



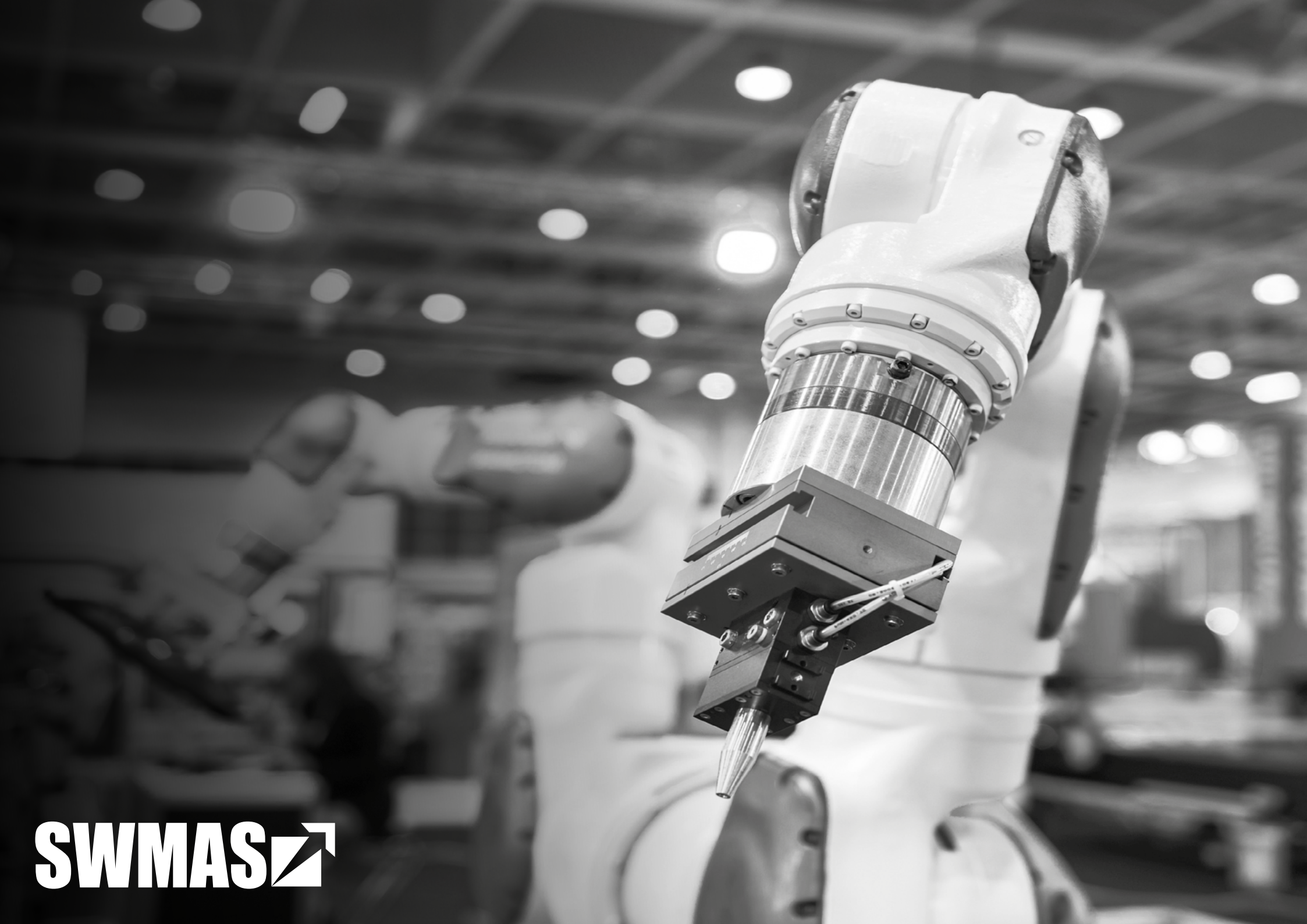
MANUFACTURING barometer

ROBOT ADOPTION: THE SME CHALLENGE

SOUTH WEST REPORT AUTUMN 2019-20

JULY, AUGUST AND SEPTEMBER 2019 - SURVEYED IN OCTOBER 2019

SWMAS The logo for SWMAS, featuring the letters 'SWMAS' in a bold, sans-serif font, followed by a square icon containing a stylized upward-pointing arrow.



