Introduction

The Scottish Technology Industry Survey provides a barometer of the health of the digital technologies industry. This year we have taken a different approach to analysing the survey results with specific sections providing a smaller, mid-sized and larger companies viewpoint. The report also includes a general overview of the industry and a detailed analysis of the employment and skills outlook.

The digital technologies industry, comprising software, telecoms, and IT services, are an essential element of the economy, catalysing productivity improvements, innovation and service delivery across Scotland. More than 100,000 people work in digital technologies; of these, over 70,000 are directly employed in the industry, with the balance providing in-house expert technology skills within other sectors.

The Scottish industry is made up of more than one thousand digital technology businesses delivering products and services, 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.

ScotlandIS and 9-20recruitment would like to thank everyone who took part in this year’s Scottish Technology Industry Survey for their invaluable input, providing feedback on the operating environment in 2011, and their forecasts for 2012.
**International Ambitions**

There appears to be a clear divide amongst respondents as to their willingness to consider international markets. With 44% of our sample already exporting and a further 14% not yet exporting but planning to, over half see international markets as important to their business. However 42% advised they are unlikely to sell outside the UK.

We asked respondents whether they consider the Government’s ambition to increase Scottish Exports by 50% as a realistic target. Whilst 43% thought the target was definitely or probably realistic 51% thought it unlikely the industry could reach that target, and a further 6% feel it is definitely unrealistic.

Interestingly 90% of exporting companies advised they would collaborate with another Scottish company to take their business forward internationally.

**Confidence in Scottish Skills**

This year’s survey suggests a clear division in the level of confidence in the technology skills available within Scotland. Both Smaller and Enterprise level companies indicated that they are confident in the skills available, whereas the mid-sized companies surveyed appear to be unsure of whether they will be able to source the skills they need from the Scottish talent pool.

These mid-sized companies look likely to attempt to source talent from Europe or even further afield; this may be influenced by their need for international sales and marketing skills where they are considering taking their products into international markets.

Although Enterprise level companies have indicated that they are confident in the skills available in the UK, due to their worldwide reach it’s obvious that they will also look to obtain skills from other countries.

**Maintaining Momentum Against a Slow Economic Climate**

However, respondents indicated real concerns about the challenging wider business environment, and highlighted specific issues that may hamper sales growth, particularly uncertainty within the UK regarding public sector spending plans, the continued instability in the Eurozone, and the impact that the presidential elections will have on US government budgets.

A number also highlighted increasing pressure on cash flow as customers take longer credit terms.

**Staff Morale and Retention**

There appears to be clear recognition that current economic factors are impacting both the business outlook and staff morale to some degree. However, there is uncertainty about what level of impact this may have, and most respondents expect to be able to retain staff.

**Industry Optimism in a Challenging Environment**

Companies across the industry continue to report good results and are generally optimistic about growth for 2012, with most expecting to be able to increase sales. Respondents highlighted the increasing adoption of mobile technologies, the growth of cloud services, opportunities for partnerships and acquisitions, and the continuing move by retailers to the online channel, as trends that will impact the business environment.

**Employment Growth**

The vast majority of respondents expect to recruit more staff this year – however a number mentioned the challenges they face finding the right calibre of staff in an increasingly tight labour market, and some raised concerns about the recent changes in immigration policy making it more difficult to recruit people from overseas. A detailed analysis of the demand for skills and other employment factors is covered in the Employment and Skills Commentary.
### Headlines

**Sales Levels Compared to 2010**

2011 was a good year overall for the industry - 60% of respondents reported growth in sales, and a further 23% advised they had maintained sales levels they achieved in 2010.

<table>
<thead>
<tr>
<th>Change</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Stay the Same</td>
<td>6.0%</td>
</tr>
<tr>
<td>0–10% Increase</td>
<td>14.6%</td>
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<tr>
<td>10–20% Increase</td>
<td>11.2%</td>
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<tr>
<td>20–50% Increase</td>
<td>20.5%</td>
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<tr>
<td>50%+ Increase</td>
<td>22.5%</td>
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<tr>
<td>0–10% Decrease</td>
<td>2.6%</td>
</tr>
<tr>
<td>10–20% Decrease</td>
<td>2.0%</td>
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<tr>
<td>20–50% Decrease</td>
<td>7.9%</td>
</tr>
<tr>
<td>50%+ Decrease</td>
<td>6.0%</td>
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**Profit Margins**

Whilst continued competitive pressure drove margins down for one in five respondents, in general, companies maintained or increased profit margins. One third of businesses reported profit margins at similar levels to 2010, and 42% were able to increase margins.

