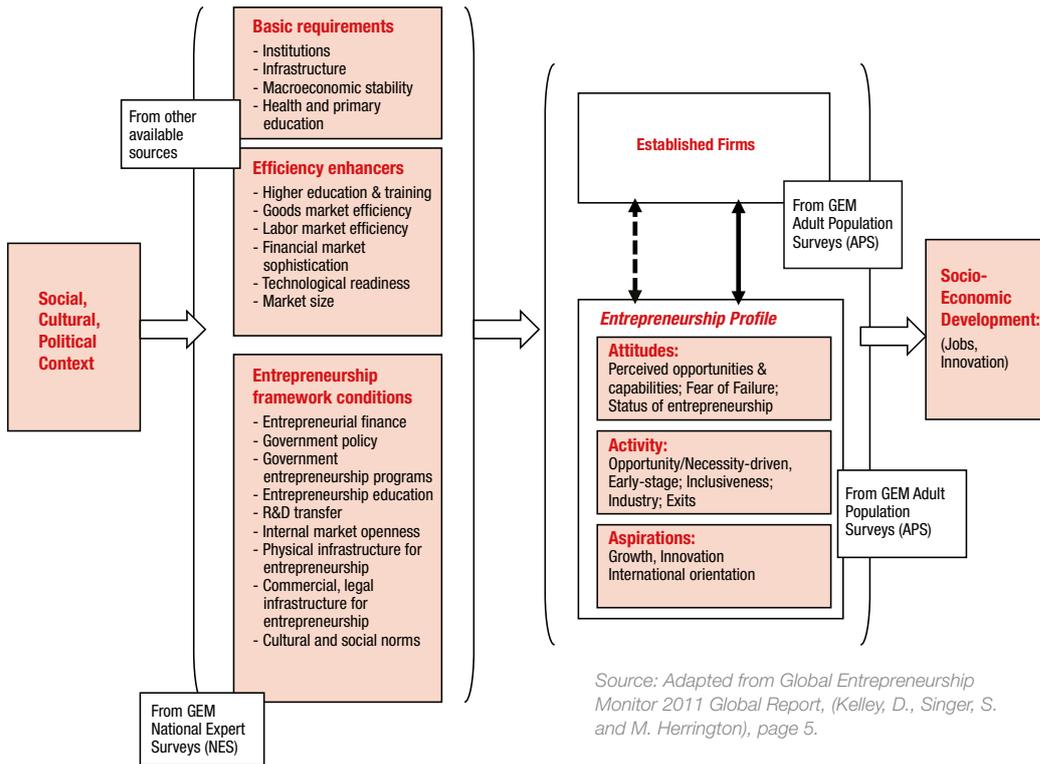
2.10 ENVIRONMENT AND ECOSYSTEM

The GEM conceptual model emphasises nine entrepreneurship framework conditions (EFC) (Figure 2). These nine entrepreneurship framework conditions exist as part of a broader model of the institutional environment and its effect on entrepreneurship. The GEM model suggests that two sets of conditions—basic requirements and efficiency enhancers—are foundation conditions that influence the way a society functions and the well-being of its people (Figure 2). These have been adopted from the World Economic Forum's (WEF) Global Competitiveness Report. They are general framework conditions that effect economic activity more broadly, but they are critical to entrepreneurship because, without a solid institutional foundation, the entrepreneurship-specific conditions cannot function effectively.

¹⁵ Sometimes the business is closed with the departure of the owner manager. In other cases it is passed to others within families or sold to others as a going concern.

GEM national teams collect information on the nine entrepreneurship framework conditions through a national expert survey (NES).¹⁶ The determinants of entrepreneurship are complex; the extent to which specific variables can be tied to the rate or profile of entrepreneurship in a particular economy is not well understood. The institutional environment is critical to the study of entrepreneurship, however, because it creates conditions that entrepreneurs must navigate and that policy makers can address. The experts and entrepreneurs surveyed were asked to indicate their perception of the constraints and positive factors that prevailed in Ireland in 2012. They were also asked for their recommendations as to the manner in which the environment for entrepreneurship in Ireland could be further improved.

FIGURE 2: THE INSTITUTIONAL CONTEXT AND ITS RELATIONSHIP TO ENTREPRENEURSHIP



Source: Adapted from *Global Entrepreneurship Monitor 2011 Global Report*, (Kelley, D., Singer, S. and M. Herrington), page 5.

PERCEIVED CONSTRAINTS

Entrepreneurial finance: Difficulties surrounding access and availability of finance was the framework condition singled out most frequently as a constraint by the GEM experts and entrepreneurs in 2012, as it was in 2011. Three out of every four experts and entrepreneurs consulted by the GEM team in 2012 highlighted difficulties in respect of obtaining necessary finance, mentioning in particular access to loan finance and credit facilities from the banks: *“Reluctance of banks to lend and requirement for a lot of paperwork”*. As a result, many called for the shortage of bank finance for start-up and developing businesses to be addressed and access to credit facilities to be made easier.

Several of those commenting also referred to a need to have more seed capital type funding available and the introduction of initiatives to encourage micro finance and trade credit.

The prevailing economic climate: In 2012 as in 2011 the experts and entrepreneurs consulted specifically mentioned the continuing recession and uncertainties surrounding the Euro as underpinning depressed economic activity levels, lack of business confidence and continuing low consumer spending. *“Economic issues have impacted on personal finances and the appetite for risk, declining economic global growth has impacted on confidence.”* This point links directly to the historically low rates of opportunity perception among the general population, which continued in 2012.

¹⁶ There are 36 experts and entrepreneurs on the 2012 Irish GEM key informant panel. Seventeen of these are entrepreneurs. The others are experts drawn from across academia and from the public and private sectors. All are well informed in this area and have considerable experience in dealing with entrepreneurs and their new ventures and /or with the ecosystem that impact on them.

Government policy: One in three of those consulted felt that certain aspects of Government policy made it riskier for people to set up their own business. In particular the lack of a safety net for owner managers, if the business failed, was highlighted. Suggestions were made that support mechanisms should be put in place for entrepreneurs who try but fail – so called *honest failures*.¹⁷

The high rate of employers' PRSI and its impact on the cost of employing people was also highlighted. There were recommendations that employers should be given a taxation break in the early years after start-up.

There were suggestions that regulations be simplified to make it easier to open a new business and that the volume and burden of state regulation for small business be reduced. It was also suggested that the Government consider introducing a new version of the Patent Loyalty Scheme, consider some means of supporting domestic focused ventures, perhaps with a pension break for owner managers who hire staff, and advance legislation on insolvency and debt resolution.

A call was made by several of those consulted for a national strategy for entrepreneurship.¹⁸

PERCEIVED STRENGTHS

Government support through the development agencies: As in 2011 the support offered through the development agencies, in particular Enterprise Ireland and the City and County Enterprise Boards, was mentioned as the main strength for entrepreneurial activity in Ireland. Particular programmes that were singled out for praise included EI's HPSU supports, the Competitive Start Fund, the supports available in the third level incubators together with CORD funding, the iGap and Springboard programmes. The supports available from EI for exporters were considered a real strength. It was suggested that EI should facilitate the growth of smaller businesses that wish to export by making its supports available in this area to those that would not meet the minimum criteria of employment (10 or more) and annual sales (€1million) within 3 to 4 years of starting up to qualify for HPSU status.¹⁹ A single website with information for start-up and developing businesses was also suggested.

High rates of unemployment: Almost a third of those consulted identified the recession and continuing high rates of unemployment as fostering entrepreneurial activity. The view is that the high unemployment rate has reduced the fear of failure as a deterrent, as people have little to lose. *The high unemployment level is forcing people to consider starting up.* This point ties in with the continuing high levels of necessity entrepreneurship identified in the 2012 GEM research.

Role models and the media: Many of those consulted highlighted the feel good factor generated by role models, their positive portrayal in the media and their involvement in mentoring. The media and public acceptance of entrepreneurs, who create employment in their community, as *local heroes* was also mentioned as contributing to the positive portrayal of entrepreneurs.

Education: Certain aspects of education were noted as providing support to the creation of a positive environment for entrepreneurial activity. In particular the high standard of general education in the country was perceived as providing good educational foundations, although there was a call for a stronger emphasis on maths, science, and engineering. The Student Enterprise Award competition for students in secondary schools, which is run annually by the City and County Enterprise Boards, was mentioned specifically as being of particular merit in introducing students to entrepreneurial activity. There was a call for a greater emphasis on enterprise education at all educational levels and to have entrepreneurship education embedded in every third level course.²⁰

¹⁷ Action 176 of the Action Plan for Jobs 2013 commits to consider options with regard to extending benefit cover to the self-employed based on recommendations of a working group on this issue.

¹⁸ The Action Plan for Jobs 2013 contains a commitment by the Government to prepare a Government Policy Statement on entrepreneurship, including youth entrepreneurship (Action 175).

¹⁹ During 2012 Enterprise Ireland introduced new initiatives to encourage greater numbers of companies to become involved in exports for the first time. Access to the supports available is not confined to those who meet the HPSU criteria. <http://www.enterprise-ireland.com/en/Export-Assistance/Get-Export-Ready/>

²⁰ In April 2012 the Higher Education and Training Awards Council (HETAC) in association with higher education institutions and the Higher Education Authority (HEA) held a conference on Leaders' Perspectives on Enterprise and Entrepreneurial Education. Draft Guidelines and Key Criteria for the Review of Enterprise and Entrepreneurship Education (EEE) were launched by Mr Sean Sherlock, TD Minister for Research and Innovation at the conference.

2.11 INFORMAL INVESTORS

Informal investors play a vital role in the development of new businesses. In Ireland in 2012, 3.7% of adults reported having provided funds in the past three years (June 2009 to June 2012) to a new business started by someone else. This rate was broadly similar to that reported in 2011 (3.2%).

Informal investment is more pervasive in the US (5.4%), across the OECD (4.6%) and the EU-27 (4.5%). The rate in Ireland is more on a par with the EU-15 average (3.4%).

The great majority (81%) of the 36,000 individuals, who provided funds as informal investors in Ireland in 2012, provided them to family, friends or work colleagues. Instances of providing investment to entrepreneurs unknown to the investor were much less common (19%).

Over one third of the investors have first-hand experience of entrepreneurship themselves.

The average amount invested by individuals in Ireland (€29,200) during this period was similar to that in the US (€30,300) and higher than the average amount invested across the OECD (€26,400), the EU-27 (€23,400) and EU-15 (€28,700) (Table M).

2.12 THE AGE DEMOGRAPHICS OF ENTREPRENEURSHIP

Almost one third of the population in Ireland (32%) is in the age group which accounts for the greatest proportion of early stage entrepreneurs (25-44 years). The older age groups (45 years and over) account for almost equal numbers (34%), but as a group they tend to be less involved in early stage entrepreneurial activities.

Early stage entrepreneurial activity is less common among those below the age of 25 and over the age of fifty.

Early stage entrepreneurial activity is relatively low among the 18 to 24 age group (4.5%) and they make up just 12% of all entrepreneurs in Ireland. In Ireland, unemployment is particularly marked among those under the age of 24 (15.9%).²¹ The 2012 rate of early stage entrepreneurship among those aged 18 to 24 shows no real difference to the 2011 outcome. It is lower than the averages across the OECD (6.3%) and EU-27 (6.6%) and is more on a par with that of the EU-15 (4.7%)²² (Table N).

In recent times a series of initiatives were implemented to raise awareness and offer support specifically to those aged 50 and over who were considering becoming an entrepreneur. The results of the GEM research suggest that in 2012 a greater number of those aged 50 and over are actively considering setting up a new business or have recently done so (6%) than was the case in 2011 (4.4%). The increase is particularly marked among men (5.8% in 2011 to 8.9% in 2012). In the United States, which has a particularly high level of early stage entrepreneurs, the prevalence of those planning and starting a new business when aged over 55 is particularly high (10.2%) (Table N).

Owner managers of established businesses tend to be older. This is true in Ireland as it is in other countries (Table O).

²¹ CSO Live Register, January 2012.

²² Youth entrepreneurship is stated as a particular focus of the forthcoming Government Policy Statement on entrepreneurship. It is Action 175 of the Action Plan for Jobs 2013.

SECTION 3

A TEN YEAR PERSPECTIVE

3.1 INTRODUCTION

As GEM research data has been collected in Ireland annually since 2003, with the exception of 2009, it allows for a ten year perspective on entrepreneurial activity in Ireland. Since 2003 the environment for entrepreneurship has changed significantly. A period of high economic growth and rising incomes ended with the onset of the current economic crisis. Since then consumer demand has contracted, business confidence has been negatively affected and the availability of finance to new and developing businesses has been restricted. At the same time unemployment has increased, resulting in a decline in inward migration and an increase in enforced emigration, particularly among young adults.

Looking back over the past ten years, in many respects it is a tale of two distinct periods - 2003 to 2008 inclusive, and 2010 to 2012 inclusive. The earlier period, 2003 to 2008, was characterized by high levels of entrepreneurial activity, with very many people perceiving opportunities to start new businesses. The media was perceived as very supportive of entrepreneurship and entrepreneurship was considered a good career option. A decline in the rate of early stage entrepreneurial activity, particularly among men, is apparent in the later period 2010 to 2012. Compared to the earlier period, 2003 to 2008, other more recent negative trends include the decline in the rate among the general population that state their intention to set up a new business in the following three years, the decline in the perception of entrepreneurship as a good career option, and a rise in entrepreneurship motivated by necessity. However, during the more recent period successful entrepreneurs continue to be held in high regard and a significant minority of all entrepreneurs has high levels of perceived innovation, intended internationalisation and expected significant growth.

The paragraphs that follow give a ten year perspective on rates of entrepreneurial activity, on aspects of context, culture and motivation, and on the economic impact of entrepreneurs. Table 2 through to Table 4 are relevant to this section and are referenced in the text.

3.2 RATES OF ENTREPRENEURIAL ACTIVITY

Table 2 overleaf illustrates entrepreneurial activity over the ten year period.

Aspiring entrepreneurs: Each of the years 2003 to 2008 inclusive showed higher levels in the rate at which people in Ireland were stating their intention to set up a new business within three years, compared to each of the years 2010 to 2012 inclusive. (Averages of 11% compared to 8.3%)

Nascent entrepreneurs: The rate at which people in Ireland were actively planning new businesses remained broadly similar across the two periods, averaging 4.5% in the earlier period, compared to 4.2% in the later period.

New business owners: The rate at which people in Ireland were setting up new businesses in the earlier period averaged 3.9% compared to 2.6% in the later period. Moreover, in each of the years of the 2003 to 2008 period, except one (2006), the rate was higher than it was in any of the three later years (2010 to 2012).

Total early stage entrepreneurs: In each year of the earlier period the rate of total early stage entrepreneurial activity was higher than in the later period, averaging 8.1% compared to 6.7%.

²³ Due to budgetary constraints on the part of its sponsors, Ireland did not participate in the GEM 2009 research cycle.

TABLE 2: ENTREPRENEURSHIP IN IRELAND, 2003 TO 2012

Year	Aspiring entrepreneurs Percentage in adult population	Nascent entrepreneurs Percentage in adult population	New business owners Percentage in adult population	Early stage entrepreneurs (TEA) ²⁵ Percentage in adult population	Men: early stage entrepreneurs Percentage in adult population	Women: early stage entrepreneurs Percentage in adult population	Ratio of men to women	Owner managers of established businesses Percentage in adult population	Entrepreneurs discontinuing businesses ²⁶ Percentage in adult population
2012	8.0%	3.9%	2.3%	6.1%	8.3%	4.0%	2.1:1	8.3%	1.2%
2011	8.5%	4.3%	3.1%	7.3%	10.3%	4.2%	2.5:1	8.0%	2.8%
2010	8.4%	4.4%	2.5%	6.8%	9.5%	3.9%	2.4:1	8.6%	1.2%
2009	-	-	-	-	-	-	-	-	-
2008	10.0%	3.3%	4.3%	7.6%	11.2%	4.0%	2.8:1	9.0%	1.8%
2007	11.2%	4.2%	4.2%	8.2%	10.6%	5.9%	1.8:1	9.0%	1.9%
2006	9.8%	4.5%	2.9%	7.4%	10.5%	4.2%	2.5:1	7.8%	1.8%
2005	12.6%	5.7%	4.7%	9.8%	14.2%	5.5%	2.6:1	8.1%	2.3%
2004	11.0%	4.4%	3.6%	7.7%	10.4%	5.0%	2.1:1	6.5%	1.3%
2003	11.3%	5.1%	3.8%	8.1%	12.5%	3.7%	3.4:1	6.7%	2.5%

²⁵ In some instances, this rate is less than the combined totals for nascent and new business owners. This is because, in circumstances where respondents qualify as both a nascent and a new firm entrepreneur, they are counted only once.

²⁶ Closed a business in the previous 12 months and the business was discontinued.

TABLE 3: PERSONAL CONTEXT AND PERCEPTIONS OF GENERAL POPULATION, 2003 TO 2012

Year	PERSONAL CONTEXT				CULTURE			
	Know a recent entrepreneur Percentage in adult population	Opportunities in local area Percentage in adult population	Skill & knowledge to start-up Percentage in adult population	Fear of failure prevent start-up Percentage in adult population	Entrepreneurship is a good career choice Percentage in adult population	Success at entrepreneurship has high status Percentage in adult population	Supportive media coverage of entrepreneurs Percentage in adult population	
2012	37%	26%	45%	41%	45%	81%	61%	
2011	39%	26%	46%	41%	46%	83%	56%	
2010	35%	23%	49%	39%	52%	81%	61%	
2009	-	-	-	-	-	-	-	
2008	37%	27%	48%	38%	55%	80%	65%	
2007	39%	46%	49%	37%	63%	83%	68%	
2006	39%	44%	51%	35%	70%	82%	84%	
2005	43%	52%	50%	38%	69%	79%	83%	
2004	41%	45%	48%	39%	66%	85%	77%	
2003	43%	33%	46%	41%	66%	76%	84%	

Sector focus: Between 2003 and 2006 inclusive, there was more or less an even distribution in the focus of early stage entrepreneurs across transformative, business services and consumer services sectors. In 2007 the focus on the transformative sector fell sharply (to 21%), as the focus on consumer services increased (up to 44%). This trend has continued with the consumer services sector continuing to be the most dominant (41% in 2012).

Gender: The level of entrepreneurial activity by men has considerably reduced over the ten year period. A significant reduction was noted in 2010 over the 2008 levels and in 2012 the lowest rate was recorded in the ten year period (8.3% compared to a high of 14.2% in 2005). The rate at which women have been engaged in entrepreneurial activity has shown a much smaller reduction than is the case with men. The rate of early stage entrepreneurial activity among women averaged 4.7% in the earlier period (2003 to 2008 inclusive) and 4% in the more recent period (2010 to 2012 inclusive). As a result the ratio of activity between men and women entrepreneurs over the decade has been more a factor of the relative buoyancy in the rate among men than it has been any change in the entrepreneurial activity rate among women.

Owner managers of established businesses: The rate of owner managers of established businesses in Ireland did not follow the trend observed above for early stage entrepreneurs. The rate of owner managers of established businesses in the most recent period was, on average, 8.3%, while for the earlier period the rate was on average 7.8%.

