



Scottish **ICT** Industry Strategy

A framework for the development of the Scottish ICT sector

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Foreword



The Scottish ICT sector is a success story, directly employing 48,000 people, primarily in high-value jobs, and contributing £3.4bn GVA to the Scottish economy in 2007¹. Software companies account for 40% of the GVA of Scotland's Creative Industries sector. Our contribution to the rest of the economy is extensive, as a further 60,000 ICT professionals underpin the innovation, competitive advantage and service delivery of many priority Scottish industries, including financial services, life sciences and energy, and are essential to the delivery of efficient government and public sector services².

We are part of a fast-growing industry that is host to unprecedented global demand, and which is accelerating the rate at which new products and services come to market. The global market continues to grow at around 5% per annum. In the digital world, geography is not an impediment; capital requirements are relatively modest; time to revenue for an innovation-based business can be fast. No other international market provides such opportunity for Scotland's economy to grow high-value export-based jobs.

In line with the Scottish Government's Economic Strategy, our aim is to foster an ICT ecosystem in Scotland that provides sustainable economic growth for many years to come. That growth will come from improved commercialisation of Scottish ICT innovation in international markets – we aim to significantly grow our share of the global market in the years to 2014.

The ICT innovation base in our universities is world-class, with Scottish universities managing around 20% of the UK's research funding in Informatics and Computing Sciences, and we have many examples of Scottish ICT company success on the international stage. Employment in the Scottish ICT sector is already projected to grow at 1.1% per annum in the coming years but we can, and we must, do more. Building on these existing strengths in Scotland, we will focus our collective resources on a wholesale improvement of our ability to commercialise our research capability, and exploit it successfully on the international stage.

My thanks go to all of those individuals who have given freely of their time in the development of this strategy. I hope that they, and many others, will contribute with equal enthusiasm and skill to the implementation of this strategy in the years ahead.

Gerry Docherty Chair of ICT Industry Advisory Group

1. Technology Counts: IT and Telecoms Insights 2010- Scotland, e-Skills UK, March 2010

2. Raising UK Productivity: Unlocking the Potential of ICT, Dept of Business, Enterprise and Regulatory Reform, June 2007.

3. EITO

Introduction

This strategy provides a framework for the development of the Scottish ICT sector. It has been created by the ICT Industry Advisory Group, representative of the constituent groups that make up the Software, Telecommunications and IT Services industries:

- > Indigenous Scottish ICT companies and indigenous employers of ICT staff
- > Foreign Direct Investment companies: global ICT corporations with a presence in Scotland or corporations employing significant ICT departments in Scotland
- > Academic institutions, including those Universities and Colleges with Informatics and Computer Science schools or departments

These elements are supported by our trade association, ScotlandIS, and by various public sector organisations. This Strategy has been created and adopted by the primary and supporting elements of our sector.

The strategy complements the work undertaken by the Enabling Technologies Advisory Group and the Digital Media Industry Advisory Group, and will contribute in part to the programme proposed by the ICT Forum for Scotland, aimed at closing Scotland's productivity gap with other nations.

This document should be read in conjunction with the ICT Strategy Implementation Plan, published in parallel.

Our Focus

Our strategy focuses on developing the capabilities and economic performance of the companies and institutions that comprise the ICT industry in Scotland. We aim to foster an ecosystem which will make the ICT industry more successful in a sustainable manner internationally, in line with the Scottish Government's Economic Strategy.

In our work, we have concentrated on the "softer" elements of ICT (i.e., software products and applications, and embedded systems), as we believe that these elements provide the greatest opportunity for the growth of globally-competitive indigenous Scottish ICT companies, building on the entrepreneurial and technical talent and intellectual assets produced by our world-class informatics academic base.

Within this domain, we consider that replicable, scalable products and niche solutions provide Scottish ICT companies with the greatest likelihood of achieving significant growth and success internationally. Our strategy concentrates on how we can foster such offerings, by both encouraging the entrepreneurship required to start new high-growth businesses, and cultivating the leadership capabilities required to grow established businesses into companies of significant scale.

