Manufacturing Success

March 2013

Executive Summary

The SAP Manufacturing Success survey finds UK manufacturers in a self-confident mood, generally optimistic about their own business prospects

Generating between 11% and 12% of the UK's overall wealth, 60% of exports and 2.6 million jobs, manufacturing continues to play a vital role in the nation's economy and its growth is integral to recovery from the recession. The UK's manufacturing output recently slipped to 9th in the world rankings, just ahead of India. To ensure we remain within the top 10, the UK needs to re-invigorate and exploit its manufacturing potential. No nation in the top 10 has maintained its position as a leading economy solely on the basis of its financial or service sectors.

Difficult times have resulted in something of a siege mentality amongst manufacturers and a focus on survival rather than growth. The economic downturn is now the "new norm" and growth is today's big challenge. Against this backdrop, the SAP Manufacturing Success survey explores the appetite and capabilities within UK manufacturers for growth. The survey was conducted by Loudhouse during January and February 2013. 200 senior business decision-makers within UK manufacturers across a range of sub-sectors and company sizes were interviewed (See Figures A and B).

The SAP Manufacturing Success survey finds UK manufacturers in a self-confident mood, generally optimistic about their own business prospects, yet also aware of the challenges this involves. Whilst growth is an aspiration for all manufacturers, the extent to which companies are seeking to grow, relative to their competitors and the industry standard, varies. Two distinct types of manufacturing organisation are identified, characterised by their attitude to growth (see Figure C)

- Accelerators see growth as important and they seek to grow at a faster rate than competitors or the industry standard – 1 in 3 UK manufacturers (34%) are Accelerators
- Stabilisers see growth as important but either seek to grow in line with competitors or the industry standard or are not concerned about the speed of growth – 2 in 3 UK manufacturers (66%) are Stabilisers

Figure A: Sample by manufacturing sector

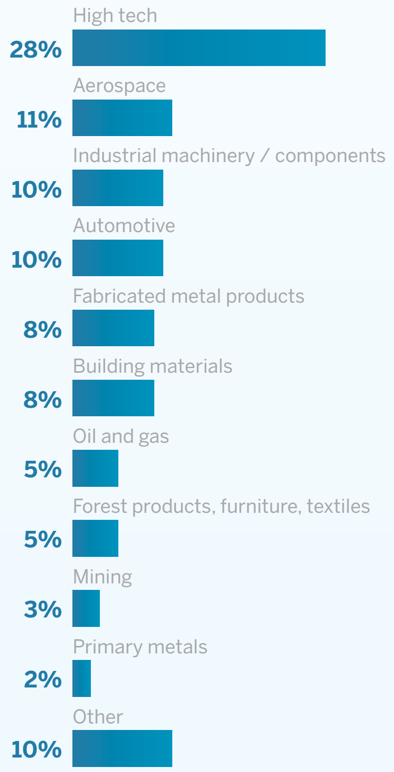
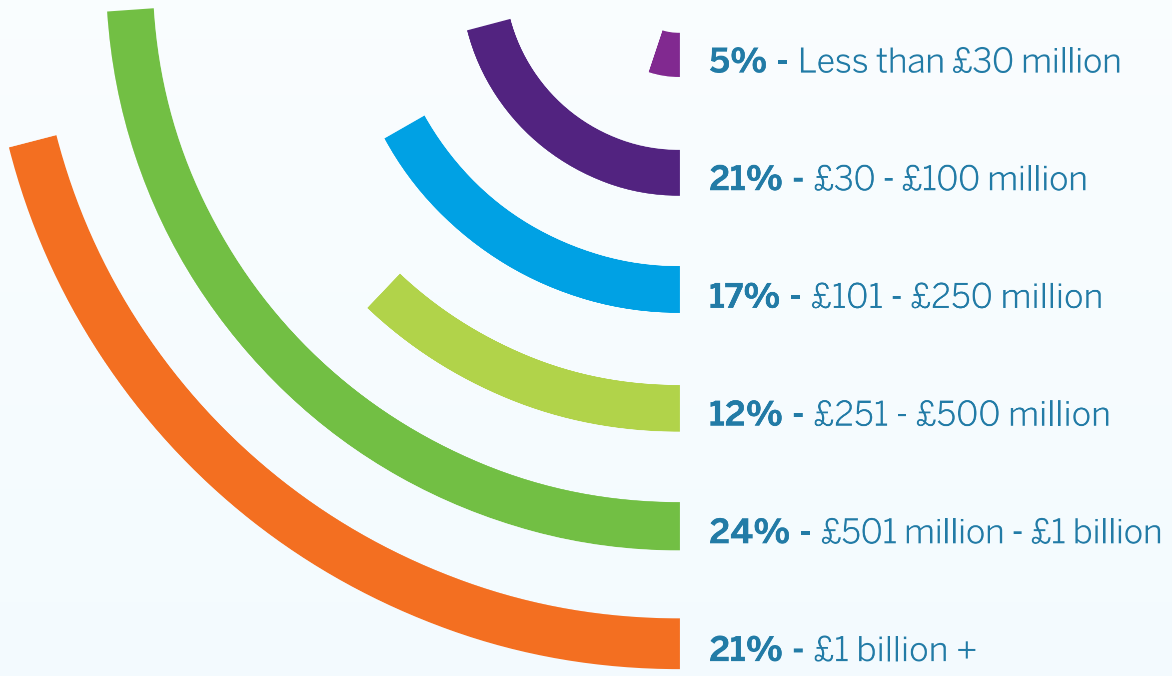
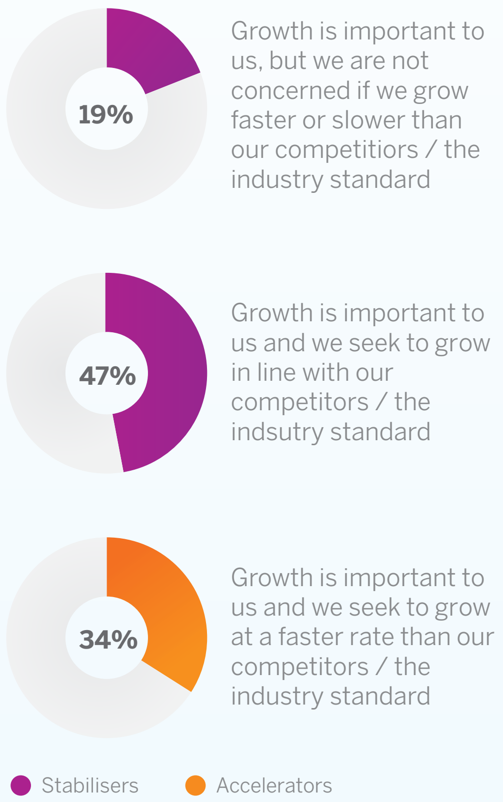


