Scottish Technology Industry Survey 2009

Measuring up to Economic Challenges



Acknowledgements

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 2008, and their forecasts for 2009.

The Scottish Technology Industry Survey provides a barometer of the health of the information and communication technology sectors. An essential element of the Scottish economy, catalysing productivity improvements, innovation and service delivery across Scotland, the ICT industry is extremely valuable. Software, telecomms and IT services employ more than 100,000 people in Scotland. Of these, over 60,000 are directly employed in the supply side of the industry, with the balance providing in-house expert ICT skills within other industries.

The Scottish supply base comprises more than one thousand software, telecomms 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.

This report analyses the survey data by industry characteristics, business dynamics, market forecasts, and employment and skills factors. The survey was carried out by ScotlandIS in January/February 2009. The survey analysis was undertaken by ScotlandIS, with statistical expertise provided by 9-20recruitment. We are particularly grateful to 9-20recruitment for their continued support for the survey.

I very much hope you find this report useful. Please do contact ScotlandIS if you have any questions about the survey, or would like further information.

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Executive Summary

The fourth Scottish Technology Industry Survey reflects steady growth in 2008, and looking to 2009, illustrates a degree of cautious pragmatism, with clear recognition of the very complex market conditions facing the economy. Notwithstanding the trading challenges currently being experienced, the industry appears less exposed to the recession than some others, with care being exercised on headcount, and a strong focus on financial control.

Market Performance

Scotland's ICT industry has benefited from substantial growth over the last three years. Although the rate of growth began to slow during 2008, and margins came under pressure, our survey indicates that businesses are adopting a robust approach with the majority predicting an increase in sales in 2009.

The industry appears to be relatively well positioned, with low levels of borrowing, and a prudent approach to staffing levels, although the Scottish market is clearly not immune to overall market conditions. The survey results reflect a realistic assessment of the current outlook, combined with underlying confidence.

The industry tends to be sector neutral, with a very broad mix of markets. However, energy, public sector and financial services continue to be key targets in the Scottish marketplace. Not surprisingly, 2008 saw a significant decline in companies undertaking business within the financial sector, with respondents indicating that they see this market continuing to decrease throughout 2009. This is partly counterbalanced by increasing business in the public and professional services sectors, and these are both predicted as growth sectors in 2009.

Ones to watch in 2009

Businesses with long term contract revenue streams and those who supply 'business critical' systems, (i.e. infrastructure outsourcing, application management and business process applications) demonstrate most confidence in being able to maintain current levels of business. The highest growth overall is predicted by software applications and ecommerce/web development companies.

Impact on Employment & Skills

As ever, good sales people continue to be in demand with survey participants. However rather than generic sales skills, this years results suggest that Scotland's technology market now requires candidates who combine product related sales experience with technical expertise, as companies start to mix digital marketing and web2.0 techniques to enhance their business proposition.

Technology wise, whilst last year companies were looking for specific programming languages such as .net and C# more stress now appears to be placed on sourcing all round developers with strong performance and business acumen.

However, perhaps the most worrying finding from this year's survey is the outlook for graduates and senior posts attracting salaries over £45k, with none of the survey's respondents indicating that they see these areas as being of particular interest in 2009. Experienced software developers and staff in the £23 – 35k bracket are seen as being critical and in high demand.

Challenges Ahead

Although the survey highlights a positive outlook overall for the Scottish industry, respondents are fully aware of the challenges the current operating environment holds. Deteriorating payment terms and substantial reductions in trade credit availability are causing increasing concern. Companies are implementing stringent financial controls with closer scrutiny of overhead and direct costs, and a cautious approach to recruitment.

