



LEP MANUFACTURING BOARD

2nd October 2018

MoCap Tech Hub, University of
Lincoln Sports Centre , LN6 7TS

(car registration needed in advance for campus access
please)

Paper 0 - Agenda

Time	Item and brief description	Lead	Access/Circulation
9.30	Welcome and Introduction to MoCap Tech Hub/ Designblok Hub and demonstration	Franky Mulloy, UoL	
9.50	Draft Minutes from 3 July 2018	Ruth Carver	Paper 1
9.55	Manufacturing Sector Plan - Refresh draft - Review and agree Priorities for Action	All	Paper 2
10.40	Energy Strategy for Greater Lincolnshire	Andy Brooks	Paper 3
11.00	Operational Activities update	Samantha Harrison	Paper 4
11.05	Manufacturing Barometer and Manufacturing Growth Programme Update	Marcus Pearson	Documents attached
11.10	Internationalisation and Economy update	Kevin Ross	Verbal Update
11.00	Roundtable updates (Inc Engineered in Grantham - Kay Pryszlak)	All	Verbal Update
11.10	Any Other Business	All	
11.10	Designblok Tech Hub Site Tour	All	

Apologies: Steve Middlebrough, Dr Megan Ronayne, Garry Wilkinson, Darren Joint,

Directions

Motions Capture MoCap Tech Hub, School of Sport, University of Lincoln, Lincoln__
please can attendees supply their car registration details for campus access.

The address (for satnav) is the **University of Lincoln Sports Centre, LN6 7TS**. If travelling by car, this should bring you onto campus via the Rope Walk entrance (opposite Toys'R'Us). Once past security, take a left at the mini roundabout and follow the road all the way round the Isaac Newton Building and continuing car park. Once at the end, take the left under the flyover and the Sports Centre

building will be directly in front. The meeting room will be signposted from Reception in the Sports Centre building entrance.

For information please find here a link to the Motion Capture Hub video, MoCap Hub. Franky Mulloy, Lecturer of Biomechanics at the University of Lincoln, heads up the Business Lincolnshire Motion Capture Hub. Learn about how the MoCap Hub could support your business to improve anything from your manufacturing process, product design and workplace safety!

https://www.youtube.com/watch?v=eGhh4ui4SO4&t=0s&list=PLL2ZK9CqKpu_zn18bVKzXjzbffYTEEn-Pv&index=24

Date of Next Meeting - TBC

Paper 1 - Greater Lincolnshire LEP Manufacturing Board Meeting

3rd July 2018 - Notes and actions

Time	Item and brief description	Commentary	Action
10.00	1 – Welcome, Apologies, Declarations of Interest Minutes and actions from the last meeting	Present: Darren Joint, Marcus Pearson, Richard Allarton, Ray Newell, Neil Main, Garry Wilkinson, Sam Fells, Steve Middlesbrough (Chair) , David Earnshaw, and Helen Doughty, David Talbot, Angela Borman, Samantha Harrison, Ruth Carver & Kevin Ross Apologies: Phil Ball, Kay Pryszlak, Dean Barnes, Paul Taylor, Edward Tong, Mike Hague Morgan, and Katie Hedges Guest contributors: Dr Megan Ronayne (EEF), James Baty (GLLEP Research Manager), Dr Bernie Rickson (IOM3) and No Declaration of Interests received. _____ Welcome from Dr Bernie Rickinson (BR) of IOM3 - Introduction to the IOM3 facility - Presented a proposal to the board. Seeks endorsement to make IOM3 Grantham a recycling centre of excellence – a “demonstration centre for plastic recycling”. - Seeks to set up a recycling focus group. - Considering applying for funds from the Strength in Places fund. - Must ensure no national overlap with provision - Interested in accessing existing ERDF funded machinery located at the UOL/Holbeach. - IOM3 to send further information to SH/RC for review Action <i>Flesh out a more detailed proposal and submit.</i> <u>Formal meeting commenced</u> Previous Actions completed from the last meeting.	Ray Newell /Bernie Rickinson

		➤ Some members have registered on World of work website www.theworldofwork.co.uk - please look at this, we need to include more information on the Manufacturing Sector and the types of jobs that are available. ➤ Kesteven Engineering Group have met Grantham college. Outcome to be discussed at the next meeting. ➤ Manufacturing Plan Refresh Feedback – 2018 - Needs to include Infrastructure improvement in recommendations section – see AOB. - Needs to ensure traditional skills have as much emphasis as new 'AI' et al skills in recommendations section. - Needs to refer to Big Data and 'housing' in one central place. - Need to review recommendation and action plan at the next meeting No further outstanding actions were discussed.	Kevin
	Local Industry Strategy Update	Outline information included with board papers Each LEP is now working on their own industrial strategy and GLLEP are working on all aspects of how we move forward and can drive change and feed into the main national Industrial strategy. GLLEP are currently in the research phase, the Local Industrial Strategy (LIS) has to be based on a robust evidence base. It will be co develop and co agreed with the government and will focus on the long term. Emerging local Industrial Strategy priorities (where Lincolnshire has distinction and expertise) will be identified. These local led solution required then feed into main government strategy – end 2019. LIS emerging areas to date: • Food processing productivity • National Centre for rural health • Industrial digitalisation and future skills needs • Rural energy solutions • <i>Please send your ideas to Ruth.Carver@lincolnshire.gov.uk</i>	All

	Productivity	Presentation (enclosed) /workshop by Dr Megan Ronayne from the Engineering Employers federation (EEF) spoke about productivity, its inconsistency of measurement and alternative ways of improvement - based on recent research. We need to be clear in how this is measured on a local, national and international level. Members were encouraged not forget the significant positive impact of some of the softer sides of leadership and management, eg employee welfare – improving wellbeing and mental health could add 10% to productivity figures. These are often the differentiating factors for employees. For example, Siemens productivity improvements from replacing sodium lighting in their factories to LED lighting. Do businesses in the UK manage too many processes at the expense of not managing employees ? For more info EEF produce a document called “Unpacking the puzzle”, board members are asked to feed in their views	All
	Operational Activities	The first Manufacturing Sector e-bulletin was issued to 773 manufacturing businesses in May. Due to the new GDPR regulations, the mailing list has now dropped dramatically; please can you encourage your peers to sign up to receive future updated about support, funding and events design for the sector. Please sign up via www.businesslincolnshire.com/register We are planning the next Manufacturing conference for March 2018 focusing on productivity through people, automation and trading post Brexit. The Industry 4.0 event will run again in October (date TBC) Go Digital Conference on the 18th July from 9.00am – 1.00pm at the University of Lincoln. Businesses will be able to learn about new technologies, to hear about innovative ideas and to begin to understand how the future of business is being shaped by them. BBC Click Technology Reporter, Kate Russell, will be our host enthusing us with insights into what’s happening on the tech scene now, that will make businesses of all sizes more efficient, productive and profitable. Insights in to what business could look like in 2028 will be given from the Executive Editor at Wired magazine, Jeremy White. For further information and to book http://www.businesslincolnshire.com/events/2018/07/18/1952/godigital18-conference The Business Lincolnshire Growth Hub will also be delivering a	

		number of briefing events that focus on what businesses need to be put in place to navigate through brexit.	
	Economics & International Supply Chain Opportunities	<u>National Economics – 2018 qtr 1 – ONS– Sunday Times</u> 1. UK Manufacture largest monthly fall in output for 5 years 2. ONS report – fell by 1.3% y/e 2017 blamed falling demand in steel and electrical machinery. 3. Quarterly growth -0.5% ...overall industry fell -0.8% when markets looking for 0.1% rise. a. Trade data provides an insight into real world demand for pound sterling as well as pace of economic growth. <u>Lincolnshire Economics – Lincs Research Observatory</u> 1. Raw material price increases. 2. Inflation replacing the concern for competition 3. Balance of respondents reporting positive capital investment and training plans. <u>Internationalization – Supply Chain.</u> <u>Lincs County Council - Economic Forum</u> A delegation of 70 Chinese –Mr Zhou – chief man for High Tech Zone Investment and cooperation bureau – I have a list of delegates if interested. Trade has begun. <u>Other opportunities –</u> Brexit – Kings College • Supply chains becoming smaller – raw materials sourcing from the EU beware • North Lincs fall of upto 15.9% of GDP • Food processing may see growth in domestic product existing imports decline • Wood/paper/printing likely to go up. • Rules of origin – how custom authorities classify where an export has come from – typically 50%+ must come from the origin country to claim a free trade agreement – average car in the UK 44% from UK Suppliers – 20-25% UK manufactures...our cars could attract a tariff from an importing country – WTO – 10%4% components Couple of businesses now using more recycled plastics	

		– surprised main impact reduced their costs reduced exposure to vagaries of the oil price. EEF had a Hackathon event in London – how tech can play a huge part in finding future manufacturers and engineers – BBC Click Kate Russell – designed an app ...Rockstar. Mach 2018 0 Jürgen Maier – Made Smarter Commission – Develop UK's own 4.0	
	Manufacturing Barometer update	As included with board papers	
	Any Other Business	- More time was needed to discuss each section of the Manufacturing Plan Refresh. - It was suggested we take each recommendation/action section and discuss in detail the desired outcomes at <i>the next meeting</i> - The Skills section should consider Darren's recent visit to The Marches LEP, Centre for Manufacturing and Technology .<i>Feedback to to provided at the next meeting</i> . The Talent Retention Service was discussed and deemed not appropriate in favour of investigating the software Placer- <i>TBC at next meeting</i> - BREXIT support is needed now! DIT and LCC do have workshop programme. EEF have a Brexit toolkit. East Midlands Chamber have a Brexit checklist. Currently <i>scenario analysis</i> is the only action businesses can carry out. <i>Re-circulate DIT/Growth Hub Brexit training schedule</i>. - Up to 10% Apprentice levy can be transferred to a company's supply chain. - How to create more awareness of help? – Each member have an area – engage professional services sector more – have a case conference ensuring a business is offered a 'package' . - Boards help is sought with testing an energy and water app – helping utilities in understanding the infrastructure gap. <i>Information on the LEP Utilities Study and Action Pan to be discussed at the next meeting</i> .	Samantha Samantha

Meeting closed at 11.50

Date of Next Meeting:

October 2nd at UoL, Sport Centre Building, MoCap Hub 9.30-12

Greater Lincolnshire Manufacturing Sector Plan - Refresh DRAFT



Manufacturing Sector 2014 Plan Ambitions and Targets

Ambition

The GLLEP's vision is to: -

- **INCREASE** manufacturing employment, output and investment;
- **GROW** existing businesses
- **ATTRACT** inward investment and;
- **focus** on where the **IMPACTS** will be greatest

Target

The delivery of the plan will increase the economic output by 2030 by a third. The current GVA figure is £2.1bn (2014). During the timescale of the plan the GVA uplift will have increased by £680,000,000.

Employment as a direct result of the delivery plan will be increased by 3 % e.g. 1,230 new jobs will be created. This target allows for the existing 41,000 (2014) jobs to be retained and increased to 42,230.

Introduction

This document updates the Greater Lincolnshire Manufacturing Plan 2014 and considers the action and changes taken and the new challenges faced by manufacturing businesses in 2017 and beyond. The paper will help focus GLLEP actions moving forward.