Figure B: Company size - annual turnover



The economic downturn is now the "new norm" and growth is today's big challenge. Against this backdrop, the SAP Manufacturing Success survey explores the appetite and capabilities within UK manufacturers for growth

Figure C: Accelerators and Stabilisers



The research assesses the extent to which four key pillars of growth are being managed and exploited by UK manufacturers to achieve competitive advantage. These pillars are innovation, money and finance, technology and management (see Figure D).

Key findings from the research include:

The resilient manufacturer

- There is optimism about business prospects for the year ahead among UK manufacturers – 35% describe themselves as very optimistic and a further 47% are fairly optimistic
- Two thirds (66%) expect to see UK sales increasing in 2013 ahead of 2012 levels, whilst 38% say the same for export sales. 50% predict an increase in productivity, and 1 in 3 (35%) say they will have more permanent staff in 2013 than in 2012

Spotlight on growth

- The three challenges most likely to impede organisational growth are the continued economic downturn (54%), fluctuation in demand (33%) and skills shortages (28%)
- The top three opportunities for driving growth over the next 12 months are expanding into new markets with current product ranges (55%), increasing efficiency through new technologies and / or processes (48%) and creating new products, primarily for domestic markets (45%)
- Innovation is considered the most important driver of business growth in 2013 and beyond, considered important by 82% of manufacturers. Other drivers that are important for growth are money & finance (81%), management (80%), talent (77%) and technology (73%)

Innovation nation

- The top five drivers of innovation are the economic climate (41%), changing customer demands (34%), increasing sales (34%), cost reduction / need for increased efficiency (34%) and greater accessibility of new technology (31%)
- The areas where innovation is perceived as having the biggest impact on organisation performance / growth are partnerships within the value chain (32%), more customisation of products (31%), improving collaboration across the business (29%), product development / R&D (29%) and better understanding / improving the experience of direct customers (27%)
- 80% say that technology is integral to their business success in the next 12 months. A range of technology trends are impacting manufacturing companies in 2013 – in particular, social media (34%), big data (31%), cloud (28%) and mobile (27%). 29% see the convergence of these trends as presenting a particular challenge over the coming 12 months

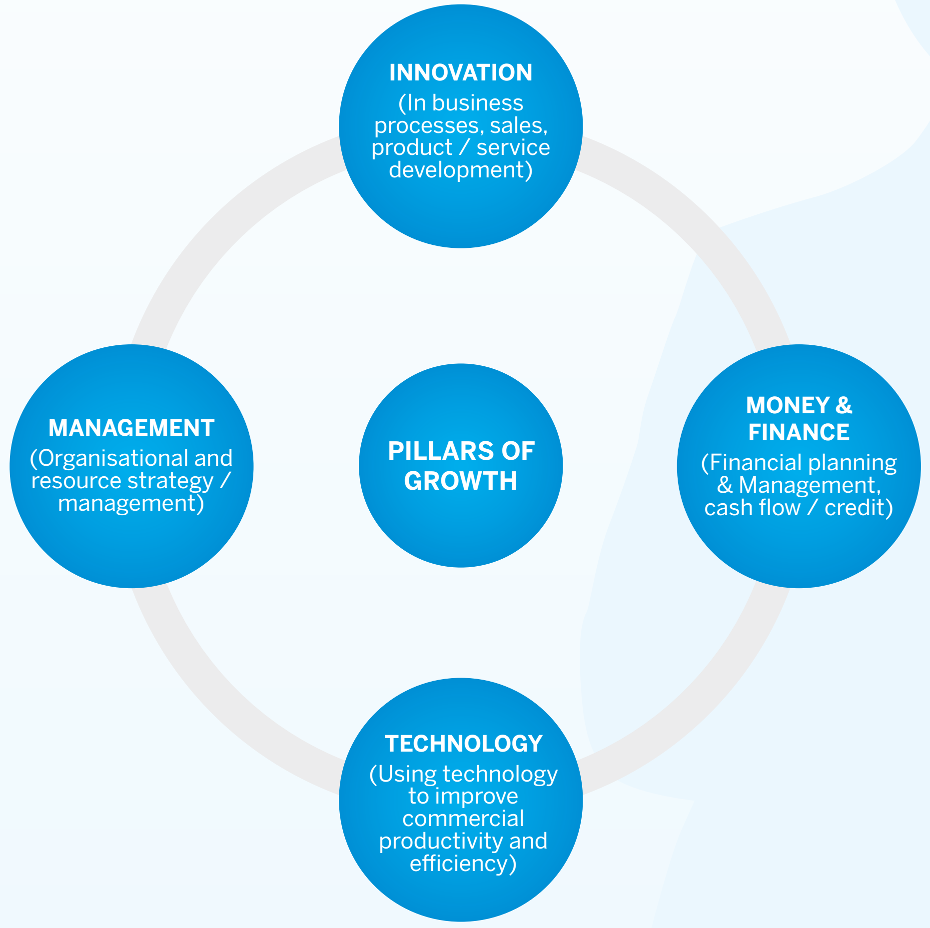
Control and visibility in a time of change