Entrepreneurs closing businesses: The rate at which entrepreneurs were exiting and closing businesses reached a peak in 2011, but in general the rates in the earlier period (1.9% average) are broadly similar to the rates in the later period (1.7% average).

3.3 CONTEXT, CULTURE AND MOTIVATIONS

The GEM study provides indicators of factors that may influence the level of entrepreneurial activity. Specifically it provides data on the personal context of the population, attitudes and perceptions of entrepreneurship (culture) and motivations of entrepreneurs. This section tracks changes in these areas over the ten year period (Table 3, previous page).

Personal context: The factor which shows the greatest variation over the ten year period is the perception of opportunities. In 2008 this declined to 27% from 46% the previous year. This decline was the most marked in Ireland compared to all other countries involved in GEM at the time and was highlighted in the GEM Global Report as exceptional and a precursor of the economic collapse. The other factors of knowing a recent entrepreneur, personal perception of possession of relevant knowledge and skills, and fear of failure as a deterrent have remained broadly constant over the decade.

Pervading culture: Successful entrepreneurs have continued to be held in high esteem throughout the ten year period. The perception of entrepreneurship as a good career choice has steadily declined, however. Moreover, the general perception that the media provides supportive coverage of the activities of entrepreneurs showed a significant decline in 2007 (68% from 84% the previous year) and has not returned to the earlier very high levels.

Motivation: Responding to a perceived opportunity has remained the dominant motivational factor cited by early stage entrepreneurs throughout the ten year period. The increase in the rate at which necessity was cited as the principal motivator, however, has increased steadily from 6% in 2007 to 19% in 2008 and 32% in 2010. It has declined slightly from this peak more recently, but necessity motives are still at levels not seen in the earlier part of the decade (28%).

3.4 IMPACT OF ENTREPRENEURIAL ACTIVITY

The majority of entrepreneurs are setting up new businesses that are in low technology sectors, are not particularly innovative and have little or no aspiration for growth. A small number of new

²⁴ The transformative sector includes both manufacturing and construction activities.

businesses, however, will have a disproportionate economic impact due to their ability to exploit newer technologies, their high degree of innovation, their greater export orientation and their aspirations for growth. The paragraphs that follow track the relevant trends in respect to each of these factors over the past ten years. For the duration of this period there is a small minority of firms each year that are characterised as innovative and that expect to be international and to have high growth (Table 4).

Innovation: GEM measures innovation in terms of three factors: relative familiarity/degree of novelty of the product or service to the customer; the newness of the technology used by the business; and the extent of competition, with many competitors suggesting a mature or crowded market.

On the most innovative measure in two of these three categories, a higher percentage of early stage entrepreneurs were more innovative in recent years (2010 to 2012) than previously (2003 to 2008) in terms of the degree of novelty of their products or services and the relative lack of competitors. The use of the latest technology is lower in more recent years.

Internationalisation aspirations: In the years 2005 to 2007 inclusive, there was an exclusive focus on the Irish market by almost half or more of all early stage entrepreneurs. Since 2008 this has reduced to approximately one in three (averaging 37% in 2008 to 2012).

Nearly one in four (23%) early stage entrepreneurs have, or expect to have, at least twenty five percent of their customers in overseas markets. This has remained largely constant over the period 2005 to 2012.

Growth expectations: An important impact of entrepreneurial activity is job creation. GEM takes the entrepreneurs' estimate of expected employment numbers over a defined period as a proxy to measure their growth aspirations. For the period 2003 to 2012, on average one in four (24%) of early stage entrepreneurs expect to be self-employed and to have no employees. As is common in other countries, the majority of early stage entrepreneurs in Ireland do not expect to become significant employers and this is evident throughout the decade. However, over the past ten years in Ireland an average of one in three (34%) have expected to employ at least five staff within five years of start-up.

TABLE 4: IMPACT OF EARLY STAGE ENTREPRENEURS, 2003 TO 2012

Year	INNOVATIVENESS			INTERNATIONALISATION		GROWTH EXPECTATIONS	
	Product/service is new to all customers	New business has no competitors	Business uses the very latest technology (less than 1 year)	No customer outside country	At least 25% of customers outside country	Any jobs now or any jobs expected in 5 years	Expect to employ at least five within 5 years
	Percentage of all early stage entrepreneurs	Percentage of all early stage entrepreneurs	Percentage of all early stage entrepreneurs	Percentage of all early stage entrepreneurs	Percentage of all early stage entrepreneurs	Percentage of all early stage entrepreneurs	Percentage of all early stage entrepreneurs
2012	23%	20%	8%	34%	28%	73%	33%
2011	16%	12%	6%	40%	24%	71%	40%
2010	21%	18%	7%	36%	23%	77%	33%
2009	-	-	-	-	-	-	-
2008	11%	12%	6%	36%	27%	82%	40%
2007	8%	12%	7%	46%	22%	71%	27%
2006	13%	10%	5%	56%	20%	75%	33%
2005	14%	15%	13%	57%	17%	76%	29%
2004	17%	14%	12%	n/a	n/a	76%	39%
2003	17%	19%	14%	n/a	n/a	80%	34%

SECTION 4

DERIVING THE BENEFITS OF ENTREPRENEURSHIP

4.1 FOCUS BY POLICY MAKERS ON ENTREPRENEURSHIP

Policy makers in Ireland and in Europe are very clear about the benefits that can flow from a dynamic entrepreneurial economy. These relate to growth, employment creation, competitiveness and innovation. The policy makers are committed to making Ireland and the wider European community more entrepreneurial.

The second Action Plan for Jobs, published by the Irish Government in February 2013, continued the focus of the original 2012 Action Plan with regard to *Driving Entrepreneurship and Start-Up Companies*. The Government stated its commitment to focus on start-ups, recognising their crucial role to stimulating job creation, increasing competitiveness, innovation and dynamism in Ireland's enterprise base.²⁷

These sentiments are similar to those in the Entrepreneurship 2020 Action Plan, published by the European Commission. In the EU Action Plan, entrepreneurship is seen as a powerful driver of economic growth and job creation, creating new companies and jobs, opening up new markets and nurturing new skills and capabilities. Its role in making economies more competitive and innovative is considered crucial. *To bring Europe back to growth and higher levels of employment, Europe needs more entrepreneurs.*²⁸

The focus of the policy makers is twofold:

- (i) To increase the number of new businesses being started and the need to have broad based policies in place to encourage a greater level of entrepreneurial activity, not only more generally but in respect of less entrepreneurial groups within the population; and
- (ii) To maximize the number of the new businesses that subsequently grow to a considerable size, as research has shown that the economic benefits of enterprises that grow are disproportionately greater.²⁹

Reflecting the first point Richard Bruton, TD Minister for Jobs, Enterprise and Innovation writing in the Foreword to the 2011 GEM report stated: *Given the impact which entrepreneurs can make in terms of employment creation, innovation and productivity, it is clear that we need to harness the entrepreneurial potential of all our people, men and women, regardless of age, whether they were born in Ireland or elsewhere.*³⁰

Similarly, the EU 2020 Entrepreneurship Action Plan is committed to *ensuring that being an entrepreneur is an attractive prospect for Europeans.*³¹ It also recognises that certain demographic groups are underrepresented within the entrepreneurial population and is specifically reaching out to women, seniors, migrants, the unemployed and young people.³²

²⁷ Action Plan for Jobs, 2013, February 2013, Section 7, Page 86. <http://www.djei.ie/publications/2013APJ.pdf>

²⁸ Entrepreneurship 2020 Action Plan, Reigniting the entrepreneurial spirit in Europe, communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, January, 2013, Pages 3 and 4. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2012:0795:FIN:EN:PDF>

²⁹ High-growth enterprises are firms that by their extraordinary growth make the largest contribution to net job creation, despite typically representing a small proportion of the business population. With their presence in the economy considered promising for the creation of more jobs and innovation, interest in high-growth firms is high among policy makers, "High Growth Enterprises Rate" in Entrepreneurship at a Glance 2011, OECD Publishing (2011). http://www.oecd-ilibrary.org/industry-and-services/entrepreneurship-at-a-glance-2010_9789264097711-en

³⁰ The 2011 GEM Report for Ireland is available for download <http://www.forfas.ie/media/24092012-GEM%202011-Publication.pdf>

³¹ Entrepreneurship 2020 Action Plan, 2013, Section 1, Page 5.

³² Entrepreneurship 2020 Action Plan, 2013, Section 4.2, Page 22.

In order to garner the maximum economic impact from entrepreneurship and to reap the benefits identified by policy makers in Ireland and Europe, it is important that there are not only a high number of entrepreneurs but that the maximum number of enterprises are innovative, with an intention to internationalise and with a clear aspiration for significant growth. The EU notes with regret that when new enterprises are founded, they grow more slowly in the EU than in the US or emerging countries and fewer of them join the ranks for the world's largest firms.³³

4.2 THE CONTRIBUTION OF THOSE STARTING NEW BUSINESSES

In achieving the stated policy goals, the differences between entrepreneurs who are starting new businesses and those who are the owner managers of longer established businesses is very pertinent. As noted in previous GEM reports there is evidence from the GEM data that early stage entrepreneurs differ considerably from owner managers of established businesses. Entrepreneurs in Ireland who are starting new businesses, when compared to owner managers of established businesses, tend to be more innovative, aspire to create more employment and to be more export oriented. These are important differences and underpin the very important role that those setting up new businesses play in driving job creation, innovation and exports.

While minor variations may be observed year on year, the underlying differences between early stage entrepreneurs and owner managers of existing businesses remain constant. These differences are summarised in Table 5. International comparisons are provided in Table P through to Table V in Section 7. Table 5 highlights:

- **Differences in growth aspirations and expected employment creation:** It is clear that a far greater proportion of early stage entrepreneurs expect to create ten or more jobs within five years (26%) than is the case among owner managers of longer established businesses (5%).
- **Differences in market focus:** The Irish market is more important to owner managers of established businesses, almost half of whom (46%) have no customers outside the country compared to the aspirations and activity of entrepreneurs who have started businesses more recently (36%).
- **Differences in degree of innovativeness:** A higher proportion of early stage entrepreneurs may be classed as highly innovative compared to owner managers of established businesses. The products or services of the latter have less claim of novelty, have many competitors and use established technology to a much greater degree than is the case with those starting businesses more recently.
- **Differences in technology intensity:** High or medium technology sectors are of greater importance to those starting new businesses than they are to owner managers of longer established businesses (9% compared with 6%).

TABLE 5: COMPARISON OF EARLY STAGE ENTREPRENEURS AND ESTABLISHED OWNER MANAGERS

	Early Stage Entrepreneurs	Owner managers of established businesses
Growth Aspirations		
Expect 10 or more jobs within 5 years	26%	5%
Focus on International Markets		
Some customers outside country	64%	54%
Innovativeness		
Product/service is new to all customers	23%	5%
Business has no competitors	20%	5%
Business uses very latest technology (less than 1 year)	8%	2%
Technology Intensity		
High or medium technology sectors	9%	6%

³³ Entrepreneurship 2020 Action Plan, 2013, Section 1, Page 4.

SECTION 5

A GENDER PERSPECTIVE

5.1 INTRODUCTION

The EU Commission in its recently published 2020 Entrepreneurship Action Plan recognises that women “represent a large pool of entrepreneurial potential in Europe,” as women represent over half of the European population (52%) but only one third of the self-employed or of all business starters in the EU.

The EU considers that when establishing and running a business, women face more difficulties than men, mainly in access to finance, training, networking, and in reconciling business and family and advocates that paths into entrepreneurship should be created for them, empowering them economically and socially and leveraging their creative and innovative capacities.

The 2012 GEM research for Ireland indicates that the level of women’s entrepreneurial activity has remained steady at the same time as their expectations for the growth of their businesses have increased very significantly. This reflects the increased spotlighting among policy makers and development agencies among others to encourage more women to become more involved in entrepreneurial activity and to be more ambitious for their new businesses. Entrepreneurial activity among men, on the other hand, has declined significantly and there is a decided lowering of their expectations for the growth of their new businesses. This is a matter of concern. For ease of reference, the cross country tables relevant to this section (Table W and Table X) are in Section 7.

5.2 MALE AND FEMALE ENTREPRENEURS IN IRELAND

Like other European countries Ireland has a much higher proportion of men compared to women engaged in entrepreneurial activity, with men more than twice as likely as women to be entrepreneurs. While this continues to be true in Ireland in 2012, what is particularly significant is the sharp decline in the rate at which men are early stage entrepreneurs. The rate among women has remained more consistent (Table 6).

TABLE 6: EARLY STAGE ENTREPRENEURS AND ESTABLISHED OWNER MANAGERS BY GENDER

Year	Men: early stage entrepreneurs	Women: early stage entrepreneurs	Men:Women (early stage entrepreneurs)	Men: established owner managers	Women: established owner managers	Men:Women (established owner managers)
	Percentage of adult population	Percentage of adult population	Rate as a ratio	Percentage of adult population	Percentage of adult population	Rate as a ratio
2012	8.3%	4.0%	2.1:1	11.8%	4.7%	2.5:1
2011	10.3%	4.2%	2.5:1	10.9%	5.0%	2.2:1

EARLY STAGE ENTREPRENEURS

The rate at which early stage entrepreneurs were to be found among the adult male population in Ireland in 2012 (8.3%) is the lowest rate recorded for men in Ireland in the last decade. Across the OECD and EU-27 men are more likely to be early stage entrepreneurs than they are in Ireland. The rate of 8.3% for men in Ireland compares with 10.7% across the OECD and 10.4% across the EU-27. The rate for men in Ireland is now more on a par with the EU-15 (8.6%).

Similarly the rates at which women are likely to be early stage entrepreneurs is higher across the OECD (5.8%) and EU-27 (5.2%) than it is in Ireland (4.0%). The rate in Ireland is more on a par with the EU-15 (4.6%).

In 2012, the ratio of men to women early stage entrepreneurs in Ireland narrowed considerably to 2.1 from 2.5 in 2011 (Table 6). The narrowing in the entrepreneurial gender divide in Ireland noted in 2012, however, was not brought about by a higher proportion of women starting new businesses, but rather by a decline in the rate at which men were starting new businesses.

Even with the narrowing in Ireland of the ratio of men to women early stage entrepreneurs, the ratio is still wider in Ireland (2.1:1) than is the case in the United States (1.5:1), in the United Kingdom (1.8:1) or more generally across the OECD (1.8:1) (Table W).

OWNER MANAGERS OF ESTABLISHED BUSINESSES

The rate at which owner managers of established businesses are to be found among the adult population in Ireland is relatively high (8.3%) and much higher than is the case across the OECD (6.7%), EU-27 (6.6%) and EU-15 (6.6%). The rate is more on a par to that prevalent in the United States (8.6%).

In Ireland the rate of women who are owner managers of established business (4.7%) is in or about that prevailing across the OECD (4.2%), EU-27 (4.0%) and EU-15 (4.1%). It is the much higher prevalence of men in Ireland as owner managers of established businesses (11.8%), compared to the averages across the OECD (9.3%), EU-27 (9.3%) and EU-15 (9.0%), that accounts for the higher rate of owner managers in this country (Table W).

5.3 PERSONAL CONTEXT

Potential entrepreneurs are found among men and women in the general population and are *latent entrepreneurs*. They may never act on their entrepreneurial potential but they have certain aspects in their personal context which make them more likely to be future entrepreneurs than others in the population. They tend to be alert to opportunities in their environment, believe that they have the knowledge and skills to successfully start and run new businesses, are less susceptible to be inhibited by fear of failure and have entrepreneurial role models. As is the case internationally, men in Ireland continue to possess these characteristics to a much greater extent than do women (Table X).

The perception of opportunities to start a new venture among the general population in Ireland declined significantly in 2008 compared to 2007. This was true for both men and women. In 2012 there was no real indication of a return to the earlier higher levels, as the rates for both men (28%) and women (23%) were exactly the same as in the previous year. These levels are considerably lower than is the case across the OECD, EU-27 and EU-15.

The prevalence of self-confidence in own skills to successfully start and manage a business is similar to international averages and has held relatively steady over the years for both men (54%) and women (36%) in Ireland. As was noted in the 2011 GEM report, the higher rate of self confidence among men follows the trend internationally, including across the Nordic countries and in the United States.

Fear of failure as a deterrent inhibiting a start-up is more prevalent among women (46%) than it is among men (37%) in Ireland and continues at levels similar to those observed in 2011. A similar trend can be observed across the OECD, EU-27 and EU-15 with a lower proportion of men reporting that their entrepreneurial behaviour would be negatively affected by fear of failure than is the case for women.

Entrepreneurial role models: Typically higher levels of men (44%) than women (31%) in Ireland report knowing someone who has recently become an entrepreneur. These rates are broadly similar to those prevalent in 2011. Once again the rate for men is higher than is the average observed across the OECD, EU-27 and EU-15; while the rate for women is close to the average across the OECD, EU-27 and EU-15.

5.4 CHARACTERISTICS OF EARLY STAGE ENTREPRENEURS BY GENDER

On average men and women are starting businesses in their late thirties (mean 38.5 years). There is no indication that women are deferring the start of their new businesses until after their child bearing years.

Compared to other countries, those in the early stages of starting a new business in Ireland tend to have a much higher level of education, with 73% being educated beyond secondary school. This is true for both men and women (72.5% and 80% respectively) (Table 7).

5.5 NEW BUSINESSES BEING STARTED BY GENDER

There is a distinctive difference in the types of businesses being started by men and women entrepreneurs in Ireland. The dominant focus for men is business services (41%) and consumer services for women (57%) (Table 7). These same differences were observed in 2011, with business services the most popular sector of activity for men setting up new businesses (34%) and consumer services representing the majority of women's new businesses (51%). As is apparent this focus of activity has become even more pronounced for both men and women in 2012.

5.6 IMPACT OF ENTREPRENEURIAL ACTIVITY BY GENDER

The economic impact of entrepreneurial activity is underpinned by the creation of employment and increased export sales. In 2012 the majority of those starting a new business expect to have at least some exports (66%). This is the case for both men (69%) and women (59%) (Table 7). This indicates a higher proportion of early stage entrepreneurs who expect to become exporters than in 2011, and the increase is particularly marked among women (49% to 59%).

TABLE 7: COMPARISON OF EARLY STAGE ENTREPRENEURS BY GENDER

	MEN Percentage of all male early stage entrepreneurs	WOMEN Percentage of all female early stage entrepreneurs
EDUCATION		
Primary and/or some secondary	8.5%	3%
Secondary school	19%	17%
Post-secondary	59.5%	44%
Graduate education	13%	36%
SECTOR OF ACTIVITY		
Extractive	5%	5%
Transforming	21%	16%
Business Services	41%	22%
Consumer Orientated	33%	57%
CUSTOMERS IN OVERSEAS MARKETS		
None	31%	41%
1% to 24%	39%	35%
25% to 74%	14%	16%
75% to 100%	16%	8%
GROWTH EXPECTATIONS		
At least 10 jobs within 5 years	27%	23%
At least 20 jobs within 5 years	16%	15%

The growth aspirations of entrepreneurs setting up new businesses in Ireland compares very favourably with international averages. Year on year it had been observed, however, that men in Ireland had much higher expectations for their new businesses than had women. This was seen to further exacerbate the entrepreneurial gender divide. In 2012, however, a marked narrowing of this divide is observed, with women for the first time significantly increasing their stated employment expectations for their new businesses. At the same time a reduction in the growth expectations of male entrepreneurs for their new businesses was apparent (Table 8).