Traditional focus of many manufacturers hasn't changed – *Cashflow management, Continuous improvement, skills training, product extension and development et al.* The methodology behind these activities and their priority, may change, but essentially the headlines themselves remain.

However, by 2020 (short term) there are five *impacts* for change – **Brexit, Industrial Strategy, Minority Government, National Living Wage and Apprentice levy (use of)** that will have an effect on the aforementioned headline activities.

So, this plan will consider in detail the main four, touch on some of the *activity and progress* since 2014, but still capture and comment on some of changes that are likely to have a medium and longer-term impact from 2017 going forward – coupled with a light touch context.

Medium and longer-term impacts will include:

- Industry 4.0
- Productivity - AI and robotic development impact on electrical power requirements.
- Midlands Engine/Northern Powerhouse
- Connectivity and big data
- Additive manufacture
- Talent attraction/retention

1. Activity to date

There were 4 key priorities for actions from the Manufacturing Plan 2014, outlined below are some of the highlights/actions to date.

1. Business growth - through business development and support

- There are 23 business support products for the manufacturing industry coupled with 12 forms of direct financial support
- A bi annual Manufacturing Conference has been established
- Tailored half day workshops have taken place and are planned to take place covering Lean, Quality, Strategy etc.
- Events regards IP, IR4.0, International Trade and Manufacturing talent are planned in during 2018
- The Business Lincolnshire Growth Hub (the business support arm of the LEP) has been established and embedded
- International trade opportunities have been developed. A MOU has been signed with Hunan Province (China) opening possible new trade opportunities and a civic visit took place in October 2017.
- SME's have been encouraged to take advantage of a dedicated Supply Chains programme. For example, Triton Knoll Offshore Wind Farm are specifically encouraging local engineering to take part in it supply chain operations. ensuring each have visibility of opportunities associated with the construction, operation and maintenance of the wind farm through, supplier events, business conferences and other online activities.

2. Skills Development

The Greater Lincolnshire Employment and Skills Board leads on the skills agenda, providing expertise and advice to the LEP.

The Board aims to:

- a. Ensure that employers can access the right skills and training to grow their businesses.
- b. Increase the level of skills of the population of Greater Lincolnshire.
- c. Increase skilled employment opportunities in Greater Lincolnshire.

For SME manufacturers, there are currently two main support schemes funded by the ESFA.

- **Skills for the workplace** where they can develop their staff at no cost. SME's can receive flexible, bespoke training plans designed to boost business growth and access a range of fully funded training courses and qualifications.
- **Specialist Skills Advisor Programme** consists of a team of Specialist Advisors who can support businesses to identify the training and skills needs that they have or need for future growth.

A manufacturing sector skills /provider event is planned for 2018.

3. Supporting R&D and Innovation

The Innovation Council aims to bring together innovators, SMEs, corporates and academics, and by hosting exciting events and workshops, they aim to nurture an innovative mindset in Greater Lincolnshire, encourage inward investment in innovation and focus on the benefits of an innovative approach to SMEs and start-ups.

There is a dedicated ERDF funded support for this area and the following schemes are available;

- **Proof of concept grants, match funded at 50%, are from £1k-10k and used for research and development**
- **Innovation vouchers provide up to £5k worth of an academic's time and facilities**
- **Specialist Innovation advisors can deliver up to 12 hours of business support**
- **Part funded Graduate Internships provide an injection of graduate level skills from 3 – 6 months**

4. Infrastructure and location

A variety of road and rail improvements have/are taking place; Lincoln Transport hub, Lincoln Eastern bypass, Boston quadrant and the Grantham Southern relief road.

The GLLEP Rail Study has been completed with committed schemes;

- **Lincoln – London, two hourly service from 2019**
- **Replacement of Pacer trains and major refurbishment of other rolling stock operated by Northern by 2020**
- **An underpass at Werrington Junction in autumn 2020**

The £50m Broadband Delivery UK (BDUK) superfast broadband programme for Lincolnshire has been rolled out and is one of the largest projects nationally

In some parts the GLLEP geography, broadband functionality continues to impede the development and growth of digital businesses. Businesses in this sector require ultrafast capabilities and this should be a consideration when planning broadband supply.

With regard to infrastructure, there are a couple of funding applications in process that aim to support fibre to the premises broadband provision which would support speeds in excess of 'superfast broadband' (which is defined as 30Mbps). There is an Expression of Interest (EoI) with BDUK for a slice of the £200M fund to enable the provision of fully funded fibre networks. If successful, the intention is to divide the funding between the 7 Districts and N & NE Lincs with a view to funding a fibre build in each area at a site of their choice. In addition, there is an ERDF bid for SME FTTP connectivity currently in progress.

Midlands Connect has been established, in collaboration with central government, bringing together local authorities and local enterprise partnerships from across the Midlands.

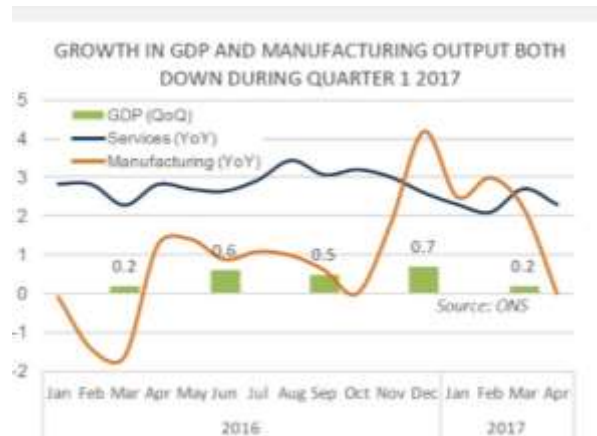
Together, the Midlands Connect Partnership and the Department for Transport have developed a Transport Strategy that identifies the major infrastructure projects needed to improve the connectivity of the region's key locations so help drive economic growth and power the Midlands Engine.

Boole Technology Centre has opened and provides flexible, premium office and laboratory space. It sits at the centre of Lincoln Science and Innovation Park's community of innovators, entrepreneurs and researchers and has been built to complement the high-end research laboratories in the neighbouring Joseph Banks Laboratories.

Current Economic Context 2017

The Lincolnshire Economic Briefing Q2 2017 reports “*manufacturing continues to slow*”. The consequential currency gains of previous months and export increases have been exacerbated and coupled with the longer-term view business expectations are down regards profitability, turnover and recruitment.

The Supply Chain Funding Index also has reported a notably weaker situation in Qtr 4 2016 and Qtr 1 2017. The biggest decline is within the industrial and engineering sector. The entire index is consistently lower when there is a break in the supply chain - 40% of supply chain breaks where attributed to the Industrial and Engineering sectors – as expected small businesses are most at risk and describe the break as significant or quite disruptive.



Unforeseen Impacts

1) BREXIT (S)* (SC)** (P)***

At present, Greater Lincolnshire (GL) businesses enjoy trade with the EU without tariffs or quotas. Following Brexit, it is possible that tariffs will be imposed on UK goods and services, in the event of new trade deals being arranged; however, some in the manufacturing sector have argued that Brexit will provide greater flexibility for GL businesses to position themselves with lower-cost suppliers in countries like China. Although China, itself, no longer sees itself as a low-cost supplier.

The referendum result has led to a rapid deterioration in the value of sterling (£1 = 1.08 Euros). This makes exports cheaper, and it may make GL manufacturers more attractive to overseas businesses, who find that their money affords them greater purchasing power. Equally, GL businesses may look to source raw materials internally, Nissan in Sunderland has already announced such a move. Also, given that the weakened pound has made importing foreign products significantly more expensive; this could provide a much-needed boost to the GL's internal market. Possible restrictions of the free movement of people within the EU could create issues with the sourcing of labour in factories and other parts of the manufacturing supply chain. If EU migrants are compelled to leave the UK, the manufacturing industry would be one of the biggest losers. *'It is estimated that migrant labourers from the EU constitute 30% of all workers in the food production sector, and 12% and 11% in the leather and textile industries respectively'* - Independent July 2016.

*S – Skills ** SC - Supply Chain *** P - Productivity

Similarly, changes to the labour market could drive up wages, where UK workers expect higher pay than EU migrants who might be willing to work for less. Outsourcing of labour could become more prevalent, as companies try to keep down their regular cost base.

For those manufacturing businesses which are looking to expand, it is possible that, in post-Brexit Britain, they may find it harder to obtain finance from their banks. Whilst the Bank of England has introduced measures to encourage lending by financial institutions, this may not translate into reality, as banks potentially become more cautious and ramp up their lending criteria.

Business owners may wish to consider the physical locations of the manufacturing business. Businesses not physically located within the EU may lose access to rights that are dependent upon them being established within an EU country.

The manufacturing sector is highly regulated, with much of the legal framework being crafted by the EU. It would seem unlikely that the spirit of this regulation will be swept away, but there may eventually be a different set of requirements as the UK works through the legal ramifications of exiting the EU.

It is worth considering whether any GL businesses have any long-term contracts which might be affected by withdrawal from the EU and establish what, if any, steps can be taken to rebalance rights and obligations under such contracts. Possible solutions may lie in altering contractual wording to reduce risks (e.g. applicability of force majeure clauses; allocation of tax liability), and your choice of law clauses and dispute resolution mechanisms may need to be reviewed

For any GL businesses that currently receive subsidies from the UK government, Brexit may be good news as UK funding will no longer be restricted by State Aid rules, and the UK government will be able to provide subsidies to UK companies without having to notify the European Commission. Conversely if you receive EU funding this may be withdrawn for UK companies post-Brexit.

Foreign currency risk is clearly a significant issue at present. Those businesses which did not mitigate this risk by negotiating forward currency contracts before the referendum result could be exposed to large losses, if they have overseas suppliers to pay in foreign currencies.

Forward currency contracts are a very useful way to lock in exchange rates in advance, so that business-owners have the peace of mind that they will not be exposed to volatility in currency movements. Of course, this can also mean that positive foreign exchange movements are not benefited from, but in times of uncertainty, manufacturers may prefer the stability which forward currency contracts can bring.

As an alternative, if manufacturers are able to maintain separate foreign currency bank accounts, and pay their suppliers in the native currency, rather than converting from sterling to

the supplier currency, this is a natural means of mitigating risk. However, not all businesses are able to do this, if, for example, they do not receive any substantial income in foreign currency.

2) Internationalisation of Suppliers (SC)

It is recognised that supply chains in the manufacturing sector have been eroding from the point they were at 30 years ago. Even in the UK's most competitive manufacturing sectors, domestic supply chains have weakened in comparison to countries such as France and Germany which maintain a strong domestic supply. As a comparison, the service sector still has domestic supply chain levels of over 90%.

3) Increasing International Competition (SC)

The expansion of foreign markets, particularly in Asia, have resulted in increased competition for domestic manufacturers.

4) Varying Exchange Rates (SC)

Variance in exchange rates can pose significant risk to businesses, particularly those who have numerous transactions outside of the UK.

5) Supplying to politically unstable countries (SC)

Politically unstable countries can have sudden and dramatic policy changes which may result in money being lost by suppliers.

