Acknowledgements

ScotlandIS and 9-20 recruitment would like to thank everyone who took part in this year’s Scottish Technology Industry Survey for their invaluable input, providing feedback on performance in 2012, and their forecasts for 2013.

Introduction

The Scottish Technology Industry Survey provides a barometer of the health of the digital technologies industry. We’ve decided again this year to analyse the survey results with separate sections focussed around smaller, mid-sized and larger companies and use infographics to convey some of the results. A detailed analysis of the employment and skills outlook and an overview of the industry is also included.

The digital technologies industry includes a wide range of software, web, telecommunications, and IT businesses, and is a major contributor to growth in the Scottish economy, contributing over £4bn to GVA. Digital technologies underpin innovation and productivity improvements in all aspects of business, and more than 100,000 people work in digital technology roles.

Over one thousand businesses are involved in the Scottish industry, delivering products and services to end markets as diverse as health, energy, aviation, financial services and the public sector.

This year’s survey was carried out by ScotlandIS in January 2013. The survey analysis was undertaken by ScotlandIS, with expert commentary from 9-20 recruitment on skills and recruitment. At ScotlandIS, we’re very grateful to 9-20 recruitment for their continued support for the survey.

We very much hope that this survey report provides you with valuable insights into the Scottish industry. Please do contact the ScotlandIS team should you have any questions about the survey or would like further information.

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Industry Growth and Optimism
- 71% of those surveyed are optimistic or very optimistic about the outlook for the year ahead.
- 67% of respondents reported a rise in turnover during 2012.
- The vast majority of companies (80%) expect sales to grow in 2013 and only 8% expect sales to decline.
- Mid-sized businesses (65-500 employees) are the most optimistic about sales growth, with four out of five expecting to increase sales by more than 10% in 2013.
- Very large companies tend to be more cautious, with half expecting little or only limited growth.

Employment Growth
- 70% of companies plan to increase headcount this year.
- Demand for graduates continues to be strong, with 59% of respondents indicating they will be looking for graduates, but more experienced developers are the most in demand. (60% of respondents plan to recruit operatives).

International Opportunities
Respondents are increasingly moving into export markets. Over the last three years we have seen a steady increase in the percentage of companies advising they are selling internationally:

<table>
<thead>
<tr>
<th>Year</th>
<th>Already Exporting</th>
<th>Planning to Export</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011</td>
<td>39%</td>
<td>20%</td>
</tr>
<tr>
<td>2012</td>
<td>44%</td>
<td>14%</td>
</tr>
<tr>
<td>2013</td>
<td>53%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Europe (66%) is seen as the most attractive prospective overseas market followed by the USA and Canada, (59%) and the Middle East (35%). 90% of respondents would work with other Scottish companies to break into international markets.

The Scottish Technology Industry Survey provides an annual health check for the digital technologies industry. This year’s report provides insights on company performance in 2012 and predictions for 2013.

International Ambitions
There appears to be an increasing interest in international markets amongst our respondents. With 53% of our sample reporting they are already exporting and a further 13% not yet exporting but planning to, two thirds of companies see international markets as a key element of their business. However 34% report they are unlikely to look beyond domestic markets.

FORGET SELLING, ITS YESTERYEAR – FOCUS ON HELPING THE PROSPECT BUY!
Donald McIver // Gael

Note: A detailed analysis of the demand for skills and other employment factors is covered in the Employment and Skills commentary on Page 22.
Sales Levels Compared to 2011
2012 was another good year for the industry with 67% of respondents reporting growth in sales, up from 60% in 2011, and a further 15% maintaining sales at 2011 levels.

Expected Changes in Sales
Companies in the industry are ambitious for 2013 with almost 80% expecting to increase sales (up from 75% in 2012). The number of companies expecting sales to fall in the coming year has dropped from 16% in 2012, to 8% in 2013.

Profit Margins
Profit margins continued to show a mixed picture. Whilst 40% of respondents report increasing margins, 35% maintained their margins at 2011 levels, and 25% reported having to ease margins.

Change in Employee Numbers
70% of respondents expect to take on more staff during the year; an increase of 10% on last year. With most other companies expecting to maintain current staffing levels this underlines continuing demand for skills. Commercial and business skills (72%) and software and web development (67%) are the key skill sets in demand.
The Scottish Digital Technologies Industry incorporates a diverse range of sectors including software, telecommunications, IT services and digital agencies. There is an increasing focus on building software products, up from 12.4% in 2012 to 16% in 2013; this is particularly the case amongst smaller companies.