The increase in the ambition of women entrepreneurs is to be welcomed and reflects efforts in recent years to encourage women to have higher ambitions for their new businesses. The reduction in the expected growth of new businesses started by men is a cause for concern, however, particularly as it comes at a time of lower rates of early stage entrepreneurial activity by men.

TABLE 8: GROWTH ASPIRATIONS OF EARLY STAGE ENTREPRENEURS BY GENDER, 2011 AND 2012

	2011	2012
	Percentage of all early stage entrepreneurs	Percentage of all early stage entrepreneurs
<i>Expect to have at least 10 jobs within five years</i>		
For men early stage entrepreneurs	36%	27%
For women early stage entrepreneurs	12%	23%
For all early stage entrepreneurs	29%	26%
<i>Expect to have at least 20 jobs within five years</i>		
For men early stage entrepreneurs	24%	16%
For women early stage entrepreneurs	6%	15%
For all early stage entrepreneurs	20%	15%

SECTION 6

UPDATED PROFILES OF ENTREPRENEURS FIRST FEATURED IN GEM 2005

Entrepreneurs are people not statistics! This may appear self-evident, but in a report which examines entrepreneurship in terms of numbers and statistics, this is an important point to make.

This is the reason that in 2005 we first introduced profiles of recent entrepreneurs. Each of these men and women, who were from different parts of the country, had set up a new business between 2002 and 2005.

In a report which contains a ten year perspective on entrepreneurial activity in Ireland, we thought that it would be a good idea to re-contact several of the entrepreneurs who were featured in 2005, and see what had happened to them in the meantime. These entrepreneurs come from a variety of backgrounds and have set up a range of different types of businesses. What unites them is an ability to spot an opportunity and the persistence and resourcefulness to turn that idea into a new business venture.

All interviewed agree that setting up a business is very challenging and that the hard work and commitment involved should not be under estimated. As Jan Berg says, *it is important to be persistent, as the challenges will inevitably come and you have to keep focused, despite the knocks*. Michael O'Shea is also clear about the commitment involved. *Without committing 100% to the business, it is never going to get going*.

Elaine Coughlan cautions that entrepreneurship is not easy and is not for everyone. The difficulties and risk involved is not for the faint hearted as Monica Nugent testifies. *As a self-employed person I have no safety net. Being an entrepreneur turned out to be a lot more difficult than I thought....and it has not got any easier over the years*.

The entrepreneurs were very grateful for the support they received along the way, both from family and from other sources. John O'Hare is particularly complimentary of Enterprise Ireland's support, while Deirdre Uí Chathmhaoil suggests that entrepreneurs should seek advice from their local Enterprise Board or Údaras na Gaeltachta and anyone they know in the market. *Make sure to draw down any grants that are available to you*, she advises.

The entrepreneurs interviewed have advice for those thinking of setting up a new business. David Walsh emphasises the need to have a clear vision and strategy for the business. *It is vital for any entrepreneur or business owner to have clarity of purpose and to define your place in the market in which you are operating*. For Elaine Coughlan *the starting point remains a defensible idea and business model and then you need great people*.

While cautioning about nay-sayers and those who will knock any good ideas, David Walsh recognises the need for entrepreneurs to have self-confidence in their new enterprise. *If we all looked at the negatives of starting a business, there would be a severe shortage of entrepreneurs in the world. Sometimes, you just have to take a calculated risk*.

Sean Fitzgerald agrees that too much analysis can lead to paralysis of action. *My advice to those thinking starting a business is don't think about it too much. It won't withstand too much rigorous analysis. Just do it...take the first step!*

The pages which follow contain updated profiles on eight entrepreneurs, who started businesses in Ireland when the environment was quite different to what it is today. The entrepreneurs featured are as follows:

- Jan Berg
- Elaine Coughlan
- Sean Fitzgerald
- Monica Nugent
- John O'Hare
- Michael O'Shea
- Deirdre Uí Chathmhaoil
- David Walsh



JAN BERG

Drawing on nearly 30 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 the shipping industry in Ireland, as part of his MBA thesis. Having completed his MBA, Jan followed through and established Maritime Management in 2002, an ISM-certified ship management & maritime services company.

Ten years later, Maritime Management maintains its core business of shipping management, marine technical and financial consultancy, naval architecture and maritime surveying. The company has expanded its operations and now employs ten in the office and about 100 sailors. The business has moved from its original site of NovaUCD and is now located in Greystones, Co. Wicklow. The choice of Greystones as a location for the office was one of convenience. *We had to move out of UCD after a few years and as company staff were already living out here, it was an easy decision.*

Maritime Management has become one of the few Irish companies to be ISO 9001 and ISO 14001 accredited by Germanischer Lloyd. The ISO 9001 award means that Maritime Management operates a quality management system that involves providing their customers with products that meet their expectations. The ISO 14001 accreditation was awarded because of the company's strong environmental ethic and their ability to provide services with minimal impact on the environment. The ISO 14001 is an industry standard accreditation not often seen in Ireland. As it is offered by Maritime Management's international competition, it was imperative that Maritime Management could also offer this standard.

Maritime Management has had high profile foreign clients over the years, such as the American explorer Dr Bob Ballard, who discovered The Titanic and The Bismarck. Jan Berg and his team were responsible for the conversion of his ship, the EV Nautilus, into a 'hyper-modern' scientific exploration vessel. The company is now responsible for managing the ship. *If you watch Discovery Channel there is a good chance you will see a programme from the ship studying hydrothermal vents or Phoenician war ships from 2000 BC.*

Over the years Maritime Management has facilitated a number of ship-owners and many ships to have a base in Ireland. *We have operated luxurious passenger ships, offshore vessels, reefers and bulkers. Our projects range from floating hotels to port studies.* Notably Maritime Management also uses locally sourced services for spares, insurance, banking and finance. Hence the positive benefits for the Irish economy go far beyond the company.

Maritime Management remains the only business of its kind in Ireland. Accordingly, many of the challenges the company currently faces are the same as when it was set up. *Due to the industry being so small it is difficult to build up synergies with other local maritime companies. We're missing the cluster effects that other countries are able to take advantage of.* Despite these disadvantages, Jan is adamant that the company will remain in Ireland.

Jan is working on the *Irish Sea Marine Cluster* as a side project. He is collating a list of people and firms who deal with the maritime trade and intends providing a platform to facilitate cooperation among local firms (www.maritime-cluster.com). *I decided to compile it as the numbers have grown over the years and I want to be able to identify everyone involved in a very fragmented market. It will be a tool for the outside world to easily find Irish marine service providers. Should large jobs opportunity come, local firms and individuals can find partners to cooperate with subcontractors. Listing is free. Together we stand stronger.*

Jan admits that building the business has taken a lot of hard work, but he would do it all again. He cautions anyone thinking of starting their own business to be prepared to work hard. *It is important to be persistent, as the challenges will inevitably come and you have to keep focused, despite the knocks.* Careful management of the finances is another area that Jan highlights as he considers this vital to the business. *It is also very important to have a good support system. Finally make sure you have good guys on your team because without them the business won't grow.*

Ten years after the launch of Maritime Management, Jan Berg intends to continue to develop the company in a steady, sustainable way.



ELAINE COUGHLAN

When Elaine Coughlan was first profiled in the 2005 GEM report she had just set up Atlantic Bridge with co-founders Brian Long and Kevin Dillon. All had been involved in building global businesses which resulted in successful M&A sales and IPOs on NASDAQ. They wished to leverage their accumulated knowledge and experience not just on behalf of one company, but on behalf of many.

The guiding philosophy for Atlantic Bridge has remained the same since its establishment. It is characterised by an entrepreneurial style, with a hands on approach to a focused number of selected investments in key domains. The founders commit their own money, as well as managing the capital of other investors. As Elaine explains *the significant commitment of the founding team gave us a paced and disciplined approach to investment. We were entrepreneurs with capital and not just managers of other people's money. That was what differentiated us.*

Starting out in 2004 with an investment of €7 million under management, Atlantic Bridge has grown in scale to total assets under management of €172 million. *We realised that by moving beyond the role of individual angel investors, and by building networks and investment partners in Europe, the US, and Asia, we could accomplish much more than we could have done as three individuals. The wealth of experience and extensive industry contacts that we have been able to build up adds value in the companies we invest in, above and beyond a purely financial investment.*

Atlantic Bridge continues to be driven by the operational focus of the team and is primarily sector led, with a particular focus on cloud and mobile convergence enabling technologies. According to Elaine by 2020 the IT industry will be dominated by the new disruptive technologies of today, cloud computing, mobile devices and Apps, social technologies and big data analytics. *This represents a structural change and a new platform for growth and we believe will drive strong returns for investors,* she says.

As its name suggests Atlantic Bridge is a transatlantic model with a Pan-European and US footprint. Several of its portfolio companies have product R&D teams in Ireland and Europe with key management and sales and marketing functions in the US, close to strategic partners and customers. *Our objective is to invest locally but to expand and exit internationally. That is the Atlantic Bridge.*

Elaine believes that the strength of a company is only as good as the team that runs it, no matter what the sector. *High growth companies are built on winning teams. For our portfolio companies, we aim to hire international multi-disciplinary teams of highly talented individuals with global ambition.* Those same characteristics are to be found in Atlantic Bridge's team of general partners and investment professionals, who include Gerry Maguire, Larry Quinn, Peter McManamon and Chris Horn.

Atlantic Bridge now has offices in London and Silicon Valley, as well as Dublin. *Basically we now operate 24/7 seeking out the best proprietary deals in our target domains and work with those entrepreneurs leading investee companies in our portfolio to help them to scale and internationalise quickly through adding both capital and value add.*

I still get an enormous buzz from working with companies with real scalable potential. Their win is our win. We are real partners in their success and work hand in glove with the companies to bring this about.

Elaine cautions that entrepreneurship is not easy and is not for everyone. *The starting point remains a 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. You need patience, as it is a slow process. There are few overnight wins. There will be tough days. You need a vision of what success will look like and then the tenacity and perseverance to keep going until you make it happen.*



SEAN FITZGERALD

Sean Fitzgerald set up Sentenial in 2003 to capitalise on an opportunity he identified when managing a European business for a large multinational. At that time there was no system of linking invoice presentment to a direct debit on a European basis. Sean set about developing a euroDEBIT flagship product platform, which would facilitate direct debit payments for corporates and financial institutions.

Sentenial has continued to develop a range of new products and services to help its customers contend with the ever changing dynamic of the financial market. The company has built upon an international demand for Single Euro Payments Area (SEPA) payment solution. Over ninety per cent of Sentenial's revenue is derived from exports. This increase in demand has also meant that Sentenial's staff has grown to around 150 people from the 20 to 30 that were employed in 2005. Head quartered in Maynooth, Sentenial now has international offices in London, Paris, Frankfurt, Brussels, and Amsterdam. Sentenial has also been the winner of 'The Banking Technology Choice Award; Best Payment Product or Service' in both 2010 and 2011. Thus cementing its reputation as a market leader.

Starting and growing a company as Sean has done is not without its challenges. *It's now a very different environment to what it was in 2005. It has been affected by the financial crisis and the subsequent effects on the euro. We continuously face many challenges right across the different functions in the organisation - from marketing, sales, product and the many dimensions of operations to propelling continuous innovation.* Sean recognises that there will always be challenges and that the best approach is to prioritise them.

For Sean, the key to a company's success is in its ability to meet its long-term strategic goals. He believes that Sentenial's future was mapped out at its inception and that the goals defined then remain the same. *Our main goal is to ensure that we are the pre-eminent enabler when it comes to business service providers and payments for banks and corporates in Europe in a SaaS delivery model. We do this by focusing on our customers' needs and by constantly adding to the products and services we already have in the market.*

Invariably other opportunities arise, but you need to be careful and make sure that you follow the original goals that you've laid out for yourself. You sometimes have to take advantage of these opportunities as they arise, especially when the market is slow, as it can be a good way to get cash flow and revenue. But the most important thing a company can do is to follow the long term strategic goals that it has set out.

A European Union regulation relating to SEPA will become operational on the 1st of February 2014. It will apply across 32 European countries, including Ireland, and is intended to make it easier to transfer or receive funds. All banks and corporates must become SEPA compliant by this date. The obligatory nature of this requirement means that Sentenial's services are currently very much in demand. *We have secured some of the biggest deals in the market over the last 18 months. We have also dealt with some of the most prestigious banks and corporate customers and so now they are all connected to us.*

Sean feels strongly that an entrepreneurial spirit should be nurtured in young people. *Here in Ireland, there needs to be a higher risk appetite amongst young people. There is much more encouragement from at home for them to go into professions, where they'll have job security. There is a fear factor involved in pursuing a career where there is no certainty of a pension or a job. We need to do something to combat this mind-set.*

Sean has some advice to those thinking of setting up their own business. *Probably, don't think about it too much. It won't withstand too much rigorous analysis. Just do it...take the first step!* He cautions, however, about expecting fast returns. *Setting up a company, selling and making a big exit in a short amount of time is a rare event. You must be prepared to think long term. Have a strong idea that you will commit to. One of the most important things you will need is a good support system behind you. You cannot do it by yourself.*



MONICA NUGENT

Monica Nugent, having spent her formative years in Australia and Argentina, found herself in Donegal having met and married an Irish man in Argentina. Unable to find work in the county to match her qualifications and experience in the IT sector, Monica set up MPN Computer Services in 2003 and re-launched the business in 2005 on a nationwide basis under a new name - Ireland's PC Doctor.

Ireland's PC Doctor intended to provide a range of services such as repairs, maintenance, sales, networking, web site design, live telephone technical support and live remote access support. Some of these proved more difficult to implement than had originally been thought. For example one idea was a hotline where the customer could have direct access to Monica for a premium phone-line charge. *We advertised the hotline nationally, but it just did not take off in the way we had hoped it would.*

Monica built up a steady local business, even if it did not get the national reach she had initially hoped for. At the start of the recession the business did not appear to be affected by the downturn. *While other companies were being forced to close down and more and more people were finding themselves unemployed, Ireland's PC Doctor appeared to be unaffected. Then in 2011 everything changed. It became like day and night and I was hit very badly.*

The downturn in business and revenue meant that Monica had to reassess the business and come up with a new business model to cope with the economic environment. Monica moved the business into a retail unit in Donegal Shopping Centre and it went from being an onsite services provider to a retail one. *I kept on about two or three contracts that I already had but I had to give up any of the ones that would take up too much of my time, as I now had to be in the shop.* Monica was optimistic about the change in the business mode of operation.

In deciding to set up a shop Monica planned to offer a repair service in the shop and also to sell computers, laptops, tablets and accessories. Monica encountered many challenges in setting up the shop, the main one being cashflow: *There are enormous costs involved in setting up a retail store. At first you have to buy in order to fully stock the shop. This depletes your cash flow and it takes a while before you start to begin to see a revenue return.*

Another challenge was from the grey economy. Monica finds that a consequence of the recession is that there are many unemployed people who are trying to make extra money by doing amateur computer repair jobs for friends and neighbours. *Many of these guys have worked with computers and so they offer to repair their neighbours' computers for some extra income but the majority of the time they are out of their depth. This means that I often get calls to go out and fix the disasters that have been created by people trying to help.* The increase in these amateur repair men meant that practically overnight Monica lost her home based clients.

Monica is looking for new ways to survive and thrive. She is currently in the advanced stages of developing a new online store to sell electronic products. This will be up and running in the next few months. This development is a natural fit with the shop.

Monica believes that as someone who is self-employed she has been failed by the Government. *As a self-employed person I have no safety net and the worst part about it is that my husband is also self-employed.* Monica admits that she would think twice about being self-employed if she had to make the choice again and would probably choose the security of employment.

In 2005 Monica pulled no punches about how difficult it was to set up a new business: *Being an entrepreneur turned out to be a lot more difficult than I thought....and it has not got any easier over the years.*



JOHN O'HARE

When John O'Hare was first profiled in the 2005 GEM report, he had just sold his first business and was in the early days of setting up another.

John had set up Amocom Net in 2002 as an Internet Service Provider (ISP). When setting up the network, he found that while there was excellent radio equipment available from a number of vendors, a comprehensive management system didn't exist. As a consequence, Amocom started to develop software internally to help run its network.

After a few years, it became clear that other ISPs had the same need as Amocom had – for a comprehensive, reliable and robust management system. John explains: *In 2005 we sold our network business, and focused on further developing the SIMPLer platform through a new company, Azotel Technologies.*

Azotel equips broadband operators with the technology and automated business processes required to build out commercially successful and highly profitable networks. Today Azotel has over hundred Azotel Enabled Operators and works in a global environment. Azotel Enabled Operators supply broadband services to hundreds of thousands of subscribers across Europe, Africa, North America and Australia.

From 2006 through to 2008, Azotel had a strong focus on the Irish market. *We were working on a franchised system and recruited a dozen franchisees. These have now gone on to become successful businesses in their own right.*

Once Azotel had secured its place in the Irish market it began to look overseas for new operators. This presented a new set of challenges. Azotel adopted a new subscriber based platform model for the international markets. It used the software, which had been developed and perfected in the Irish market, and adapted it for the different international markets.

In 2008, Azotel won a government backed project in Nova Scotia, Canada. *The effort we put into this was rewarded with positive results. We gained recognition in North America and were approached by a distributor from Indianapolis.* This distributor provided the company with a database of existing customers in the American market. Azotel was able to utilise this database to gain 50 new operators.

Prior to entering the US market Azotel had been trading in Africa where there was less wholesale broadband. Because of this they had already integrated a usage based monitoring system, which was subsequently required for the US market. *The advantage of being in so many markets is that we can develop a best practice in one market and then apply it to all the markets we trade in.*

Azotel began with two employees and this number has now grown to eight. At the same time, the company has seen its number of worldwide operators rise to 110, all of whom provide employment within their own businesses. Azotel now has offices in Ireland, the US, Canada, South Africa, Poland, and the UK and operates in 22 countries.

John is very positive about the future of Azotel as the company is constantly adapting. Through its R&D work Azotel can provide operators with enhanced and even more efficient systems. John describes Azotel's strength as being well placed in the subscriber management niche. *Our technology could be adapted to a variety of different markets. There is no shortage of areas we could expand into if we ever got bored of what we are doing!*

John is very grateful to his team and to Enterprise Ireland who has supported him from the start of Azotel Technologies. *Enterprise Ireland has been very good in supporting us. The majority of operators we work with across the world are entrepreneurs and this is their first time in business. In this way we see close up the work of the different support agencies in the various countries. There is no competition. Ireland is very lucky to have an organisation like EI!*

For John the biggest challenge about being an entrepreneur remains the same as it was in 2005 - time. *I never have enough of it!* His greatest supporters, besides his wife Denise and son Ben, are the existing group of Azotel Enabled Operators. *Their loyalty is the best testimony for the business and augurs well for its continued success and growth.*



MICHAEL O'SHEA

In 2005 Michael O'Shea's company Intelligent Health Systems (IHS) was researching biomedical signal analysis for diagnostic and monitoring procedures in the medical and veterinary markets in Ireland.