We do not address Scotland's electronics or component design capabilities, as these are addressed by the Enabling Technologies Advisory Group.

We have chosen not to address ICT as an enabler of economic improvement in other key sectors in Scotland. This is obviously highly significant for Scotland's economy, but it is already covered by the work undertaken by the ICT Forum for Scotland.

Lastly, our strategy does not address the ICT communications infrastructure in Scotland. Investment in next-generation-access communications facilities in Scotland is a pre-requisite for maximising the success of Scottish ICT products and niche solutions internationally (particularly as Software-as-a-Service models become more prevalent), but this is a debate that is being taken forward elsewhere by various private and public sector bodies, and is not addressed further here.



Our Aim

The aim of this strategy is:

To radically improve the economic impact of the Scottish ICT sector which will be measured by:

- > An increased GVA contribution from the ICT sector
- > An increase in the size of the ICT workforce in Scotland
- > A significantly improved export performance for the Scottish ICT sector.

Our Vision

Our vision is that the Scottish ICT sector will have a reputation as one of the most active and fastest-growing locations for ambitious high-growth ICT companies globally. Success of our sector will be founded on building and retaining one of the best talent pools in the world, with a compelling combination of industrial and academic excellence, allied to visionary entrepreneurial ambition.

This reputation will be realised by the development and international deployment of highly-commercial, market-led products and niche solutions, which regularly outsell those from our competitors.

Our aspiration is that Scotland will be seen as a top-tier destination for technology-related risk capital and entrepreneurial talent, and as an exciting place to live and work in ICT, attracting the best students, as well as more than its fair share of foreign direct investment from ICT multinational organisations.



Case Study: Axios Systems

Founded in Edinburgh over 20 years ago, Axios Systems has become the world's largest independent provider of enterprise Service Desk and IT Service Management (ITSM) software. Its product, assist, helps customers to deliver on-premise and Software-as-a-Service (SaaS) ITSM operations, to optimise their infrastructure, reduce costs and maximise return on investment in IT.

A twice winner of the Scottish Software Company of the Year industry accolade, Axios' customer base spans across a wide range of vertical and geographical markets. Customers in the UK include B&Q, Standard Bank and Aviva. Further afield, Axios has an established presence in Europe, the Americas, Australia and the Middle East with customers such as Swisscom, University of Notre Dame, Corporate Express and Gulf News. The company has also been expanding in emerging markets such as Eastern Europe, with new customers including the Kopeyka supermarket chain and the anti-virus software developer, Kaspersky Lab.

Our Approach

Globally-successful ICT sectors are central to the economic strategies of many countries.³ The most successful countries and regions have established and/or fostered ecosystems in which ICT companies can thrive.

Any successful ecosystem has a number of characteristics – global markets to aim at, ambitious and successful companies, access to capital, commercialisation of world-class innovation, and highly-talented individuals. Our approach is to focus our strategy on the improvement of these key aspects of the ICT ecosystem in Scotland.

In achieving our target of sustainable growth, the greatest economic impact will come from companies owned and headquartered in Scotland, trading and operating internationally. The more that these companies can meet demand from their international customers through high-value jobs based in Scotland, the greater the impact of these companies on our economy. For that reason, our strategy focuses on how we should encourage and support companies that can take replicable product or niche solutions to the international marketplace.

3. 'IT investment, ICT Use and UK Firm Productivity' Rafaella Sadun, Shikeb Farooki, Giles Gale, Mark Lever, Office for National Statistics August 2005

Key Elements of the Strategy

Our strategy addresses five key areas for development in the Scottish ICT ecosystem:



Increasing the Rate of Internationalisation
(pg. 10)

Most Scottish ICT companies derive their revenues from customers within the UK. We must educate more companies to adopt a global mindset, and encourage further FDI companies to operate (with high-value jobs) on a global scale from Scotland.