Medium and longer-term impacts

1) An Ageing Workforce / Talent Retention (S)

As the population grows older, an increasing share of the manufacturing sector's workforce will be over the age of 60. Older workers have often been considered less productive than younger ones, raising the issue of whether an aging workforce will also be a less productive one. The impact of the aging workforce is beginning to be recognized as a critical business risk.

The impact of retirement means that attracting younger people into the sector is crucial for its future viability.

Many organizations are finding it increasingly difficult to attract critical talent and an ageing workforce may not be helping as they wish to remain, allowing business not to expand as quickly as they'd like. This is a clear area of disconnect between the job security employees and employers.

2) Apprenticeship Levy (S)

For all employers operating in the UK, the levy has been set at 0.5% of all company's pay bill (payable through PAYE alongside income tax and NI) – but it only applies to those whose wage bill is greater than £3 million pa.

3) Gender Pay Reporting (S)

All organisations with 250+ employees will need to report the overall gender pay gap between all men and women from April 2017. For manufacturers, the gender pay gap is undoubtedly going to be higher than average, with employers taking action to attract and retain more women into manufacturing'. SMEs need to be wary as this employee number will ultimately dwindle, so need to be prepared.

4) Pay and the National Living Wage (P)

The National Living Wage for those aged 25 is a rate of £7.50. It is the government's ambition to increase this rate to 60% of median earnings by 2020, which equates to around £9 per hour. This is likely to have a greater effect on manufacturing SME's and the industries associated with low pay.

5) Migration (P) (S)

Some Greater Lincolnshire manufacturers operate globally and the have ambitions to supply to new markets and into new supply chains can mean expanding activities all over the world. Recruiting employees from inside and outside of Europe is often required to meet the skills needs to fulfil these ambitions. Many of the current, and indeed proposed, barriers can significantly hamper businesses ability to find the skilled workers their businesses need.

6) 4 IR and Industry 4.0 (P)

The 'Fourth Industrial Revolution' and 'Industry 4'. refer to the technological revolution that has been predicted to *"fundamentally alter the way we live, work and relate to one another"*.

The benefits of 4IR technology adoption for manufacturing will be widespread. In a report by the Engineering Employers Federation, they anticipate that Industry 4.0 will lead to smarter supply chains, smarter production and smarter products.

7) Midlands Engine (SC)

The Midlands Engine will invest in skills, transport and innovation. The ME has developed other Midlands initiatives; Midlands Connect (Transport), Midlands Enterprise (7 x Universities) and Midlands Skills challenge.

The launch of the Midlands Engine Strategy is a demonstration of the government's commitment to making the Midlands a powerful engine for economic growth. Stretching from Shropshire to Lincolnshire, with the M1, M6, and most of our major railway lines running through it, the Midlands sits at the very heart of the UK economy.

During 7-11 November 2017, a Midlands Engine Trade Mission visited the China International Industry Fair (CIIF) in Shanghai, a hugely important event for the manufacturing sector. With £3.1bn exports from the Midlands to China this is a great opportunity to tap into a huge market for regional businesses.

8) Additive Manufacture (P)

3D printing, also known as additive manufacturing (AM), refers to processes used to create a three-dimensional object.

The effect of 3D printing is a double-edged sword. One example of the positive effect is lowered manufacturing cost through recycled and other local materials, but the loss of manufacturing jobs could also hit. The UK may benefit perhaps the most from 3D printing, because of our growing aged society and shift of age demographics that is a concern related to production and work force. Also, the health benefits of the medical use of 3D printing would cater well for an aging western society.

9) Northern Powerhouse (SC)

The Northern Powerhouse's objective is to achieve a sustained increase in productivity across the whole of the North working with northern towns, counties, cities, Local Enterprise Partnerships (LEPs), businesses, universities, charities and others to address the fundamental barriers to productivity that the North faces. This means improving connectivity both within and between towns, counties and city regions; addressing the disparity in skills between the North and some other parts of the country; ensuring the North is an excellent place to start and grow a business; and promoting trade and investment across the North. GL businesses need to be supported to access supply chain opportunities.

10) Infrastructure – Physical, Digital and Utility (SC)

GL Manufacturers are concerned that their growth ambitions impeded by the lack of utility infrastructure. In 2017 GLLEP undertook a *'Future proofing the capacity of utilities in Greater Lincolnshire'*.

The review looked at the challenges that businesses have with electricity supply and connectivity, as the grid is presented as a passive system, which does not readily lend itself for easy connection from local decentralised production. This causes problem further up the line during non- peak time with over capacity. This then perpetuates the perceptions that the supply side is out of 'sync' with the demand side, in terms of expectations and contract requirements.

The increase in demand by expected major development growth seems to be met with the business concept which is that the developer is expected to pay for the expansion/capacity of infrastructure, without the surety this supply will be made available to them until a contract is signed.

One of the outcomes is to build visibility to stakeholders of the importance of utility infrastructure provision - Access to utilities like water, gas and electricity is one of the main issues facing businesses in Greater Lincolnshire, and in some cases development and investment opportunities have been lost because of the poor provision and cost of utilities in some areas. There is an urgent need to raise awareness of utility infrastructure in Greater Lincolnshire even further, encouraging more businesses to work with us and partners to contribute to Greater Lincolnshire's economic growth.

11) Industrial Strategy (P)

The government has published a white paper that wants to build an industrial strategy that addresses long-term challenges to the UK economy. Their aim is to improve living standards and economic growth by increasing productivity and driving growth across the whole country

The focus is on spreading best practice of most productive businesses, access to finance, increasing exports, management and leadership skills and making better connections between high-performing businesses and their supply chains, building skills and ensuring everyone has the opportunity of good work and high-paying jobs.

- Launch and roll-out Sector Deals partnerships between government and industry aiming to increase sector productivity. The first Sector Deals are in life sciences, construction, artificial intelligence and the automotive sector
- Drive over £20bn of investment in innovative and high potential businesses, including through establishing a new £2.5bn Investment Fund, incubated in the British Business Bank
- A network of British Business Bank regional managers will be rolled out by Autumn 2018 to ensure business across the UK know how to access sources of investment.
- Local Growth Hub programme will be built upon by enabling the Hubs to bring together public and private sector partners such as UK Research and Innovation, the British Business Bank, Tech Nation, investors and universities. They will continue work of peer-to-peer networks, and connecting businesses to support as well as considering how to support high potential businesses to scale up.
- Launch a review of the actions that could be most effective in improving the productivity and growth of small and medium-sized businesses, including how to address what has been called the 'long tail' of lower productivity firms
- Launch a new Supply Chain Competitiveness programme that will target areas where key businesses need to improve to support training and enhanced business processes in manufacturing.
- Piloting intensive export growth support for potential scale-ups and particularly ambitious medium-sized businesses. Working with LEP Growth Hubs.
- Recognition of strength of food and drink industry. A new Food and Drink Sector Council is being established to lead work to secure the UK's position as a global leader in sustainable, affordable, safe and high quality food and drink. An early task will be to build on emerging proposals for a food and drink sector deal in food and drink manufacturing including support to transform exports and capitalise on its unique innovation opportunities in sustainable agriculture and food manufacturing.
- A new Future Sectors team will lead four reviews a year into the highest potential fast-growing sectors yet to establish an identity.

Conclusion

There is a new economic environment since 2014, represents a collection of threats and opportunities that are dramatic, but there are three clear themes emerging;

- **Productivity**
- **Skills and labour**
- **Supply Chain**

1) Productivity

Growth is but one determinant, and it doesn't always make us more productive.

The CBI report 2016 *Lifting the Trophy* recognises “*productivity matters because it determines how much they (businesses) can pay their staff, how quickly they can grow and what they can invest in*”



Productivity led growth would represent a step change.

2) Skills and Labour

People drive productivity and employers are often looking for **traditional** skills and **softer traits** that go beyond qualifications and experience.

While education and experience may make people eligible to apply for a job, to be successful in the role people will need to exhibit a mix of skills: 'employability skills'. This means that the specialist, technical skills associated with different roles may be less important than the '**soft skills**' that can be transferred between different jobs and different employment sectors.

For employers, getting the right people means identifying people with the right skills and qualities to fulfil the role and contribute to the organisation's success. Candidates may have the qualifications and 'hard skills' needed to be able to manage the job role but, without a well-honed set of 'soft skills', employers are less inclined to employ.

3) Supply Chain

Manufacturing businesses, especially, are only as strong as their supply chain.

Supply chains are all around us, yet are largely invisible. They tend to be something that we take for granted until something goes wrong. This means that we can make decisions that unknowingly have a huge impact, either positive or negative, on other people in the chain. By raising awareness of the supply chain, businesses will begin to look at the world differently, and potentially make more informed decisions.

Recommendations

One role of the LEP is to help SME's with tasks/insight that they themselves do not have the skills to undertake or because of 'daily' work load, the time to give.

GLLEP Business Support must provide an 'end to end provision' – concentrating on quality control, consistency and addressing gaps and market failure.

Productivity:

1 – Ensure financial/business support includes a 'maintain and sustain' criterion option

Growth to the majority of SME's translates as risk and currently there is too much risk for full advantage to be taken of the available support. The 'maintain and sustain' mindset is perceived as less risk and will help uptake and ultimately productivity via the back door.

Action: - Adjust the output criteria ensuring safeguarding plays a more significant role

Supply Chain:

1 – Develop a larger supply chain service function concentrating on regional and national sales for small manufacturers < 50

The majority of small manufacturers (SM) buy parts locally and from distributors, realising the inflated price, but preferring the flexibility and convenience, so trying to 'break' this part of the supply chain is unrealistic.

However, most small manufacturers would be keen on more sales, particularly regional (East Midlands) and UK National – less risk, less time and less paperwork than exporting option. Exporting support should still be available, but focused on the medium to large sized businesses.

Action: - Discuss with partners/stakeholders how to access.

2 – Ensure Infrastructure priorities are continuously re-examined.

Connectivity plays a crucial role in enabling economic growth by facilitating trade and investment, movement of goods and services and sustaining jobs and training opportunities. Externally, our transport and digital infrastructure connects the region to national and international markets. Within the region, it ensures that flows of goods and people are efficient.

Action: Representative to sit on appropriate board?

Skills and labour:

1 – Support local geographical ‘Made in ...’ manufacturing clusters.

These **clusters** have typically emerged in parts of the county to ensure/bring a more local agenda to the area. Specifically encouraging young apprenticeships and their skill supply from local education providers. They are trying to ensure traditional engineering skills are still recognised as a requirement by local industry and not traded in for a preference to digital.

Action: Business Growth representative at meetings to advise availability of funds/schemes?

2 – Introduce a labour to train ‘matchmaker’ service.

Training people is one aspect, finding the people to train will be the other.

With the likely reduction in available labour pool, skills will become even more scarce, so business support needs an adjutant.

The current national apprenticeship website is such a matchmaker service, little used because of its complexity but with proper hand holding it’s becoming a key recruitment component in medium sized businesses - a local version would be well received.

Action: - Create a local ‘all age’ offer, **by experimenting with a block chain CV.**

Overall, SME manufacturers don’t want so much advice..... but recognition and connection to growth opportunities.