The majority of respondents seem determined to "roll up their sleeves" and work through the current market conditions. Whilst most customers recognise that ICT is integral to their operations and a contributor to improved productivity, delayed investment decisions, with projects being put on hold or postponed, provide a real challenge to the sector. Respondents identified a number of factors which would help improve the operating environment, with the main themes being:

- the need for Government to make public sector procurement significantly more accessible to SME's and to start actively buying from sme suppliers;
- sharing positive stories about the significant economic impact ICT investment can bring, to instill confidence in the industry, recognising the substantial impact the media has on consumer confidence;
- interventions aimed at supporting the sme user community to increase productivity, reduce costs and expand markets.

Conclusion

Overall this year's Survey indicates that the industry is very alert to the economic environment but most companies anticipate being able to maintain current business levels.

Our Respondents

Respondents provided information about themselves including the location of their company headquarters, company size, year of formation, source of capital, and areas of expertise.

Primary Business Area

Classifying businesses within the software, telecomms and IT industry into primary business areas is relatively difficult as many businesses undertake a range of activities. Respondents were therefore asked to choose from a broadly based range of categories.

The four leading categories by size are:

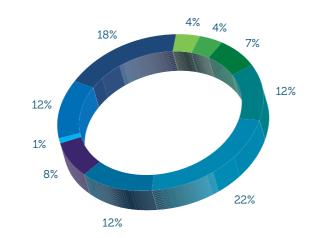
- Software Solutions & Services (22%)
- E-Commerce & Web Development (12%)
- Application Development (12%)
- Services to Technology (12%)



Infrastructure & Network Management (7%)

Application Development (12%)

Software Solutions and Services (22%)





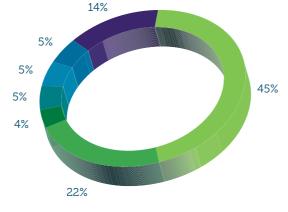
Company Size

Our sample is broadly representative of the wider industry and reflects its shape as regards the distribution of employment.

Small and medium sized companies (SME's) form the vast majority 81% (2008: 84%) of our respondents.

Of these, three quarters have less than 35 employees.

Large and very large companies make up 19% (2008: 16%) of respondents.



1-10 employees (45%)

11-35 employees (22%)

36-65 employees (4%)

66-200 employees (5%)

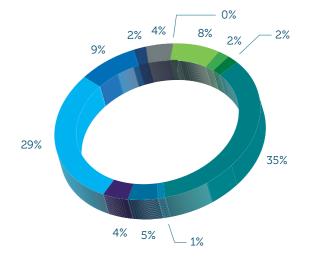


1,000 + employees (14%)

Location of Company Headquarters

86% (2008: 82%) of this years respondents have their headquarters in Scotland with 70% overall located in the Central Belt. This reflects the distribution of the wider industry.

A detailed breakdown of respondents' company headquarters location is shown opposite:



Aberdeen & Grampian (8%)

Ayrshire (2%)

Borders, Dumfries & Galloway (2%)

Edinburgh & Lothians (35%)

Forth Valley (1%)

Fife & Tayside (5%)



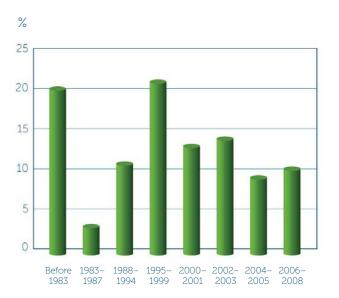
Year Company was Formed

A young, vibrant industry, Scotland's ICT sector benefits from a high rate of start ups.

Of our sample companies, 77% have been in business for less than 20 years.

Start up rates continue to be buoyant, with 20% formed in the last five years.

Of the 25 large companies that responded, 80% were formed before 1983.



Sources of Company Funding

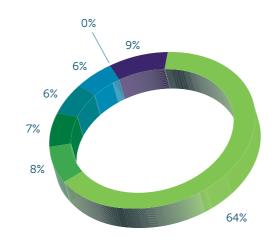
The sources of capital identified by the survey respondents are typical of the industry as a whole. Most smaller companies, particularly those in services, are funded through a combination of founders' capital and retained profits, and this is true of 64% of our sample.