Creating more Product Companies
(pg. 11)

Most Scottish ICT companies provide services and bespoke solutions to their customer base. Whilst these are valuable, they do not easily scale to global markets. We need to increase the number of companies that create replicable, scalable and distributable ICT product and niche solutions, by improving product management skills, and understanding of global market sales and distribution.



Improving Access to Capital
(pg. 12)

Some capital sources exist in Scotland, but we need to foster the sector's relationships with those local sources, and attract more international sources of capital.



Driving more Commercial Innovation
(pg. 13)

Our ability to innovate, through universities and our company base, is demonstrably successful, but we must increase the proportion of our ideas that progress to be commercialised product, and the proportion that is commercialised from within Scotland.




Attracting and Retaining Key Skills
(pg. 14)

The skill base is currently good, but we must increase the numbers of high-grade students from the Scottish school system entering ICT-related courses in Scotland, and attract more high-quality management capability from other industries.

Implementing the Strategy

Our strategy identifies a range of measurable activities within each of the key areas of strategic development, as follows:

| | | | | |
|---|---|---|--|--|
|  Increasing the Rate of Internationalisation |  Creating more Product Companies |  Improving Access to Capital |  Driving more Commercial Innovation |  Attracting and Retaining Key Skills |
| <ul style="list-style-type: none">> Focus inward investment> Provide Role Models> Innovate new business models> Provide a central market-specific intelligence service | <ul style="list-style-type: none">> Adopt product company best practice> Build a product sector community> Engage education and wider societal interests | <ul style="list-style-type: none">> Establish new independent local VC funds> Attract external international funds> Improve investor readiness> Create a central eco-system web portal | <ul style="list-style-type: none">> Build teams that mean business> Re-focus public sector funding schemes> Start thinking commercial much earlier> Adopt achievable aims | <ul style="list-style-type: none">> Improve perceptions of ICT as a career> Better match skills to industry needs> Improve attitudes to entrepreneurship> Attract and retain talent |

These activities are described in more detail later in this document.

Global Software and ICT Market

The global market for ICT products and services is fast-growing and dynamic, showing resilience in the face of recent economic downturns in other sectors. Worldwide demand for technological innovation from consumers and business is forecast to accelerate in years to come, thereby providing accessible international markets for Scottish companies, and creating benefits to the Scottish economy as a whole.

Case Study: Memex Technology Limited

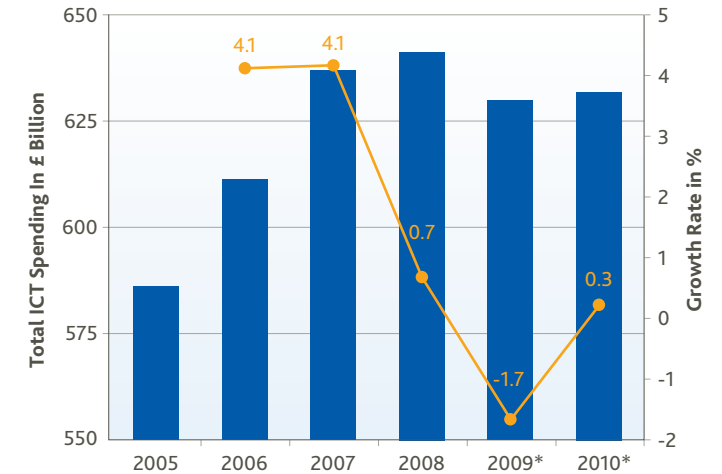
Memex Technology was founded in Scotland thirty years ago and is now the world leader in law enforcement intelligence management software. Memex's enterprise data management and search technologies help police forces, national security agencies and anti-fraud task forces across the globe to predict, prevent and respond to crime.