Paper 3

Energy Strategy for Greater Lincolnshire

Executive Summary

The GLLEP is taking a leadership role on the connection between the economic agenda and the landscape for energy and water. The energy strategy will identify where the LEP can tackle some of these issues but will also identify where help is needed to take on bigger, grander challenges and where local actors need to take steps to tackle delivery issues closer to home.

We need the input and understanding of both business and sectoral needs, to provide a baseline from which to work from. This will require the richness of local information to provide both a credibility and practicality to the strategy.

The emerging vision in Greater Lincolnshire is becoming clear:

- **To create a sustainable supply of energy, which meets Greater Lincolnshire LEP's ambitions for growth, and business sector development**

The vision is underpinned by four key objectives:

- **Delivering secure, low-cost, low-carbon energy to every home, office, and factory**
- **Supporting commercial and residential development in capacity constrained areas**
- **Mobility of the future, and the opportunities for further changes**
- **Empowering the emerging local energy industry within Greater Lincolnshire**

The diagram below summarises the journey that will inform the energy strategy's development:



In order to be able to realise any of the above we need to:

- Get a better understanding of what we feel the demand for energy will be in the future
- Find a set of geographies that are meaningful to Greater Lincolnshire, from an economy perspective

This will make any 'ask' around energy easier to both determine and justify.

Key questions to be raised from all of this work include:

- Do we feel that we know enough about the energy situation (now and in the future), to make meaningful decisions and investments? If not what information or guidance would be useful to provide a more trusted framework for the future?

- Would business be interested in looking at other options, if mainstream utility provision was not available, and if so what (if any) would the barriers be to this?

Background

The growth of industry across the world over the last two hundred years has been enabled by the ability to harness and employ energy. From water powered mills, to coal-based power stations, and more latterly nuclear and renewable technologies, it has been continued human innovation in the generation and transmission of energy which has brought about increased prosperity everywhere. A successful business model for the UK requires a successful energy model.

But it has become increasingly apparent to policy makers, businesses, and innovators, that the system infrastructure which has underpinned the energy landscape in the UK is creaking, and beginning to look increasingly unfit for purpose. Limits on electricity capacity are being reached, which is putting heavy costs on development. Energy costs remain stubbornly high, pushing many into fuel poverty. Despite impressive progress on cutting greenhouse gas emissions, the UK looks set to miss its next carbon budget (mandated by the Climate Change Act).

The market is responding to these challenges. Flexibility services are increasing the effective capacity of the grid by allowing for a greater balance of supply and demand. Renewable technologies are becoming cheaper, to the point where renewable energy can compete with fossil fuels on price without the need for subsidy. Electric vehicles are entering the mainstream, with projections of long term uptake being revised sharply upwards year on year. At the same time, government is showing serious commitment with the Clean Growth Strategy and associated sector deals putting direction and finance behind these changes.

However, like any paradigm shift, it does not happen in a vacuum, but plays out in local places. It is how places decide to respond to the changes which are happening which will determine whether our energy and business future is a bright one. Co-ordination is required, as many of the technologies, and their potential benefits, are interlinked, such as the opportunity to use electric vehicles to store electricity through vehicle to grid (V2G) technologies. That is why this document, and others like it being produced around the UK, is so important.

Providing the utility infrastructure to support existing and new commercial and housing sites is critical for the continued prosperity of Lincolnshire. The experience of developers, businesses and local authorities across Greater Lincolnshire suggests that utilities constraints are stalling and holding back development.

New technologies and changes in energy generation and usage could both lessen future demand, or lead to further challenges and constraints.

Given Greater Lincolnshire LEP's desire to unlock development and growth, there needs to be a strategy which supports improving access to infrastructure, energy and water resources in a timely and affordable fashion. This will be fundamental to the GLLEP's ambition to increase the value of the Greater Lincolnshire economy by £3.2 billion, and deliver 100,000 new homes.

At a practical level, a clear and immediate impediment to growth is the interrelationship between developers, utility providers and local authorities, which is underpinned by the bigger strategic question of 'who pays for growth?' Charging developers for new connections is often complex, especially when it comes to off-site network reinforcement, and while utilities don't want to bear the costs of gold plating infrastructure, or development delays, developers don't want to suffer financial penalty for being first to market.

Seeking a national policy solution to this problem will likely result in a long period of inactivity, and also uncertainty. To get results in the short to medium term, and win the respect and support of Government, the onus is on the participating organisations to sort things out for themselves by finding new and improved ways to work. The Greater Lincolnshire LEP is in a great position to facilitate this, but it cannot deliver the desired solutions itself.

The GLLEP is taking a leadership role on the connection between the economic agenda and the landscape for energy and water. The energy strategy will identify where the LEP can tackle some of these issues but will also identify where help is needed to take on bigger, grander challenges and where local actors need to take steps to tackle delivery issues closer to home.

GLLEP Manufacturing Board Operational Update

1) GLLEP Growth Deal Project Update - University Technology & Innovation Centre Grantham

THE PROJECT

The project will be managed by South Kesteven District Council (InvestSK) in partnership with the University of Lincoln and Grantham College.

The scheme aims to create a new local University Technology & Innovation Centre to serve the South Kesteven area to enable higher and degree level Apprenticeships, Diploma's and short courses to be delivered in a professional business environment and tailored to meet business needs.

The Centre will be a local contact point for businesses for professional networking and will provide space to them work and collaborate. It will be an open door to business support services and University contacts and facilitating opportunities for sharing ideas and knowledge transfer. The new Centre will address a higher education cold spot and change the face of provision in Grantham and across the whole of the District of South Kesteven.

The project will provide an anchor and access for South Lincolnshire higher levels skills development and a direct link to a University for local businesses. The building location will directly contribute to the regeneration of Grantham Town Centre and the floor dedicated to the centre will be above a new cinema and retail complex, enabling excellent access and promotion of the new offer. It will offer micro incubation and business networking aimed at accelerating economic growth and productivity. The University Centre will collaborate closely with Grantham College and encourage wider partnership contribution and participation from both the private providers, employers as well as the public sector.

Alongside the generic management courses, the centre will promote the Engineering and Manufacturing higher apprenticeship standards. These new standards offer continued professional development for food industry professional, process automation engineers, food and drink advanced engineers, plant engineers and postgraduate engineers. Other higher level Apprenticeships or short courses may include Digital technologies, environmental health, health, care, potentially civil engineering, and building design to meet local employer needs.

The first cohort of students is expected to start in October 2019 and works on the wider building have already begun on site. Overall cost of the scheme is £6,000,000 this includes the SLGF contribution £2,000,000 (33%). There is 9,288 ft of available space on the first floor of the overall premises for the Centre, and securing an early rental income from the space is not critical to the viability of the scheme. The floor layout design allows for as much flexible and open use of shared space as possible. Some future proofing such as the investment in a higher grade

ventilation system has been allocated, as well as higher standard of connectivity and lighting.



1. OUTPUTS AND OUTCOMES

Core Outputs	2017/18	2018/19	2019/20	2020/21	Future Years	Total
Public Investment Leveraged (£)	500,000	3,000,000	500,000			4,000,000
Number of businesses assisted to improve performance			10	10	10	30
Number of learners supported			65	130	150	340
Number of enterprises receiving non-financial support			50	50	50	215
Number of new enterprises supported			20	30	30	80

Number of potential entrepreneurs assisted to be enterprise ready			10	10	10	30
New build training/learning floorspace sq m		928				
Number of new courses delivered in Grantham			2	4	4	10

2) Engineering, Manufacturing and Technology Centre Boston College

Boston College is one of the first recipients of the Skills Capital Programme, **EMAT** (Engineering, Manufacturing and Technology), will receive £2.8 million towards a £4.9 million project to create an industry-driven training facility that will stimulate growth and productivity across engineering, manufacturing and agri-tech in Boston. The project is specifically designed to improve the skills and talent of the current and future workforce and to support key strategic sectors. Once fully established it will support an additional 600 learners per year in LEP priority sectors and will include industry approved workshops for practical skills development, teaching spaces, and an extension to existing construction provision and computing.

3) Made in Gainsborough

Made in Gainsborough (MiG) is the operating name for an employer led group of engineering businesses who, together with Lincoln College, are seeking to develop a new engineering apprenticeship provision to meet demonstrable employer needs in Gainsborough Town. The business members of MiG include Eminox, Wefco, AMP Rose, Hooton, Regal, Cleantech, Schulman and Trepko, with a combined requirement for circa 20 engineering apprentices a year.

Working with Lincoln College, the scheme involved the refurbishment of the Vocational Centre at Gainsborough College converting it into a fully operational Engineering Department.

Overall funding for phases 1 and 2 will contribute towards the purchase of equipment to enable the delivery of tailored apprenticeship programmes. In

addition to the £2,913 already approved towards the scheme for phase 1 the Board also endorsed a provisional allocation of £14,492 future funding towards the scheme in partnership with WLDC (provisionally allocating the same amount to total £28,984) subject to a review in Year 2 of the success and impact of Phase 1.

4) GLLEP Manufacturing Sector E Bulletin

The new GDPR regulations have meant that we have lost a significant number of people who subscribed to our newsletter and we are now embarking on an extensive campaign through social media and written letters to try and increase the number of sign ups. **Please can members forward the newsletter to all their manufacturing networks and encourage sign ups**

5) Events Update

GLLEP Manufacturing Conference

Planning is underway to hold the annual Manufacturing Conference in March 2019 the final date and venue are TBC. The conference will focus on Productivity through People, Automation and Trading with Europe post Brexit.

Made in Lincolnshire Awards

The Made in Lincolnshire Awards (partnered with Streets and NatWest Bank) were very successful, 78 applications were received. These businesses will be featured in the e- Business Bulletin to showcase the fantastic range manufacturing activity that takes place in Greater Lincolnshire.

Manufacturing Events

Introduction to Industry 4.0 10 Oct 7.45am-9.45am MoCap Hub, UoL, Lincoln

This event will introduce businesses to technologies that can make a real difference in manufacturing, with talks from two manufacturing businesses who have successfully integrated new technologies into their business, and are really seeing the benefits of doing so. There will also be a showcase of the MoCap Technology Hub, which is helping to lead the way for innovation and product design for Lincolnshire businesses.

<https://www.businesslincolnshire.com/events/event-details/?id=358>

Brexit Planning Events

BREXIT - Is your business ready? 4 October 7.30-9.30 at Commerce House, Lincoln.

Overview: This event will highlight activities that businesses should be considering now in order to minimise the risks associated with the United Kingdom leaving the European Union.

Focusing on Staffing, customs, taxation, currency risk (potentially other risks such as patent protection, licensing, data etc). This checklist has been created to help businesses consider the changes that Brexit may bring to your business, and to help business planning at both operational and Board levels. Attendees will be provided with a BREXIT action checklist.

<https://www.businesslincolnshire.com/events/event-details/?id=357>

MANUFACTURING barometer

NATIONAL REPORT SUMMER 2018-19

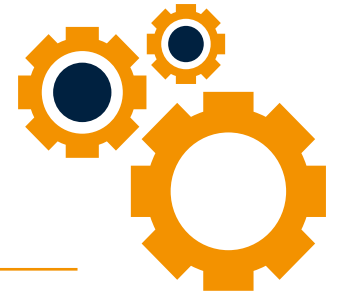
(April, May and June 2018)

Surveyed in July 2018

SPECIAL FOCUS:
EXPORT INTENTIONS



Contents.