A further 15% are funded by a mix of angel or VC funding. Product companies generally need external funding and those companies planning significant growth e.g. through opening up international markets, may need external finance to fund the step change in working capital levels this requires.



Mix of Business Angel/Bank/Loan Funding (8%)

Mainly Venture Capital (7%)

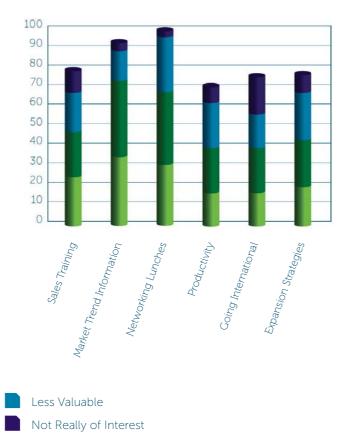


Quoted Company (6%)

Alternative Investment Market (AIM) (0%)

ScotlandIS Services

Respondents were asked which services ScotlandIS should concentrate on, and asked to rank a number of options. There was particular interest in information on market trends, and networking events. A number of people specifically commented that helping to open up public procurement to SME's would be really valuable.



2008 – A Year of Two Halves?

Last year's Technology Industry Survey (2008) reflected continuing growth in the industry, forecasting optimism for the year ahead, with respondents buoyant regarding growth prospects. 85% of those responding predicted growing their businesses, both in Scotland and across the UK.

Markets identified in early 2008 as offering increased opportunities included, financial services, professional services, energy and the public sector.

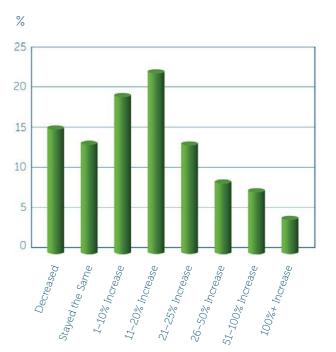
The 2009 survey includes respondents' feedback on how accurate these predictions were in terms of actual growth levels achieved, as regards sales and profitability, the geographical location of this growth, and their main operational sectors.

2008 Sales Compared with 2007

The survey confirms that for most companies, 2008 was a year of continuing growth, with 72% reporting an increase in sales over 2007 levels, mostly in the turnover brackets of plus 1-10% and plus 11-20%.

However, possibly demonstrating early signs of the slow down, 28% of respondents reported turnover staying the same or less than 2007. Half this group of respondents also saw profit margins coming under pressure.

As in last year's survey, growth was across the whole spectrum of company size, but those reporting sales increases greater than 50%, were all very small or start-up companies.

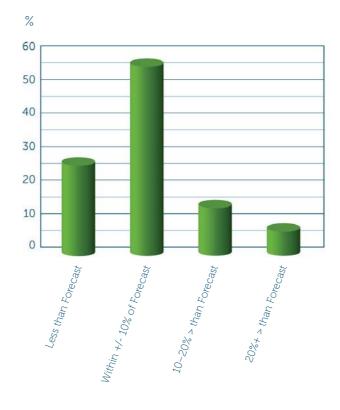


Very Valuable Valuable

Actuals Compared to Forecast

Compared to 2007, slightly more companies indicated that results for 2008 had been less than forecast, but the majority (55%) reported actual sales within 10% of the level they had originally budgeted for.

Of those 26% (20% in 2007) who reported actual sales levels for 2008 being less than forecast, company size does not appear to be a factor, and this may reflect a tightening market in the second part of 2008.



Profitability

Profit margins showed greater divergence in 2008, than 2007, with 55% of respondents reporting increased margins, (50%) and 30% (37%) reporting that 2007 profit margins had been maintained.

Significantly the number reporting reduced margins increased from 13% to 26%.

These results seem independent of company size, with the exception of those reporting significantly increased margins, where the vast majority were very small companies.