Key Facts:

(from OECD - *Information Technology Outlook 2008* unless otherwise stated)

- > In OECD countries, the ICT sector accounts for more than **8 per cent of business GDP** and employs more than **15 million people**, accounting for over 5% of business sector employment;
- > Total **worldwide ICT** spending reached **£2,076 billion** in 2007;
- > More than **half of global ICT spending** in 2007 was on **communications services and hardware** (£1,185 billion), 21% on computer services (£430 billion), 14% on computer hardware (£282 billion) and 9% on software (£179 billion);
- > **Software spending** has seen the **most rapid increase** across all industry sectors since 2003, having grown by an average of 10.9% per year;
- > The **North American market** was the **largest**, accounting for 34% of worldwide ICT spending. Western Europe accounted for 30% (£623 billion) in 2007 and the Asia-Pacific region for 26% (£531 billion);
- > The ICT industry in general is performing **considerably better** than the overall economy in the current economic downturn, with the European high-tech market "set for a **rapid rebound** following a growth intermission."

The European ICT Market 2005 - 2010



* Estimates. Adapted from EITO – *European ICT Market Overview September 2008* and EITO – *“European ICT market to resume growth in 2010”*.

Growth in Scotland's Software and ICT Industry

Scotland's software and ICT industry is well-established and successful, and provides an excellent base from which to develop its international aspirations. We have a maturing stock of vigorous, growing, Scottish-owned ICT companies, and a vibrant community of non-indigenous businesses which does much to cultivate the skill base in, and provide a global business perspective for, the Scottish ICT industry.

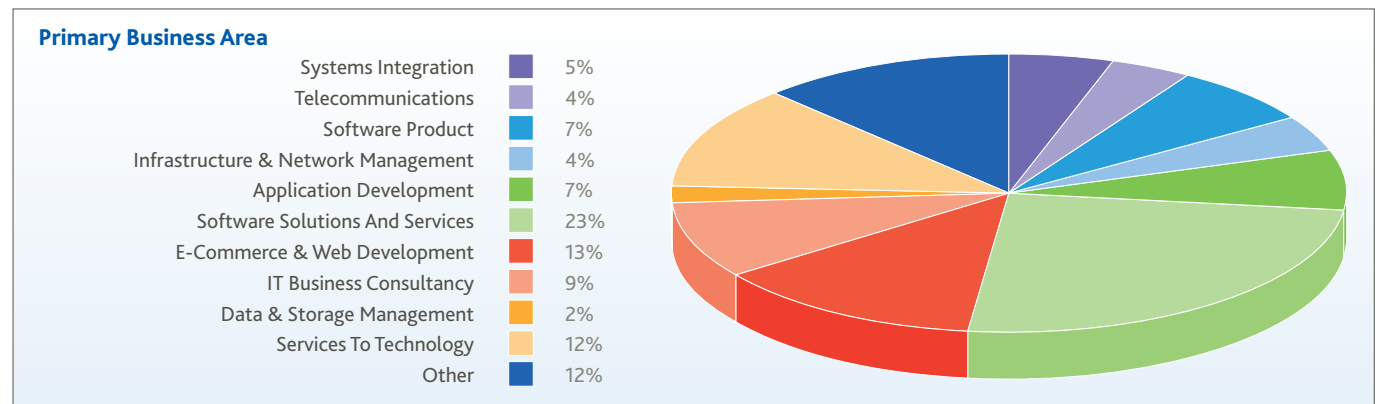
Key Facts:

- > The ICT workforce in Scotland numbers 108,000 - some 48,000 employed directly in the ICT sector, with 60,000 ICT specialists in other industries.
- > The number of ICT specialists employed in Scotland grew by 24% between 2001 and 2009. 69% are degree-qualified.
- > The industry contributes 5% of Scotland's total GVA. This contribution has grown 72% since 1999, and was £71,000 per employee in 2007.

(Source: e-skills UK. Technology Counts: IT & Telecoms Insights 2010)

Data taken from *Scottish Technology Industry Survey 2010*, ScotlandIS, indicates that the Scottish supply base comprises software, telecoms and IT businesses delivering products and services, at home and abroad from world class products for major corporations, to specialist services enabling smaller businesses to improve productivity and reach global markets, and in-house technology developments for corporate functions.