EXPORT INTENTIONS

INTRODUCTION

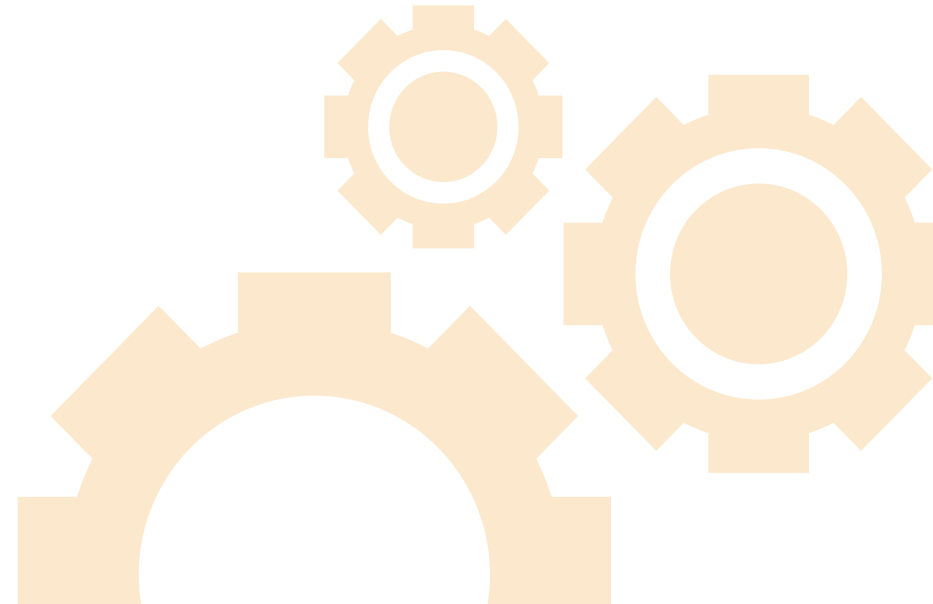
BUSINESS ASPIRATIONS

SURVEY DEMOGRAPHICS

MEASURING TRENDS

SPECIAL FOCUS

ABOUT THE MANUFACTURING BAROMETER



PAGE 2

Introduction.



SIMON HOWES

CEO

Exelin Group Ltd

Delivering SWMAS

Welcome to the SWMAS Summer 2018-19 (Q1) national Manufacturing Barometer report. It provides a vital snapshot of the UK SME manufacturing sector's performance in the last six months and forecast for the next six months.

More than 250 decision makers responded to questions on sales, profits, investment in machinery and premises, and job creation.

With export and international trade very much in the news, and manufacturers expressing in last quarter's Barometer their interest in seeking new markets, we also decided to explore the sector's export intentions in our Special Focus.

We took a closer look at whether manufacturers believe they can increase export sales, and what needs to happen in their businesses to achieve their growth goals.

THE CORE TRENDS

Last six months: while profits remain on a relatively even keel, it seems that this might have been at the expense of sales generated, investment and staff recruited.

An increase in sales was reported by 54% of respondents, and whilst still positive and indicating overall growth, this is lower than the 60% around which figures have hovered since Q4 2016.

Those investing in new machinery and premises dropped to 41%, down 7% from the 48% seen last quarter, which was the highest investment figure seen in the last two years.

While 41% saw an increase in those recruited, nearly a fifth of manufacturers reported a reduction in staff numbers.

This period's figures generally reflect those last seen in the 2016/17 financial year and into the first quarter of 2017.

Next six months: the number of manufacturers anticipating an increase in sales continues the downward trend since the leap in confidence we saw in Q3 2017, and those wanting to recruit drops to 46% (down from the 53% seen last quarter).

More encouragingly, the number of manufacturers wanting to invest in new machinery and premises in the coming months is on the rise, breaking the 50% barrier.

Looking at the figures and patterns that have emerged in the current two-year window, we see striking similarities between the views recorded in the 2016/17 Barometer, taken at the time of the Brexit referendum, and those seen now at a time of ongoing uncertainties around the Brexit negotiations and impending deal announcements.

Brexit is certainly foremost in UK SME manufacturers minds. We asked about their business aspirations, and while the longer-term view is growth, many here linked to their concerns around a current uncertain climate. You will see in respondents quotes a commonly shared focus on consolidating and maximising current opportunities. This is balanced by optimism fuelled by making the most of this challenging time to invest in capital equipment, staff development and new products.

SPECIAL FOCUS: EXPORT INTENTIONS

Nearly 70% of all respondents currently export, and another 10% have plans to start exporting (some by working with other companies who export their goods). We looked at by how much these 80% of respondents expect to have increased their export sales in 12 months, and what the picture will look like two years from now.

Those who already export report an anticipated average increase in turnover of 2.1% generated by export sales in 12 months, and more optimistically they expect this figure will be close to 12% in 24 months. From their standing start, those planning to start exporting expect more ambitious average increase of 16.9% and 31.9% respectively. Combined, this translates as an average increase in turnover as generated by export sales of 3.9% in 12 months and 14.3% in 24 months compared to the situation today.

CONCLUSIONS

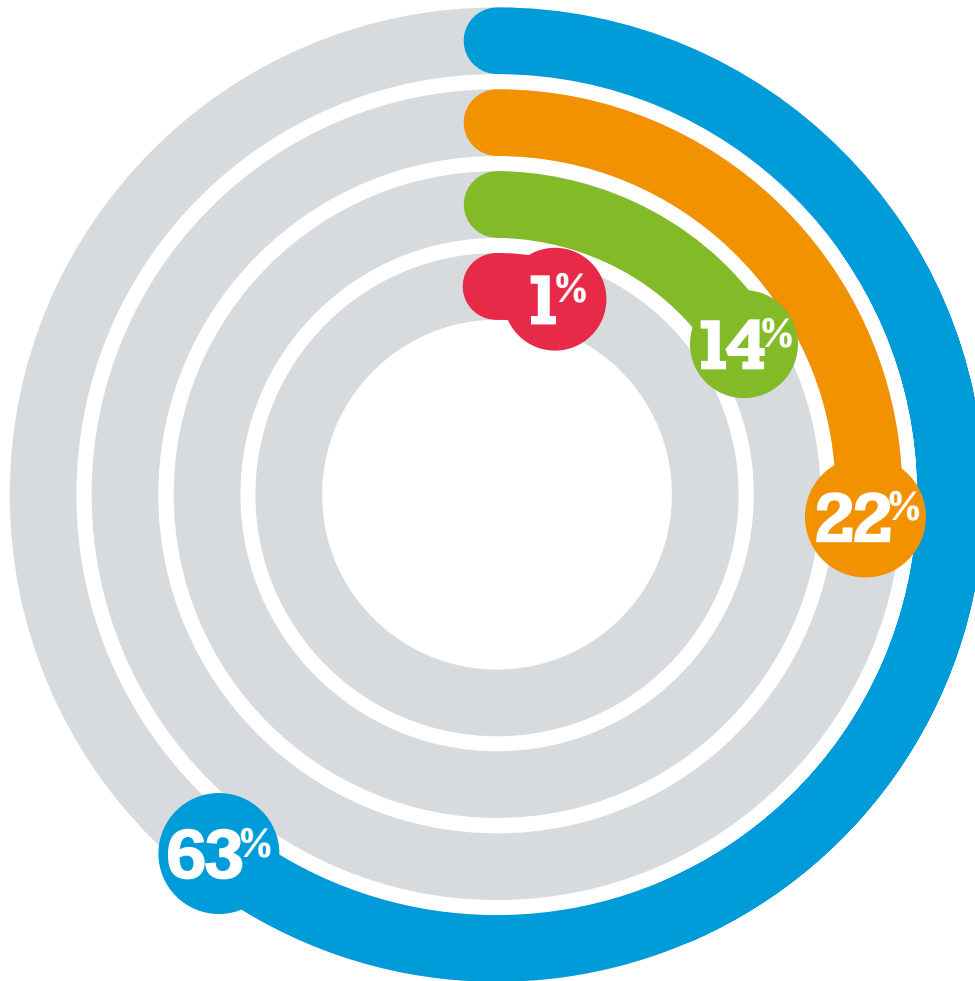
The export growth forecast supports a wider medium to long term view of growth and this is backed by businesses aspirations, which remain staunchly around growth and increased sales. However, the trends and commentary suggest that UK SME manufacturers expect that we are in for a bumpy ride as we finalise Brexit negotiations and actually go through the process of leaving the EU.

We are therefore not surprised to see manufacturers combining their focus on stabilising and consolidating with investing in new machinery, products and their staff to help steady and ready themselves ahead of a period of uncertainty.

UK SME manufacturers are encouraged to actively look for opportunities and support to help them maintain their drive for growth through this time.

Read on for more about the Manufacturing Barometer results...

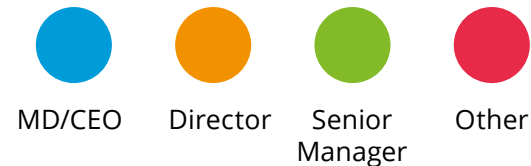




Over 85%
of respondents are:

- > **MANAGING DIRECTORS & CHIEF EXECUTIVE OFFICERS**
- > **DIRECTORS**

Individuals with the highest level of strategic responsibility within their business



Business Aspirations.

"We will need to invest in more automation due to the increases in min wage & pensions. Working with customers to pass on increase in raw materials & labour."

SOUTH YORKSHIRE, YORKSHIRE & THE HUMBER

"Organic sales growth, driven by value-added new products. Improved productivity through higher sales and investment in new machinery, leading to improved profitability."

SUFFOLK, EAST OF ENGLAND

"To expand sales within some of the existing geographical markets in the short/medium term. Medium to long term we are working on new innovations. For the latter we seek more certainty about our future with the EU."

NORTHAMPTONSHIRE, EAST MIDLANDS

"Short term - keep our head above water; long term - improve our figures."

"Working on methods, practices and investing in capital equipment to make us more efficient."

WEST YORKSHIRE, YORKSHIRE & THE HUMBER

"To supply more market leading products to global markets, driving short and medium term growth. We need a Factory expansion to enable this."

NORFOLK, EAST OF ENGLAND

"Short term - reinvigorate workforce and rebrand/launch new marketing matrix; medium - develop and launch new leading technologies, engage in new markets; long - grow business into a self-sustaining, growing enterprise."

WALES

"To maximise the potential of new product development, grow organically and through recent acquisition, take a 10 year lease on premises [in another region] to grow further."

NORTH YORKSHIRE, YORKSHIRE & THE HUMBER

"At present our short term aims are to increase staff engagement and enjoyment of work. Medium term we expect a happy workforce to increase sales. Long term increased sales leads to growth."

LEICESTERSHIRE, EAST MIDLANDS

"Twenty five percent growth within four to five years."

TYNE AND WEAR, NORTH EAST

Business Aspirations.