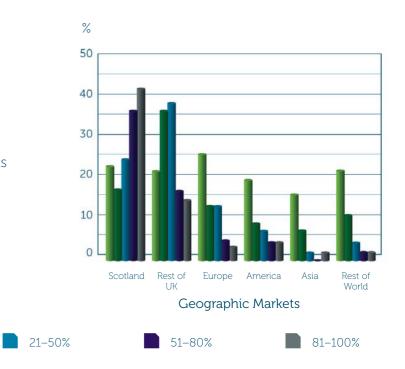


Geographic Markets

1-10%

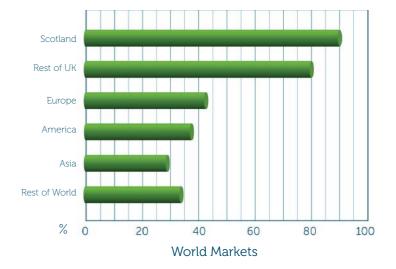
The breadth of sectoral markets served is one of the strengths of the Scottish industry, providing diversity which protects against over reliance on any one market. This is also reflected in the geographic markets the industry serves. This graph shows the reliance respondents have on each geographic market so for example just over 40 (of 185) companies from our sample depend on Scotland for 81-100% of their business.

11-20%



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, and over a third of respondents are now doing business in America; this has increased from 25% of respondents in 2007. However, outside the UK, the percentage of their business most respondents undertake in each of the other geographies is relatively small.

The graph opposite illustrates the overall percentage of respondents doing business in each of the geographic areas.



Current Market and Financial Challenges

Respondents were asked to comment on some of the current financial challenges in more detail, and to advise their approach in terms of cashflow, cost control measures, access and sources of finance.

Asked about the challenges currently facing them, respondents were quick to voice their opinions. A sample of responses is shown below (in no particular order).

- 'Lack of clarity/flexibility from banks'
- 'Difficulties in contracting work from government and local authorities'
- 'Competitors doing work at or below cost to generate cash flow'
- 'Dealing with negative perception in the marketplace'
- 'Knock on effects from lack of credit'

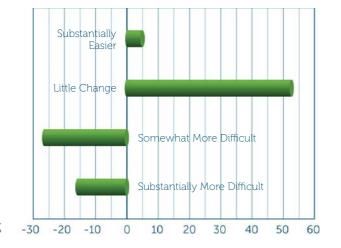
Keep close to existing customers – even if they themselves are experiencing tough times and business is drying up.

Rab Campbell, Logica

Cashflow

With the worsening situation in the banking industry starting to affect the Scottish economy we asked respondents whether cashflow was being impacted.

53% indicated they saw little change but concerningly 42% reported increasing difficulties with cashflow.



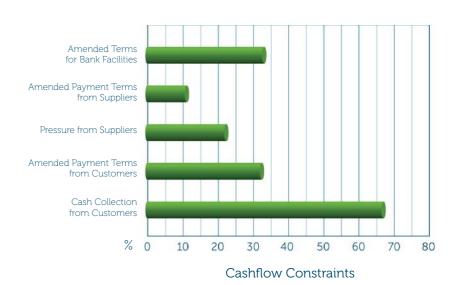
Focus on your core competence and keep the management of the business as tight as possible.

Cash flow is the single most important element of SME business in the current climate.

Jim Armstrong, Adventi

Weakening Payment Terms

Further investigation of the reasons for increasing constraints on cashflow, indicated that delays in payment from customers is the main issue. 32% of those affected report customers amending payment terms and 33% reported their banks had amended the terms of facilities available to them.



Work with your staff to explore ways in which you can work together to overcome your challenges, include them in the decision making process (so they buy into and agree to decisions) and be open with your team. Respond positively rather than reactively. Discuss and agree strategies and watch the cash.