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<thead>
<tr>
<th>Change</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Increased Significantly</td>
<td>35.1%</td>
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<tr>
<td>Increased Slightly</td>
<td>35.1%</td>
</tr>
<tr>
<td>Stayed Much the Same</td>
<td>17.2%</td>
</tr>
<tr>
<td>Decreased Slightly</td>
<td>5.3%</td>
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<tr>
<td>Decreased Significantly</td>
<td>7.3%</td>
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### Outlook for 2012

**Expected Changes in Sales**

Companies in the industry predominantly have a positive outlook, with 60% confirming they are optimistic or very optimistic about 2012. 75% of respondents expect to increase sales during the year (compared to 78% last year however the shape of expected growth has changed from last year.

<table>
<thead>
<tr>
<th>Expected Change</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>0–10% Increase</td>
<td>26%</td>
</tr>
<tr>
<td>10–20% Increase</td>
<td>23%</td>
</tr>
<tr>
<td>20–50% Increase</td>
<td>18%</td>
</tr>
<tr>
<td>50%+ Increase</td>
<td>8%</td>
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<tr>
<td>0–10% Decrease</td>
<td>9%</td>
</tr>
<tr>
<td>10–20% Decrease</td>
<td>5%</td>
</tr>
<tr>
<td>20–50% Decrease</td>
<td>2%</td>
</tr>
<tr>
<td>50%+ Decrease</td>
<td>0%</td>
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</table>

**Change in Employee Numbers**

Nearly two thirds of respondents expect to take on more staff during the year, with commercial and business skills (27%) and software and web development (17%) the key skill sets in demand.

<table>
<thead>
<tr>
<th>Change</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stay the Same</td>
<td>42.6%</td>
</tr>
<tr>
<td>1–5 Increase</td>
<td>29.1%</td>
</tr>
<tr>
<td>6–20 Increase</td>
<td>12.8%</td>
</tr>
<tr>
<td>21+ Increase</td>
<td>8.1%</td>
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The Scottish Digital Technologies Industry incorporates a diverse range of sectors including software, telecommunications, IT services, and digital agencies. Companies in the industry employ over 70,000 people, and are spread across Scotland, with particular concentrations in the Edinburgh, Glasgow and Aberdeen areas.

Main Areas of Business

- Software Solutions and Services: 18.2%
- Software Product: 12.4%
- e-Commerce and Web Development: 12.4%
- IT Business Consultancy: 7.1%
- Services to Technology: 6.5%
- Infrastructure & Network Management: 5.3%
- Systems Integration: 1.2%
- Application Development: 18.2%
- Telecommunications: 12.4%
- All Other Responses: 6.5%

Headquarters Locations

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 (2010) to (2011) to (2012). This is particularly true amongst the 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.

- Aberdeen & Grampian: 5.4%
- Ayrshire: 2.4%
- Borders, Dumfries & Galloway: 31.2%
- Edinburgh & Lothians: 32.5%
- Forth Valley: 9.6%
- Fife & Tayside: 1.8%
- Highlands & Islands: 1.2%
- Glasgow, Lanarkshire, Renfrewshire: 4.2%
- UK outwith Scotland: 1.8%
- EU Headquartered: 0.7%
- All Other Locations: 9.9%
Reflections on 2011
2011 was generally a good year for most smaller companies. Over 52% saw sales increase, while 26% maintained sales at 2010 levels. Most companies were able to maintain or increase profit margins, although 22% saw margins squeezed.

Financial Environment
Whilst one third of smaller companies do not anticipate the need for additional finance during the year, respondents would access a range of sources from bank funding and private investment to grant funding if they did need additional funding. Significantly, one in three businesses report cash flow to be slightly or substantially more difficult than a year ago.

International Markets
37% of smaller companies are already exporting and a further 20% are planning to do so. 43% of smaller companies advised that they don’t currently export and are unlikely to do so.

Looking Forward to 2012
Most smaller companies expect to grow sales during 2012 – over 57% expect to increase sales by more than 10% with a further 18% anticipating single figure growth. However 10% expect sales to flat-line and 16% expect sales to decline.

People and Skills
Two thirds of smaller companies expect to take on additional staff during the course of the year, with the rest maintaining staffing at current levels.
Smaller Companies: Financial

Funding Model
- Founders Capital and Retained Profits: 82%
- Mix of Business Angel / Bank / Loan Funding: 12%
- Mainly Venture Capital: 5%
- Unlisted PLC: 1%
- Quoted Company: 0%
- Alternative Investment Market (AIM): 0%
- Other: 0%

Cash Flow Compared to Last Year
- Substantially More Difficult: 11%
- Somewhat More Difficult: 27%
- Little Change: 44%
- Substantially Easier: 19%

Source of Additional Finance
- Not Applicable: 35%
- Bank Funding (Overdraft / Medium Term Loan): 23%
- Invoice Factoring: 3%
- Private Investment (Angel / Founder Capital): 18%
- Grant Funding: 14%
- Venture Capital: 6%
- Market Listing: 0%
- Other: 0%

Smaller Companies: Sales

2011 Sales Compared to 2010 Sales
- Increased Significantly: 26%
- Increased Slightly: 16%
- Stayed Much the Same: 14%
- Decreased Slightly: 14%
- Decreased Significantly: 12%

Actuals Compared to Budget
- Increased Significantly: 44%
- Increased Slightly: 18%
- Stayed Much the Same: 10%
- Decreased Slightly: 10%
- Decreased Significantly: 4%

KEEP COSTS AS LOW AS POSSIBLE, INNOVATE AND CONCENTRATE ON DOING ONE THING VERY WELL. IF POSSIBLE, PRODUCTISE.