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SIMON HOWES
MD
SWMAS

INTRODUCTION

A warm welcome to the SWMAS Manufacturing Barometer Autumn 2019-20 (Q2) report for the South West of England. It is now 10 years since the first Manufacturing Barometer began mapping the opinions and performance trends of the UK's SME manufacturing sector.

With the challenges of a downturn still evident and, at the time of writing, both Brexit and a potential change in government ongoing causes of uncertainty, the Manufacturing Barometer shows how manufacturers are planning operations for a potentially very different world. While manufacturers find their ability to recruit, invest and increase sales is increasingly restricted, finding technological solutions is becoming increasingly important.

The Manufacturing Barometer this quarter looks in depth at the attitudes to robots exhibited by UK SME manufacturers, and reveals some unique insight into what this means for manufacturers, equipment suppliers and the next government.

CORE TRENDS

Every quarter, the SWMAS Manufacturing Barometer records both actual and projected performance of UK SME manufacturers in sales, profits, investment (machinery and premises) and sales.

LAST SIX MONTHS

This quarter, we are left in no doubt that the sector is experiencing one of the toughest periods recorded during the 10 years of the Manufacturing Barometer. More SME manufacturers have experienced a reduction in sales, profits, and recruitment than ever seen before.

This is most remarkable in manufacturing profits where 45% of businesses experienced a reduction. This means an incredible 14% more manufacturers are dealing with fewer profits.

Supporting the evidence that this is the worst performing quarter for nearly a decade, 37% of respondents said their sales figures have dropped in the last six months, and more than ever, nearly 25%, reported an active reduction in their staff numbers (driven, as reported previously in the Manufacturing Barometer, by talent shortages and the effect of uncertainty on growth plans).

There is slightly better news in the investment of new machinery and premises. Reflecting intentions previously expressed in the Manufacturing Barometer, 41% of UK SME manufacturers tell us they have increased their investment in machinery and premises.

NEXT SIX MONTHS

Looking ahead, is there more reason to be cheerful? Although approximately a fifth of manufacturers note 'survival' or 'getting through Brexit' as an aspiration, around a fifth talk about growth and around one third reference investment whether in machinery and premises or people, automation, new products, and establishing new markets.

However, anticipated future performance figures evidence the lowest level of confidence expressed by the sector in nearly 10 years.

It is significant that for the first time less than half (40%) of SME manufacturers are expecting sales to increase. On top of that, 25% believe they will see a decrease in sales.

The picture is similar in profits where never have we observed so few manufacturers expecting an increase (32%).

In investment, nearly one fifth expect to reduce their expenditure. Looking at future employment, nearly one sixth are to actively cut staff numbers, while the number expecting to take on new staff falls to one third.

SPECIAL FOCUS

ROBOT ADOPTION: THE SME CHALLENGE

While the UK ranks as the 8th largest industrial nation, we just 22nd in the global league of robot adoption¹. Earlier this year, the International Robotics Federation reported that the UK was falling further back in the global automation stakes as UK robot sales sank 3% in 2018. Comparatively, Europe has more robots per 10,000 workers anywhere in the world, and robot sales here increased by 12%².

The UK government's Industrial Strategy, the continuing drive to improve productivity, and the need to find new ways to operate with fewer staff, all indicate there is opportunity to do more with robots, so why are we not?

This quarter's Special Focus looks at where SME manufacturers are successfully using robots, and where they are not, and what we can learn from them.

The context of this Special Focus is immediately set with just 18% of SME manufacturers in the South West saying they already use robots. Nearly 70% either do not plan to, or do not know if they will, use robots in their businesses.

Of those already using robots in their businesses in the South West, the impact on their business operations is clear: lower cost of operations, improved safety/well-being of staff and better quality and repeatability feature highest in the benefits of utilising the technology. 'Faster operations' is beaten into fourth place, but as a top four this mirrors the national response.