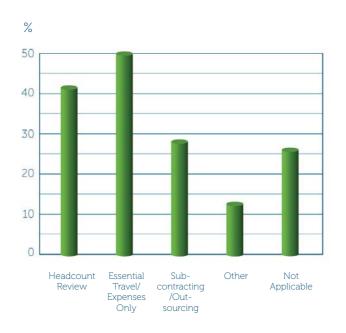
Stuart Young, Property Log Book Company

Cost Control Measures

Improving efficiency is of general concern, with 60% of respondees giving serious consideration to cost reduction, through a number of measures.

The most widely deployed of these is greater control of travel costs, with 50% of respondents citing this. We are aware that companies are already encouraging greater use of video and tele conferencing, and web based sales techniques. Other measures include headcount review (42%) and greater use of sub-contracting/ outsourcing (29%).

Several companies specified they were looking to reduce their premises requirements, and a number of others quoted general overhead control and operational efficiencies.

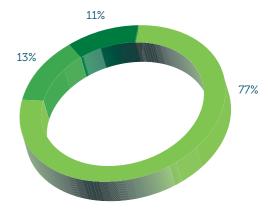


Red Flag Management – keep tabs on absolutely everything that contributes to cash in your bank and encourage your staff to highlight anything going offbeam, so that you can get in there and address any issue, before it becomes a problem.

Donald Maciver, MindGenius & Gael Ltd

Access to Finance

Conscious of the difficulties some industries are facing with regards to banking facilities, respondents were asked to advise whether this is an issue. With three quarters of respondents reporting no difficulties, the industry appears less exposed than others. However 23% of our sample, all SME's, indicated they were experiencing problems, fairly equally divided between working capital and development capital requirements.



Issues with Access to Finance

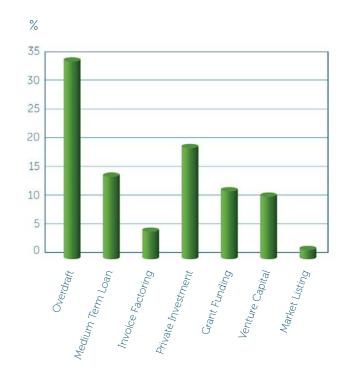
Finding Difficulties with Working

Finding Difficulties with Expansion/Development Capital

Sources of Additional Finance

Respondents were asked what sources they might look to for additional finance during 2009. The majority (56%) indicated they do not anticipate a requirement for additional facilities.

Of those that might seek additional finance, nearly half indicated they would use traditional sources, with one third citing overdraft facilities and a further 14% looking for medium term loans. Almost one third of those who may seek funding would choose either private investment (19%) or venture capital (10%).

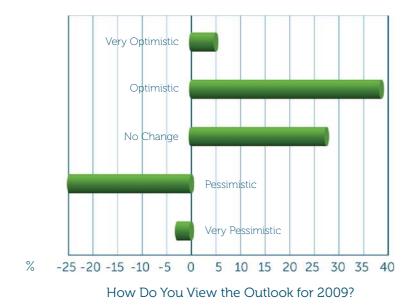


Opportunities for 2009

The 2009 survey was undertaken in the second half of January 2009, as the extent of the crisis in global financial markets became more evident and the Scottish economy started to slow down. As this report is published the depth of the recession looks greater than previously anticipated, and so our findings need to be taken in context.

Outlook for 2009

Asked for companies' views on the outlook for 2009, responses were mixed. 28% replied that they were pessimistic or very pessimistic, but overall optimism won the day, with 44% being optimistic or very optimistic.



Focus on the positives and less on the growing risks and conditions surrounding the economic downturn, sell to your strengths and address your weaknesses.

Ken Higgins, Island Communications

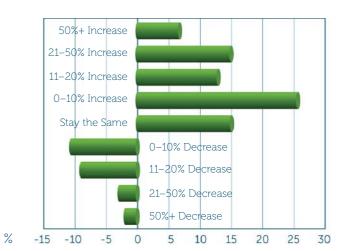
Use slower times to develop your web/internet/e-commerce capabilities to enhance visibility, increase online sales and streamline business administration processes.