- In the last 12 months, 50% of companies have invested in business process management, 38% have driven cultural change and 37% have undergone some form of company restructuring
- The biggest challenge when it comes to managing finances is controlling costs (55%), followed by maintaining margins (37%) and forecasting demand of products / avoiding stock costs (32%)
- Overall, 40% of companies are only able to plan a year ahead. 1 in 10 can only plan six months ahead
- Only 1 in 3 companies (32%) say they have excellent visibility and insight into the opportunities for growth

Plugging the skills gap

- The biggest priorities with regards to skills and talent are retaining existing employees (46%), recruiting for skills needed in the future (46%) and identifying skills requirements beyond the short-term (41%)
- 77% say the industry needs to improve its image to attract recruits, whilst 70% think this is necessary to attract more funding. 45% have focused on improving the image of their company to potential recruits in the last 12 months
- Skills shortages in R&D (75%), production (73%) and support services (72%) are seen as having the biggest impact on the ability of companies to grow
- 80% see apprenticeships presenting a valuable solution to filling the skills gap in manufacturing

Figure D: Pillars of growth



Companies know they have to grow in order to survive, but difficult economic times mean that the traditional sources of growth are running dry

Moving forward – joined-up manufacturing

- Partnerships within the value chain (32%) are seen as the innovation that will yield the biggest impact on organisational performance
- Ultimate responsibility for ensuring that those entering the workplace have the skills required by manufacturing companies is seen to reside collectively with Government, employers and the education system (31%)
- 83% think that the Government could do more to support UK manufacturing. Just 47% think that the Government is adopting the right policies to drive growth

Companies know they have to grow in order to survive, but difficult economic times mean that the traditional sources of growth are running dry. Innovation is vital for growth and probably the biggest challenge for any business is deciding what to do about it. From changing organisational structures, filling critical roles in new and different ways, and partnering on new products and services to embracing disruptive technologies, many facets within every manufacturing organisation are ripe for innovation.

Central to this is a recognition that manufacturing is no longer just about producing exports and outputs for the economy, but rather it now involves a complex network of interrelated producers, innovators and services. The distinction between manufacturers and service providers is becoming increasingly blurred, as products and services are increasingly bundled in the form of value-added solutions. The network, however, is getting bigger, more diverse and more global in nature. Operating in silos, the natural consequence of having a siege mentality, is no longer appropriate for competing effectively in a changing marketplace. Identifying and responding to the challenges and opportunities that the joined-up manufacturing world presents is critical if companies want to move from surviving to thriving mode.

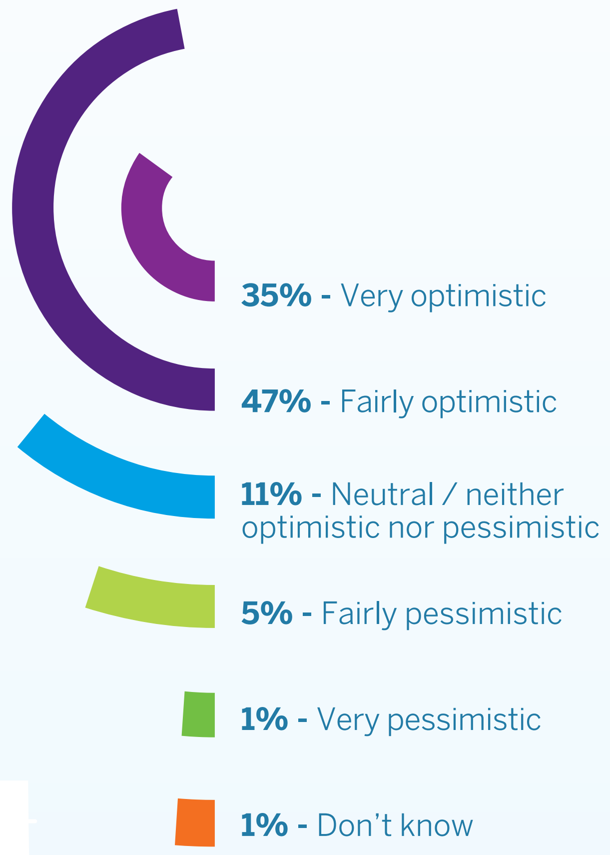
The resilient manufacturer

The manufacturing sector, like the rest of the UK economy, has experienced tough conditions over the last 5 years

The manufacturing sector, like the rest of the UK economy, has experienced tough conditions over the last 5 years. However, the sector itself is very sensitive to economic fluctuations, and any downturn is likely to result in a sharp fall in demand for its products and reduced output. The unwelcome consequences are job cuts and redundancies, a story only too familiar in the UK in recent years.