The biggest drawbacks to using robots for this group are the high implementation costs, a shortage of programming and maintenance skills, inflexibility coping with product variation, and products not easy to handle. How this differs to the barriers perceived by those "not sure" or "not planning" to use robots begins to highlight the challenges to greater adoption of robots by SME manufacturers.

Both those "not sure" and those "not planning" to use robots share the concerns about the cost of implementation but are twice as worried about the technology's inflexibility when it comes to coping with product variation.

When asked 'Do your competitors use robots?' Over one third of manufacturers who do not yet use robots in their businesses are unsure if their competitors do. This raises questions regarding a general lack of awareness and benchmarking across the sector.

CONCLUSION

UK SME manufacturers' confidence remains low, and their projected sales, profit and recruitment figures continue to be affected by the ongoing national uncertainty.

Robots could help to address relevant factors such as talent shortages and provide efficiency-boosting solutions that would positively contribute to profits and the economy. However, there are chasms to bridge.

One is between the significant number of SME who manufacture low volume and bespoke products and the providers of robots able to cope with products that are variable or are not easy to handle. We call on manufacturers to look at how their competitors are using robots, and for robot suppliers to look at solutions. If there is not a robotic solution for the large group of manufacturers who consider their products to be difficult to handle, the drivers for robot adoption could fail.

It also seems to be true, as BEIS highlights³, that a lack of awareness around robots is harming the productivity of businesses, particularly for SMEs. For the potential of robots to be realised, the UK's SME manufacturers need better information and tailored advice and support to help them plan and integrate robots into their businesses.

If you want guidance in starting or continuing your robot journey, get in touch. We and our network of partners can help. Contact SWMAS on 01278 767 010 or email info@swmas.co.uk.

¹ UK Manufacturing Statistics; www.themanufacturer.com/uk-manufacturing-statistics/

² International Federation of Robotics (IFR.org); ifr.org/ifr-press-releases/news/brexit-uk-falling-back-in-global-automation-race-robot-sales-down-3

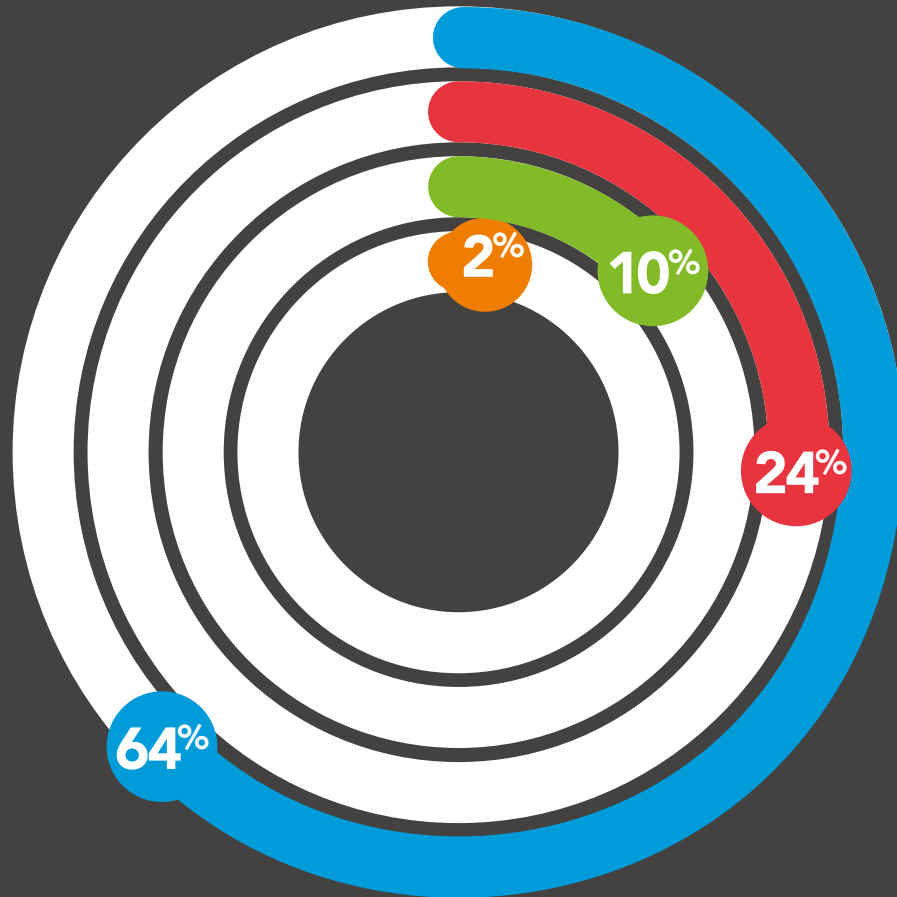
³ 'Automation and the future of work' report, BEIS; publications.parliament.uk/pa/cm201719/cmselect/cmbeis/1093/109305.htm