Sara Dodd, Net Resources Ltd

Forecast Sales Performance for 2009

Not withstanding the difficult operating environment, many companies are confident of maintaining current business levels or achieving modest growth, and 35% of respondents forecast growth rates in excess of 10%. Counterbalancing this, 30% expect sales to decrease from 2008 levels by up to a fifth.

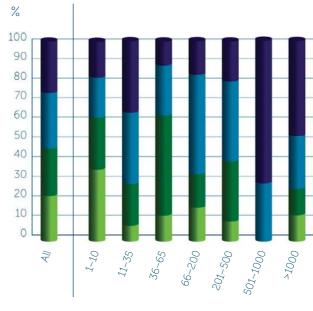
Further analysis shows that of those companies forecasting growth rates in excess of 20%, nine tenths are very small businesses (less than 35 employees). Conversely, very small businesses also dominate the group that anticipates a serious decrease in turnover – ie sales decreasing by more than 20%.



Main Customer Base by Company Size

Last year we reported that the corporate (or enterprise) market was the key area of business for the majority of respondents, with smaller enterprises (less than 50 employees) accounting for only 14% of overall business.

This pattern is generally reflected in the 2009 survey but the results indicate the sme market is of increasing importance, particularly for very small suppliers. The 'main customer base' data has been extracted by company size to show the variations in responses within the overall results.



< 50 Employees

Small to Medium Sized (50–250 Employees)



Main Markets

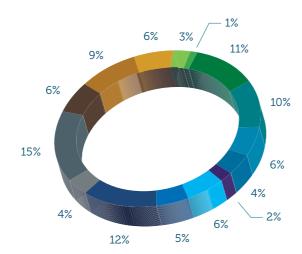
Scotland's ICT industry benefits from servicing a very broad range of market sectors, which helps to protect against major variations in any one sector. This year's survey shows that energy, financial services, the public sector, IT & telecoms and professional services were the five largest markets in 2008. However Financial Services fell from top spot in 2007 to 4th largest sector, while Business Services increased. The other main markets are:



- Energy & Utilities
- Financial Services
- Public Sector
- IT & Telecommunications



- Flectronics (1%)
- Energy & Utilities (11%)
- Financial Services (10%)
- Food & Drink (6%)
- Healthcare & Pharmaceuticals (4%)
- Life Sciences (2%)
- Manufacturing & Logistics (6%)





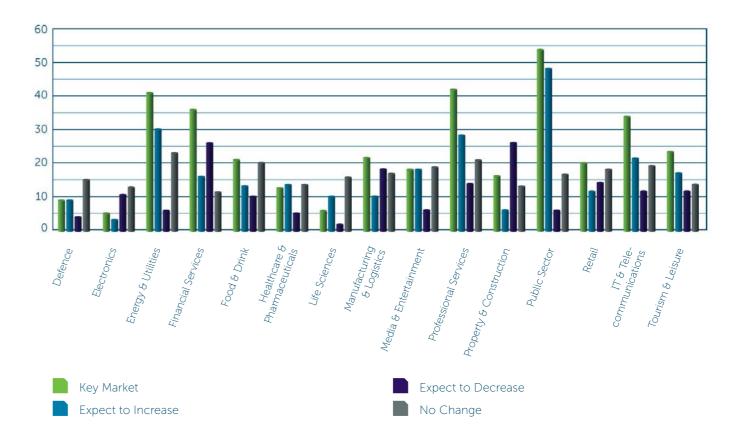
Remember that technology is there for a reason – to solve problems and in many ways reduce costs. There will always be customers with problems and customers who want to reduce costs. Even more so in an economic downturn.

Neil Barr, Alienation Digital

Focus on where the money is, find out where it's being spent and organise your sales activities around this. Invest in your sales team like at no other time.