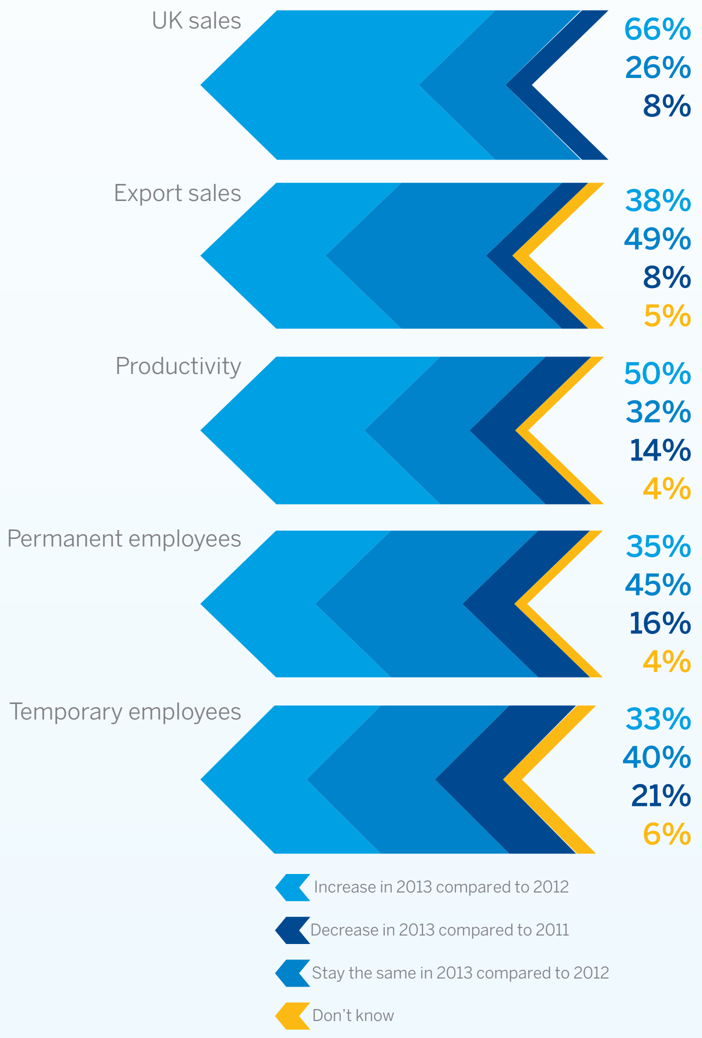
As a result, something of a siege mentality has developed amongst manufacturers in recent years, where their growth and ambition have been stored away, waiting to be unlocked. Rather than waiting on a belated economic recovery which has failed to arrive, manufacturers have instead instilled a level of optimism in their own business ability where they can fulfil their ambitions for growth and change. In anticipation of the coming 12 months, 35% of organisations describe themselves as very optimistic, with a further 47% as fairly optimistic, in their own business prospects (see Figure 1). Such positivity reflects the self-confidence and resilience seen amongst UK manufacturers rather than any significant confidence in a market upturn over the coming 12 months. Two-thirds of organisations (66%) expect UK sales to increase in 2013 compared to 2012, while 38% expect an increase in export sales (see Figure 2). Furthermore, manufacturers are looking to grow their sales in an efficient manner with half of businesses (50%) expecting productivity to rise, and a third (35%) an increase in their permanent headcount.

Figure 1: **Optimism about business prospects for coming 12 months**



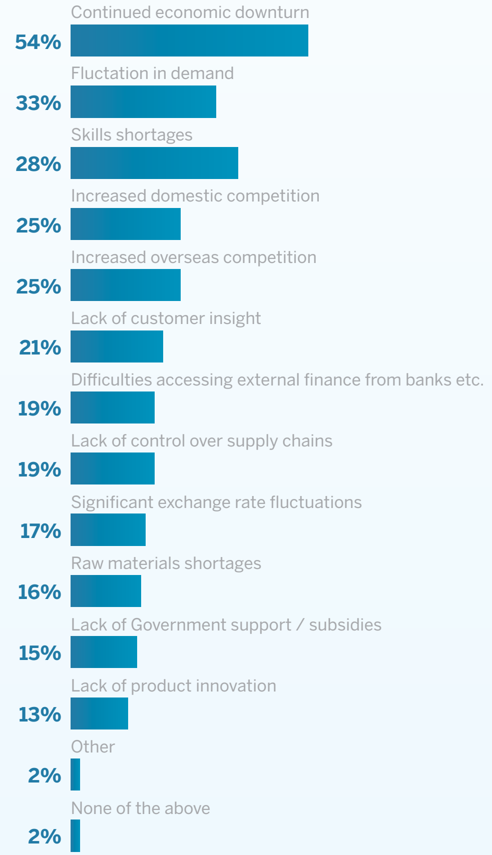
Part of what has formulated the 'resilient manufacturer' in recent years is its ability to rid inefficiencies from the working process. Tools and strategies such as Six Sigma and Total Quality Management (TQM) have allowed businesses to better manage and integrate all parts of the production process, resulting in higher quality and competitive products. With such a strong platform in place, manufacturers are in a solid position to fulfil their ambitions for growth. However, in order to close the gap between their ambitions and reality, businesses will need to direct and synchronise efforts in innovation, finance, management and talent towards growth.

Figure 2: **Changes expected in 2013**



Spotlight on growth

Figure 3: **Challenges likely to impede organisational growth**

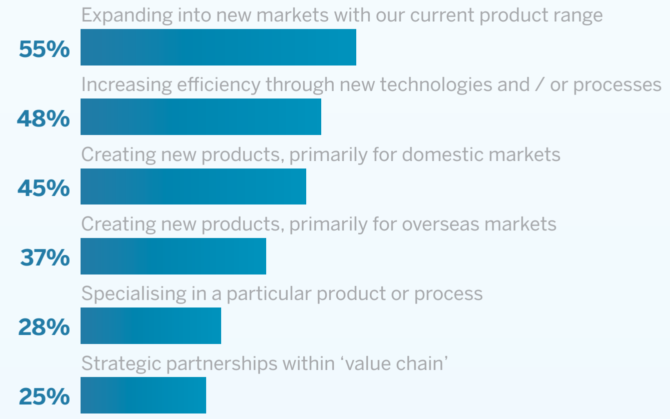


Although the UK manufacturing sector is showing an ambitious desire for growth, a variety of challenges exist which obstruct businesses reaching their full potential, challenges which are largely out of their control. The main inescapable challenge is the economic climate. Over half of firms (54%) believe their organisational growth is hindered by the continued economic downturn, while a third (33%) recognised fluctuations in demand as a challenge (see Figure 3). Further to this, organisations express a concern over the lack of talent to meet their ambitions, with 28% of businesses seeing skills shortages as a key barrier to growth. Therefore, manufacturers are experiencing a wide range of 'external' challenges in meeting their growth ambitions. Whilst all is being done within firms to increase their productivity and efficiency, clearly external pressures will continue to be felt.