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SURVEY DEMOGRAPHICS



88%

OF RESPONDENTS ARE:

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

Individuals with the highest level of strategic responsibility across their business.



BUSINESS ASPIRATIONS

“

Short term: recover from a reduced order book.
Medium term: consolidate and maintain the level at which we had been running. Long term: continue to grow the business.

Continue to grow and expand the business into new markets.

Working to secure supply to [new customers] as they reorganise and remove internal supply operations to cut their own running costs .

— GLOUCESTERSHIRE —

“

We expect growth through movement into more niche markets and acquisition.

We need to get our sales back up before it damages our business further
- nothing else matters.

— SOUTH GLOUCESTERSHIRE —

“

Growth, growth and more growth!
(Subject to Brexit impact?).

Short to medium term - staying in business at all will be minor miracle.

— BRISTOL —

“

In the short term we want to survive Brexit and retain all of our European customers...to find suitable employees and get past a period of instability in relation to staffing. In the medium to long term we want to safeguard/future-proof production by investing in machinery.

Meet present deadlines, invest to grow, cut overheads and automate.

Steady growth, new investment in equipment that will improve productivity. Staff investment, training all sectors.

Consolidation of existing business activities, increased activities into new business sectors.

— SOMERSET —

“

Short term to turn losses into a profit. Mid term to grow organically. Long term to be able to cope with Chinese type volumes which we can't at present.

In the short term BREXIT needs resolving to see where we are left.

— NORTH SOMERSET —

“

Short term: we are upgrading our workshop to increase capacity and efficiencies.
Medium term: expand our sales into existing export markets. Long term: bring sub-contract manufacturing back in house and diversify into other markets.

— BATH & NORTH EAST SOMERSET —

BUSINESS ASPIRATIONS

“

After a tough 2018, 2019 has been good and we are back to growth. Our aim is to have a turnover of £2m, 20 employees, 35% gross profit and 15% net profit within a couple of years. After heavy investment in software we are now increasing automation in the workshop.

Short: improve efficiency/profitability and On Time Delivery. Medium: enter new market sectors and acquire new premises.

Increase customer base and grow business accordingly. We currently don't have any certainty on if this is possible as all of our current customers are seeing a decline in workload.

WILTSHIRE

“

Increase export sales and introduce new products.

To grow steadily. We are moving to a new factory and investing in systems, machinery etc.

Steady concentration on existing customers until Brexit effects become clearer.

DORSET

“

Short term address internal inefficiencies to enable continued sustainable growth into medium and long term.

Short term: get Brexit done, orders have slowed.
Medium: invest in more robots.
Long term: new factory.

Short - see through Brexit. Medium - same.
Long term - see a return to growth.

CORNWALL

“

We intend to further automate manufacturing areas of our business. We see the need to reduce costs and produce more with less staff, as skilled staff shortages are the largest problem that we face. Increased numbers of apprentices, undergraduates and postgraduates in order to fill some of the skills shortages.

Accelerate expansion of the business when Brexit is decided. Currently all medium and long term plans are on hold. And given the current state of affairs even some short term plans are on hold.