John McGuire // Pulsion Technology
Reflections on 2011
Mid-sized companies continued to grow significantly during 2011. Over three-quarters increased sales, with 25% increasing sales by 10–20%, and a further 22% by between 20 and 50%. Most maintained or slightly improved profit margins but 20% reported slightly reduced margins.

Financial Environment
50% of mid-sized companies do not anticipate the need for additional finance during the year, 25% may seek bank finance and a further 20% are considering private investment or VC capital. Whilst most companies report little change as regards cash flow, 30% are finding it to be slightly or substantively more difficult than a year ago.

People and Skills
The majority of mid-sized companies are planning to take on additional staff during the course of the year. 45% are planning to recruit an additional 6–20 staff, with 23% planning to take on between 1 and 5 new staff, and a further 10% taking on 21+ new staff. 15% plan to keep staffing at current levels but about 10% expect to have to reduce head count.

Looking Forward to 2012
80% of mid-sized companies are forecasting sales growth in 2012. Many of these have strong ambitions for growth, with 45% forecasting sales increases of more than 10%. One in five companies expect sales to be static or to decrease slightly.

International Markets
There is a clear division amongst mid-sized companies regarding international markets. 55% are already exporting, but 40% of companies advise that not only are they not currently exporting, but they are unlikely to do so, indicating that they see themselves as only supplying the UK market. The US market continues to be the biggest export market, followed by Europe, Asia and ROW. 47% of mid-sized companies consider the government’s target of a 50% increase in exports to be probably or definitely achievable.
Medium-Sized Companies: Financial

Funding Model
- Founders Capital and Retained Profits: 63.9%
- Mix of Business Angel / Bank / Loan Funding: 5.6%
- Mainly Venture Capital: 11.1%
- Unlisted PLC: 0%
- Quoted Company: 8.3%
- Alternative Investment Market (AIM): 5.6%
- Other: 5.6%

Cash Flow Compared to Last Year
- Substantially More Difficult: 9.4%
- Somewhat More Difficult: 18.8%
- Little Change: 62.5%
- Substantially Easier: 9.4%

Source of Additional Finance
- Not Applicable: 51.6%
- Bank Funding (Overdraft / Medium Term Loan): 25.8%
- Invoice Factoring: 3.2%
- Private Investment (Angel / Founder Capital): 12.9%
- Grant Funding: 0%
- Venture Capital: 6.5%
- Market Listing: 0%
- Other: 0%

Medium-Sized Companies: Sales

2011 Sales Compared to 2010 Sales
- Increased Significantly: 12.5%
- Increased Slightly: 25%
- Stayed Much the Same: 21.9%
- Decreased Slightly: 6.3%
- Decreased Significantly: 3.1%
- No Change: 0%
- 0-10% Increase: 0%
- 10-20% Increase: 11.1%
- 20-50% Increase: 51.6%
- 50+% Increase: 15.6%
- 0-10% Decrease: 6.3%
- 10-20% Decrease: 3.1%
- 20-50% Decrease: 0%
- 50+% Decrease: 6.3%

Actuals Compared to Budget
- Increased Significantly: 46.9%
- Increased Slightly: 21.9%
- Stayed Much the Same: 9.4%
- Decreased Slightly: 6.3%
- Decreased Significantly: 0%
- No Change: 15.6%
- 0-10% Increase: 6.3%
- 10-20% Increase: 3.1%
- 20-50% Increase: 0%
- 50+% Increase: 0%
- 0-10% Decrease: 0%
- 10-20% Decrease: 12.9%
- 20-50% Decrease: 0%
- 50+% Decrease: 6.3%

Product marketing is the critical edge – focus on customer pain points and ensure products address resolution with a compelling ROI and quick payback.

David Cairns // Prismtech
Reflections on 2011

2011 was generally a good year for larger companies. 59% saw sales increase, while 22% maintained sales at 2010 levels. Most companies were able to maintain or increase profit margins although 19% saw margins squeezed.

International Markets

54% of larger companies are already exporting and a further 39% are planning to do so. Just 7% of larger companies advised that they don’t currently export and are unlikely to do so.