Rob Walker, Versko

Looking to 2009 the Construction, Financial Services, Manufacturing & Logistics markets are expected to continue to fall in value. The Public Sector, professional services, Energy and IT & Telecommunications markets are all expected to grow in importance. The previous graph shows the diversity of market sectors, whilst the following graph shows respondents key markets, and their predictions as to which of these will grow or shrink.



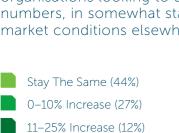
Skills & Employment Outlook for 2009

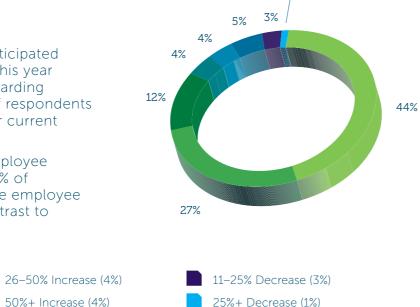
Respondents were asked to predict how employee numbers would change during the course of 2009, and which skill sets they would most need.

Employee Numbers

Last year, 81% of respondents anticipated increasing employee numbers. This year reflects considerable caution regarding recruitment policies, with 44% of respondents indicating they will maintain their current headcount.

A further 46% envisage some employee expansion in 2009, with only 8.9% of organisations looking to decrease employee numbers, in somewhat stark contrast to market conditions elsewhere.



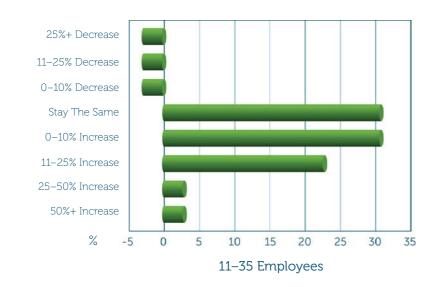


Ensure your talented staff are never worried about their jobs.

0-10% Decrease (5%)

John Duthie, Realtime Worlds

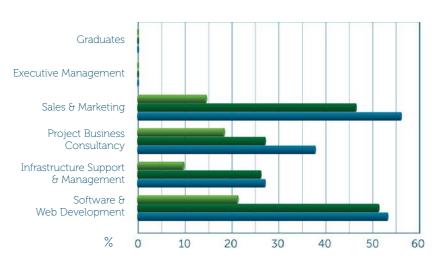
Analysing these figures by company size it is clear that like last year, the main sub group of companies planning for growth in 2009 are those SME's with 11 - 35 employees. Sector wise, E-commerce & Web lead the way with more than two thirds of these participants projecting a 50% increase in staff numbers in 2009.



Demand For Staff Resources

The survey results make it clear that there is still a competitive employment market with Sales & Marketing (48%) and Software & Web Development (45%) both projected to attract strong demand. Encouragingly permanent staff are the preferred choice to meet this demand, suggesting underlying confidence in workload levels.

However, the survey indicates that employers are not expecting to hire Graduates or Executives in 2009.



In salary terms, the greatest demand in 2009 is expected to be for mid level operative staff, with 45% of participants expecting to recruit staff in the £23,000 – £35,000 salary bracket, and an additional 23% seeing the major area of growth being those earning between £35,000 - £45,000.

'In Demand' Skill Sets

The survey identifies the highest level of demand for specific skills in 2009 being for sales staff with experience of product/inside sales. Demand for development skills and project/business analysis follow close behind. Problems in sourcing these skill sets were emphasised, with 46% of respondents identifying these as being difficult to find currently.

- 1. Sell better
- 2. Be responsive to competitive weakness
- 3. Sell based on opex models
- 4. Trade margin for duration.