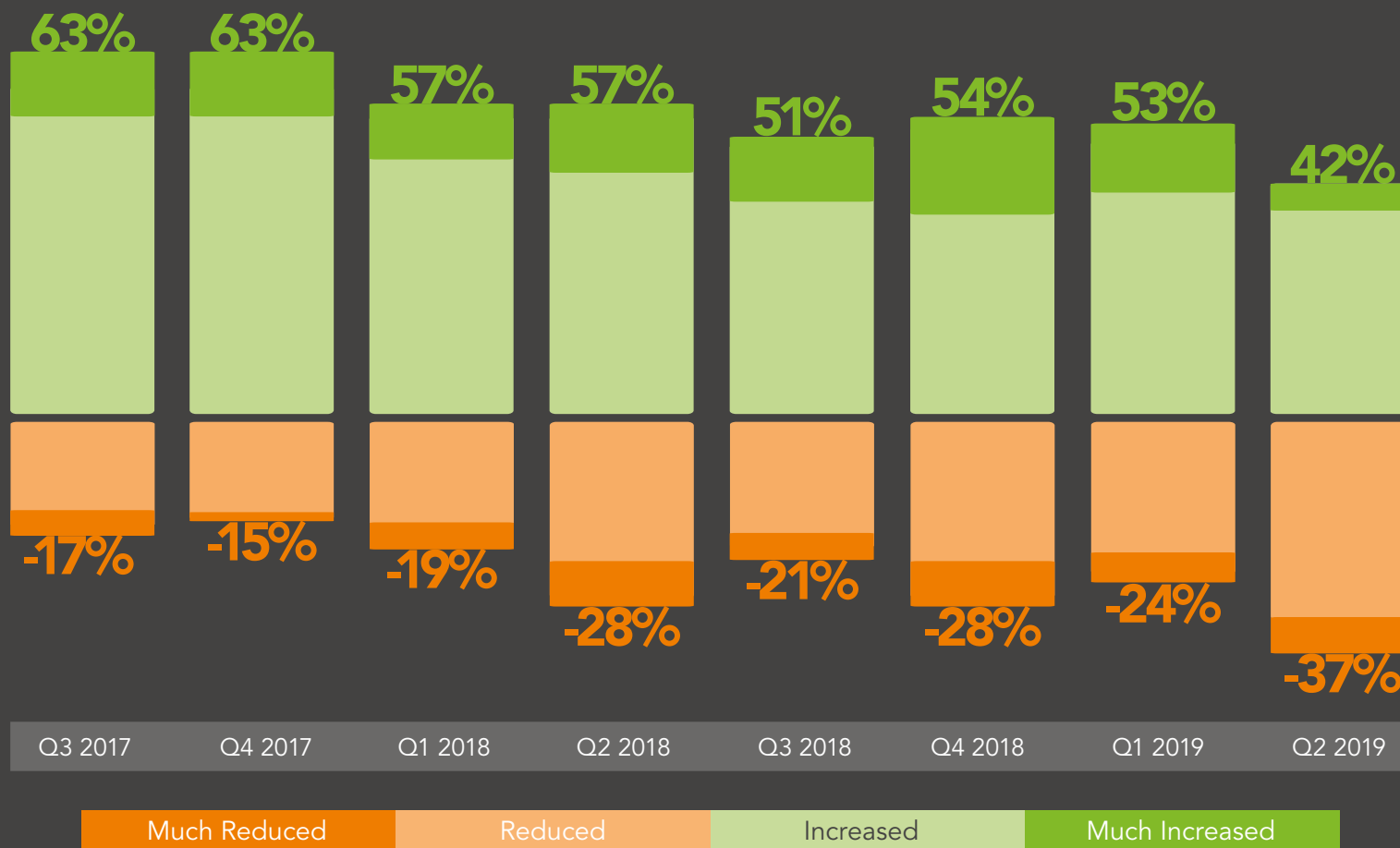
To improve our process, our sales, our marketing, our product range, our productivity, our profit.