The leading categories by size are shown below. Note that many businesses operate in more than one area. For example, 74% of Application Development or Software Solutions and Services are also involved in developing software products.



Source: ScotlandIS

The ScotlandIS *Scottish Technology Industry Survey 2009* notes:

- > For most companies, 2008 was a year of continuing growth, with 72% reporting an increase in sales over 2007 levels;
- > Almost 80% of respondents have some business in the rest of the UK – the first “export” market for many. Europe is an increasingly important market (for over 40% of respondents), and over a third are doing business in America.

Although there are many micro firms in the Scottish ICT sector, 44% of the workforce are employed in workplaces comprising more than 200 employees, and a further 34% in workplaces with between 11 and 199 employees.⁴

4. Technology Counts: IT and Telecoms Insights 2010- Scotland, e-Skills UK, March 2010



Outputs – Increasing the Rate of Internationalisation



Increasing the number of Scottish ICT businesses with significant international operations will serve a multiplicity of goals.

We will improve our export earnings, and build more sustainable businesses as a result. Scotland's international image will be improved. We will attract more foreign capital, and potentially more incoming human talent to complement local skills.

1 Focus inward investment

- > To establish a hub of international businesses that stimulates the local Scottish business community, while increasing the strategic importance of existing Scottish operations of international businesses.
- > To identify targeted inward investors that will add significantly to Scotland's overall strategy for growth in the ICT market.

2 Provide Role Models

- > To provide a base of practical knowledge, from experienced individuals, that can inspire and guide business people based in Scotland to build international businesses.

3 Innovate new business models

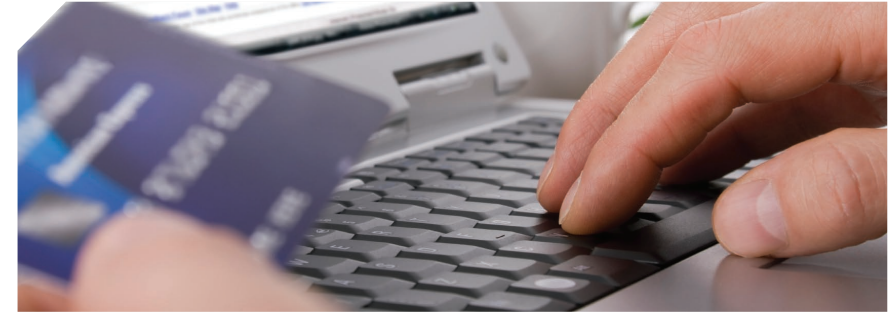
- > To increase the awareness of emerging business models available to execute the internationalisation of Scottish businesses, with sales, marketing and channel management to support the implementation of these models.
- > To introduce, through training and education, ICT industry best practice and convey an understanding of the suitability of each business model to the types of value propositions being brought to market.
- > To assure a means of being at, and remaining at, the cutting edge of thinking regarding business models at a global level.

4 Provide a central market-specific intelligence service

- > To improve the ease, efficiency and accuracy with which a Scottish SME assesses specific foreign market opportunities and needs.

Case Study: Amazon Scotland

Amazon Scotland's software development centre is based in South Queensferry. They deliver key features and technology for the world's biggest online retailer with a focus on customer experience and business performance. Driving from idea generation, business analysis and technical design through to front, middle and back-tier software development, they operate web-scale systems which deliver for the customer and the business.



Outputs – Creating More Product Companies

Creating more product and niche solutions companies in the Scottish ICT sector will allow us to capitalise on the demonstrable wealth of technology-based ideas and creativity generated by Scotland's universities, colleges and businesses.

Product and niche solutions companies can achieve significant scale and reach international markets far more easily than service companies, particularly with expanding routes to market available through Software-as-a-Service (SaaS), and cloud computing technologies. We must improve the sector's understanding of how to structure, build and grow such companies. We must also improve the understanding of market requirements and large-scale opportunities, and how to grow international sales and distribution channels.