However, manufacturers still have power over their own destiny, and every challenge brings with it its own opportunity. Whilst some businesses may be faced with falling demand, it presents the chance for organisations to break into new markets. Over half of businesses (55%) believe expanding into new markets with their current product range is a significant opportunity for driving growth (see Figure 4). Whilst this may appear a risky strategy, businesses must be willing to weigh up the potential benefits of doing so. Interestingly, amongst organisations going for faster growth ('Accelerators'), breaking into new markets is considered a greater opportunity for their business, compared to 'Stabilisers' (61% vs. 51% respectively).

Furthermore, whilst some businesses see domestic and international competition as a threat, others see it as a chance to diversify and expand their product range. Creating new products primarily for domestic markets (45%) and overseas markets (37%) are both considered opportunities for growth over the next 12 months. With new technologies and processes constantly being developed (a strong attribute of the UK manufacturing market), businesses are able to efficiently produce competitive products for their home and overseas markets – an opportunity pursued more by Accelerators (55%) than Stabilisers (44%).

Figure 4: **Key opportunities driving growth over next 12 months**



Spotlight on innovation

Figure 5: Important drivers of business growth in 2013 and beyond

82% Innovation
81% Money & finance
80% Management
77% Talent
73% Technology

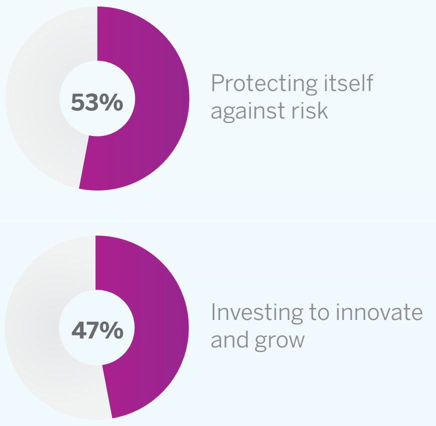
Businesses are confident in their own ability to drive growth and they have identified a number of opportunities to help deliver it. However, what is the greatest driver in helping them achieve this? For the majority of businesses, innovation plays a critical role with 82% considering it "important" in helping achieve growth in 2013 and beyond (see Figure 5). In light of businesses wishing to expand into new markets as a primary strategy to help facilitate growth over the coming 12 months, the need for originality in the business process and product development is greater than ever.

Although innovation is considered the most important factor in driving growth, it exists as one factor amongst a network of others, each of which are dependent on each other to help sustain growth. After innovation, money & finance (81%), management (80%), talent (77%) and technology (73%) are considered important drivers in helping achieve growth. Despite technology being considered the least important, its role is essential and acts as a foundation for all factors. In order for the other drivers to flourish, technology plays a pivotal role in empowering them, especially in the case of innovation. In order to embrace innovation, businesses must be willing to invest in the right technology.

Yet manufacturers appear to be divided in the merits of investing in innovation. Roughly half of organisations say that they are more focused on investing to innovate and grow – 'Investors' (47%), whilst the remainder (53%) takes the primary stance of protecting themselves against risk – 'Protectors' (see Figure 6). Whilst a mixture of SMEs and enterprises exist in both groups, enterprises are equally likely to be made up of Investors (50%) and Protectors (50%), whilst SMEs are more likely to be made up of Protectors (56%) than Investors (44%). However, it should be noted that enterprises are in a better position to take such risks whereas SMEs, who may desire to take risks, cannot afford the consequences involved.

However, whilst investing in innovation is a calculated risk, it is a risk that can bring benefits through improved business processes and product development. Accelerators are more willing to embrace such a risk, with 65% more focused on investing in innovation for growth, compared to 37% amongst Stabilisers. Stabilisers, on the other hand, are more concerned with protecting themselves against risk (63%) compared to Accelerators (35%).

Figure 6: Primary focus

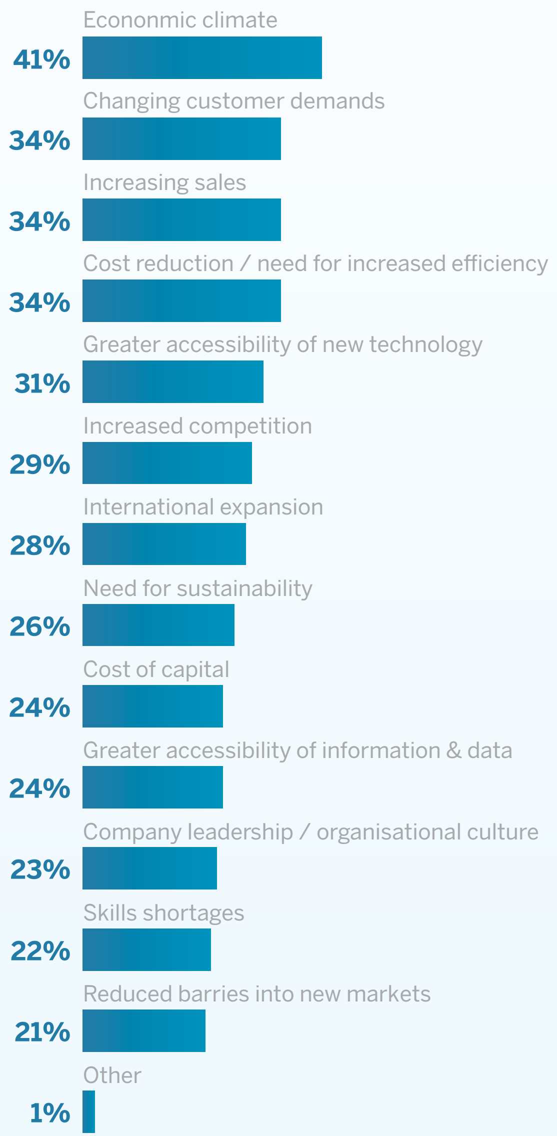


Innovation nation

It is how companies do business with others where organisations should place a greater deal of significance when looking to drive innovation