"Try to keep as much of the European business and to increase it where possible."

CHESHIRE, NORTH WEST

"Obviously with Brexit STILL looming with no real plan of exit apparent, we are hopeful that business will stay the same. We have grave concerns that as we export a large portion of our production, any Export/Import tax demanded by the EU as punishment for leaving could hugely effect the cost of our products in the European market."

KENT, SOUTH EAST

"To increase sales and marketing activity and add increased capacity through further investment in plant and people training."

OXFORDSHIRE, SOUTH EAST

"Short Term: consolidation of current position, fulfilling outstanding orders. Medium/Long Term: reduce in house manufactured variety of configurations, while increasing volumes shipped. Additionally, looking to increase ancillary equipment supplied to current customers."

"More automation and a new machine, long-term relocation."

"Very tough trading. Uncertainty with Brexit and customs union (we export and import). Costs rising in raw products monthly."

CORNWALL, SOUTH WEST

"Consolidation after a period of investment and growth followed by another growth phase and increases in capacity & productivity."

DORSET, SOUTH WEST

"Until the Brexit situation is resolved, we are in limbo. We export 90% of our goods so we need answers soon so we can plan forward."

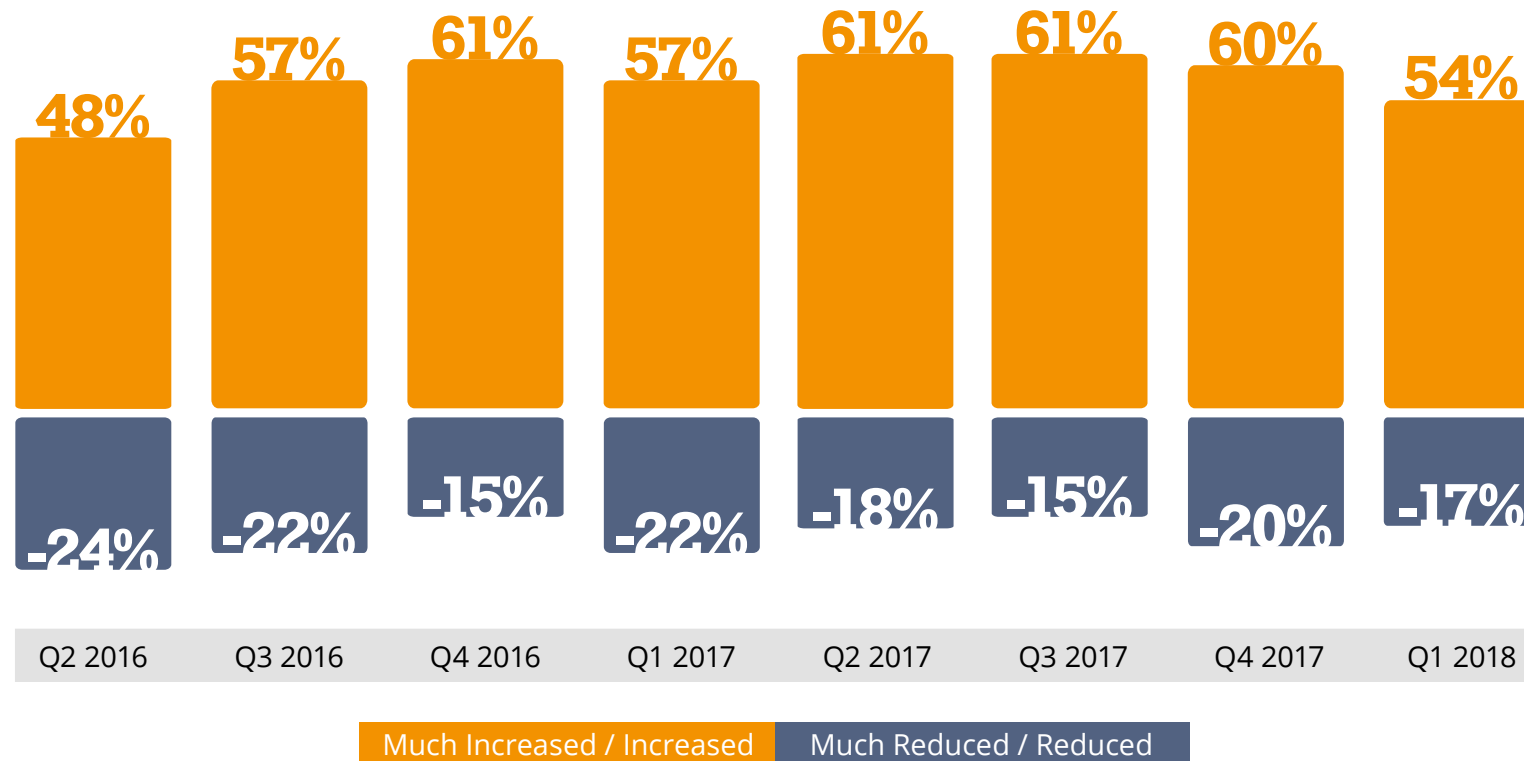
"Short term - continue to develop systems and capacity; medium term - await effect of "Brexit"; long term - survival."

WEST MIDLANDS

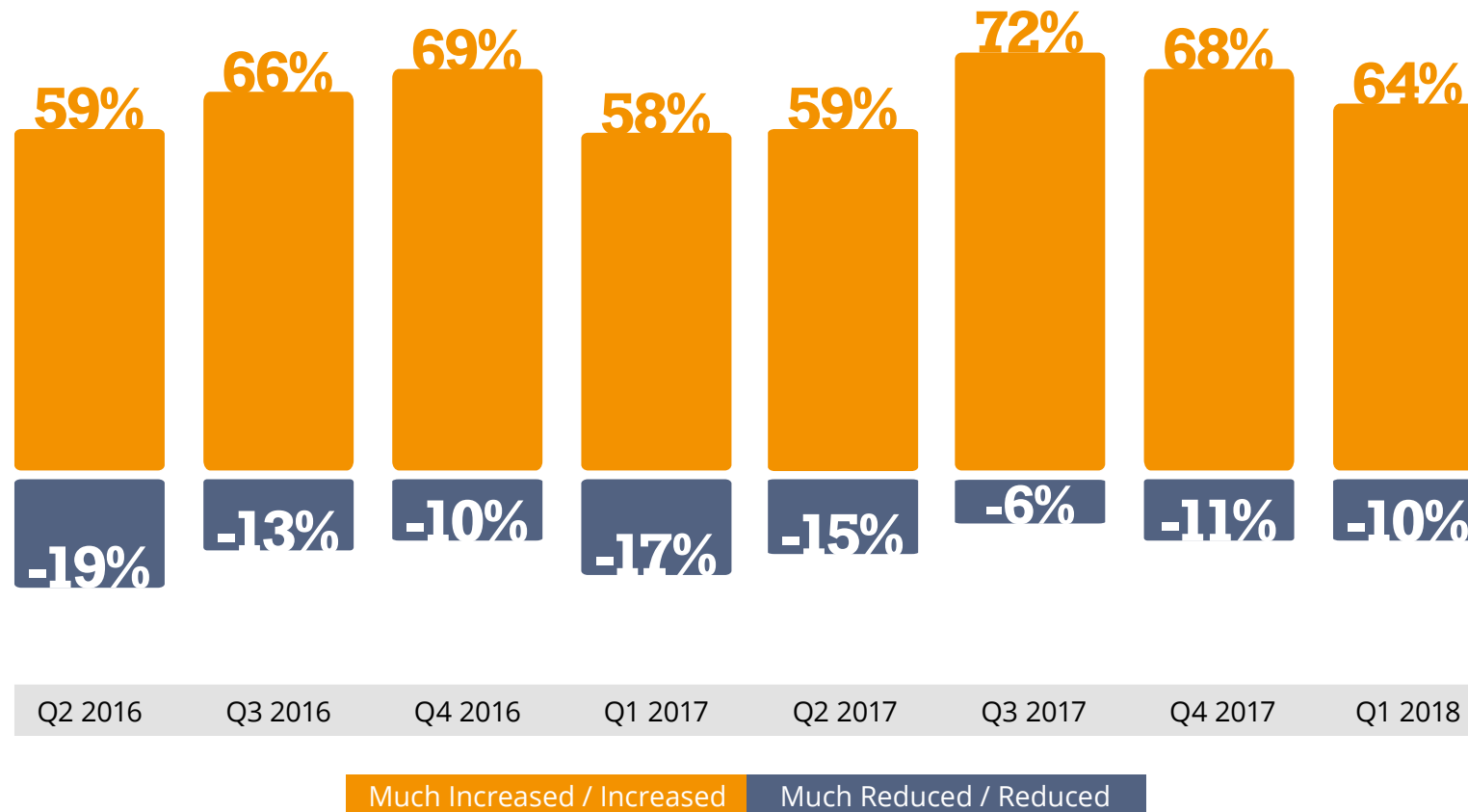
"Short term: consolidate position by maximising current opportunities; Medium term: convert some very good new opportunities to orders and sales; Long term: continue to add resources to attract more customers and operate efficiently."

WORCESTERSHIRE, WEST MIDLANDS

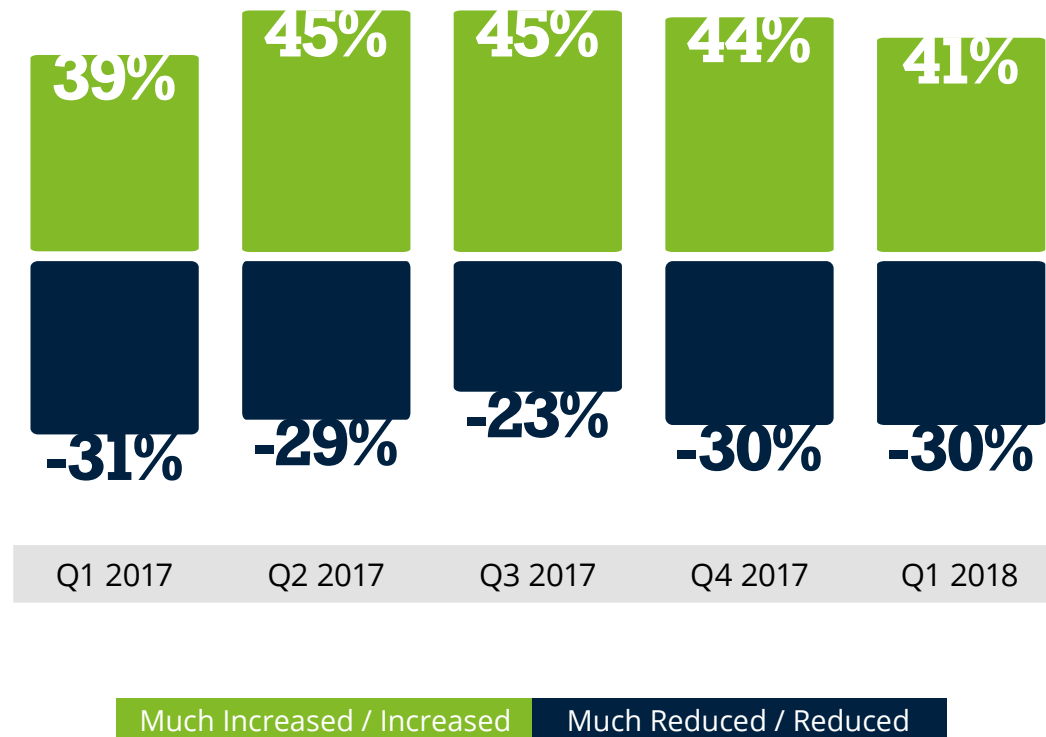
How has your sales turnover changed within the past 6 months?