Case Study: Bloxx

Livingston-based Bloxx provides Internet security solutions to business customers, protecting them and their staff from inappropriate or unproductive web content. One of Scotland's most successful entrepreneurial software companies, Bloxx has just enjoyed its third year in the Deloitte Fast 500 list of Britain's strongest performing small businesses, and won the 2in10 Outstanding Performance in Business Growth of the Year at the 2009 ScotSoft Awards Dinner.

1 Adopt product company best practice

- > To identify existing companies at all stages of development, with strong sense of the 'product' or 'niche solution' offering; especially those with technologies that relate to areas where Scotland has significant expertise, or in expanding markets which have a high potential for productisation.
- > To support companies to grow in a process which recognises productisation needs from the outset and aims at producing global companies.
- > To support companies to apply product and niche solution marketing disciplines.

2 Build a product sector community

- > To create a new sector forum designed by product and niche solution experts for product and niche solution experts.
- > To create a Scottish Product Technology Forum to represent this sector.
- > To build activities to nurture the sector, create a skills resource and mentoring programme, support learning journeys and benchmarking.

3 Engage education and wider societal interests

- > To create interest and acceptance of ICT product or niche solution innovation as a valuable economic and social activity within Scotland.
- > To influence educationalists at university and school level to provide greater emphasis for product and niche solution creation and development.
- > To generate activities/events/web presence which let people engage with the product creation and innovation process and capture the imagination of Scotland with the idea of ICT product innovation.
- > Establish a national ICT product development lab to provide a melting pot for people with ideas, those with the technical skills to implement them, and entrepreneurs.



Outputs – Improving Access to Capital



We aim to attract capital and open access to investors by creating an environment in which opportunities flourish. Investors cannot be cajoled into investing in Scotland. They must be inspired to do so by good returns.

Those returns come from great ideas and a workable business model built around the technology. We must connect with supporting expertise, including legal, corporate finance, technical, HR, market research and management development. Improving access to capital in Scotland over the next five years will require, in essence, the stimulation of an entire, national ecosystem of private and public sector support. This resonates with the Government's strategic goal of creating a supportive business environment.

1 Establish new independent local VC funds

- > To provide education and support for smart, early stage venture capital in Scotland that understands how technology companies work and can bring experience and contacts to bear.

2 Attract external international funds

- > To market the emerging Scottish ICT ecosystem to international VCs, raising external awareness and increasing their interest in Scotland.

3 Improve investor readiness

- > To help our early stage technology companies to become more investor-aware, developing commercial sophistication and an understanding of what investors expect to see, so that they can compete successfully for these funds.
- > To stimulate market awareness among SMEs, particularly international market awareness, through direct education and by facilitating direct SME exposure to potential customers.
- > To create compelling and investor-ready management teams.

4 Create a central eco-system web portal

- > To create a central, self-sustaining, web-based resource by which all current and future participants in the emerging Scottish ICT ecosystem can connect and share information.
- > To engage VCs, angel networks, legal advisers and other support industries with the portal.
- > To provide a 'deal' platform through which SMEs seek advice and contacts.

Case Study: AxSys Technology

Founded in Glasgow in 1997, AxSys Technology Limited now has more than 180 employees across the world and its solutions are in use in the UK, Ireland, US, Canada and India. The core solution, Excelicare, is a health information exchange, disease management and clinical care modelling platform that is clinician friendly and supports information flow across the multi disciplinary continuum of care, which supports clinicians in providing optimum care for patients.



Driving more Commercial Innovation



Our leadership position in innovative research has not translated into leadership in company growth and job creation for Scotland.

The rapid changes endemic in the global ICT industry demand that we focus our efforts on building more commercially capable management teams, equipped to exploit new routes to market, and able to adopt new business models.

1 Build teams that mean business

- > To build a more concentrated community of entrepreneurs and technologists so that strong teams are emerging naturally.
- > To support start-up team assessments, identifying areas of weakness and helping to source additional talent.