IHS initially focused on consulting but found that this strategy didn't work in the downturn of the economy. *We had hoped that through the consultancy we would gain the income needed for funding further research. But without the funding we were unable to do the biomedical research needed. As a result the company became static.* The company has not folded and is still in operation today, but on a much smaller scale.

IHS has become the basis for another spin-out company and Michael has been able to harness research from IHS for the product development of this new venture.

The new company is Orion Veterinary Ltd and is based in NovaUCD, where development of its product line is taking place. Orion will provide a health and fitness monitoring platform for animals. The company's technology takes medical data and wirelessly transmits it to centres for analysis. *We make sensors to monitor a range of issues, such as ECG, cardiac output and foetal heart monitoring. We can streamline this data for analysis and provide a resource to vets, researchers and trainers to aid their clinical, training or husbandry decisions.*

The company also conducts research in equine gait analysis and provides various physiological monitoring solutions. *This type of technology has been used on humans but generally is not well tolerated, due to issues with comfort and ease of movement. However with horses we have an advantage, as the size of the sensors are relatively small and are well tolerated for extended periods. One of the knock-on effects that we have seen is that some of the technology, which we have been able to explore, has potential for spin back into human research.*

Michael says that his experience from IHS and further research has allowed him to come up with a better business plan for Orion. The company is currently six to eight months away from releasing products into the market. They are using this time to perfect prototypes and finalise their market offering.

Funding has been a constant challenge. *In the very early stages of research we didn't know where to go to get funding. If we were an academic institution this would not be such a problem as we would be eligible for university funding for our research.* Orion has explored alternative methods of financing. Last year they were the recipients of support under the Competitive Start Fund from Enterprise Ireland.

An issue Michael faced with IHS in 2005 was educating people about the emerging technologies that the company was using. This still seems to be the case with Orion. *I try to take a more lateral approach which usually means that the technology that I work with is slightly ahead of what is currently available. Things that I was looking at ten years ago are only becoming mainstream now. This makes it harder to get commercial investment as potential investors often want to see the finished product and what it can do. However, I completely understand why investors take this view and my job is to put forward a sufficiently robust business case that outlines how good our offering is, the market potential and of course the strengths of the team behind it all.*

Michael is very optimistic about the future of Orion. The company has received positive feedback from both vets and trainers, who have noted the clinical and performance potential of Orion's products.

This is the business I have most personal alignment with, given my background. I enjoy every day. Clinicians all want the products so we just have to turn this into a business model to prove to Venture Capitalists that we have a robust product portfolio that has been market tested.

Michael does not underestimate what it takes to be an entrepreneur. *You need to factor in personal circumstances and weigh it all up as there is a lot of sacrifice involved. Without committing 100% to the business it is never going to get going. The key to a successful business is 10% inspiration and 90% hard work - and somewhere in that equation you need to factor in luck!*

Michael has set up several businesses and is currently involved with a connected health business start-up in a technical advisory capacity. *Initially I was never really comfortable with the term entrepreneur...but I suppose at this point I would fall into that category. I can't see myself doing anything else.*



DEIRDRE UÍ CHATHMHAOIL

Deirdre Uí Chathmhaoil set up Rí Na Mara, Irish Seaweed Cosmetics, in January 2004 with her husband, Seamus. 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. A registered general nurse with extensive experience in a Dermatological Unit, Deirdre graduated in Cosmetic Science and became a member of the Society of Cosmetic Scientists. Seamus previously had experience of aquaculture. From the beginning they decided to locate Rí Na Mara in An Spidéal, Co. Galway, where the family had returned after living and working for some time in the North West of England.

Since 2005, Rí Na Mara has increased its brand awareness and customer base both at home and overseas. The company now has distributors in the US and Australian markets. Rí Na Mara now employs four fulltime members of staff and up to ten seasonal staff members. The company's products were featured on the QVC Shopping Channel in the United States. This was a great success as demand for the products was very high. This appearance also generated new visitors to the website. It is important to Rí Na Mara to build upon and grow a loyal consumer base and so they have been attending many trade shows. *We find this reminds people about our products and we also wanted to reach out to our customers.*

One of the biggest challenges that Rí Na Mara has come up against has been the identification of suitable international distributors. *It is vital to appoint distributors who are passionate about our product and want to sell it. This involves a lot of travelling to meet perspective distributors.* The global recession meant that the company has had to adapt its market strategy. *We worked on the website and brought it up to international standards. We also developed an extensive mail order system for people who do not want to go online to order. We also increased the number of trade fairs we attend and embraced social media by setting up Rí Na Mara Irish Seaweed Cosmetics Facebook to let customers know about new products and promotions.*

According to Deirdre, the most significant development for the company since 2005 has been the development and launch of its new range of organic products, *Irish Organics*. The products are 100% organic and have taken three years to develop. *There were a lot of 'hoops and loops' the products had to go through, including being fully audited.* They are now internationally certified by NATRUE (True Friends of Natural and Organic Cosmetics). The NATRUE certifiers came over from Germany to Connemara to observe the production process of the new range. This included the harvesting and cutting of the seaweed, both of which are done by hand. The certifiers also had to ensure that all the ingredients used were 100% organic. www.irishorganics.ie

Almost ten years later, Deirdre does not regret starting her own business. *I've learnt so much that I'd definitely do it all again. I've enjoyed it and met so many amazing people. I'd also be a bit wiser this time around.* Her advice to anyone thinking of setting up a business is to do a feasibility study to check if there is a market for your product. *Seek advice from your local Enterprise Board/Údaras na Gaeltachta and anyone you know in the market and make sure to draw down any grants that are available to you.*

Deirdre's zeal has not diminished. *We remain passionate about skincare.* Rí Na Mara continues to be committed to ensuring that its products are made as naturally as possible. Deirdre's aim is to increase the brand and product range, including a range of products for beauticians and spas. She also hopes to strengthen their position in the global market, as exporting now accounts for a large portion of their revenue. At present Deirdre's sights are on breaking into the lucrative Middle Eastern market. *We've just attended a Trade Mission organised by Enterprise Ireland in Dubai. We are very excited about this opportunity, we met with a number of distributors and buyers interested in both Rí Na Mara and the Irish Organics Skincare range. We familiarised ourselves with registration and set about this process to enable us to sell our products in the Middle East.*



DAVID WALSH

When profiled in 2005, David Walsh was in the early days of his new business, having set up Netwatch in 2003 with his business partner Niall Kelly. The opportunity for the new business was rooted in a personal experience. A friend of the founders was attacked as he responded to a traditional burglar alarm and was lucky to escape with his life. They decided that there had to be a better way than allowing someone to walk unprotected into a real life crime situation. Thus the idea for Netwatch was born.

The goal from the start was to create a fearless environment for their customers. Netwatch is an intelligent surveillance system that deploys the most advanced video processing technologies to allow a Communication Hub to watch in 'real time' any intrusion taking place on a property. The Communication Hub also has the ability to speak directly to the intruders.

Since 2005 Netwatch has expanded and currently employs over 130 people. Still headquartered in Carlow, the company now operates across eight countries in four continents.

To grow any company, you need to build a team around you. We are proud in Netwatch of the strong team of people we have built who share our core values. In fact, early last year, the employees themselves defined these values into 2 'Do's' and 2 'Don'ts' to live The Netwatch Way. These are: always putting the customer first, always working as a team, never disrespecting another and never hiding.

David believes that it is essential to continue to be customer focused as the business develops. *It is vital for any entrepreneur or business owner to have clarity of purpose and define your place in the market in which you are operating. We, at Netwatch, identified early on who our ideal customer was. We continue to align everything that we do to meet their security goals.* This positive attitude towards high quality customer service has enabled Netwatch to continue to stand out from its competitors.

David is very grateful to Enterprise Ireland whose market intelligence and support facilitated the company's international growth. The business has been recognised internationally, having received the 'Best in Biz' Best New Service in the USA and the European Business Awards Ruban d'Honneur for Customer Focus. One of the most significant milestones for Netwatch was having the Taoiseach launch their North American operations in Boston early in 2012.

The development of their in-house R&D Department, Netwatch Visual Labs, reflects the company's commitment to continuous innovation. *The investment in R&D is vital to ensuring that we remain as technology leaders in our field and can continue to provide exceptional levels of service to our customers across the world.*

David attributes one of his biggest challenges starting up the business to 'Energy Vampires.' A term he uses to describe negative people who are more focused on finding flaws in ideas than to actually contributing anything useful. *In the pre-startup stage the fear of failure can be a stronger emotion than the hope of success and this is the time to surround yourself with positive people. If we all looked at the negatives of starting a business, there would be a severe shortage of entrepreneurs in the world. Sometimes, you just have to take a calculated risk.*

For those thinking of setting up their own business David would advise them to focus on building a good team. *Once you have attracted the right people for your organisation then empower, trust, recognise and reward them. It will pay dividends to have everyone working together for the same end goal.* David also believes that entrepreneurs should actively seek advice from others whose experience and insights they trust. *Outside mentors and experienced people were a huge driver for Netwatch, not only in the start-up phase but still today.*

David pulls no punches when talking about the commitment needed to be successful as an entrepreneur. *While many people dream of being their own boss, make no mistake about it, starting a business is hard work. However, if you are prepared to work hard, you can build a company that actually makes a difference or changes an industry.*

SECTION 7

COMPARATIVE DATA ON ENTREPRENEURSHIP IN IRELAND IN 2012

TABLE A - POTENTIAL ENTREPRENEURS: PERSONAL CONTEXT OF GENERAL POPULATION

	IRISH ADULTS Know a recent entrepreneur⁶ Percentage in adult population	IRISH ADULTS Opportunities in local area⁷ Percentage in adult population	IRISH ADULTS Skills & Knowledge to start-up Percentage in adult population	IRISH ADULTS Fear of failure prevent start-up Percentage in adult population
Austria ^{1 2 3 4}	39	49	50	44
Belgium ^{1 2 3 4}	22	33	37	46
Brazil ⁵	34	52	54	36
Chile ¹	42	65	60	32
China ⁵	52	32	38	36
Denmark ^{1 2 3}	34	44	31	42
Estonia ^{1 2 4}	38	45	43	44
Finland ^{1 2 3 4}	42	55	34	39
France ^{1 2 3 4}	34	38	36	47
Germany ^{1 2 3 4}	24	36	37	49
Greece ^{1 2 3 4}	28	13	50	72
Hungary ^{1 2}	28	11	40	46
Ireland ^{1 2 3 4}	37	26	45	41
Israel ¹	29	31	29	42
Italy ^{1 2 3 4}	20	20	30	57
Japan ¹	14	6	9	47
Korea ¹	29	13	27	40
Latvia ²	32	33	44	38
Lithuania ²	33	30	40	46
Mexico ¹	42	45	62	32
Netherlands ^{1 2 3 4}	35	34	42	39
Norway ¹	35	64	34	36
Poland ^{1 2}	41	20	54	59
Portugal ^{1 2 3 4}	25	16	47	52
Romania ²	30	37	38	45
Russia ⁵	34	20	24	43
Slovakia ^{1 2 4}	42	18	50	48
Slovenia ^{1 2 4}	40	20	51	41
Spain ^{1 2 3 4}	31	14	50	52
Sweden ^{1 2 3}	41	66	37	39
Switzerland ¹	32	36	37	32
Turkey ¹	34	40	49	34
United Kingdom ^{1 2 3}	30	33	47	41
United States ¹	29	43	56	38
OECD average	33	33	42	44
EU-27 average	33	31	42	47
EU-15 average	32	34	41	47
EURO area average	33	30	43	48
BR(I)C average	40	35	38	38

1 Member of OECD

2 Member of European Union - EU-27

3 Member of European Union - EU-15

4 Member of EURO

5 Brazil Russia China ('BR(I)C' country)

6 Knows someone who has started a business in the past 2 years

7 Opportunities to start a business in the next six months (July 2012-December 2012)

TABLE B - ENTREPRENEURIAL ACTIVITY IN IRELAND

	Aspiring entrepreneurs Percentage in adult population	Nascent entrepreneurs Percentage in adult population	New business owners Percentage in adult population	Early stage entrepreneurs (TEA) Percentage in adult population	Early stage entrepreneurs (TEA) OECD Ranking (of 28)	Early stage entrepreneurs (TEA) EU-27 Ranking (of 22)	Early stage entrepreneurs (TEA) EU-15 Ranking (of 14)	Owner managers of established businesses Percentage in adult population
Austria ^{1,2,3,4}	11.6	6.6	3.4	9.6	8	5	2	7.6
Belgium ^{1,2,3,4}	10.7	3.3	2.0	5.2	25	20	12	5.1
Brazil ⁵	37.3	4.5	11.3	15.4				15.2
Chile ¹	44.9	14.7	8.4	22.6	1			7.8
China ⁵	21.7	5.4	7.4	12.8				12.5
Denmark ^{1,2,3}	8.4	3.1	2.4	5.4	23	18	10	3.4
Estonia ^{1,2,4}	20.1	9.5	5.1	14.3	2	1		7.2
Finland ^{1,2,3,4}	9.4	3.5	2.7	6.0	19	15	8	8.0
France ^{1,2,3,4}	18.9	3.7	1.5	5.2	26	21	13	3.2
Germany ^{1,2,3,4}	8.9	3.5	2.1	5.3	24	19	11	5.0
Greece ^{1,2,3,4}	10.4	3.8	2.8	6.5	16	12	5	12.3
Hungary ^{1,2}	15.3	5.8	3.6	9.2	10	7		8.1
Ireland ^{1,2,3,4}	8.0	3.9	2.3	6.1	18	14	7	8.3
Israel ¹	14.5	3.5	3.0	6.5	15			3.8
Italy ^{1,2,3,4}	11.8	2.5	1.9	4.3	27	22	14	3.3
Japan ¹	5.4	2.3	1.7	4.0	28			6.1
Korea ¹	14.6	2.6	4.1	6.6	14			9.6
Latvia ²	26.9	8.7	4.8	13.4		2		7.9
Lithuania ²	19.4	3.1	3.6	6.7		11		8.2
Mexico ¹	22.9	7.9	4.3	12.1	5			4.7
Netherlands ^{1,2,3,4}	10.1	4.1	6.3	10.3	6	3	1	9.5
Norway ¹	6.7	3.7	3.2	6.8	13			5.8
Norway ¹	6.7	3.7	3.2	6.8	13			5.8
Poland ^{1,2}	24.2	4.8	4.6	9.4	9	6		5.8
Portugal ^{1,2,3,4}	16.2	4.3	3.6	7.7	12	10	4	6.2
Romania ²	30.8	5.5	3.8	9.2				3.9
Russia ⁵	3.8	2.7	1.8	4.3				2.0
Slovakia ^{1,2,4}	15.6	6.6	3.9	10.2	7	4		6.4
Slovenia ^{1,2,4}	14.7	2.9	2.5	5.4	22	17		5.8
Spain ^{1,2,3,4}	12.0	3.4	2.5	5.7	21	16	9	8.7
Sweden ^{1,2,3}	11.7	4.6	1.8	6.4	17	13	6	5.2
Switzerland ¹	8.3	2.9	3.0	5.9	20			8.4
Turkey ¹	18.8	7.3	5.4	12.2	4			8.7
United Kingdom ^{1,2,3}	11.5	5.3	3.7	9.0	11	9	3	6.2
United States ¹	16.5	8.9	4.1	12.8	3			8.6
OECD average	14.4	5.0	3.4	8.2				6.7
EU-27 average	14.8	4.7	3.2	7.7				6.6
EU-15 average	11.4	4.0	2.8	6.6				6.6
EURO area average	12.7	4.4	3.0	7.3				6.9
BR(I)C average	20.9	4.2	6.8	10.9				9.9

1 Member of OECD

4 Member of EU/RO

2 Member of European Union - EU-27

5 Brazil Russia China (BR(I)C country)

3 Member of European Union - EU-15

TABLE C - 'CULTURE': PERCEPTIONS OF GENERAL POPULATION

	Entrepreneurship is a good career choice Percentage in adult population	Success at entrepreneurship has high status Percentage in adult population	Supportive media coverage of entrepreneurs Percentage in adult population
Austria ^{1 2 3 4}	46	76	n/a
Belgium ^{1 2 3 4}	62	57	54
Brazil ⁵	89	86	86
Chile ¹	70	68	66
China ⁵	72	76	80
Denmark ^{1 2 3}	n/a	n/a	n/a
Estonia ^{1 2 4}	55	63	41
Finland ^{1 2 3 4}	45	83	68
France ^{1 2 3 4}	65	77	41
Germany ^{1 2 3 4}	49	76	49
Greece ^{1 2 3 4}	64	68	33
Hungary ^{1 2}	41	74	29
Ireland^{1 2 3 4}	45	81	61
Israel ¹	59	72	47
Italy ^{1 2 3 4}	67	70	51
Japan ¹	30	55	53
Korea ¹	59	70	68
Latvia ²	60	53	53
Lithuania ²	63	53	37
Mexico ¹	56	54	38
Netherlands ^{1 2 3 4}	79	65	58
Norway ¹	50	80	59
Poland ^{1 2}	68	57	56
Portugal ^{1 2 3 4}	n/a	n/a	n/a
Romania ²	71	74	55
Russia ⁵	60	63	45
Slovakia ^{1 2 4}	50	74	59
Slovenia ^{1 2 4}	53	71	51
Spain ^{1 2 3 4}	64	64	47
Sweden ^{1 2 3}	n/a	n/a	n/a
Switzerland ¹	44	63	57
Turkey ¹	67	76	57
United Kingdom ^{1 2 3}	50	77	47
United States ¹	n/a	n/a	n/a
OECD average	56	70	52
EU-27 average	58	69	50
EU-15 average	58	72	51
EURO area average	57	71	51
BR(I)C average	74	75	70

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2 Member of European Union - EU-27

3 Member of European Union - EU-15

4 Member of EURO

5 Brazil Russia China ('BR(I)C' country)

TABLE D - MOTIVATIONS OF EARLY STAGE ENTREPRENEURS

	Opportunity motives	Necessity motives
	Percentage of all early stage entrepreneurs	Percentage of all early stage entrepreneurs
Austria ^{1 2 3 4}	88	12
Belgium ^{1 2 3 4}	81	19
Brazil ⁵	70	30
Chile ¹	83	17
China ⁵	63	37
Denmark ^{1 2 3}	92	8
Estonia ^{1 2 4}	81	19
Finland ^{1 2 3 4}	81	19
France ^{1 2 3 4}	82	18
Germany ^{1 2 3 4}	78	22
Greece ^{1 2 3 4}	70	30
Hungary ^{1 2}	68	32
Ireland^{1 2 3 4}	72	28
Israel ¹	78	22
Italy ^{1 2 3 4}	82	18
Japan ¹	78	22
Korea ¹	65	35
Latvia ²	74	26
Lithuania ²	75	25
Mexico ¹	86	14
Netherlands ^{1 2 3 4}	91	9
Norway ¹	92	8
Poland ^{1 2}	57	43
Portugal ^{1 2 3 4}	80	20
Romania ²	76	24
Russia ⁵	63	37
Slovakia ^{1 2 4}	64	36
Slovenia ^{1 2 4}	92	8
Spain ^{1 2 3 4}	74	26
Sweden ^{1 2 3}	93	7
Switzerland ¹	80	20
Turkey ¹	68	32
United Kingdom ^{1 2 3}	81	19
United States ¹	78	22
OECD average	79	21
EU-27 average	79	21
EU-15 average	82	18
EURO area average	80	20
BR(I)C average	65	35