Main Areas of Business

- Software Solutions and Services: 19%
- Software Product: 16%
- e-Commerce and Web Development: 14%
- IT Business Consultancy: 12%
- Services to Technology: 8%
- Infrastructure & Network Management: 7%
- Systems Integration: 7%
- Application Development: 6%
- Telecommunications: 5%
- Telecommunications: 2%
- All Other Responses: 8%

Headquarters Locations

The Scottish Digital Technologies industry incorporates a diverse range of sectors including software, telecommunications, IT services, and digital agencies.

An increasing number of businesses consider themselves to be software product companies, up from 7% (2011) to 12.4% (2012) to 16% (2013). This is particularly true amongst smaller companies.

Companies in the industry employ over 70,000 people, and are spread across the geography of Scotland, with particular concentrations in the Edinburgh, Glasgow and Aberdeen areas.
Reflections on 2012

2012 was generally a good year for most smaller companies. Over 63% reported increased sales, whilst 17% maintained sales at 2011 levels. Most companies were able to maintain or increase profit margins, although 27% saw margins squeezed.

Financial Environment

Whilst 42% of smaller companies do not anticipate the need for additional finance during the year, respondents are likely to seek additional finance from private investors (eg business angels) [27%], bank finance [15%] or grant funding [13%]. Significantly whilst one in eight businesses report cash flow to be substantially more difficult than a year ago, overall, cash flow pressures seemed to have eased with two thirds reporting cash flow easier or little changed.

People and Skills

Two thirds of smaller companies expect to take on additional staff during the course of 2013, with most others expecting to maintain headcount at current levels.

Strong software and web skills top the technical skills in demand, closely followed by mobile development skills, Java and content creation. Sales, digital marketing and project management are the top three commercial skill sets in demand.

International Sales

47% of smaller companies are already exporting and a further 16% are planning to do so. 37% of smaller companies advised that they don’t currently export and are unlikely to do so.

Looking Forward to 2013

Smaller companies are confident of being able to grow their business during 2013 with four fifths of smaller companies forecasting increased sales. 60% expect to increase sales by more than 10% with a further 20% expecting single figure growth. 13% anticipate they will maintain sales at current levels, with 7% expecting a slight dip in sales.
Smaller Companies: Financial

Cash Flow Compared to Last Year
- Substantially More Difficult: 13%
- Somewhat More Difficult: 15%
- Little Change: 52%
- Substantially Easier: 20%

Source of Additional Finance
- Not Applicable: 43%
- Bank Funding (Overdraft / Medium Term Loan): 15%
- Invoice Factoring: 2%
- Private Investment (Angel / Founder Capital): 25%
- Grant Funding: 14%
- Venture Capital: 2%
- Market Listing: 0%
- Other: 0%

Funding Model
- Founders Capital and Retained Profits: 82%
- Mix of Business Angel / Bank / Loan Funding: 12%
- Mainly Venture Capital: 1%
- Unlisted PLC: 1%
- Other: 4%

Smaller Companies: Sales

Actuals Compared to Budget
- Increased Significantly: 7%
- Increased Slightly: 28%
- Stayed Much the Same: 38%
- Decreased Slightly: 24%
- Decreased Significantly: 3%

2012 Sales Compared to 2011 Sales
- No Change: 17%
- 0–10% Increase: 18%
- 10–20% Increase: 20%
- 20–50% Increase: 18%
- 50% Increase: 7%
- 0–10% Decrease: 8%
- 10–20% Decrease: 6%
- 20–50% Decrease: 4%
- 50% Decrease: 2%

FOCUS ON INNOVATION AND EXCELLENCE IN SERVICE DELIVERY.

Susan Chadwick // Edge Testing
Reflections on 2012

Mid-sized companies had an excellent 2012. Four out of five increased sales, with 35% increasing sales by 10–20% and a further 31% by between 20 and 50%. Most maintained or slightly improved profit margins but 15% reported slightly reduced margins.

Financial Environment

Most mid-sized companies appear comfortable that they have the working capital to fuel their planned growth with 58% reporting they won’t need access to additional finance during 2013. 27% would approach their banks for additional finance whilst 12% would raise further private investment.

Overall, mid-sized companies report little change in cash flow with if anything a slight easing from last year.

People and Skills

Demand for skills is strong amongst mid-sized companies with a substantial 89% planning to take on additional staff during the course of the year. 23% expect to increase headcount by between 1 and 5 people, a further 54% are looking for between 6 and 20 new staff, and 12% are seeking more than 20 additional staff during the course of 2013.