2 Re-focus public sector funding schemes

- > To allocate public sector funding so that a greater proportion of support goes directly to the entrepreneurs taking product and niche solutions to the international market, on a co-investment basis.
- > To streamline the number of different programs, focusing on those which have been proven effective.

3 Start thinking commercial much earlier

- > To develop commercial considerations, market-oriented perspectives, and channels to market much earlier in the innovation cycle.
- > To support academics to participate directly in spin-offs, without compromising their academic careers
- > To teach best practice in designing sales channels to very early-stage companies.

4 Adopt achievable aims

- > To direct entrepreneurs to niche areas of opportunity and introduce more realistic targets.

Case Study: University of Edinburgh's School of Informatics

The University of Edinburgh's School of Informatics provides a fertile environment for a wide range of studies focussed on understanding computation in both artificial and natural systems. The school has a worldwide reputation, attracting students from 62 countries, and came top in the last two Research Assessment Exercises, confirming its position as the largest and best Informatics research centre in the UK. Edinburgh provides a stream of innovative technologies and engineering talent for the Scottish ICT industry and has set up Informatics Ventures to engage high-tech entrepreneurs and investors who are passionate about creating and growing more software and web companies in Scotland.

"We are stimulating a grassroots change in our culture of innovation; encouraging entrepreneurialism and integrating the new science of informatics with the traditional sciences." Prof Dave Robertson, Head of School of Informatics, University of Edinburgh



Outputs – Attracting and Retaining Key Skills

There is a wealth of technical talent in the Scottish ICT market, and yet the industry faces a long-term skills supply shortage that could hamper its ability to reach its full potential, due to the decline in domestic uptake of academic ICT courses.

In addition, the sector requires to attract more commercial and entrepreneurial talent from other industries, to complement its technical expertise. Reflecting one of the major axes of the Government Economic Strategy, attracting and retaining key skills is essential to delivering on this strategy.

We will focus on four key areas, to complement and support the work already being carried out by the BCS, Scottish Funding Council, e-Skills UK in Scotland and Skills Development Scotland.

1 Improve perceptions of ICT as a career

- > To reverse the decline in interest in ICT as a career for school leavers and university students in Scotland.
- > To encourage Scottish professionals to be early adopters of the BCS Chartered IT Professional scheme.

2 Better match skills to industry needs

- > To better understand and publicise industry needs, so as to ensure a sustained supply of the right skills to create, attract and retain talent and investment, both local and overseas. This will include the commercial skills needed to run technology companies, along with sales, channel development and product marketing skills.

3 Improve attitudes to entrepreneurship

- > To help more people in Scotland to understand the benefits of starting their own company in the Scottish ICT sector, because innovation will come from new ideas and products, and from new companies.

4 Attract and retain talent

- > To attract and retain suitably qualified experienced individuals in academia and business to grow and develop the ICT industry in Scotland.
- > To identify mechanisms that will lead to a redeployment of managerial skills from other industries into early growth companies in our sector.
- > To retain the home-grown talent which is required for growth, especially graduates: a first-class source of ICT talent is essential for the workforce of the future.

Case Study: JP Morgan

Since 1999, JP Morgan, the leading Investment Bank, has based its European Technology Centre (ETC) in Glasgow's International Financial Services District. Paul Murphy, Executive Director for JP Morgan, states that aside from the prerequisite robust voice and data infrastructure - which the ETC requires and the IFSD delivers - the attractive, modern city centre location is an important factor in attracting JP Morgan's highly skilled employees. *"Glasgow is a vibrant, clean and well managed city and the ETC is firmly established as a key Technology Hub for JP Morgan."*

Implementation Plan

This plan is published in parallel with (and should be read alongside) the ICT Industry Implementation Plan, which outlines the steps to be taken to deliver on the strategy, identifying the private and public sector bodies responsible for collaborating and delivering on the strategy ideas.