Whilst the current economic climate is a significant barrier for firms achieving immediate growth, interestingly it is also the biggest driver in motivating businesses to innovate (41%). Other significant drivers of innovation include changing customer demands (34%), increasing sales (34%) and cost reduction / need for increased efficiency (34%) (see Figure 7). External pressures are forcing manufacturers to re-evaluate their processes and how they do business with their customers. It is how companies do business with others where organisations should place a greater deal of significance when looking to drive innovation. In order to effectively innovate, it's important for firms to build close relationships with their customers and also understand their customers' customer. Accelerators, in particular, place greater importance on changing customer demands with 42% seeing it as a key driver of innovation compared to 30% amongst Stabilisers. Having greater visibility of the supplier-buyer network is not easy to achieve, but true innovation is often built from a solid understanding of industry dynamics, drivers and relationships.

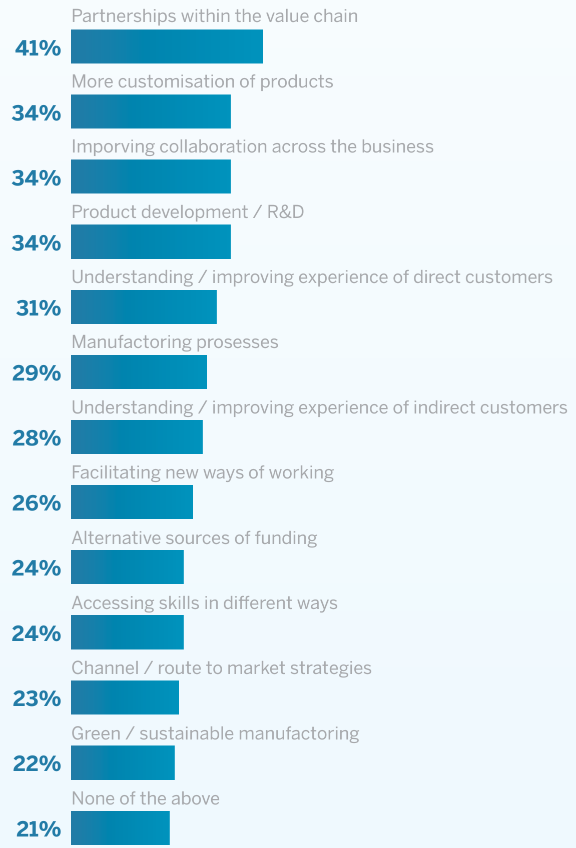
Figure 7: Key drivers of innovation in organisation



With a greater understanding of customers and their changing demands, greater innovation can allow businesses to form more valuable partnerships within their business network. As a result, manufacturers can look beyond their own company to build their strength, allowing them to better integrate with suppliers, customers and even their competitors. Indeed, organisations are most likely to cite partnerships within the value chain as a key area to benefit from innovation investment within their organisation (41%), followed by more customisation of products (34%) (see Figure 8). The result of a more integrated network is improved co-operation, with 34% citing improved collaboration across the business as a result of innovation within their organisation. With barriers across the network broken down, manufacturers, along with their suppliers and customers, can thrive from more joined-up ways of working.

However, in order for innovation to be most effective, businesses must have the right technology foundations in place to support their desired growth. Whilst organisations may have the desire and optimism to change their business, without the right tools in place to execute their objectives, their ambitions are unlikely to become a reality. Indeed, 80% of manufacturers see technology as being integral to their business success in the next 12 months. A range of technology trends are impacting manufacturing companies in 2013 – in particular, social media (34%), big data (31%), cloud (28%) and mobile (27%). 29% see the convergence of these trends as presenting a particular challenge over the coming 12 months – this view is emphasised amongst Accelerators (35%) rather than Stabilisers (20%), highlighting that embracing the challenges that change brings, in this case a raft of disruptive technologies, is vital in the pursuit of a growth strategy.

Figure 8: Areas where innovation will have the biggest impact in organisation



Control and visibility in a time of change

With the need to cut costs across the business, pressure is mounting on the manufacturing sector. In order to better manage this situation, companies require the ability to effectively plan in advance

When it comes to managing finances, manufacturers, like most UK businesses at this time, are focused on keeping their heads above the water. Over half of manufacturers (55%) consider controlling costs as a key challenge in managing finances within their organisation (see Figure 9). This is followed by the need to maintain healthy margins (37%), something that resonates more strongly with Accelerators (49%) than Stabilisers (30%). Other challenges include forecasting demand for stock (32%), slow-paying customers (29%) and planning for investments such as technology (28%).

With the need to cut costs across the business, pressure is mounting on the manufacturing sector. In order to better manage this situation, companies require the ability to effectively plan in advance. However, worryingly, 40% of businesses are only able to plan up to a year ahead (see Figure 10). This is particularly the case for SMEs (50%) rather than enterprises (29%). In order to effectively plan further into the future and better manage this financial problem, companies require the right tools to have greater visibility over their business. As it stands, only 1 in 3 (32%) organisations claim they have an "excellent" level of visibility or insight into opportunities for growth. Accelerators currently have greater visibility over their business prospects, with just under half (45%) claiming to have "excellent" insight into the opportunities for growth, compared to just 1 in 4 (26%) Stabilisers. It is with this greater visibility that companies can start managing their business operations more effectively and start looking further ahead.

Similarly Accelerators, with their greater visibility of growth opportunities, are more likely to be able to plan past 1 year (68%) compared to Stabilisers (54%).

Businesses understand they need to change their processes and innovate if they are to compete effectively in a challenging and complex market, yet this task is made more difficult if companies lack the visibility and insight they need to effectively plan.