DEVON

CORE TRENDS

SOUTH WEST PAST SALES

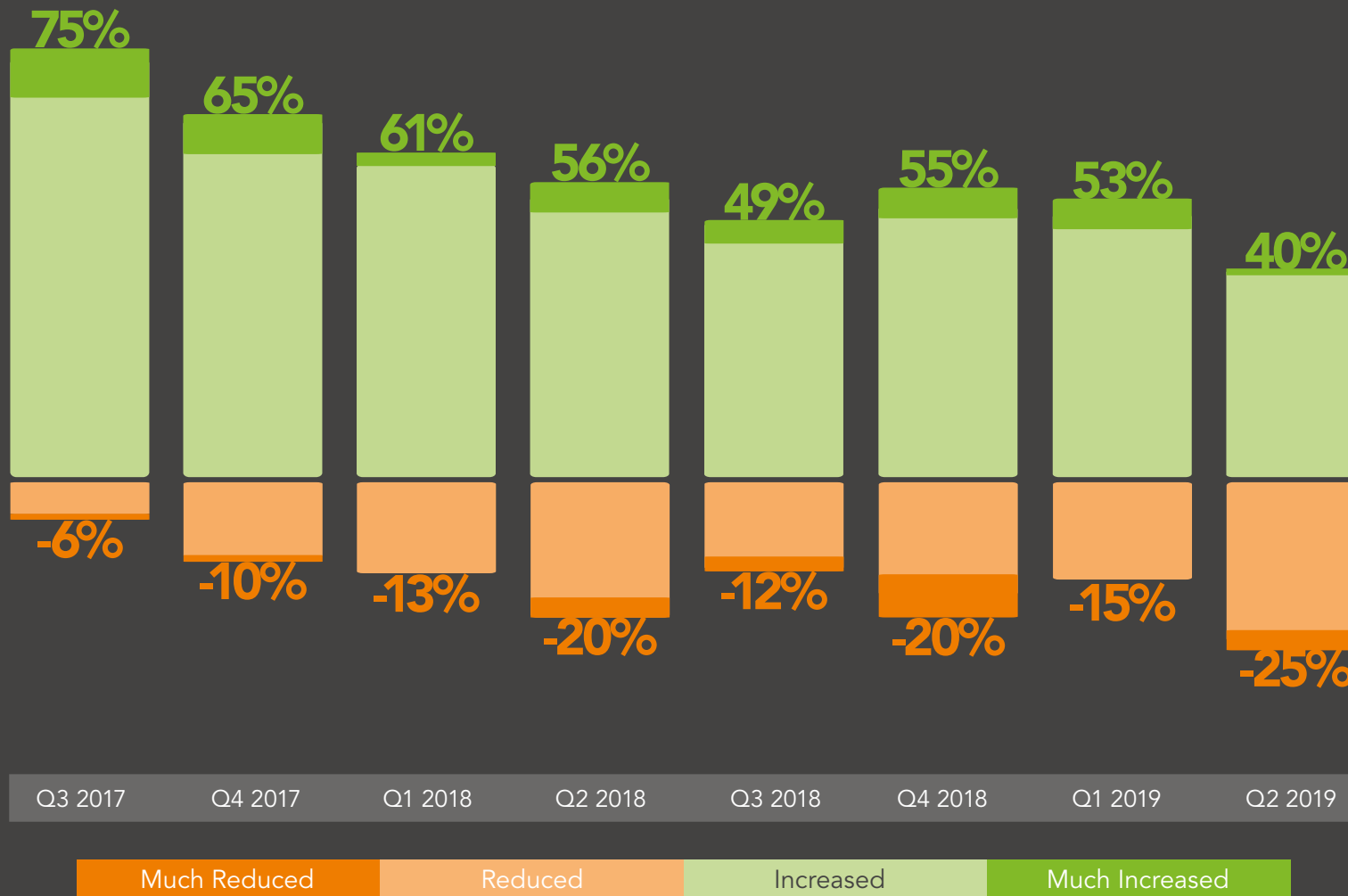
How has your sales turnover changed within the past 6 months?