John Innes, Sword Group

Top 5 Skills For 2009	
1	IT Solutions Sales

3 C#

2 ASP.NET

- **4** Project management
- **5** Business Analysis

Employment & Skills Market Viewpoint

It is clear the current market conditions are now having an effect on the Scottish market. Financial and global organisations in particular have seen a huge shift in supply and demand and the areas that have an oversupply i.e. IT Projects & Interim Management are definitely feeling the pinch. Employees may have to look at retraining to enter those areas of the market with higher demand such as the digital media sector which has seen a huge resurgence in the past few years. Therefore candidates with .Net, XML and ASP.Net will be highly sought after, as well as with those with strong C#, C++ and Application Support skills.

The volume of demand for senior positions has dropped exponentially. Companies are increasingly cutting out Senior Managers, Advisors, Interim Consultants and Non Executives, which could be a risky strategy as their experience will be critical for the future of our economy. It is increasingly worrying there is this number of highly skilled technology leaders on the market as it is in everyone's best interests to retain this talent within Scotland. With that said, it could be that those staff who are used to receiving high base salaries or packages will have to reassess their salary expectations.

Another area of notable worry is graduate recruitment and the lack of companies committing to IT graduate requirements for 2009. With hundreds of newly qualified graduates hitting the market in the summer the main challenge for the sector will be to try and retain this talent in technology and more importantly, in Scotland.

Maximising the talent opportunities

Due to the scale of recent redundancies there is a huge amount of talent on the market. This is creating a very competitive supply market, and offers employers a considerable degree of choice, with potential recruits being much more likely to accept lower remuneration packages or different type of contracts than a year ago.

A number of staff are also prepared to work on a fixed term contract, interim or even part time basis, allowing companies to acquire highly sought after skills at reduced rates and introduce more flexibility into staff teams. This has been far more evident in the public sector which seems to be utilising this opportunity much more effectively than private sector organisations.

With companies now back in the driving seat when it comes to employing staff there has never been a better opportunity to utilise this talent base and exploit this rarely available set of skills.

Wendy McDougall, Managing Director, 9-20 recruitment

Technology Industry Viewpoint

The 2009 survey indicates the Scottish software, telecoms and IT services industry continues to trade with underlying confidence, but with a very careful eye on market factors impacting the wider economy. This year's survey confirms that 2008 was another good year for many parts of the industry, and that most businesses anticipate continued growth in 2009, although at a slower rate than in previous years.

Much of the industry is relatively well positioned to withstand the more difficult trading environment, due to a mix of careful financial management over the last few years, and a policy of flexing staff numbers through the use of external contractors. Nevertheless the wider economic downturn is inevitably impacting their outlook, with a much more conservative approach to sales forecasts and greater emphasis on careful financial and HR management.

The very broad mix of end markets, both in terms of geographic and sectoral spread, helps to strengthen the Scottish industry. In addition, there appears to be increasing awareness of the importance of the online channel, with web developers reporting brisk business, whilst IT services businesses are finding clients utilising their services to generate productivity improvements.

On the funding front, there is some concern as to the availability of finance, in particular access to development capital, and indications of tightening credit terms and banking arrangements.

The optimism evident amongst respondents is encouraging, as is their willingness to share ideas and suggest initiatives that could help the industry.

Building for the future:

The software and IT services sector of the information technology industries can have a substantial impact on Scotland's economic recovery, which could be further increased with appropriate policy interventions, such as greater levels of public sector procurement from SME's. The sector provides continued opportunity for new company formation, with low barriers to entry and a wealth of opportunities for disruptive technologies.

Looking to 2009, a number of emerging trends bode well for the continued health of the industry, including:

- demand for process improvements and cost reduction
- opportunities in high end web site development as online sales continue an impressive upward trend, particularly in the UK
- interest in web based sales tools and growth in teleconferencing from high end video conferencing to no-cost/low-cost models such as Skype
- significant opportunities to further develop export markets
- increasing attraction of 'technology on demand' business (eg software-as-a-service, and cloud computing)

In this complex market, companies must work hard to maintain a competitive edge, delivering high quality products and services, but the challenges created by the recession also provide significant opportunities for the agile, talented businesses that comprise Scotland's software, telecoms and IT services industry.

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