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2 Member of European Union - EU-27

3 Member of European Union - EU-15

4 Member of EURO

5 Brazil Russia China ('BR(I)C' country)

TABLE E - EMPLOYMENT STATUS AND HOUSEHOLD INCOME OF EARLY STAGE ENTREPRENEURS

	Early stage entrepreneurial activity by adults in employment Percentage in adult population	Early stage entrepreneurial activity by adults not working Percentage in adult population	Early stage entrepreneurial activity by students or retired Percentage in adult population	Household income in lowest third of population Percentage of adult population	Household income in middle third of population Percentage of adult population	Household income in highest third of population Percentage of adult population
Austria ^{1 2 3 4}	11.4	4.9	2.7	3.7	4.4	5.3
Belgium ^{1 2 3 4}	5.9	1.8	0.7	1.8	2.8	3.7
Brazil ⁵	22.1	n/a	n/a	11.3	13.5	15.1
Chile ¹	26.4	6.8	10.6	10.3	12.1	20.1
China ⁵	16.7	1.7	0.7	8.0	12.0	14.4
Denmark ^{1 2 3}	6.9	1.1	1.7	1.9	3.2	4.8
Estonia ^{1 2 4}	15.8	8.5	2.0	4.8	7.2	14.2
Finland ^{1 2 3 4}	7.0	3.8	1.5	2.8	3.7	6.4
France ^{1 2 3 4}	6.3	5.4	0.6	2.7	3.8	4.2
Germany ^{1 2 3 4}	5.7	5.6	2.8	2.7	3.4	6.0
Greece ^{1 2 3 4}	11.7	n/a	n/a	n/a	2.8	4.0
Hungary ^{1 2}	12.0	4.2	2.8	4.1	4.9	10.0
Ireland^{1 2 3 4}	7.7	3.8	1.1	2.9	3.0	5.1
Israel ¹	8.8	2.7	1.9	2.7	4.9	4.9
Italy ^{1 2 3 4}	6.3	1.2	1.9	1.8	1.8	1.3
Japan ¹	4.9	1.0	2.9	1.9	1.4	2.1
Korea ¹	9.2	0.5	0.5	2.9	4.4	5.7
Latvia ²	15.0	5.9	1.7	3.7	4.9	12.4
Lithuania ²	7.9	2.0	1.8	1.4	3.7	5.5
Mexico ¹	16.5	4.5	1.0	3.4	6.0	7.7
Netherlands ^{1 2 3 4}	12.0	0.7	1.5	3.9	6.5	9.6
Norway ¹	7.4	3.1	1.6	5.2	4.7	7.0
Poland ^{1 2}	11.7	7.4	3.4	6.6	7.8	10.0
Portugal ^{1 2 3 4}	10.4	2.0	2.1	2.0	2.8	4.5
Romania ²	13.4	2.6	1.6	2.1	5.2	11.2
Russia ⁵	5.0	4.0	1.0	1.2	2.3	3.0
Slovakia ^{1 2 4}	12.4	5.3	2.2	3.6	7.3	10.3
Slovenia ^{1 2 4}	7.2	2.3	1.0	1.8	2.3	2.5
Spain ^{1 2 3 4}	8.0	3.1	1.2	1.0	1.9	3.5
Sweden ^{1 2 3}	6.7	6.8	3.5	4.3	3.4	5.4
Switzerland ¹	7.0	1.5	n/a	2.3	2.6	6.3
Turkey ¹	21.5	n/a	n/a	2.0	4.5	10.7
United Kingdom ^{1 2 3}	9.8	10.1	2.8	4.6	4.7	6.9
United States ¹	15.5	4.9	2.7	7.5	6.9	11.8
OECD average	10.4	4.0	2.3	3.5	4.5	6.9
EU-27 average	9.6	4.2	1.9	3.1	4.2	6.7
EU-15 average	8.3	3.9	1.8	2.8	3.5	5.1
EURO area average	9.1	3.7	1.6	2.7	3.9	5.8
BR(I)C average	14.6	2.9	0.9	6.9	9.3	10.8

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2 Member of European Union - EU-27

3 Member of European Union - EU-15

4 Member of EURO

5 Brazil Russia China ('BR(I)C' country)

TABLE F - EDUCATION LEVEL OF EARLY STAGE ENTREPRENEURS

	Early stage entrepreneurs with some secondary education as highest qualification As a percentage of all adults in this education category	Early stage entrepreneurs with secondary school as highest qualification As a percentage of all adults in this education category	Early stage entrepreneurs with post-secondary education as highest qualification As a percentage of all adults in this education category	Early stage entrepreneurs with graduate education as highest qualification As a percentage of all adults in this education category	Early stage entrepreneurs with post-secondary education Percentage of all early stage entrepreneurs
Austria ^{1 2 3 4}	6.9	7.9	11.6	14.7	39
Belgium ^{1 2 3 4}	4.0	2.8	6.3	9.0	69
Brazil ⁵	14.0	16.3	17.6	11.7	15
Chile ¹	16.6	20.5	24.5	17.2	41
China ⁵	12.1	12.5	14.0	16.7	26
Denmark ^{1 2 3}	4.1	4.7	5.6	5.5	74
Estonia ^{1 2 4}	10.8	12.3	17.7	14.4	43
Finland ^{1 2 3 4}	2.3	5.8	7.5	7.3	40
France ^{1 2 3 4}	3.9	4.7	6.4	n/a	52
Germany ^{1 2 3 4}	2.0	5.7	7.8	n/a	48
Greece ^{1 2 3 4}	2.3	4.3	8.1	10.5	64
Hungary ^{1 2}	6.6	9.6	10.5	12.4	44
Ireland^{1 2 3 4}	3.7	4.0	6.7	7.8	73
Israel ¹	2.4	5.6	7.6	2.7	60
Italy ^{1 2 3 4}	4.0	4.3	n/a	5.4	17
Japan ¹	3.2	3.1	4.1	2.5	57
Korea ¹	2.9	5.9	6.8	5.5	67
Latvia ²	2.7	10.8	19.7	15.6	50
Lithuania ²	4.8	6.7	6.6	n/a	69
Mexico ¹	11.5	10.4	16.4	9.9	14
Netherlands ^{1 2 3 4}	8.5	8.4	15.4	14.6	42
Norway ¹	10.1	6.5	5.4	8.0	53
Poland ^{1 2}	3.6	10.5	8.6	9.6	25
Portugal ^{1 2 3 4}	6.0	7.9	10.5	n/a	42
Romania ²	6.4	8.1	12.5	22.8	39
Russia ⁵	2.3	3.2	4.4	6.1	75
Slovakia ^{1 2 4}	6.0	9.2	15.5	16.6	41
Slovenia ^{1 2 4}	2.3	4.8	6.8	8.8	53
Spain ^{1 2 3 4}	3.4	6.2	6.5	9.5	40
Sweden ^{1 2 3}	1.3	6.6	6.7	11.2	45
Switzerland ¹	0.9	4.7	9.7	11.2	46
Turkey ¹	8.6	11.8	16.3	22.7	45
United Kingdom ^{1 2 3}	5.2	8.2	11.1	9.5	65
United States ¹	9.9	8.5	13.0	14.5	67
OECD average	5.5	7.3	10.1	10.4	49
EU-27 average	4.6	7.0	9.9	11.4	49
EU-15 average	4.1	5.8	8.5	9.5	51
EURO area average	4.7	6.3	9.8	10.8	47
BR(I)C average	9.5	10.6	12.0	11.5	39

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2 Member of European Union - EU-27

3 Member of European Union - EU-15

4 Member of EURO

5 Brazil Russia China ('BR(I)C' country)

TABLE G - EDUCATION LEVEL AND HOUSEHOLD INCOME OF ESTABLISHED OWNER MANAGERS

	Established owner managers with some secondary education as highest qualification As percentage of all adults in this education category	Established owner managers with secondary school as highest qualification As percentage of all adults in this education category	Established owner managers with post-secondary as highest qualification As percentage of all adults in this education category	Established owner managers with graduate education as highest qualification As percentage of all adults in this education category	Established owner managers with lowest third of population in this income category	Established owner managers with middle third of population in this income category	Established owner managers with highest third of population in this income category
Austria ^{1,2,3,4}	4.4	6.8	6.3	12.3	2.1	2.5	5.1
Belgium ^{1,2,3,4}	2.1	4.9	6.9	1.6	0.6	2.3	4.0
Brazil ⁵	9.5	12.4	13.6	17.1	10.7	13.7	14.0
Chile ¹	10.5	6.8	6.9	6.7	3.0	5.4	5.9
China ⁵	15.0	12.2	5.6	3.8	12.7	10.1	11.9
Denmark ^{1,2,3}	1.3	2.9	3.2	6.4	0.9	1.6	4.2
Estonia ^{1,2,4}	1.4	4.8	10.8	12.8	2.3	2.9	7.1
Finland ^{1,2,3,4}	13.0	7.8	6.6	7.2	2.4	5.2	9.1
France ^{1,2,3,4}	2.3	2.7	4.4	n/a	1.4	1.9	3.7
Germany ^{1,2,3,4}	2.9	5.1	6.6	n/a	1.8	2.7	5.2
Greece ^{1,2,3,4}	11.6	11.9	13.3	5.7	n/a	5.9	7.1
Hungary ^{1,2}	5.6	7.4	10.4	16.4	2.6	3.4	8.7
Ireland ^{1,2,3,4}	10.1	6.9	7.6	8.9	4.5	5.1	7.0
Israel ¹	3.0	1.4	4.0	4.9	0.6	1.7	4.8
Italy ^{1,2,3,4}	4.1	3.1	n/a	4.2	1.1	1.0	1.2
Japan ¹	4.3	5.1	6.5	1.5	2.6	2.1	3.9
Korea ¹	8.5	11.8	8.0	3.3	5.2	5.6	8.2
Latvia ²	3.5	5.8	11.9	10.7	2.5	3.2	6.3
Lithuania ²	3.6	4.3	9.9	n/a	2.7	3.4	6.6
Mexico ¹	3.4	4.3	8.4	8.4	1.0	0.8	3.5
Netherlands ^{1,2,3,4}	n/a	8.9	12.4	11.1	3.5	6.2	9.6
Norway ¹	8.7	5.3	4.5	7.5	2.3	3.6	7.7
Poland ^{1,2}	2.8	5.4	4.2	10.0	3.0	3.9	7.7
Portugal ^{1,2,3,4}	6.0	1.0	7.1	n/a	1.3	1.9	3.5
Romania ²	1.7	5.3	4.6	5.8	0.8	1.9	4.8
Russia ⁵	0.9	1.8	2.1	2.7	0.4	0.9	1.8
Slovakia ^{1,2,4}	5.0	7.6	3.0	7.2	2.9	3.7	6.0
Slovenia ^{1,2,4}	5.5	4.3	7.8	7.1	1.2	2.1	3.9
Spain ^{1,2,3,4}	9.7	7.5	8.1	6.7	1.3	2.6	4.5
Sweden ^{1,2,3}	7.1	3.5	6.4	9.5	2.1	3.4	4.4
Switzerland ¹	3.8	5.6	15.4	22.2	3.7	3.2	8.6
Turkey ¹	11.0	9.5	8.2	10.8	0.9	3.1	7.2
United Kingdom ^{1,2,3}	7.8	5.7	4.8	7.2	2.1	2.6	5.6
United States ¹	5.5	5.6	9.1	9.9	2.8	5.2	8.6
OECD average	6.0	5.9	7.4	8.4	2.2	3.3	5.9
EU-27 average	5.3	5.6	7.4	8.4	2.0	3.2	5.7
EU-15 average	6.3	5.6	7.2	7.3	1.9	3.2	5.3
EURO area average	6.0	6.0	7.8	7.7	2.0	3.3	5.5
BR/()C average	8.5	8.8	7.1	7.9	7.9	8.2	9.2

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4 Member of EU/RO

2 Member of European Union - EU-27

5 Brazil Russia China (BR/()C country)

3 Member of European Union - EU-15

TABLE H - ENTREPRENEURIAL TEAMS

	Nascent entrepreneurs Expected number of owners	New business owners Number of owners	Early stage entrepreneurs (TEA) Number of expected or actual owners	Established owner managers Number of owners
Austria ^{1 2 3 4}	1.6	n/a	1.6	1.5
Belgium ^{1 2 3 4}	2.3	1.6	2.1	1.4
Brazil ⁵	1.7	1.4	1.5	1.3
Chile ¹	2.0	1.6	1.9	1.4
China ⁵	1.4	1.5	1.5	1.4
Denmark ^{1 2 3}	2.3	1.8	2.1	1.5
Estonia ^{1 2 4}	2.1	2.2	2.2	2.0
Finland ^{1 2 3 4}	2.5	1.7	2.2	2.0
France ^{1 2 3 4}	2.1	1.9	2.0	1.7
Germany ^{1 2 3 4}	1.9	1.8	1.9	1.3
Greece ^{1 2 3 4}	1.9	1.5	1.8	1.6
Hungary ^{1 2}	1.8	1.9	1.8	1.7
Ireland^{1 2 3 4}	2.3	1.7	2.1	1.6
Israel ¹	1.4	1.5	1.5	1.6
Italy ^{1 2 3 4}	1.8	2.3	2.0	2.0
Japan ¹	2.3	2.1	2.2	2.2
Korea ¹	1.6	1.7	1.7	1.2
Latvia ²	2.0	1.9	1.9	1.7
Lithuania ²	2.1	1.9	2.0	1.6
Mexico ¹	1.5	1.5	1.5	1.5
Netherlands ^{1 2 3 4}	1.9	1.4	1.6	1.6
Norway ¹	2.4	2.4	2.3	1.7
Poland ^{1 2}	1.4	1.3	1.3	1.5
Portugal ^{1 2 3 4}	1.9	n/a	2.1	1.6
Romania ²	2.0	1.8	1.9	1.5
Russia ⁵	1.6	1.3	1.5	1.3
Slovakia ^{1 2 4}	1.9	1.7	1.8	1.7
Slovenia ^{1 2 4}	2.2	1.7	2.0	1.8
Spain ^{1 2 3 4}	2.0	1.6	1.8	3.6
Sweden ^{1 2 3}	1.9	1.5	1.8	1.9
Switzerland ¹	1.6	2.0	1.8	1.5
Turkey ¹	2.1	2.3	2.2	1.7
United Kingdom ^{1 2 3}	1.7	1.6	1.6	1.9
United States ¹	1.8	1.9	1.8	n/a
OECD average	1.9	1.8	1.9	1.7
EU-27 average	2.0	1.7	1.9	1.8
EU-15 average	2.0	1.7	1.9	1.8
EURO area average	2.0	1.8	1.9	1.8
BR(I)C average	1.6	1.4	1.5	1.3

1 Member of OECD

2 Member of European Union - EU 27

3 Member of European Union - EU 15

4 Member of EURO

5 Brazil Russia China ('BR(I)C' country)

TABLE I - ENTREPRENEURIAL COLLABORATIONS

	Early stage entrepreneurs working together with other enterprises or organisations				Established owner managers working together with other enterprises or organisations					
	To produce goods or services	To procure supplies	To make your business more effective	To produce goods or services	To procure supplies	To make your business more effective	To sell products or services to current customers	To sell products or services to new customers	To create new products or services to current customers	To create new products or services to new customers
	Percentage of all early stage entrepreneurs	Percentage of all early stage entrepreneurs	Percentage of all early stage entrepreneurs	Percentage of all established owner managers	Percentage of all established owner managers	Percentage of all established owner managers	Percentage of all established owner managers	Percentage of all established owner managers	Percentage of all established owner managers	Percentage of all established owner managers
Austria ^{1,2,3,4}	52	56	58	58	38	40	46	40	38	34
Belgium ^{1,2,3,4}	55	58	60	37	38	20	6	13	11	5
Brazil ⁵	48	45	41	13	12	8	8	8	5	4
Chile ¹	73	71	79	24	66	18	28	24	19	20
China ⁵	55	53	52	30	38	28	18	26	18	15
Denmark ^{1,2,3}	60	60	58	50	32	27	27	35	24	18
Estonia ^{1,2,4}	65	69	71	75	57	48	55	42	60	41
Finland ^{1,2,3,4}	43	44	43	69	51	58	44	38	27	23
France ^{1,2,3,4}	60	55	56	51	57	43	31	22	15	17
Germany ^{1,2,3,4}	52	52	53	53	33	30	44	34	34	36
Greece ^{1,2,3,4}	36	29	35	45	75	38	41	37	33	29
Hungary ^{1,2}	50	57	59	64	46	41	39	39	31	29
Ireland ^{1,2,3,4}	34	36	41	44	35	46	47	43	28	30
Israel ¹	60	64	62	56	47	39	51	46	41	35
Italy ^{1,2,3,4}	57	50	58	50	40	53	46	53	34	38
Japan ¹	36	36	37	62	53	43	51	44	29	29
Korea ¹	44	44	39	39	32	45	45	38	40	38
Latvia ²	61	55	66	72	59	56	53	47	34	31
Lithuania ²	39	42	43	54	41	39	41	32	27	25
Mexico ¹	57	60	65	45	57	20	26	28	28	27
Netherlands ^{1,2,3,4}	53	42	57	50	25	32	33	32	31	27
Norway ¹	48	59	46	54	22	36	49	49	28	22
Poland ^{1,2}	57	62	64	64	66	62	53	62	28	23
Portugal ^{1,2,3,4}	59	53	65	45	37	33	30	28	26	23
Romania ²	70	76	76	54	68	49	41	35	23	26
Russia ⁵	64	67	100	51	36	n/a	21	33	n/a	n/a
Slovakia ^{1,2,4}	58	60	65	69	66	53	48	41	37	27
Slovenia ^{1,2,4}	50	49	62	57	49	29	46	41	42	40
Spain ^{1,2,3,4}	40	37	44	37	68	25	24	24	14	14
Sweden ^{1,2,3}	48	57	62	61	31	28	50	47	32	41
Switzerland ¹	39	37	44	55	34	39	39	34	28	26
Turkey ¹	60	56	65	46	37	31	37	29	35	35
United Kingdom ^{1,2,3}	67	71	69	71	19	29	25	32	21	18
United States ¹	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
OECD average	52	53	56	52	45	37	39	37	29	28
EU-27 average	53	53	58	54	47	40	40	37	29	27
EU-15 average	51	50	54	49	41	36	35	35	26	25
EURO area average	51	49	55	53	48	39	39	37	29	27
BR/IC average	56	55	64	31	29	18	18	20	11	10