Mid-size companies identified software development followed by mobile and open source, as the key technical skills they are seeking. On the commercial side pre-sales, and product marketing were highlighted as the top skills in demand.

International Sales

58% of mid-sized companies are already exporting and a further 11% are planning to do so. 31% of smaller companies advised that they don’t currently export and are unlikely to do so.

Looking Forward to 2013

Nearly all mid-sized companies are planning growth during 2013 – just over 80% expect to increase sales by more than 10% with a further 16% expecting single figure growth or sales levels in line with last year.
Mid-sized Companies: Financial

**Funding Models**
- Founders Capital and Retained Profits: 63%
- Mix of Business Angel / Bank / Loan Funding: 10%
- Mainly Venture Capital: 12%
- Unlisted PLC: 0%
- Quoted Company: 0%
- Alternative Investment Market (AIM): 8%
- Other: 7%

**Cash Flow Compared to Last Year**
- Substantially More Difficult: 8%
- Somewhat More Difficult: 15%
- Little Change: 62%
- Substantially Easier: 15%

**Source of Additional Finance**
- Not Applicable: 58%
- Bank Funding (Overdraft / Medium Term Loan): 27%
- Invoice Factoring: 3%
- Private Investment (Angel / Founder Capital): 12%
- Grant Funding: 0%
- Venture Capital: 0%
- Market Listing: 0%
- Other: 0%

BE PREPARED TO NEGOTIATE ON EVERY ASPECT OF THE BUSINESS.

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Mid-sized Companies: Sales

**2012 Sales Compared to 2011 Sales**
- No Change: 4%
- 0-10% Increase: 35%
- 10-20% Increase: 31%
- 20-50% Increase: 8%
- 50%+ Increase: 3%
- 0-10% Decrease: 12%
- 10-20% Decrease: 3%
- 20-50% Decrease: 7%

**Actuals Compared to Budget**
- Increased Significantly: 16%
- Increased Slightly: 30%
- Stayed Much the Same: 23%
- Decreased Slightly: 31%

Joan Hill // Interactive Intelligence
Reflections on 2012
Larger companies generally report good results for 2012. Two thirds increased sales with 39% increasing sales by more than 10% and a further 26% achieving single figure growth. 18% of larger companies maintained sales at 2011 levels, but 17% reported a slight reduction in sales, from the previous year. Most large companies reported profit margins as staying much the same as in 2011, although 27% indicated margins had come under slight or substantial pressure.

International Sales
84% of larger companies are already exporting and a further 4% are planning to do so. However 12% of respondents reported that they don’t currently export and are unlikely to do so.

Financial Environment
Three quarters of larger companies do not anticipate needing additional finance in 2013. Those that do would use the capital markets to raise further funds. Generally larger companies report cash flow as being steady or slightly more difficult.

People and Skills
Demand for skills amongst larger companies provides a complex picture. Whilst 32% report they will be increasing headcount by more than 10% additional staff, 26% expect to reduce staffing slightly, and a further 21% plan to maintain staffing at current levels. One in five larger companies indicate they will slightly increase their staff numbers, taking on between one and 20 new staff. Larger companies highlighted .net, SharePoint and enterprise level development skills, as being key skill sets they need. On the commercial side leadership skills came through strongly.

Looking Forward to 2013
Over half (63%) the larger companies are planning growth during 2013. 31% expect to increase sales by more than 10% with a further 32% expecting single figure growth. 19% expect sales to stay in or sales levels in line with last year, but providing a note of caution 18% expect sales to reduce.
Larger Companies: Financial

Funding Models
- Founders Capital and Retained Profits: 8%
- Mix of Business Angel / Bank / Loan Funding: 0%
- Mainly Venture Capital: 20%
- Unlisted PLC: 0%
- Quoted Company: 40%
- Alternative Investment Market (AIM): 7%
- Other: 25%

Cash Flow Compared to Last Year
- Substantially More Difficult: 7%
- Somewhat More Difficult: 43%
- Little Change: 45%
- Substantially Easier: 5%

Source of Additional Finance
- Not Applicable: 77%
- Bank Funding (Overdraft / Medium Term Loan): 0%
- Invoice Factoring: 0%
- Private Investment (Angel / Founder Capital): 4%
- Grant Funding: 8%
- Venture Capital: 11%
- Market Listing: 0%
- Other: 0%

Larger Companies: Sales

2012 Sales Compared to 2011 Sales
- Increased Significantly: 16%
- Increased Slightly: 26%
- Stayed Much the Same: 22%
- Decreased Slightly: 17%
- No Change: 0%

Actuals Compared to Budget
- 0–10% Increase: 45%
- 10–20% Increase: 7%
- 20–50% Increase: 13%
- 50+ Increase: 6%
- 0–10% Decrease: 27%
- 10–20% Decrease: 9%
- 20–50% Decrease: 17%
- 50+ Decrease: 46%

CONTROL RISK. STAY FOCUSED. KEEP ON TOP OF CASH.