Financial Environment

Almost three quarters of larger companies do not anticipate the need for additional finance during the year, with the remaining respondents accessing funding from either Grant funding or Venture Capital. Significantly, one in three businesses report cash flow to be slightly or substantially more difficult than a year ago.

People and Skills

Almost half of larger companies expect to take on additional staff during the course of the year, with 28% maintaining staffing at current level and 24% predicting a decrease in employee numbers.

Looking Forward to 2012

Most larger companies expect to grow sales during 2012 – over a quarter expect to increase sales by more than 10% with a further 40% anticipating single figure growth. However 12% expect sales to flat-line and 20% expect sales to decline.
Larger Companies: Financial

Funding Model
- Founders Capital and Retained Profits: 3%
- Mix of Business Angel / Bank / Loan Funding: 3%
- Mainly Venture Capital: 15.2%
- Unlisted PLC: 3%
- Quoted Company: 57.6%
- Alternative Investment Market (AIM): 18.2%
- Other: 0%

Cash Flow Compared to Last Year
- Substantially More Difficult: 19%
- Somewhat More Difficult: 19%
- Little Change: 63%
- Substantially Easier: 0%

Source of Additional Finance
- Not Applicable: 72%
- Bank Funding (Overdraft / Medium Term Loan): 0%
- Invoice Factoring: 0%
- Private Investment (Angel / Founder Capital): 0%
- Grant Funding: 9%
- Venture Capital: 19%
- Market Listing: 0%
- Other: 0%

Larger Companies: Sales

2011 Sales Compared to 2010 Sales
- No Change: 0%
- 0–10% Increase: 30%
- 10–20% Increase: 4%
- 20–50% Increase: 26%
- 50%+ Increase: 0%
- 0–10% Decrease: 33.3%
- 10–20% Decrease: 44.4%
- 20–50% Decrease: 14.8%
- 50%+ Decrease: 7.4%

Actuals Compared to Budget
- Increased Significantly: 33.3%
- Increased Slightly: 44.4%
- Stayed Much the Same: 14.8%
- Decreased Slightly: 7.4%
- Decreased Significantly: 0%

NEVER BEFORE HAS THERE BEEN A GREATER NEED FOR COMPANIES TO BE INNOVATIVE, NOT SIMPLY IN THEIR PRODUCTS AND SERVICES BUT INCREDIALLY ACROSS THEIR ENTIRE BUSINESS AND ESPECIALLY COMMERCIALLY.

Dave Kelly // SDLC
Graduate Demand Leading the Way

It’s great to see that the demand for graduates will increase throughout 2012, with 52% of companies looking to take on candidates straight from university. It’s this new generation of talent that will act to invigorate the industry and hopefully endeavour to become the technology leaders of tomorrow.

The results also show that taking on additional core operatives will be a key requirement this year. Demand for skills in Software & Application development remains strong across companies of all sizes with smaller companies unsurprisingly also looking to enhance their Commercial & Business support skills. Mid-sized companies will be looking to acquire Project Management and Infrastructure support & Management skills; whereas the Enterprise level survey participants have indicated that they are more likely to require a cross section of all skills sets.

Growth on the Horizon

2012 looks set to be a good year for growth within the Scottish technology industry with the majority of companies surveyed looking to increase their employee numbers from anywhere between 1 and 21 + new hires.

With 63.5% of companies looking to recruit new staff this year, there appears to be considerable ambition among survey participants to grow their businesses further.

The smaller companies involved in this year’s survey are looking to maximise their networks and social channels to find talent, while the mid-sized companies seem to be exploring a trial and error approach, with an equal reliance on retained and contingency agency models. Enterprise level companies will be looking to recruit directly, but there has also been a significant shift and growth in demand towards a retained recruitment model.

Supporting the Scottish Technology Industry Survey for the 7th year 9-20 are extremely excited by the new format that’s been adopted for 2012. By splitting the results according to company size we hope you will be able to benchmark your company against your peers and visualise your potential evolution through the different stages of business growth.

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Software Development with a Twist

Within the industry there is clearly a continued high demand for skilled software developers, with 67% of those surveyed identifying a requirement for Software & Application development skills. However, it appears that unlike past years – where there has been a specific need for a particular development language – most companies are crying out for anyone that has a strong background in Object Oriented development. What is particularly interesting, as well as this shift in core platform, is that the year of the ‘Mobile App’ seems to have arrived. Mobile development and enhanced User Experience skills are now appearing at the top of the skills in demand league, which helps us to understand why we are seeing such a strong uptake in skills like JavaScript, Ruby on Rails, PHP and Python.
SPREAD ENTHUSIASM AND CONFIDENCE, NOT DOOM AND GLOOM. THERE IS ENOUGH TROUBLE OUT THERE ALREADY WITHOUT TALKING UP MORE.

Alan Hill // Computacenter

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