1 Member of OECD

4 Member of EURO

5 Member of European Union - EU-27

3 Member of European Union - EU-15

5 Brazil Russia China (BR/IC country)

TABLE J - EXITS

	Entrepreneurs exited in the last 12 months AND business discontinued Percentage in adult population	Entrepreneurs exited in the last 12 months AND business continued Percentage in adult population
Austria ^{1 2 3 4}	2.3	1.3
Belgium ^{1 2 3 4}	1.4	1.0
Brazil ⁵	3.2	1.3
Chile ¹	3.4	1.5
China ⁵	2.4	1.3
Denmark ^{1 2 3}	1.1	0.3
Estonia ^{1 2 4}	2.5	1.5
Finland ^{1 2 3 4}	1.1	0.8
France ^{1 2 3 4}	1.2	0.8
Germany ^{1 2 3 4}	1.2	0.8
Greece ^{1 2 3 4}	3.7	0.8
Hungary ^{1 2}	2.8	0.9
Ireland^{1 2 3 4}	1.2	0.5
Israel ¹	2.5	1.5
Italy ^{1 2 3 4}	1.6	0.8
Japan ¹	0.6	0.5
Korea ¹	2.0	1.2
Latvia ²	2.2	1.2
Lithuania ²	1.5	0.7
Mexico ¹	2.6	1.7
Netherlands ^{1 2 3 4}	1.5	0.7
Norway ¹	1.1	0.4
Poland ^{1 2}	2.4	1.5
Portugal ^{1 2 3 4}	2.1	0.9
Romania ²	2.7	1.1
Russia ⁵	0.8	0.2
Slovakia ^{1 2 4}	3.0	1.7
Slovenia ^{1 2 4}	0.8	0.8
Spain ^{1 2 3 4}	1.6	0.5
Sweden ^{1 2 3}	1.6	0.3
Switzerland ¹	0.9	1.1
Turkey ¹	3.3	2.0
United Kingdom ^{1 2 3}	1.2	0.5
United States ¹	2.8	1.6
OECD average	1.9	1.0
EU-27 average	1.8	0.9
EU-15 average	1.6	0.7
EURO area average	1.8	0.9
BR(I)C average	2.2	0.9

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2 Member of European Union - EU-27

3 Member of European Union - EU-15

4 Member of EURO

5 Brazil Russia China ('BR(I)C' country)

TABLE K - REASONS FOR EXITS

	Opportunity to sell the business Percentage of all entrepreneurs exiting	Business was not profitable Percentage of all entrepreneurs exiting	Problems getting finance Percentage of all entrepreneurs exiting	Found another job or business opportunity Percentage of all entrepreneurs exiting	Exit was planned in advance Percentage of all entrepreneurs exiting	Retirement Percentage of all entrepreneurs exiting	Reason of personal nature Percentage of all entrepreneurs exiting	Consequence of single incident Percentage of all entrepreneurs exiting	No reason offered Percentage of all entrepreneurs exiting
Austria ^{1,2,3,4}	6	25	4	16	4	18	16	2	7
Belgium ^{1,2,3,4}	5	13	26	30	0	6	19	0	0
Brazil ⁵	4	29	16	9	2	0	36	4	0
Chile ¹	6	19	19	15	6	0	21	1	14
China ⁵	1	36	12	7	3	2	32	0	7
Denmark ^{1,2,3}	0	15	0	16	2	0	12	4	50
Estonia ^{1,2,4}	5	35	6	10	11	4	11	3	14
Finland ^{1,2,3,4}	3	14	3	18	10	21	15	2	15
France ^{1,2,3,4}	0	21	27	7	8	13	17	6	0
Germany ^{1,2,3,4}	5	22	9	6	4	2	31	2	19
Greece ^{1,2,3,4}	3	49	7	2	0	37	2	0	0
Hungary ^{1,2}	0	36	34	3	0	5	9	0	14
Ireland ^{1,2,3,4}	0	42	17	7	3	2	20	5	3
Israel ¹	11	29	11	7	0	3	24	4	11
Italy ^{1,2,3,4}	4	26	15	14	2	1	23	6	8
Japan ¹	0	24	5	9	0	5	33	0	0
Korea ¹	3	51	7	0	3	3	22	3	9
Latvia ²	1	40	10	4	0	1	10	0	32
Lithuania ²	11	25	11	11	7	0	9	2	23
Mexico ¹	6	32	23	7	2	3	20	3	4
Netherlands ^{1,2,3,4}	2	21	9	16	4	4	18	0	26
Norway ¹	3	14	7	10	10	0	17	3	34
Poland ^{1,2}	5	24	8	11	13	0	20	4	15
Portugal ^{1,2,3,4}	4	44	10	3	0	0	14	5	20
Romania ²	0	40	16	1	1	3	20	0	19
Russia ⁵	3	26	17	11	0	0	8	11	23
Slovakia ^{1,2,4}	2	43	7	8	3	3	11	7	16
Slovenia ^{1,2,4}	4	11	21	7	7	11	12	10	16
Spain ^{1,2,3,4}	5	59	7	4	1	2	6	2	15
Sweden ^{1,2,3}	0	19	10	7	2	6	17	6	32
Switzerland ¹	9	28	16	6	0	6	9	6	19
Turkey ¹	5	25	19	4	1	8	21	0	17
United Kingdom ^{1,2,3}	8	38	10	14	14	2	11	0	3
United States ¹	3	27	18	8	3	1	12	6	21
OECD average	4	29	13	10	4	6	17	4	14
EU-27 average	3	30	12	10	4	7	15	3	16
EU-15 average	3	29	11	11	4	8	16	3	14
EURO area average	3	30	12	11	4	9	15	4	11
BR/()C average	2	30	15	9	2	1	25	5	10

Numbers are rounded to whole numbers, so in some instances may not sum to 100.

1 Member of OECD
2 Member of European Union - EU-27
3 Member of European Union - EU-15
4 Member of EUROS
5 Brazil/Russia/China (BR/()C country)

TABLE L - EARLY STAGE ENTREPRENEURIAL ACTIVITY BY IMMIGRANTS

	EARLY STAGE ENTREPRENEURS			NEW BUSINESS OWNERS			EARLY STAGE ENTREPRENEURS				
	Immigrant (parent or respondent) early stage entrepreneurs Percentage in immigrant (respondent or parent) adult population	First generation immigrant early stage entrepreneurs Percentage in first generation immigrant adult population	Second generation immigrant early stage entrepreneurs Percentage in second generation immigrant adult population	Non immigrant (neither parents or respondent) early stage entrepreneurs Percentage in non immigrant (respondent or parent) adult population	Immigrant (parent or respondent) new business owner Percentage in immigrant (respondent or parent) adult population	First generation immigrant new business owner Percentage in first generation immigrant adult population	Second generation immigrant new business owner Percentage in second generation immigrant adult population	Non immigrant (neither parents or respondent) new business owner Percentage in non immigrant (respondent or parent) adult population	Immigrants with opportunity motives Percentage of immigrant (respondent or parent) entrepreneurs	Non immigrants with opportunity motives Percentage of non immigrant (neither respondent nor parent) entrepreneurs	Non immigrants with opportunity motives Percentage of non immigrant (respondent not immigrant) entrepreneurs
Austria ^{1,2,3,4}	13.4	15.9	13.2	9.0	4.6	5.9	4.7	3.2	82	81	82
Belgium ^{1,2,3,4}	6.8	9.4	6.7	5.0	1.6	3.6	1.7	2.0	78	76	77
Brazil ⁵	14.1	9.2	14.3	15.5	6.5	9.2	6.6	11.4	60	70	69
Chile ¹	18.4	18.2	15.5	22.7	3.1	3.9	3.5	8.6	96	82	82
China ⁵	n/a	n/a	n/a	12.8	n/a	n/a	n/a	7.4	n/a	n/a	62
Denmark ^{1,2,3}	5.6	5.6	5.5	5.3	2.4	1.9	2.5	2.3	90	90	90
Estonia ^{1,2,4}	12.2	9.2	12.1	15.1	4.5	3.1	4.4	5.3	80	79	79
Finland ^{1,2,3,4}	6.1	0.0	9.2	6.0	4.1	0.0	6.1	2.6	67	74	74
France ^{1,2,3,4}	6.7	7.8	6.6	4.6	1.4	2.0	1.2	1.6	75	84	81
Germany ^{1,2,3,4}	6.9	5.4	6.9	4.9	1.8	2.1	1.9	2.2	60	84	79
Greece ^{1,2,3,4}	7.5	6.9	5.2	6.4	3.7	3.8	3.2	2.8	92	68	69
Hungary ^{1,2}	14.8	18.8	15.3	8.9	5.3	8.0	5.5	3.5	79	65	65
Ireland^{1,2,3,4}	7.2	7.6	7.2	5.8	2.7	3.0	2.9	2.2	73	70	70
Israel ¹	5.6	4.0	5.7	7.7	2.5	1.3	2.6	3.7	77	61	67
Italy ^{1,2,3,4}	7.8	6.1	8.2	4.1	2.8	1.0	2.7	1.9	83	71	71
Japan ¹	8.4	27.2	0.0	4.0	8.4	27.2	0.0	1.7	0	75	75
Korea ¹	0.0	0.0	0.0	6.7	0.0	0.0	0.0	4.1	n/a	64	64
Latvia ²	12.5	11.4	12.2	13.9	5.1	4.3	4.7	4.7	71	73	75
Lithuania ²	4.7	1.6	4.7	6.8	2.0	1.6	1.6	3.8	71	72	73
Mexico ¹	10.4	0.0	11.7	12.1	0.0	0.0	0.0	4.3	100	85	85
Netherlands ^{1,2,3,4}	7.9	6.5	7.9	10.7	5.3	3.9	5.3	6.4	93	83	83
Norway ¹	10.1	11.7	10.2	6.4	4.5	5.8	4.8	3.0	90	89	89
Poland ^{1,2}	19.1	4.8	19.4	8.8	7.1	0.0	7.2	4.4	54	53	53
Portugal ^{1,2,3,4}	9.5	9.2	10.0	7.4	4.6	4.6	3.6	3.5	72	73	74
Romania ²	15.9	8.9	16.2	9.1	10.8	0.0	11.1	3.7	84	75	75
Russia ⁵	7.4	7.7	7.2	4.1	2.5	3.4	2.4	1.7	71	61	62
Slovakia ^{1,2,4}	9.7	10.6	8.5	10.3	4.0	5.5	3.1	3.9	60	64	63
Slovenia ^{1,2,4}	5.3	3.3	5.8	5.4	2.8	2.6	3.1	2.5	73	93	91
Spain ^{1,2,3,4}	8.8	9.5	8.1	5.5	3.5	3.7	3.7	2.4	72	72	72
Sweden ^{1,2,3}	8.7	10.5	8.4	5.9	2.6	3.9	2.7	1.7	86	86	86
Switzerland ¹	8.7	9.1	8.0	5.0	5.0	3.5	5.3	2.4	60	83	76
Turkey ¹	14.2	14.2	12.3	12.1	6.4	5.5	6.6	5.3	80	66	66
United Kingdom ^{1,2,3}	13.6	13.6	14.1	7.6	5.4	5.8	5.5	3.2	81	79	80
United States ¹	12.7	16.4	12.3	12.9	4.5	5.4	4.2	4.0	76	75	75
OECD average	9.5	9.3	9.1	8.1	3.7	4.2	3.5	3.4	75	76	76
EU-27 average	8.6	8.3	9.6	7.6	4.0	3.2	4.0	3.2	76	76	76
EU-15 average	8.3	8.2	8.4	6.3	3.3	3.2	3.4	2.7	79	78	78
EURO area average	8.3	7.7	8.3	7.2	3.4	3.2	3.4	3.0	76	77	76
BR(I)C average	10.7	8.4	10.8	10.8	4.5	6.3	4.5	6.9	66	64	65

1 Member of OECD
 2 Member of European Union - EU-27
 3 Member of European Union - EU-15
 4 Member of EURO
 5 Brazil Russia China (BR)IC country

TABLE M - INFORMAL INVESTORS: RATES AND AMOUNTS

	Informal investors⁶	Total invested in past 3 years⁷ €
Austria ^{1 2 3 4}	6.3	20,600
Belgium ^{1 2 3 4}	3.1	22,200
Brazil ⁵	2.3	4,900
Chile ¹	13.0	1,800
China ⁵	5.4	7,200
Denmark ^{1 2 3}	3.0	63,100
Estonia ^{1 2 4}	8.7	6,300
Finland ^{1 2 3 4}	3.1	12,600
France ^{1 2 3 4}	3.0	23,800
Germany ^{1 2 3 4}	3.0	30,700
Greece ^{1 2 3 4}	3.0	44,200
Hungary ^{1 2}	4.5	6,700
Ireland^{1 2 3 4}	3.7	29,900
Israel ¹	6.0	28,800
Italy ^{1 2 3 4}	2.4	19,200
Japan ¹	1.4	44,900
Korea ¹	2.5	49,300
Latvia ²	7.3	18,100
Lithuania ²	9.3	7,900
Mexico ¹	7.3	1,400
Netherlands ^{1 2 3 4}	3.6	30,800
Norway ¹	3.2	43,600
Poland ^{1 2}	4.1	17,900
Portugal ^{1 2 3 4}	2.3	51,900
Romania ²	6.2	10,000
Russia ⁵	1.6	8,100
Slovakia ^{1 2 4}	7.2	23,000
Slovenia ^{1 2 4}	3.8	21,300
Spain ^{1 2 3 4}	3.9	24,200
Sweden ^{1 2 3}	4.2	7,900
Switzerland ¹	4.7	52,100
Turkey ¹	9.1	9,900
United Kingdom ^{1 2 3}	3.1	21,400
United States ¹	5.4	30,300
OECD average	4.6	26,400
EU-27 average	4.5	23,400
EU-15 average	3.4	28,700
EURO area average	4.1	25,800
BR(I)C average	3.1	6,700

1 Member of OECD

2 Member of European Union - EU-27

3 Member of European Union - EU-15

4 Member of EURO

5 Brazil Russia China ('BR(I)C' country)

6 Provided funds for a new business in the past three years

7 Exchange rate Euro to US\$: 0.798

TABLE N - AGE OF EARLY STAGE ENTREPRENEURS

	Early stage entrepreneurs aged 18-24yrs As percentage of adults in this age category	Early stage entrepreneurs aged 25-34yrs As percentage of adults in this age category	Early stage entrepreneurs aged 35-44yrs As percentage of adults in this age category	Early stage entrepreneurs aged 45-54yrs As percentage of adults in this age category	Early stage entrepreneurs aged 55-64yrs As percentage of adults in this age category	Early stage entrepreneurs aged 18-24yrs Percentage of all early stage entrepreneurs	Early stage entrepreneurs aged 25-34yrs Percentage of all early stage entrepreneurs	Early stage entrepreneurs aged 35-44yrs Percentage of all early stage entrepreneurs	Early stage entrepreneurs aged 45-54yrs Percentage of all early stage entrepreneurs	Early stage entrepreneurs aged 55-64yrs Percentage of all early stage entrepreneurs
Austria ^{1,2,3,4}	7.1	12.5	12.2	9.6	4.8	10	26	30	25	9
Belgium ^{1,2,3,4}	1.8	3.9	5.8	9.6	2.9	5	16	26	43	11
Brazil ⁵	14.2	19.2	18.7	12.1	8.3	18	34	27	14	7
Chile ¹	18.2	26.1	28.2	20.0	13.4	15	30	32	16	7
China ⁵	12.4	20.1	15.4	8.8	6.0	15	30	33	15	8
Denmark ^{1,2,3}	5.9	6.7	5.2	6.7	2.3	16	24	22	29	9
Estonia ^{1,2,4}	16.6	22.1	17.2	10.3	4.2	18	36	25	15	6
Finland ^{1,2,3,4}	4.0	9.4	6.9	6.2	3.2	9	32	23	23	13
France ^{1,2,3,4}	3.2	8.5	6.4	4.9	1.8	8	35	29	35	7
Germany ^{1,2,3,4}	3.7	7.9	8.5	3.1	3.2	9	28	36	15	12
Greece ^{1,2,3,4}	3.0	9.6	7.9	5.3	4.9	7	36	27	16	13
Hungary ^{1,2}	9.7	10.8	10.8	9.4	6.5	14	24	27	20	15
Ireland ^{1,2,3,4}	4.5	7.9	4.8	8.1	4.5	12	34	18	25	11
Israel ¹	5.5	8.9	7.0	6.4	3.4	16	35	23	18	9
Italy ^{1,2,3,4}	2.7	8.2	4.4	3.3	2.5	7	37	26	18	11
Japan ¹	3.8	4.8	3.5	4.5	3.4	12	25	21	23	21
Korea ¹	1.2	5.7	8.8	8.5	6.1	2	19	34	31	14
Latvia ²	11.8	22.1	17.7	10.1	2.9	14	37	28	17	4
Lithuania ²	7.7	11.9	7.1	4.1	2.3	19	37	23	14	6
Mexico ¹	10.1	13.9	12.9	12.0	10.2	18	31	25	17	9
Netherlands ^{1,2,3,4}	7.4	11.8	13.7	11.9	5.2	10	22	22	26	10
Norway ¹	3.0	7.9	9.2	5.5	6.9	7	24	32	18	19
Poland ^{1,2}	7.0	15.4	9.2	6.5	6.9	11	41	19	15	14
Portugal ^{1,2,3,4}	6.4	10.6	8.1	7.2	4.6	12	33	25	20	10
Romania ²	10.1	13.2	10.2	7.7	2.6	19	37	21	18	4
Russia ⁵	4.3	6.7	4.1	4.7	1.1	16	36	19	24	5
Slovakia ^{1,2,4}	12.8	13.9	9.9	10.3	3.5	19	34	20	21	6
Slovenia ^{1,2,4}	4.5	7.6	7.9	3.8	2.7	10	31	32	16	10
Spain ^{1,2,3,4}	3.4	7.9	6.6	5.5	2.9	7	33	30	21	8
Sweden ^{1,2,3}	5.1	8.1	7.1	6.3	5.1	13	26	24	21	16
Switzerland ¹	2.9	4.9	10.0	5.5	4.7	6	17	39	22	15
Turkey ¹	6.6	19.2	14.5	9.0	4.4	9	45	28	14	5
United Kingdom ^{1,2,3}	7.1	10.5	12.8	8.0	5.6	13	24	32	19	11
United States ¹	10.1	14.1	16.5	12.4	10.2	12	23	27	23	15
OECD average	6.3	10.6	9.9	7.9	5.0	11	29	27	21	11
EU-27 average	6.6	10.9	9.1	7.2	3.9	12	31	26	21	10
EU-15 average	4.7	8.8	7.9	6.8	3.8	10	29	27	23	11
EURO area average	5.8	10.1	8.6	7.1	3.6	10	31	27	22	10
BR(O)C average	10.3	15.3	12.8	8.5	5.1	16	33	26	18	6

Numbers are rounded to whole numbers, so in some instances may not sum to 100.