The Implementation Plan is available online. You can click through to it from: <http://www.ictindustrystrategy.co.uk>

Related Strategies

- > **Enabling Technologies Strategy for Scotland – Towards a Brighter Future**
Technology Advisory Group, November 2009
http://www.scottish-enterprise.com/sedotcom_home/your-sector/enabling-technologies/et-strategy.htm
- > **Digital Inspiration**
Scottish Enterprise Digital Media Industry Advisory Group, December 2009
<http://www.digitalinspiration.org.uk/content/default.asp>
- > **The Government Economic Strategy**
Scottish Government, November 2007
<http://www.scotland.gov.uk/Publications/2007/11/12115041/0>
- > **ICT Forum for Scotland Business Plan 2009/10**
<http://www.ictforumforscotland.org/Pages/KeyDocumentsLinks.aspx>

Contacts

Key Organisations

- > **ScotlandIS** is the trade association representing the ICT sector.
<http://www.scotlandis.com/>
- > **Scottish Development International** promotes inward investment and helps Scottish companies to compete in overseas markets.
<http://www.sdi.co.uk/>
- > **Scottish Enterprise** is Scotland's main economic, enterprise, innovation and investment agency serving southern, central and eastern Scotland.
<http://www.scottish-enterprise.com/>
- > **Highlands and Islands Enterprise (HIE)** is the Scottish Government's economic and community development agency for a diverse region which covers more than half of Scotland.
<http://www.hie.co.uk/>
- > **The Scottish Intellectual Asset Centre** provides specialist assistance to help with the protection of intellectual property and assets.
<http://www.ia-centre.org.uk/>
- > **e-skills UK** is the Sector Skills Council for Business and Information Technology
<http://www.e-skills.com/Around-the-UK/Scotland/1092>
- > The **Scottish Further and Higher Education Funding Council (SFC)** is the national, strategic body that is responsible for funding teaching and learning provision, research and other activities in Scotland.
<http://www.sfc.ac.uk/>
- > **Skills Development Scotland** is tasked with delivering first class careers, skills, training and funding advice to the people of Scotland.
<http://www.skillsdevelopmentscotland.co.uk/>
- > The **BCS** is the UK's Chartered body for ICT (Information and Computing Technology) professionals.
<http://www.scotland.bcs.org/>
- > **SICSA** Scottish Informatics and Computer Science Alliance
<http://www.sicsa.ac.uk/>

Support Initiatives

Scotland has evolved a sophisticated portfolio of support initiatives, which can be used to support the indigenous ICT industry and encourage inward investment:

- > **Regional Selective Assistance (RSA)** supports job creation in the areas of Scotland designated for regional state aid. Now more applicable to software development operations.
<http://www.scottishbusinessgrants.gov.uk/rsa/208.html>
- > **SMART:SCOTLAND** provides financial assistance to SMEs to support the technical development and commercialisation phases of projects.
<http://www.scottishbusinessgrants.gov.uk/rsa/999.html>
- > The **R&D Grant** supports businesses developing new products, processes and services to improve company competitiveness.
<http://www.scottishbusinessgrants.gov.uk/rsa/1000.html>
- > The **Proof of Concept Programme** supports the pre-commercialisation of leading-edge technologies emerging from Scotland's universities, research institutes and NHS Boards.
<http://www.scottish-enterprise.com/poc>
- > The **Scottish Co-Investment Fund** provides risk capital to encourage and complement private investment in Scottish businesses.
<http://www.scottish-enterprise.com/invest-scottish-business.htm>

Contributors

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| Jay Creutz | Milestone Strategies |
| Gerry Docherty | Conscia |
| David Farquhar | 2 in10 |
| Robert Gemmell | Sun Microsystems |
| John Innes | Amor Group |
| Angela Mathis | ThinkTank Mathematics |
| John McGuire | Pulsion Technologies |
| Richard Moir | Cisco Systems |
| Paul Murphy | JP Morgan |
| Tom Ogilvie | Innovation Centres Scotland |
| Polly Purvis | ScotlandIS |
| Ian Ritchie | Coppertop |
| Matt Round | Amazon |
| Martin Southern | BT |
| Tasos Symeonides | Axios Systems |

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