CORE TRENDS

SOUTH WEST FUTURE SALES

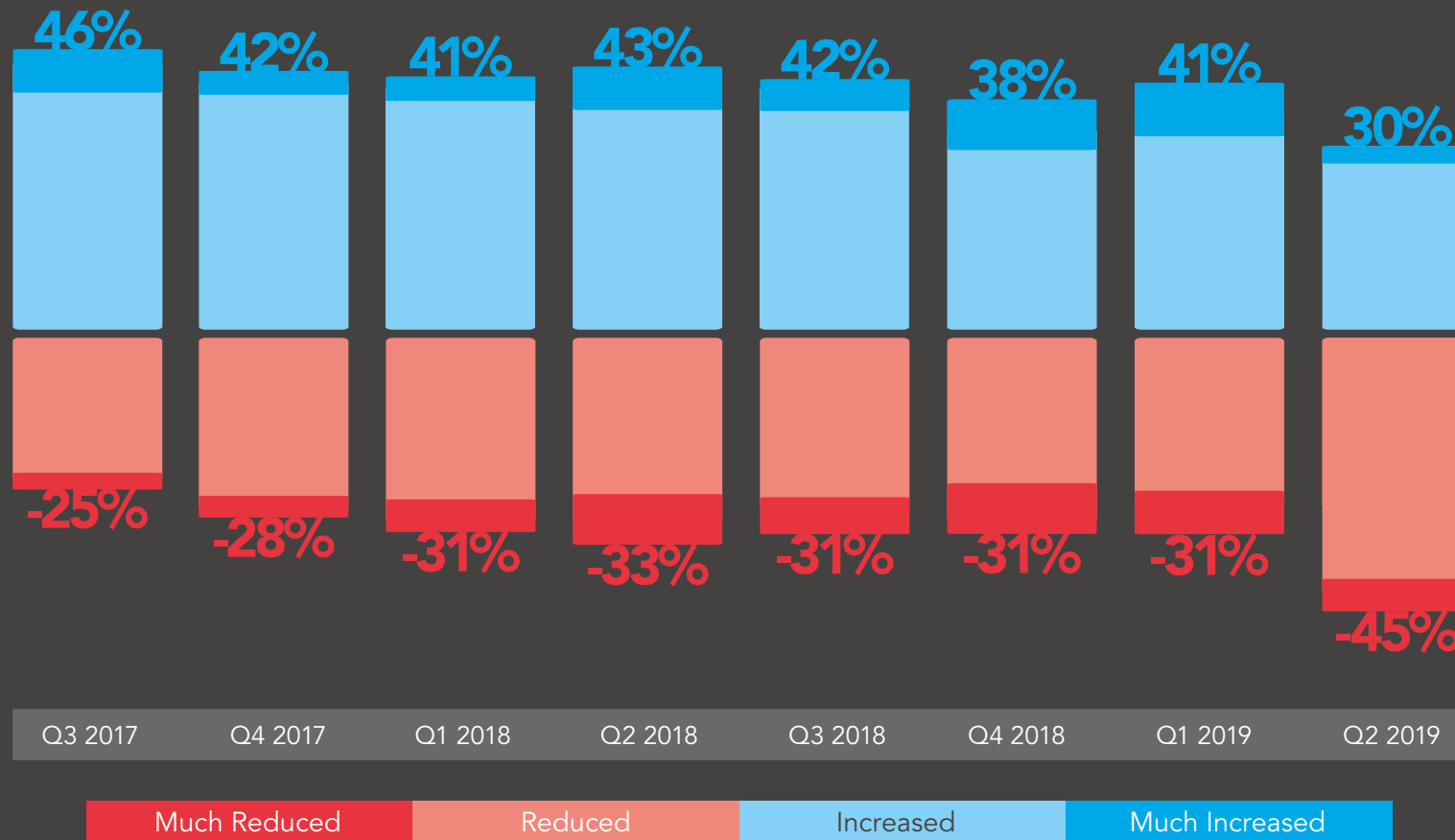
How do you expect your sales turnover to change over the next 6 months?