¹ Member of OECD

² Member of European Union - EU-27

³ Member of European Union - EU-15

⁴ Member of EURO

⁵ Brazil Russia China (BR)C country

TABLE 0 - AGE OF ESTABLISHED OWNER MANAGERS

	Established owner managers aged 18-24yrs As percentage of all adults in this age category	Established owner managers aged 25-34yrs As percentage of all adults in this age category	Established owner managers aged 35-44yrs As percentage of all adults in this age category	Established owner managers aged 45-54yrs As percentage of all adults in this age category	Established owner managers aged 55-64yrs As percentage of all adults in this age category	Established owner managers aged 18-24yrs Percentage of all established owner managers	Established owner managers aged 25-34yrs Percentage of all established owner managers	Established owner managers aged 35-44yrs Percentage of all established owner managers	Established owner managers aged 45-54yrs Percentage of all established owner managers	Established owner managers aged 55-64yrs Percentage of all established owner managers
Austria ^{1,2,3,4}	0.5	3.8	7.6	12.6	10.3	1	10	23	41	25
Belgium ^{1,2,3,4}	n/a	0.7	4.2	10.4	8.4	n/a	3	19	47	31
Brazil ⁵	2.8	11.2	20.6	23.9	21.3	4	20	30	29	17
Chile ¹	0.6	4.9	7.6	11.4	20.2	1	16	25	26	31
China ⁵	3.7	9.7	16.8	14.6	13.7	4	15	37	26	18
Denmark ^{1,2,3}	0.3	2.0	4.6	5.1	3.9	1	11	30	34	23
Estonia ^{1,2,4}	1.0	6.0	7.9	11.5	8.3	2	19	23	33	22
Finland ^{1,2,3,4}	0.7	3.6	12.6	9.8	10.8	1	9	31	27	31
France ^{1,2,3,4}	n/a	2.7	2.9	5.7	3.7	n/a	17	21	39	22
Germany ^{1,2,3,4}	0.4	3.6	5.2	7.1	6.1	1	14	23	37	25
Greece ^{1,2,3,4}	2.3	8.6	18.7	18.6	11.0	3	17	34	30	15
Hungary ^{1,2}	1.2	5.2	10.4	12.2	9.5	2	15	29	29	25
Ireland ^{1,2,3,4}	1.2	4.7	9.4	13.3	14.7	2	15	26	31	26
Israel ¹	0.6	3.3	4.8	6.2	4.1	3	28	28	18	18
Italy ^{1,2,3,4}	0.9	3.1	4.7	3.5	3.0	3	18	36	25	18
Japan ¹	n/a	3.9	4.4	8.5	10.8	n/a	13	17	28	42
Korea ¹	0.4	1.4	10.3	19.8	11.6	1	3	27	50	19
Latvia ²	2.7	6.3	11.5	9.3	8.7	5	18	31	26	20
Lithuania ²	0.9	5.2	12.2	13.2	7.3	2	13	32	38	15
Mexico ¹	1.1	2.5	6.6	8.1	7.7	5	14	33	29	18
Netherlands ^{1,2,3,4}	1.4	7.1	12.4	12.9	9.9	2	14	31	31	22
Norway ¹	0.3	3.4	7.5	8.0	7.9	1	12	30	30	26
Poland ^{1,2}	1.7	6.2	9.5	5.9	4.8	5	26	32	21	16
Portugal ^{1,2,3,4}	0.4	4.4	8.0	7.8	9.6	1	17	30	26	26
Romania ²	1.1	5.0	2.8	5.8	3.8	5	33	14	33	15
Russia ⁵	0.2	1.7	3.4	3.0	1.4	1	20	33	33	13
Slovakia ^{1,2,4}	0.5	5.6	10.1	7.0	7.2	1	22	34	23	21
Slovenia ^{1,2,4}	0.8	2.6	7.5	10.0	5.8	2	10	29	40	20
Spain ^{1,2,3,4}	0.9	4.3	9.9	13.5	12.4	1	12	29	34	24
Sweden ^{1,2,3}	0.9	2.1	5.2	7.3	9.7	3	8	22	30	37
Switzerland ¹	n/a	1.5	10.5	12.8	13.9	n/a	4	29	36	31
Turkey ¹	3.0	7.8	12.5	12.2	5.9	6	26	33	26	9
United Kingdom ^{1,2,3}	n/a	3.1	5.4	8.3	13.6	n/a	10	20	29	41
United States ¹	0.9	5.3	9.1	12.7	12.4	1	13	23	35	27
OECD average	1.0	4.1	8.2	10.1	9.2	2	14	27	32	25
EU-27 average	1.0	4.4	8.3	9.6	8.3	2	15	27	32	24
EU-15 average	0.9	3.8	7.9	9.7	9.1	2	13	27	33	26
EURO area average	0.9	4.3	8.6	10.3	8.7	2	14	28	33	23
BRIC average	2.2	7.5	13.6	13.8	12.1	3	18	33	29	16

Numbers are rounded to whole numbers, so in some instances may not sum to 100.

1 Member of OECD
2 Member of European Union - EU-27
3 Member of European Union - EU-15

4 Member of EUO
5 Brazil Russia China (BRIC) country

TABLE P - GROWTH ASPIRATIONS OF EARLY STAGE ENTREPRENEURS

	Any jobs now or any jobs expected in five years	Expect 20 or more jobs within five years	Any jobs now or any jobs expected	Expect 10 or more jobs within five years⁶	Expect 20 or more jobs within five years
	Percentage in adult population	Percentage in adult population	Percentage of all early stage entrepreneurs	Percentage of all early stage entrepreneurs	Percentage of all early stage entrepreneurs
Austria ^{1 2 3 4}	5.7	0.4	60	8	4
Belgium ^{1 2 3 4}	3.9	0.2	74	17	4
Brazil ⁵	8.6	0.7	56	8	4
Chile ¹	18.6	2.1	82	24	9
China ⁵	10.4	1.7	81	14	13
Denmark ^{1 2 3}	4.2	0.7	79	18	14
Estonia ^{1 2 4}	11.6	1.6	81	24	11
Finland ^{1 2 3 4}	3.7	0.4	62	14	8
France ^{1 2 3 4}	4.3	0.4	83	22	9
Germany ^{1 2 3 4}	3.9	0.6	73	22	11
Greece ^{1 2 3 4}	4.0	0.2	62	8	4
Hungary ^{1 2}	7.5	1.6	81	23	17
Ireland^{1 2 3 4}	4.5	0.9	73	26	15
Israel ¹	3.5	1.0	54	18	15
Italy ^{1 2 3 4}	3.2	0.3	73	7	6
Japan ¹	2.9	0.6	73	27	16
Korea ¹	5.9	1.2	89	22	18
Latvia ²	11.3	3.1	84	40	23
Lithuania ²	5.5	1.4	82	35	22
Mexico ¹	9.8	0.6	81	12	5
Netherlands ^{1 2 3 4}	6.3	0.7	61	9	7
Norway ¹	4.7	0.4	70	9	6
Poland ^{1 2}	7.5	1.0	80	16	10
Portugal ^{1 2 3 4}	5.6	0.5	73	16	7
Romania ²	7.7	1.6	84	36	17
Russia ⁵	3.2	0.4	73	20	9
Slovakia ^{1 2 4}	7.6	1.3	75	20	12
Slovenia ^{1 2 4}	4.1	0.7	76	19	12
Spain ^{1 2 3 4}	3.4	0.2	60	6	3
Sweden ^{1 2 3}	4.2	0.3	65	10	4
Switzerland ¹	4.5	0.4	76	9	7
Turkey ¹	9.9	2.8	81	31	23
United Kingdom ^{1 2 3}	5.7	0.9	63	17	10
United States ¹	9.6	1.7	75	21	13
OECD average	6.1	0.8	73	17	10
EU-27 average	5.7	0.9	73	19	10
EU-15 average	4.5	0.5	69	14	8
EURO area average	5.1	0.6	70	15	8
BR(I)C average	7.4	0.9	70	14	9

1 Member of OECD

2 Member of European Union - EU-27

3 Member of European Union - EU-15

4 Member of EURO

5 Brazil Russia China ('BR(I)C' country)

6 If the business is already operational, jobs 5 years from now; in which case an extra requirement is that job growth is at least 50%.

TABLE Q - GROWTH ASPIRATIONS OF EARLY STAGE ENTREPRENEURS AND ESTABLISHED OWNER MANAGERS

	Expect 10 or more jobs within 5 years⁶ Percentage of all early stage entrepreneurs	Expect 10 or more jobs within 5 years⁶ Percentage of all established owner managers
Austria ^{1 2 3 4}	8	1
Belgium ^{1 2 3 4}	17	0
Brazil ⁵	8	2
Chile ¹	24	5
China ⁵	14	3
Denmark ^{1 2 3}	18	3
Estonia ^{1 2 4}	24	5
Finland ^{1 2 3 4}	14	3
France ^{1 2 3 4}	22	0
Germany ^{1 2 3 4}	22	4
Greece ^{1 2 3 4}	8	1
Hungary ^{1 2}	23	2
Ireland^{1 2 3 4}	26	5
Israel ¹	18	4
Italy ^{1 2 3 4}	7	4
Japan ¹	27	6
Korea ¹	22	6
Latvia ²	40	16
Lithuania ²	35	9
Mexico ¹	12	7
Netherlands ^{1 2 3 4}	9	2
Norway ¹	9	2
Poland ^{1 2}	16	6
Portugal ^{1 2 3 4}	16	1
Romania ²	36	20
Russia ⁵	20	3
Slovakia ^{1 2 4}	20	3
Slovenia ^{1 2 4}	19	7
Spain ^{1 2 3 4}	6	1
Sweden ^{1 2 3}	10	7
Switzerland ¹	9	3
Turkey ¹	31	15
United Kingdom ^{1 2 3}	17	4
United States ¹	21	5
OECD average	17	4
EU-27 average	19	5
EU-15 average	14	3
EURO area average	15	3
BR(I)C average	14	3

1 Member of OECD

2 Member of European Union - EU-27

3 Member of European Union - EU-15

4 Member of EURO

5 Brazil Russia China ('BR(I)C' country)

6 If the business is already operational, jobs 5 years from now; in which case an extra requirement is that job growth is at least 50%.

TABLE R - INTERNATIONAL ORIENTATION OF EARLY STAGE ENTREPRENEURS

	More than 50% of customers outside country Percentage in adult population	More than 50% of customers outside country Percentage of all early stage entrepreneurs	No customers outside country Percentage of all early stage entrepreneurs	1-25% customers outside country Percentage of all early stage entrepreneurs	26-75% customers outside country Percentage of all early stage entrepreneurs	76-100% customers outside country Percentage of all early stage entrepreneurs
Austria ^{1 2 3 4}	1.6	17	34	39	15	11
Belgium ^{1 2 3 4}	0.4	7	40	52	3	5
Brazil ⁵	0.0	0	99	1	0	0
Chile ¹	1.0	4	31	62	5	3
China ⁵	0.1	1	80	18	2	0
Denmark ^{1 2 3}	0.9	17	58	21	7	14
Estonia ^{1 2 4}	2.4	17	33	37	19	11
Finland ^{1 2 3 4}	0.9	14	55	24	11	10
France ^{1 2 3 4}	0.9	17	41	29	21	9
Germany ^{1 2 3 4}	0.2	3	46	44	7	2
Greece ^{1 2 3 4}	0.8	13	51	28	12	9
Hungary ^{1 2}	1.2	13	44	38	12	7
Ireland ^{1 2 3 4}	1.4	22	34	38	14	14
Israel ¹	0.9	13	39	38	13	10
Italy ^{1 2 3 4}	0.5	12	58	24	7	10
Japan ¹	0.3	9	46	39	8	7
Korea ¹	1.1	16	45	32	13	10
Latvia ²	2.9	21	22	46	18	14
Lithuania ²	1.7	25	28	31	19	21
Mexico ¹	0.2	2	85	11	5	0
Netherlands ^{1 2 3 4}	0.9	9	54	32	6	8
Norway ¹	0.6	8	69	20	4	8
Poland ^{1 2}	0.7	8	27	54	14	5
Portugal ^{1 2 3 4}	1.2	15	28	49	14	9
Romania ²	2.7	30	22	39	26	13
Russia ⁵	0.1	3	89	6	2	2
Slovakia ^{1 2 4}	1.4	13	35	44	15	5
Slovenia ^{1 2 4}	1.2	22	39	29	16	16
Spain ^{1 2 3 4}	0.6	10	74	11	7	7
Sweden ^{1 2 3}	0.8	12	60	18	14	8
Switzerland ¹	0.7	12	23	52	17	8
Turkey ¹	1.2	10	62	23	9	6
United Kingdom ^{1 2 3}	0.9	10	42	45	9	4
United States ¹	0.9	7	25	62	8	4
OECD average	0.9	11	46	36	11	8
EU-27 average	1.2	15	42	35	13	10
EU-15 average	0.9	13	48	32	10	9
EURO area average	1.0	14	45	34	12	9
BR(I)C average	0.1	1	89	8	1	1

Numbers are rounded to whole numbers, so in some instances may not sum up to 100.

1 Member of OECD

2 Member of European Union - EU-27

3 Member of European Union - EU-15

4 Member of EURO

5 Brazil Russia China ('BR(I)C' country)

TABLE S - INTERNATIONAL ORIENTATION OF ESTABLISHED OWNER MANAGERS

	More than 50% of customers outside country Percentage in adult population	More than 50% of customers outside country Percentage of all established owner managers	No customers outside country Percentage of all established owner managers	1-25% customers outside country Percentage of all established owner managers	26-75% customers outside country Percentage of all established owner managers	76-100% customers outside country Percentage of all established owner managers
Austria ^{1 2 3 4}	0.7	10	37	47	11	5
Belgium ^{1 2 3 4}	0.3	6	44	44	7	5
Brazil ⁵	0.0	0	99	1	0	0
Chile ¹	0.2	3	36	58	2	3
China ⁵	0.1	0	86	13	1	0
Denmark ^{1 2 3}	0.2	6	38	49	6	6
Estonia ^{1 2 4}	1.1	15	33	49	7	10
Finland ^{1 2 3 4}	0.4	5	57	33	8	1
France ^{1 2 3 4}	0.3	9	51	36	8	5
Germany ^{1 2 3 4}	0.5	10	35	49	9	6
Greece ^{1 2 3 4}	0.6	5	60	32	6	3
Hungary ^{1 2}	0.6	8	45	44	6	5
Ireland^{1 2 3 4}	1.3	16	46	33	10	10
Israel ¹	0.5	12	38	43	7	12
Italy ^{1 2 3 4}	0.4	13	40	41	7	12
Japan ¹	0.1	1	71	26	2	1
Korea ¹	0.9	10	45	38	11	6
Latvia ²	1.8	22	23	45	18	14
Lithuania ²	0.9	12	40	40	10	9
Mexico ¹	0.2	3	73	18	9	0
Netherlands ^{1 2 3 4}	0.7	7	54	33	9	3
Norway ¹	0.5	8	71	19	6	4
Poland ^{1 2}	0.4	7	46	44	6	4
Portugal ^{1 2 3 4}	0.5	9	36	55	1	8
Romania ²	0.7	18	22	42	23	13
Russia ⁵	0.1	3	96	1	0	3
Slovakia ^{1 2 4}	0.9	14	43	35	16	6
Slovenia ^{1 2 4}	0.8	13	29	46	16	8
Spain ^{1 2 3 4}	0.5	5	81	12	3	4
Sweden ^{1 2 3}	0.3	6	63	25	9	3
Switzerland ¹	0.7	8	14	62	21	3
Turkey ¹	0.3	3	65	30	2	3
United Kingdom ^{1 2 3}	0.4	6	41	51	6	2
United States ¹	0.3	4	31	63	3	3
OECD average	0.5	8	47	40	8	5
EU-27 average	0.7	10	44	40	9	7
EU-15 average	0.5	8	49	39	7	5
EURO area average	0.6	9	46	39	8	6
BR(I)C average	0.04	0.04	94	5	0	1

Numbers are rounded to whole numbers, so in some instances may not sum up to 100.

1 Member of OECD

2 Member of European Union - EU-27

3 Member of European Union - EU-15

4 Member of EURO

5 Brazil Russia China ('BR(I)C' country)

TABLE T - INNOVATIVENESS OF EARLY STAGE ENTREPRENEURS

	Product/service is new to no customers Percentage of all early stage entrepreneurs	Product/service is new to some customers Percentage of all early stage entrepreneurs	Product/service is new to all customers Percentage of all early stage entrepreneurs	New business has many competitors Percentage of all early stage entrepreneurs	New business has few competitors Percentage of all early stage entrepreneurs	New business has no competitors Percentage of all early stage entrepreneurs	Business uses established technology (5+ years) Percentage of all early stage entrepreneurs	Business uses new technology (1-5 years) Percentage of all early stage entrepreneurs	Business uses the very latest technology (less than 1 year) Percentage of all early stage entrepreneurs
Austria ^{1,2,3,4}	52	40	8	50	45	6	79	16	6
Belgium ^{1,2,3,4}	47	38	15	50	32	17	69	21	10
Brazil ⁵	99	1	0	59	33	8	100	0	0
Chile ¹	12	40	48	38	52	10	59	27	13
China ⁵	37	42	20	70	24	6	79	12	9
Denmark ^{1,2,3}	39	35	26	42	43	15	43	16	3
Estonia ^{1,2,4}	49	38	13	41	47	12	70	19	12
Finland ^{1,2,3,4}	56	28	16	58	38	3	77	15	8
France ^{1,2,3,4}	31	47	23	46	45	9	66	21	13
Germany ^{1,2,3,4}	60	35	5	47	46	7	70	15	14
Greece ^{1,2,3,4}	60	25	15	60	36	4	55	35	10
Hungary ^{1,2}	64	26	10	58	28	14	80	14	6
Ireland ^{1,2,3,4}	51	26	23	42	38	20	69	23	8
Israel ¹	51	27	22	50	38	12	58	21	21
Italy ^{1,2,3,4}	21	41	38	67	29	3	67	24	20
Japan ¹	55	26	19	69	28	4	68	21	11
Korea ¹	48	41	11	63	29	8	79	11	10
Latvia ²	51	36	13	10	40	10	77	17	6
Lithuania ²	69	19	12	53	32	15	75	14	10
Mexico ¹	48	33	19	64	33	3	84	9	8
Netherlands ^{1,2,3,4}	58	21	21	55	36	10	78	15	8
Norway ¹	72	16	12	50	36	14	50	73	7
Poland ^{1,2}	28	45	27	61	25	14	68	28	5
Portugal ^{1,2,3,4}	57	29	14	45	43	12	65	26	9
Romania ²	52	35	13	49	41	10	53	30	16
Russia ⁵	73	15	13	68	26	5	89	8	3
Slovakia ^{1,2,4}	48	33	19	61	31	8	66	17	16
Slovenia ^{1,2,4}	51	34	15	41	47	12	69	25	6
Spain ^{1,2,3,4}	58	23	19	47	39	13	68	19	13
Sweden ^{1,2,3}	64	24	12	54	33	12	75	16	9
Switzerland ¹	57	34	9	44	50	6	76	13	12
Turkey ¹	40	29	31	66	27	7	77	19	5
United Kingdom ^{1,2,3}	62	24	14	37	55	8	76	18	6
United States ¹	53	31	16	40	45	15	73	20	7
OECD average	50	32	19	52	38	10	71	19	10
EU-27 average	51	32	17	51	39	11	70	20	10
EU-15 average	51	31	18	50	40	10	70	20	10
EURO area average	50	33	17	51	40	10	68	21	11
BR(I)C average	70	19	11	66	28	7	90	7	4

Numbers are rounded to whole numbers, so in some instances may not sum to 100.