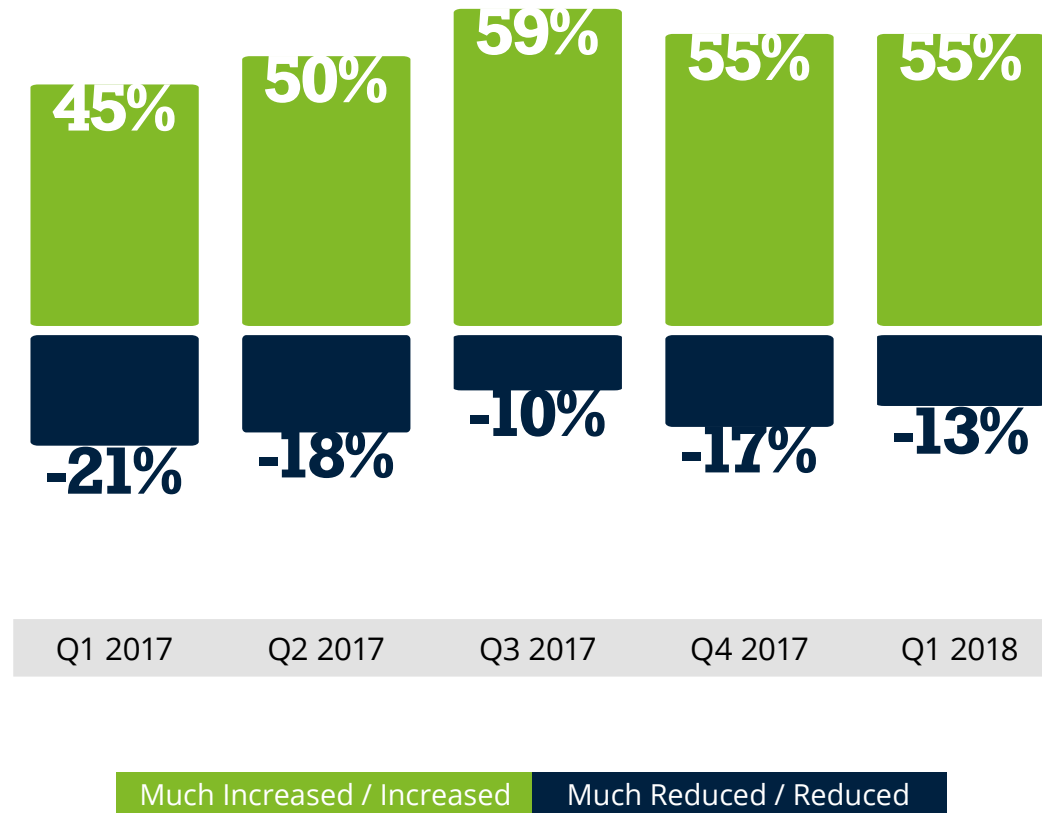
How do you expect your sales turnover to change over the next 6 months?



How has your profit changed within the past 6 months?

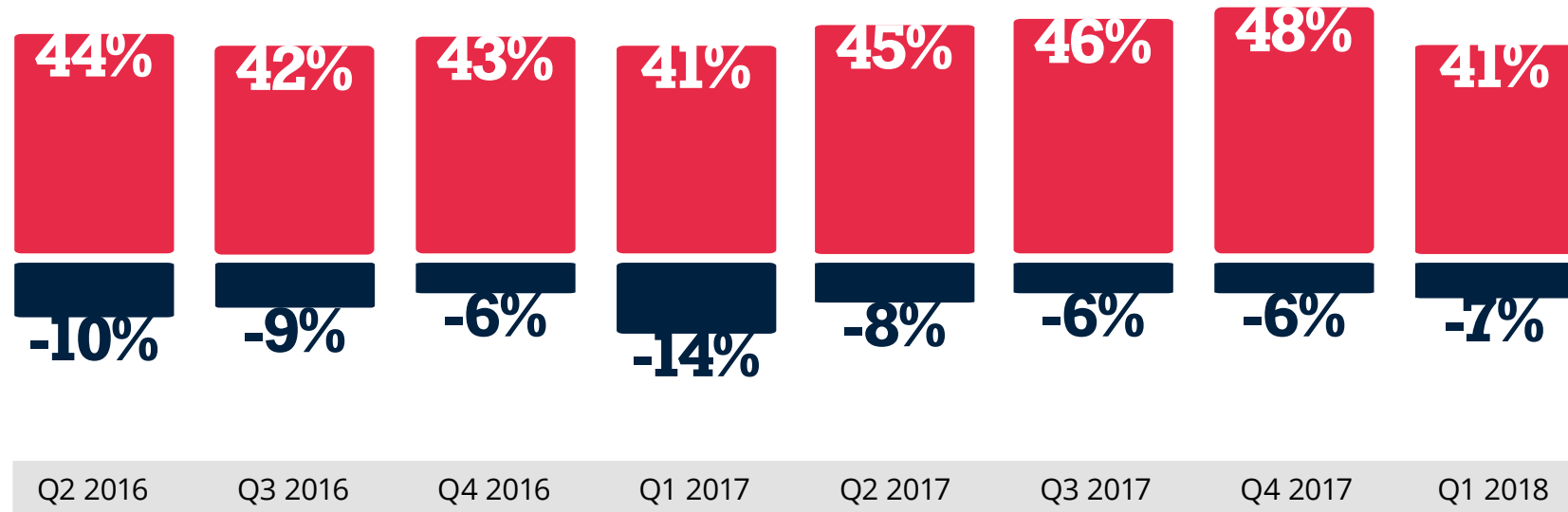


How do you expect your profit to change over the next 6 months?



National Past Capital Investment.

How has your investment in new machinery/premises changed in the past 6 months?



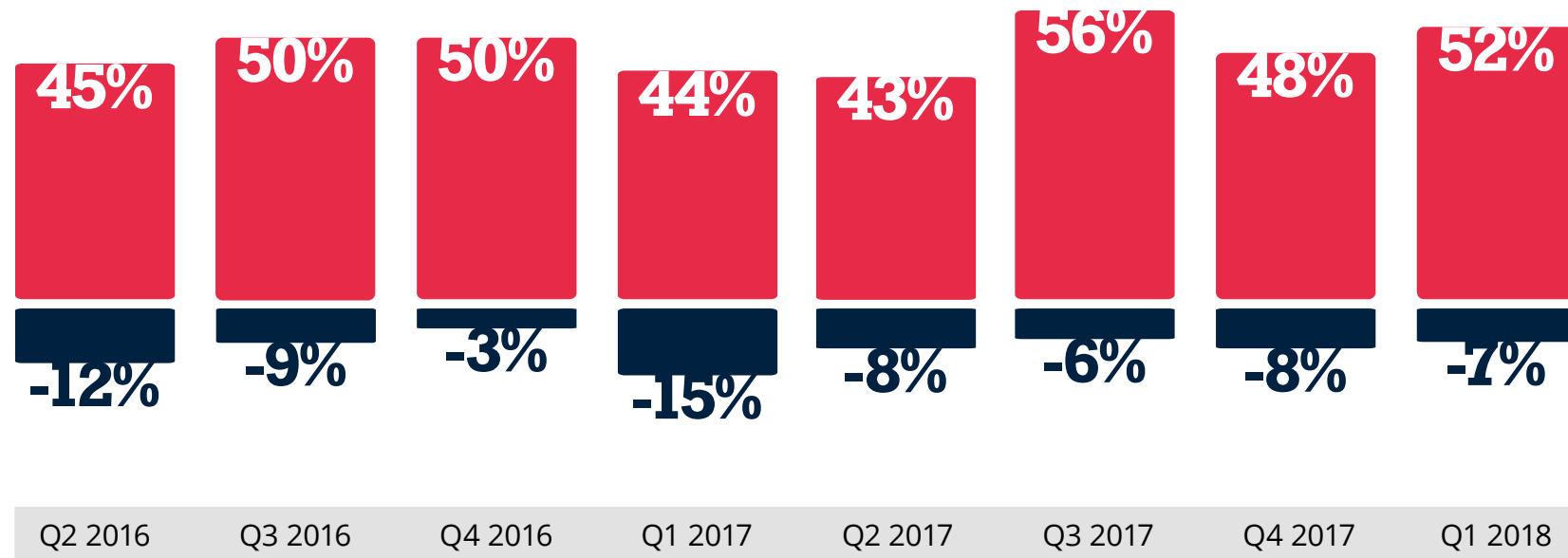
Much Increased / Increased

Much Reduced / Reduced

256 respondents

National Future Capital Investment.

How do you expect your investment in new machinery/premises to change in the next 6 months?