Figure 9: Key challenges in managing finances

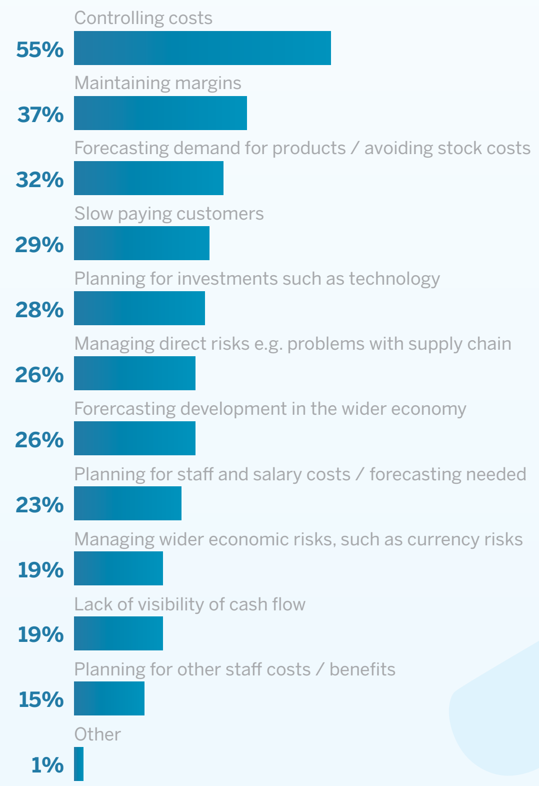
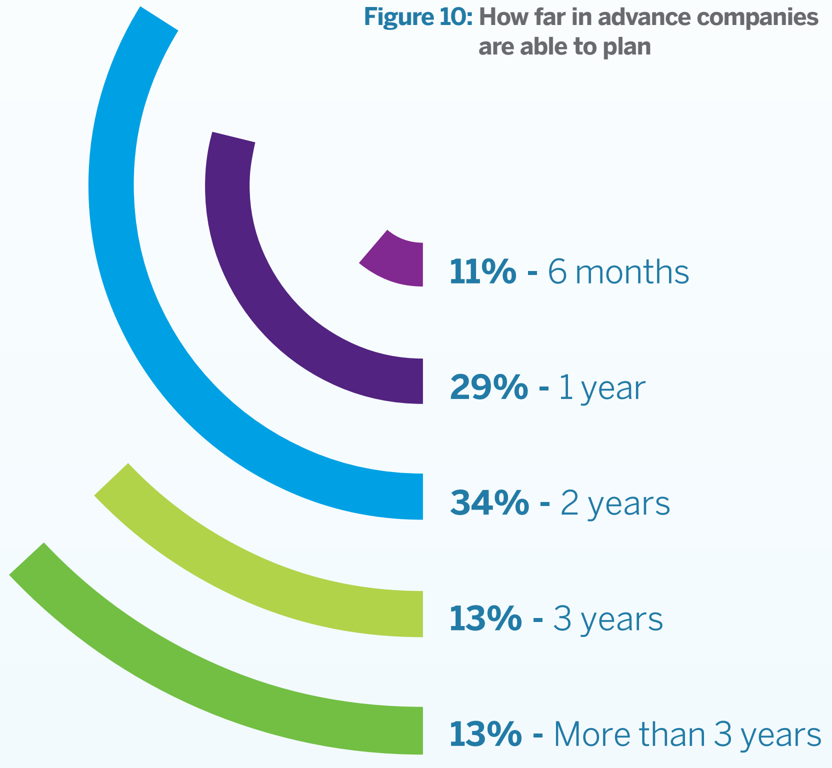


Figure 10: How far in advance companies are able to plan



In order to effectively plan further into the future and better manage this financial problem, companies require the right tools to have greater visibility over their business.

Plugging the skills gap

The inconvenient truth for many businesses is that, if left unchecked, the skills shortage can have long-lasting consequences on a firm's ability to grow

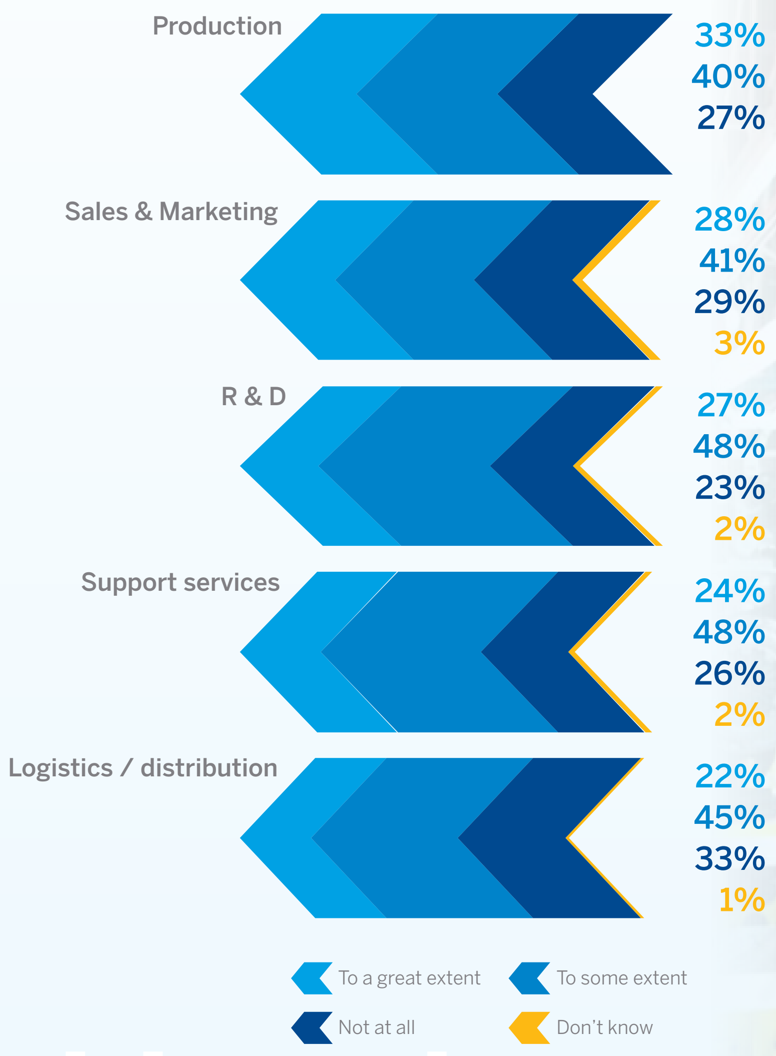
One of the current challenges facing the manufacturing sector is the ever-widening skills gap. In order to support growth, organisations must have the right talent in place to help support increasingly complicated business processes. Yet talent retention and attraction are both obstacles that manufacturers must overcome. Retaining existing employees (46%) and recruiting for skills that companies need in the future (46%) are both priorities for organisations (see Figure 11), the latter of which is of greater significance for Accelerators (55%) than Stabilisers (41%). Further priorities facing organisations include identifying skills requirements beyond the short-term (41%) and recruiting for skills that companies need now (37%).