¹ Member of OECD

² Member of European Union - EU-27

³ Member of European Union - EU-15

⁴ Member of EUO

⁵ Brazil, Russia, China (BR(I)C country)

TABLE U - INNOVATIVENESS OF ESTABLISHED OWNER MANAGERS

	Product/service is new to no customers Percentage of all established owner managers	Product/service is new to some customers Percentage of all established owner managers	Product/service is new to all customers Percentage of all established owner managers	New business has many competitors Percentage of all established owner managers	New business has few competitors Percentage of all established owner managers	New business has no competitors Percentage of all established owner managers	Business uses established technology (5+ years) Percentage of all established owner managers	Business uses new technology (1-5 years) Percentage of all established owner managers	Business uses the very latest technology (less than 1 year) Percentage of all established owner managers
Austria ^{1,2,3,4}	71	22	7	68	29	4	97	3	0
Belgium ^{1,2,3,4}	89	9	3	67	31	1	91	4	5
Brazil ⁵	99	1	0	69	25	5	100	0	0
Chile ¹	20	38	42	54	40	6	81	13	6
China ⁵	45	31	24	71	24	5	89	8	3
Denmark ^{1,2,3}	46	33	21	46	42	12	91	6	3
Estonia ^{1,2,4}	70	21	9	56	37	7	87	10	3
Finland ^{1,2,3,4}	69	19	12	72	23	5	86	4	10
France ^{1,2,3,4}	75	17	8	63	32	5	83	9	8
Germany ^{1,2,3,4}	81	14	5	72	25	2	95	4	1
Greece ^{1,2,3,4}	71	22	7	58	33	8	86	12	2
Hungary ^{1,2}	78	15	7	68	25	7	95	5	0
Ireland ^{1,2,3,4}	78	16	5	69	27	5	87	11	2
Israel ¹	74	10	16	78	16	6	80	17	4
Italy ^{1,2,3,4}	20	38	41	73	25	2	74	20	6
Japan ¹	79	14	7	65	30	5	99	1	0
Korea ¹	59	33	9	72	22	6	89	8	2
Latvia ²	70	22	8	62	35	4	91	7	1
Lithuania ²	78	10	12	71	23	6	85	11	4
Mexico ¹	68	26	6	59	41	0	93	6	1
Netherlands ^{1,2,3,4}	71	20	9	68	28	4	89	7	4
Norway ¹	83	16	1	80	12	8	95	3	2
Poland ^{1,2}	48	38	14	73	21	5	83	14	2
Portugal ^{1,2,3,4}	81	17	2	70	26	4	90	9	1
Romania ²	52	31	17	59	27	13	62	26	11
Russia ⁵	88	5	7	74	19	7	94	6	0
Slovakia ^{1,2,4}	71	16	14	75	20	5	76	12	13
Slovenia ^{1,2,4}	67	23	10	59	35	6	87	8	5
Spain ^{1,2,3,4}	85	10	4	70	23	7	80	13	7
Sweden ^{1,2,3}	75	21	5	57	37	6	90	8	1
Switzerland ¹	69	20	10	66	28	6	96	4	0
Turkey ¹	55	24	21	80	17	2	90	9	1
United Kingdom ^{1,2,3}	74	19	7	63	33	4	88	11	1
United States ¹	74	20	6	52	42	5	90	9	1
OECD average	68	21	11	66	29	5	88	9	3
EU-27 average	69	21	10	65	29	6	86	10	4
EU-15 average	71	20	10	65	30	5	88	9	4
EURO area average	71	19	10	67	28	5	86	9	5
BR(I)C average	78	12	10	71	23	6	95	4	1

Numbers are rounded to whole numbers, so in some instances may not sum to 100.

¹ Member of OECD
² Member of European Union - EU-27
³ Member of European Union - EU-15

⁴ Member of EUROS
⁵ Brazil, Russia, China (BR(I)C: country)

TABLE V - SECTOR OF ACTIVITY OF EARLY STAGE ENTREPRENEURS AND ESTABLISHED OWNER MANAGERS

	Extractive sectors Percentage of all early stage entrepreneurs	Transformative sectors ⁶ Percentage of all early stage entrepreneurs	Business sectors ⁷ Percentage of all early stage entrepreneurs	Consumer sectors ⁸ Percentage of all early stage entrepreneurs	Extractive sectors Percentage of all established owner managers	Transformative sectors ⁶ Percentage of all established owner managers	Business sectors ⁷ Percentage of all established owner managers	Consumer sectors ⁸ Percentage of all established owner managers	High or medium technology sectors Percentage of all early stage entrepreneurs	High or medium technology sectors Percentage of all established owner managers
Austria ^{1,2,3,4}	2	11	40	47	10	17	39	34	10	10
Belgium ^{1,2,3,4}	3	26	23	48	11	28	19	42	3	0
Brazil ⁵	2	28	14	57	3	39	12	46	2	2
Chile ¹	2	27	13	57	2	29	14	56	6	5
China ⁵	4	21	3	72	19	16	3	63	2	2
Denmark ^{1,2,3}	3	34	20	42	9	18	33	40	10	11
Estonia ^{1,2,4}	6	29	27	38	12	27	30	32	8	6
Finland ^{1,2,3,4}	16	19	28	37	23	29	25	22	7	4
France ^{1,2,3,4}	5	17	33	44	14	24	36	26	11	9
Germany ^{1,2,3,4}	1	15	30	54	3	27	32	38	8	10
Greece ^{1,2,3,4}	3	20	24	52	4	25	12	59	5	2
Hungary ^{1,2}	12	26	23	38	8	31	29	32	6	8
Ireland^{1,2,3,4}	5	19	35	41	26	23	28	24	9	6
Israel ¹	0	17	24	59	1	12	25	62	4	3
Italy ^{1,2,3,4}	8	25	25	43	8	28	27	36	14	5
Japan ¹	5	24	24	47	3	30	20	47	9	6
Korea ¹	4	30	19	47	4	39	11	46	8	9
Latvia ²	11	36	17	37	22	32	12	34	6	4
Lithuania ²	9	26	29	36	12	32	22	34	7	4
Mexico ¹	1	22	9	67	1	20	5	74	5	2
Netherlands ^{1,2,3,4}	4	25	28	43	14	36	22	29	5	2
Norway ¹	9	24	33	24	26	23	28	23	7	9
Poland ^{1,2}	7	41	18	34	16	31	22	32	3	3
Portugal ^{1,2,3,4}	5	26	24	45	5	25	23	47	4	2
Romania ²	18	21	17	44	18	38	3	41	4	0
Russia ⁵	8	34	9	48	10	25	8	57	4	0
Slovakia ^{1,2,4}	4	25	32	38	4	41	24	31	8	8
Slovenia ^{1,2,4}	4	28	42	26	5	36	35	24	14	7
Spain ^{1,2,3,4}	4	18	26	52	11	28	21	41	10	7
Sweden ^{1,2,3}	10	14	38	38	10	25	38	28	12	16
Switzerland ¹	5	16	34	46	9	18	35	38	11	12
Turkey ¹	6	28	16	50	4	36	15	45	5	1
United Kingdom ^{1,2,3}	2	23	33	42	6	28	41	25	9	4
United States ¹	4	22	33	41	7	27	39	27	9	9
OECD average	5	23	28	45	9	27	26	38	8	6
EU-27 average	6	23	28	42	11	29	26	34	8	6
EU-15 average	5	20	30	45	11	26	28	35	8	6
EURO area average	5	22	30	43	11	28	26	35	8	6
BR/IC average	5	28	8	59	10	27	8	55	3	1

Numbers are rounded to whole numbers, so in some instances, may not sum to 100

1 Member of OECD
2 Member of European Union - EU-27
3 Member of European Union - EU-15
4 Member of EUROS

5 Brazil Russia China (BR/IC) country
6 Includes construction, manufacturing, transport, wholesale, utilities.
7 Includes finance, insurance, real estate, all business services.
8 Includes retail, motor, lodgings, restaurants, personal services, health, education, recreation.

TABLE W - GENDER: ENTREPRENEURIAL ACTIVITY

	Men early stage entrepreneurs Percentage in male adult population	Women early stage entrepreneurs Percentage in female adult population	Men:Woman (early stage entrepreneurs) Rate as a ratio	Men established owner managers Percentage in male adult population	Women established owner managers Percentage in female adult population	Men:Women (established owner managers) Rate as a ratio
Austria ^{1 2 3 4}	11.0	8.1	1.4 : 1	9.3	5.9	1.6 : 1
Belgium ^{1 2 3 4}	7.7	2.6	2.9 : 1	6.7	3.5	1.9 : 1
Brazil ⁵	16.2	14.7	1.1 : 1	17.4	13.1	1.3 : 1
Chile ¹	26.2	19.1	1.4 : 1	9.2	6.4	1.5 : 1
China ⁵	14.7	11.0	1.3 : 1	14.3	10.6	1.4 : 1
Denmark ^{1 2 3}	7.6	3.1	2.5 : 1	4.7	2.1	2.2 : 1
Estonia ^{1 2 4}	19.1	9.7	2.0 : 1	10.6	4.2	2.5 : 1
Finland ^{1 2 3 4}	7.8	4.1	1.9 : 1	11.7	4.3	2.7 : 1
France ^{1 2 3 4}	6.4	4.0	1.6 : 1	4.3	2.2	1.9 : 1
Germany ^{1 2 3 4}	7.1	3.5	2.0 : 1	5.9	4.0	1.5 : 1
Greece ^{1 2 3 4}	8.6	4.4	2.0 : 1	17.7	6.8	2.6 : 1
Hungary ^{1 2}	12.8	5.8	2.2 : 1	12.0	4.3	2.8 : 1
Ireland ^{1 2 3 4}	8.3	4.0	2.1 : 1	11.8	4.7	2.5 : 1
Israel ¹	7.6	5.5	1.4 : 1	4.7	2.9	1.6 : 1
Italy ^{1 2 3 4}	5.7	2.9	2.0 : 1	5.0	1.6	3.1 : 1
Japan ¹	5.9	2.1	2.8 : 1	8.0	4.2	1.9 : 1
Korea ¹	10.8	2.3	4.8 : 1	15.1	3.8	4.0 : 1
Latvia ²	18.9	8.2	2.3 : 1	10.2	5.8	1.8 : 1
Lithuania ²	9.4	4.2	2.3 : 1	12.4	4.3	2.9 : 1
Mexico ¹	12.2	12.1	1.0 : 1	6.0	3.4	1.8 : 1
Netherlands ^{1 2 3 4}	13.9	6.7	2.1 : 1	13.0	5.9	2.2 : 1
Norway ¹	9.8	3.6	2.8 : 1	7.7	3.8	2.0 : 1
Poland ^{1 2}	12.6	6.2	2.0 : 1	8.5	3.2	2.6 : 1
Portugal ^{1 2 3 4}	9.3	6.2	1.5 : 1	8.8	3.7	2.4 : 1
Romania ²	13.2	5.3	2.5 : 1	6.0	1.9	3.2 : 1
Russia ⁵	5.3	3.4	1.6 : 1	2.2	1.9	1.1 : 1
Slovakia ^{1 2 4}	13.7	6.7	2.0 : 1	9.1	3.6	2.5 : 1
Slovenia ^{1 2 4}	8.1	2.6	3.1 : 1	8.5	2.9	3.0 : 1
Spain ^{1 2 3 4}	7.4	4.0	1.8 : 1	11.1	6.4	1.7 : 1
Sweden ^{1 2 3}	8.0	4.8	1.7 : 1	7.3	3.1	2.4 : 1
Switzerland ¹	6.4	5.4	1.2 : 1	9.8	7.1	1.4 : 1
Turkey ¹	17.5	6.9	2.6 : 1	14.6	2.7	5.4 : 1
United Kingdom ^{1 2 3}	11.6	6.3	1.8 : 1	8.8	3.5	2.5 : 1
United States ¹	15.2	10.5	1.5 : 1	10.4	6.7	1.6 : 1
OECD average	10.7	5.8	1.8 : 1	9.3	4.2	2.2 : 1
EU-27 average	10.4	5.2	2.0 : 1	9.3	4.0	2.3 : 1
EU-15 average	8.6	4.6	1.9 : 1	9.0	4.1	2.2 : 1
EURO area average	9.6	5.0	1.9 : 1	9.5	4.3	2.2 : 1
BR(I)C average	12.1	9.7	1.2 : 1	11.3	8.5	1.3 : 1

1 Member of OECD

2 Member of European Union - EU-27

3 Member of European Union - EU-15

4 Member of EURO

5 Brazil Russia China ('BR(I)C' country)

TABLE X - GENDER: PERSONAL CONTEXT OF GENERAL POPULATION

	Know a recent entrepreneur ⁶ (men) Men as a percentage of all men in adult population	Know a recent entrepreneur (women) Women as a percentage of all women in adult population	Opportunities in local area ⁷ (men) Men as a percentage of all men in adult population	Opportunities in local area (women) Women as a percentage of all women in adult population	Skills & knowledge to start-up (men) Men as a percentage of all men in adult population	Skills & knowledge to start-up (women) Women as a percentage of all women in adult population	Fear of failure prevent start-up (men) Men as a percentage of all men in adult population	Fear of failure prevent start-up (women) Women as a percentage of all women in adult population
Austria ^{1,2,3,4}	42	35	53	45	58	42	38	49
Belgium ^{1,2,3,4}	22	22	37	29	46	28	43	49
Brazil ⁵	39	29	55	50	61	47	30	41
Chile ¹	47	37	68	62	69	51	27	37
China ⁵	54	50	34	30	42	33	35	37
Denmark ^{1,2,3}	37	30	47	42	40	22	38	46
Estonia ^{1,2,4}	41	34	51	40	52	35	37	51
Finland ^{1,2,3,4}	45	39	54	56	40	28	32	47
France ^{1,2,3,4}	37	31	39	36	42	29	45	48
Germany ^{1,2,3,4}	27	22	39	33	45	29	45	53
Greece ^{1,2,3,4}	31	24	15	11	56	44	70	75
Hungary ^{1,2}	32	24	11	11	50	30	44	48
Ireland^{1,2,3,4}	44	31	28	23	54	36	37	46
Israel ¹	32	25	32	30	37	22	39	45
Italy ^{1,2,3,4}	24	16	22	17	35	25	55	58
Japan ¹	16	12	7	6	13	5	47	47
Korea ¹	33	24	17	8	37	16	40	41
Latvia ¹	35	30	32	34	50	38	31	45
Lithuania ²	37	29	31	29	50	30	40	51
Mexico ¹	44	40	47	43	68	57	30	35
Netherlands ^{1,2,3,4}	40	30	38	30	54	31	36	43
Norway ¹	42	28	71	57	45	23	34	37
Poland ^{1,2}	43	39	18	23	65	43	53	64
Portugal ^{1,2,3,4}	29	22	18	14	54	40	48	57
Romania ²	37	24	42	31	48	29	41	49
Russia ⁵	38	30	21	19	27	20	39	46
Slovakia ^{1,2,4}	44	41	20	16	61	38	40	56
Slovenia ^{1,2,4}	44	35	23	16	61	41	37	46
Spain ^{1,2,3,4}	34	28	16	12	56	44	48	55
Sweden ^{1,2,3}	44	38	69	63	47	26	33	45
Switzerland ¹	41	24	36	36	46	29	24	41
Turkey ¹	44	24	44	35	62	37	31	38
United Kingdom ^{1,2,3}	35	25	37	28	57	37	38	44
United States ¹	32	25	47	40	65	47	35	40
OECD average	37	29	36	31	51	33	40	48
EU-27 average	37	30	34	29	51	34	42	51
EU-15 average	35	28	37	31	49	33	43	51
EURO area average	36	29	32	27	51	35	44	52
BR(I)C average	43	37	37	33	43	34	35	41

1 Member of OECD

2 Member of European Union - EU-27

3 Member of European Union - EU-15

4 Member of EURO

5 Brazil Russia China (BR(I)C) country

6 Knows someone who has started a business in the past 2 years

7 Opportunities to start a business in the next six months (July 2012-December 2012)

APPENDIX 1: GLOBAL RESULTS

The GEM study includes a wider group of countries than those referenced in this report. GEM groups the participating countries into three levels: factor driven, efficiency driven and innovation driven. These are based on World Economic Forum's (WEF) Global Competitiveness Report, which identifies three phases of economic growth based on GDP per capita and the share of exports comprising primary goods.

The table below provides an overview of the results of the GEM 2012 research cycle which was carried out through surveying 198,000 individuals across the 69 economies involved, spanning diverse geographies and a range of development levels.

	Nascent entrepreneurship rate	New business ownership rate	Early stage entrepreneurial activity (TEA)	Owner managers of established business ownership rate
Factor-driven economies	%	%	%	%
Algeria	2	7	9	3
Angola	15	19	32	9
Botswana	17	12	28	6
Egypt	3	5	8	4
Ethiopia	6	9	15	10
Ghana	15	23	37	38
Iran	4	6	11	10
Malawi	18	20	36	11
Nigeria	22	14	35	16
Pakistan	8	3	12	4
Palestine	6	4	10	3
Uganda	10	28	36	31
Zambia	27	15	41	4
<i>average (unweighted)</i>	12	13	24	11
Efficiency-driven economies	%	%	%	%
Argentina	12	7	19	10
Barbados	10	7	17	12
Bosnia and Herzegovina	5	3	8	6
Brazil	4	11	15	15
Chile	15	8	23	8
China	5	7	13	12
Colombia	14	7	20	7
Costa Rica	10	5	15	3
Croatia	6	2	8	3
Ecuador	17	12	27	19
El Salvador	8	8	15	9
Estonia	9	5	14	7
Hungary	6	4	9	8
Latvia	9	5	13	8
Lithuania	3	4	7	8
Macedonia	4	3	7	7
Malaysia	3	4	7	7

continued over

	Nascent entrepreneurship rate	New business ownership rate	Early stage entrepreneurial activity (TEA)	Owner managers of established business ownership rate
Factor-driven economies	%	%	%	%
Mexico	8	4	12	5
Namibia	11	7	18	3
Panama	7	3	9	2
Peru	15	6	20	5
Poland	5	5	9	6
Romania	6	4	9	4
Russia	3	2	4	2
South Africa	4	3	7	2
Thailand	9	11	19	30
Trinidad & Tobago	9	7	15	7
Tunisia	2	2	5	4
Turkey	7	5	12	9
Uruguay	10	5	15	5
<i>average (unweighted)</i>	8	6	13	8
Panama	7	3	9	2
Peru	15	6	20	5
Poland	5	5	9	6
Romania	6	4	9	4
Russia	3	2	4	2
South Africa	4	3	7	2
Thailand	9	11	19	30
Trinidad & Tobago	9	7	15	7
Tunisia	2	2	5	4
Turkey	7	5	12	9
Uruguay	10	5	15	5
<i>average (unweighted)</i>	8	6	13	8
Innovation-driven economies	%	%	%	%
Austria	7	3	10	8
Belgium	3	2	5	5
Denmark	3	2	5	3
Finland	3	3	6	8
France	4	2	5	3
Germany	4	2	5	5
Greece	4	3	7	12
Ireland	4	2	6	8
Israel	3	3	7	4
Italy	2	2	4	3
Japan	2	2	4	6
Republic of Korea	3	4	7	10
Netherlands	4	6	10	9
Norway	4	3	7	6
Portugal	4	4	8	6
Singapore	8	4	12	3
Slovakia	7	4	10	6
Slovenia	3	3	5	6
Spain	3	2	6	9
Sweden	5	2	6	5
Switzerland	3	3	6	8
Taiwan	3	4	8	10
United Kingdom	5	4	9	6
United States	9	4	13	9
<i>average (unweighted)</i>	4	3	7	7