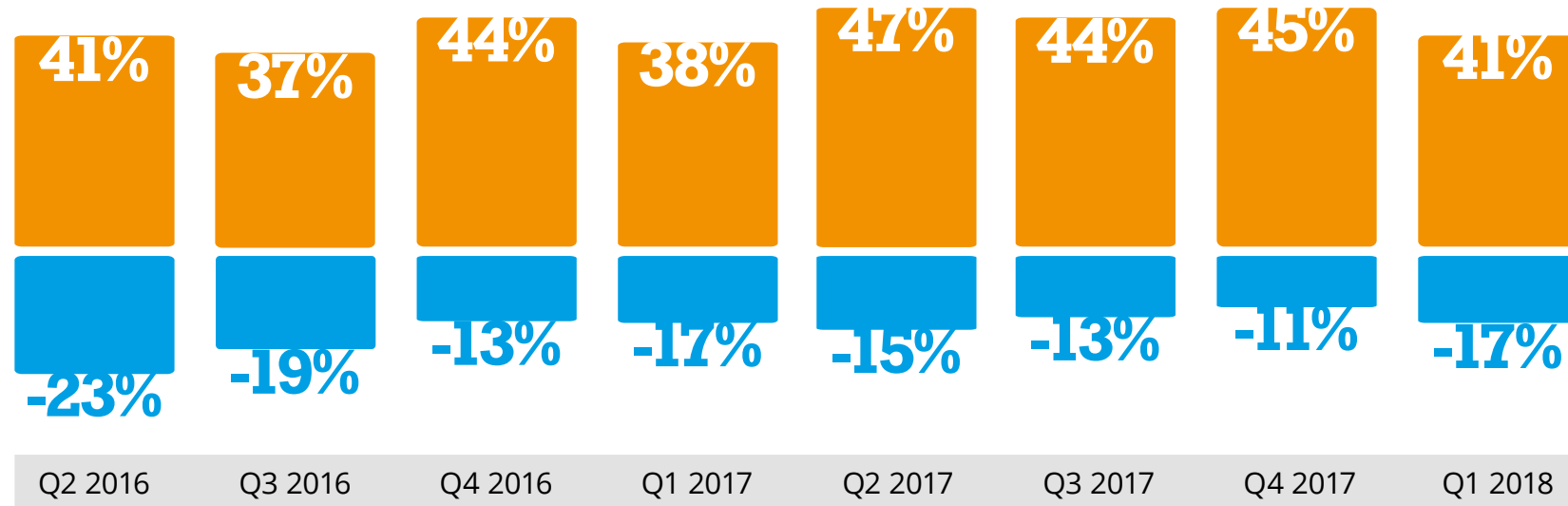


Much Increased / Increased

Much Reduced / Reduced

256 respondents

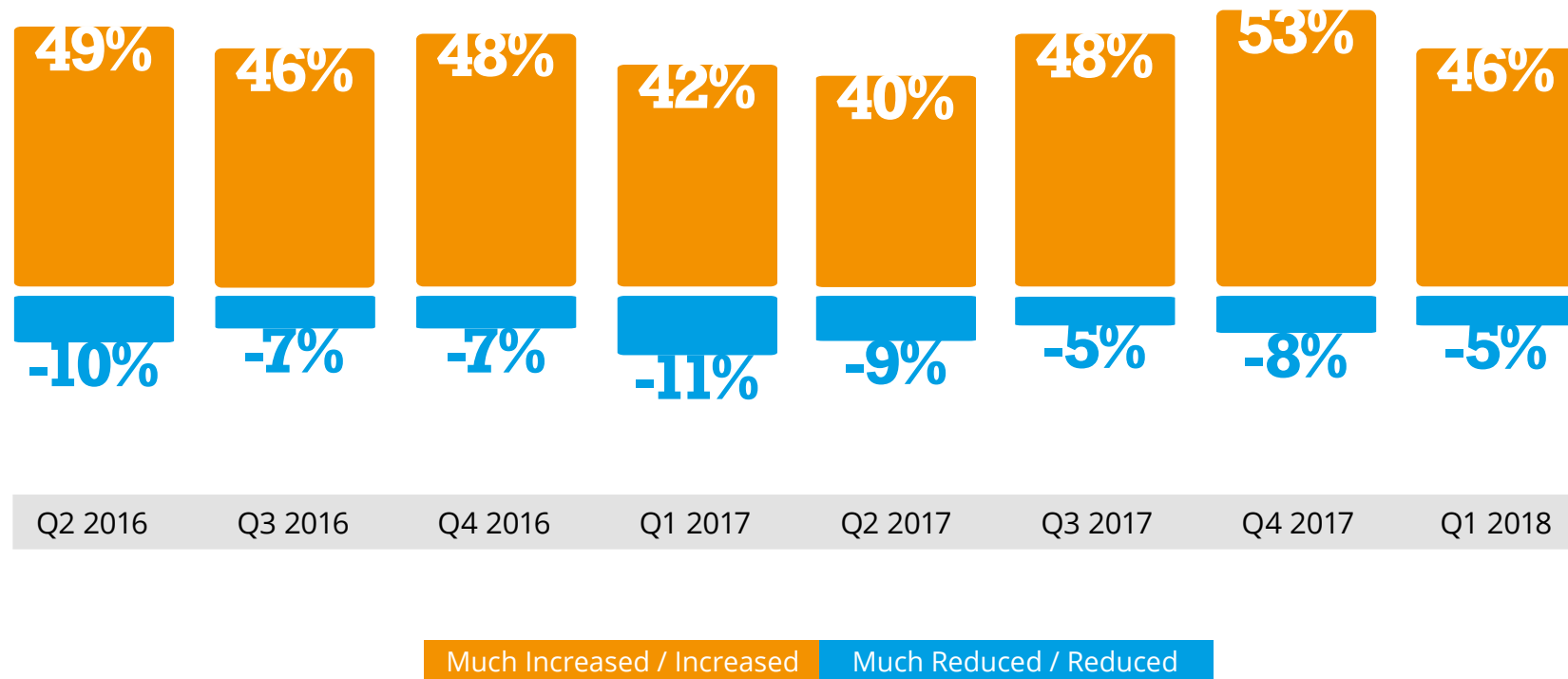
How have staff numbers in your company changed in the past 6 months?



Much Increased / Increased

Much Reduced / Reduced

How do you expect staff numbers in your company to change in the next 6 months?



What statement best describes your company?

**ALREADY
EXPORT**

69%

**PLAN TO
EXPORT**

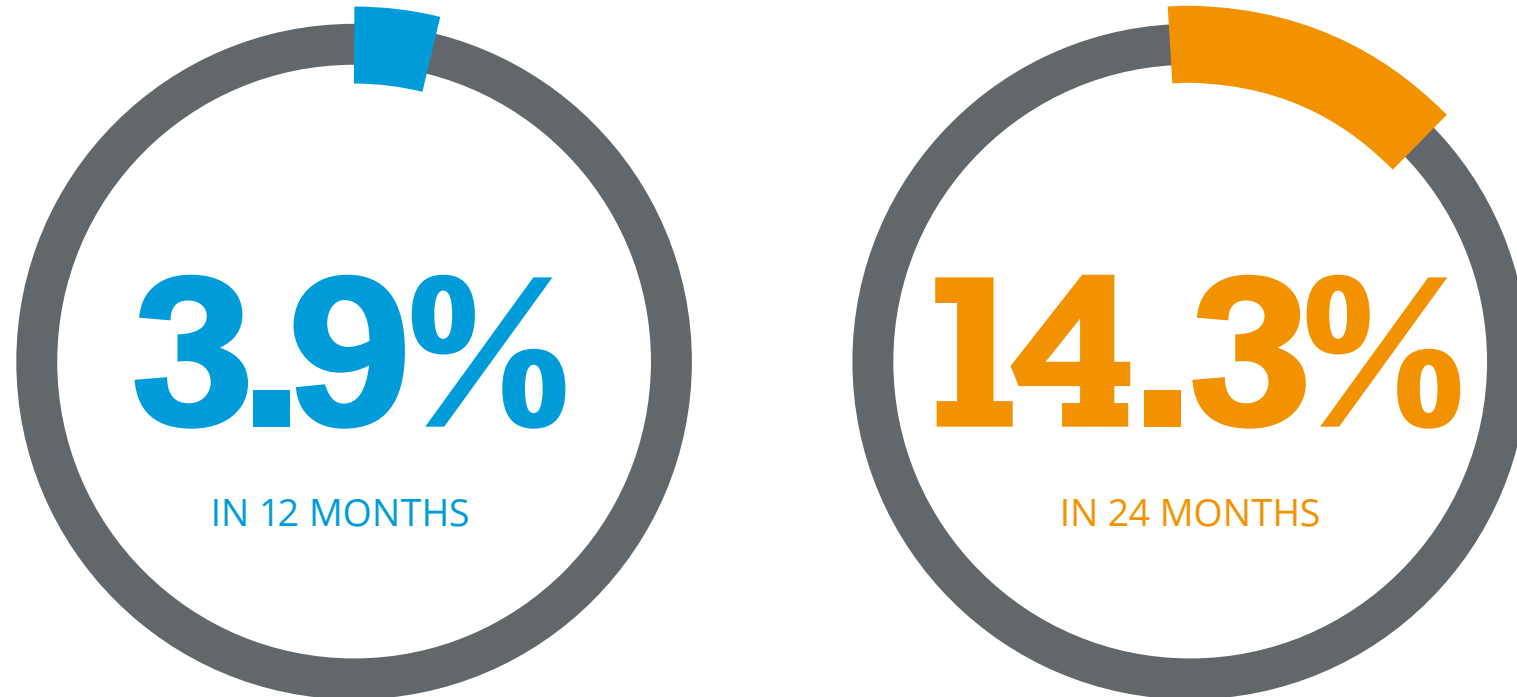
10%

**DECIDED NOT
OR NO OPTION
TO EXPORT**

13%

OTHER: 8%

Average anticipated growth in turnover as generated by export sales*



*using figures provided by respondents who export already and those planning to export.



"The SWMAS Local Manufacturing Advisory Programme actually allows manufacturing businesses to spend money on production, which is great! ...We have a long standing relationship with SWMAS and will turn to them again for any future support." **SIMON SAUNDERS, MD, Ariel Motor**

About the Manufacturing Barometer.

MANUFACTURING barometer

The SWMAS Manufacturing Barometer is a quarterly survey that charts the experiences of UK SME manufacturers. It is the largest survey of its kind and has informed both government industrial strategy and the national debate on manufacturing.

Delivered by SWMAS, part of the Exelin Group, since 2009, and more recently in partnership with Economic Growth Solutions, the majority of contributors to the Barometer are senior leaders in the UK's manufacturing sector.

We sincerely thank all respondents for taking the time to help form this collective voice of the sector.

SWMAS use the results to help raise the profile of UK manufacturing by ensuring SME manufacturers voices are heard - our results and insights are frequently quoted in local, national and international media.

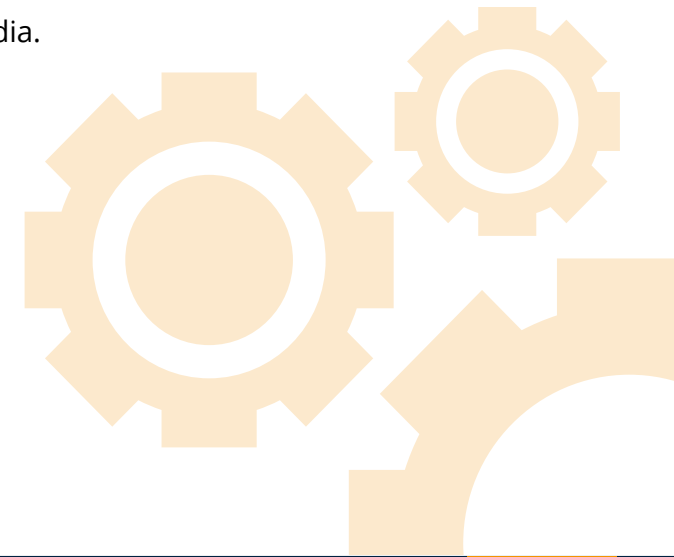
For manufacturers, the Barometer can inspire a wider view of business, help to benchmark, or act as a catalyst for increasing capability and capacity.

If the Barometer has encouraged you to face challenges or to identify opportunities in your business, please get in touch. The SWMAS manufacturing specialists and our partners can help you to define and deliver your priorities efficiently and effectively.

Contact us today:

info@swmas.co.uk 0845 608 3838

www.swmas.co.uk/knowledge/manufacturing-barometer



MANUFACTURING barometer



IN PARTNERSHIP WITH
ECONOMIC
GROWTH
SOLUTIONS

SWMAS | Somerset Energy Innovation Centre
Woodlands Business Park | Bristol Road | Bridgwater | TA6 4FJ

0845 608 3838 info@swmas.co.uk www.swmas.co.uk

Follow us: [@SWMAS_Ltd](https://twitter.com/SWMAS_Ltd) | [in linkedin.com/company/SWMAS](https://www.linkedin.com/company/SWMAS)