The inconvenient truth for many businesses is that, if left unchecked, the skills shortage can have long-lasting consequences on a firm's ability to grow. Skills shortages in R&D (75%), production (73%) and support services (72%) are seen as having the biggest impact on the ability of companies to grow (see Figure 12). These are the very skills that characterise the manufacturing sector and skills shortages are only going to intensify with an ageing workforce and a scarce talent pipeline.

Despite the shortage in skills restraining potential growth, measures are being taken to ensure that those entering the workplace are trained and ready. Apprenticeship programmes have always formed a solid basis for the manufacturing sector, and their role and benefits are as important as ever in today's world. Indeed, 80% see apprenticeships presenting a valuable solution to filling the skills gaps in manufacturing. However, with all apprenticeship initiatives, the need to fund and organise successful programmes involves careful planning and organisation. Manufacturing faces a variety of talent challenges moving forward, but only by having all agents cooperating effectively in the value network can the sector as a whole move forward.

Figure 11: Skills and talent priorities

Figure 12: Where skills shortages are impacting company growth



Moving forwards – joined-up manufacturing

Figure 13: Time for a manufacturing industry makeover?

77% - say that manufacturing industry needs to improve its image to attract recruits

45% - say they have focused on improving the image of their company to potential recruits in the last 12 months

70% - say the manufacturing industry needs to improve its image to attract more funding

Manufacturing is characterised by ever longer and more complex value chains. A product produced entirely in one country is now something of a rarity and manufacturers are aware that joining forces with others, whilst improving collaboration and knowledge sharing internally, can lead to increased efficiencies, enable access to new markets and technologies and provide a gateway to greater innovation. Indeed, partnerships within the value chain (32%) emerge as the area where innovation is seen to yield the biggest impact on organisational performance.

Joined-up thinking extends to the manufacturing industry as a whole though. Skills shortages are clearly a significant concern for most manufacturers and any optimism about recruitment prospects for the year ahead is likely to be tempered by the actual ability of organisations to successfully retain and attract employees. Whilst almost half (45%) have made some effort to improve the image of their company to potential recruits in the last 12 months, 77% of UK manufacturers believe there is an onus on the industry as a whole to come together in enhancing its image in order to attract recruits (see Figure 13). A similar proportion of manufacturers (70%) see an industry image overhaul as vital in attracting more funding.

The Government clearly has a role to play, ensuring consistent and supportive fiscal policy and legislation to optimise the UK manufacturing environment. 83% of companies think that the Government could do more to support UK manufacturing while just 47% think that the Government is adopting the right policies to drive growth in the industry.

The buck does not stop at the Government, however. The future of manufacturing is dependent on optimising the whole network in which manufacturing operates. This becomes particularly evident in the case of tackling the skills issue. Figure 14 shows that the ultimate responsibility for ensuring that those entering the workplace have the skills required by manufacturing companies is seen to reside collectively with Government, employers and the education system (31%), rather than solely with one of these bodies. Interestingly, it is enterprises (37%) and Accelerators (49%) that are more likely than SMEs (24%) and Stabilisers (22%) to look to this combination of entities.

Figure 14: Responsibility for ensuring those entering workplace have skills required by manufacturing companies

18% - Government

25% - Individual educational establishments

26% - Employers themselves

31% - It needs to be a collaborative effort between Government, employers and the education system

Conclusion

UK manufacturing remains world-class and with an open mind to innovation, poised to emerge from the economic storm stronger than ever

UK manufacturers have faced unprecedented challenges in recent years from a contracting market, competitive threats from emerging economies and ever tighter manufacturing timescales. A focus on survival has dominated the landscape and companies have adopted a siege mentality and significant resilience as a result. The spotlight is now shifting to growth and companies now need to open up their boundaries and work collaboratively with others to conquer new markets and create new products and services.

Complex, global value chains now define manufacturing and, where manufacturing and services were once regarded as completely separate; there is now a "knowledge" element to manufacturing. Bridging this historical divide is now entirely feasible. Central to this is innovation, not just in terms of products or services, but in terms of thinking differently about business operations, processes, technologies and talent.

Visibility is core to identifying opportunities for innovation, particularly where value chains are concerned. Yet many manufacturers are unable to plan beyond the short-term, are not prioritising customer insight and lack the confidence to know where to innovate. The vast potential within joined-up manufacturing networks is only possible if these networks are "open" and companies are prepared to embrace collaboration and co-creation moving forwards.

Technology is the common denominator for innovation – paving the way for greater process efficiency, visibility and collaboration. Disruptive technologies, such as cloud, big data, social media and mobile, only serve to create further opportunities for manufacturers wanting to differentiate themselves.

These are exciting times for manufacturing. Challenges still abound but so do opportunities. UK manufacturing remains world-class and with an open mind to innovation, poised to emerge from the economic storm stronger than ever.

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