John Innes // Amor Group
**Most sought after skills**

Those with software and web development skills are the most sought after at 58% (67% last year), just ahead of commercial and business skills at 53% (72% last year) and project management skills at 49%.

**Most in demand category of staff**

Operatives topped the category of staff most in demand this year at 60% up from 47% last year. Graduates are just slightly behind this at 58% this year (having been top at 52% last year).

**Demand to increase headcount**

The number of respondents planning to increase headcount this year is 70% (63.5% last year).

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**Job vacancies up but skills crisis threatens growth of Scotland’s booming digital technologies**

Talented candidates looking for new opportunities should look to the SME and mid-sized companies as this is where the action lies. It appears that the corporate markets are still feeling the pinch and therefore plan for a year of consolidation or even a slight decline in employee numbers. However, the mid-sized markets are pushing forward with demand for mobile and C#/.Java development, as well as product and content marketing skill sets.

Drawing on observations from this year’s respondents, the companies that invested in their product offerings and export channels over the last couple of years are the companies pushing for growth. Therefore those investing in new talent now, will push their companies forward while others plateau (or even decline). The level of roles currently in demand is at the operative level, around £23–35k.

**ScotlandIS**

- **ScotlandIS** represents the digital technology industries, including software, telecommunications, IT and digital media businesses.
- **ScotlandIS** members vary from internationally recognised exporters to very small startups and cover a wide range of skills and markets.
- **Scotland’s software, IT and communications businesses** employ more than 70,000 people and currently generate approximately £4 billion: around 5% of Scotland’s GDP.
- **ScotlandIS** promotes the industry and lobbies government and policy makers on issues of importance to the sector.
- **ScotlandIS** stimulates networking and partnerships between member organisations, providing networking, training and best-practice exchange meetings, seminars and workshops.
- **ScotlandIS** provides practical support to help members trade, for example, by providing access to industry experts and disseminating market intelligence.
- **ScotlandIS** works in partnership with e-skills UK (the sector skills council for ICT), government and academia to create and retain the skills and infrastructure required to support the knowledge economy.

TODAY’S SURVEY RESULTS AND INDUSTRY FINDINGS REINFORCE THE MESSAGE THAT COMES BACK AGAIN AND AGAIN FROM OUR MEMBERS. THEY ARE GOING FOR GROWTH AND THERE IS SIGNIFICANT PENT UP DEMAND FOR SKILLED PEOPLE IN THE DIGITAL TECHNOLOGY INDUSTRIES.

THERE’S AN INCREASING BUZZ ABOUT THE INDUSTRY AS BUSINESS AND GOVERNMENT TRANSFORM THEIR OPERATIONS THROUGH THE SMART APPLICATION OF TECHNOLOGY. WE’RE SEEING INCREASING CONFIDENCE ACROSS THE INDUSTRY, FROM START-UPS TO THE GROWING NUMBER OF SCOTTISH DIGITAL TECHNOLOGY BUSINESSES CARVING OUT EXPORT MARKETS AROUND THE WORLD.

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**The ScotlandIS Annual Survey confirms what Amor has said in the past, namely, the software industry in Scotland is crying out for suitably qualified graduates, growth in our industry is being restricted, and Scotland is losing out to other countries. It is unacceptable in the midst of a world-wide digital revolution that Scotland does not have enough talented graduates to exploit fantastic global opportunities. In order to be successful, Scotland needs more qualified graduates. We need to encourage and provide the opportunities for the next generation of students to be part of such a successful industry.**

Alastair O’Brien // Public Sector Director of Amor Group and Deputy Chair of ScotlandIS

**Startups like ours are having a challenging time finding qualified software developers. Startups need to focus on a lean development environment so we can prototype quickly and get to market fast. The skills needed in the lean development environment such as Ruby coding are in particularly short supply.**

Steven Drost // CEO of Stipso
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