CORE TRENDS

SOUTH WEST PAST PROFITS

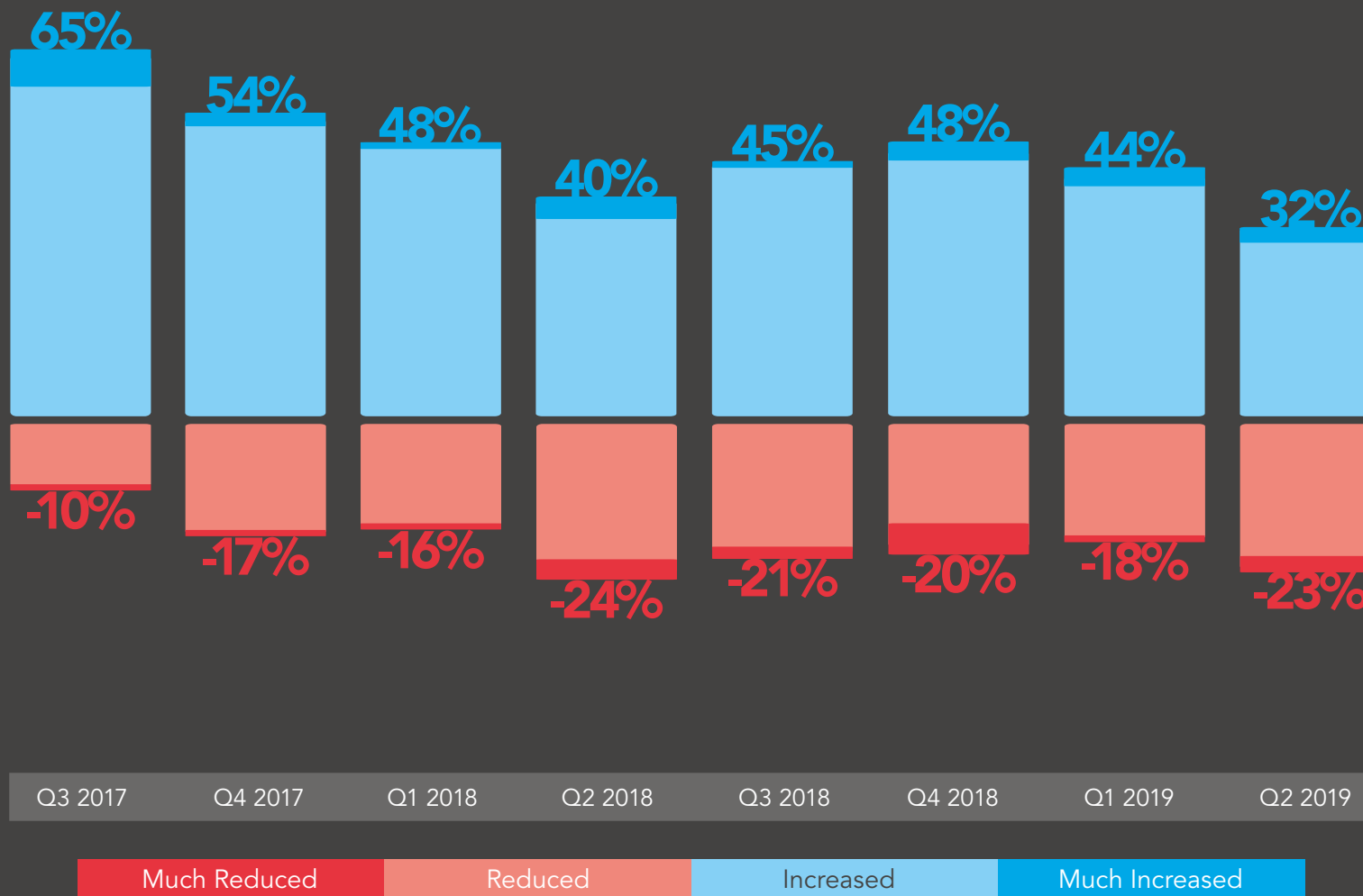
How has your profit changed within the past 6 months?



CORE TRENDS

SOUTH WEST FUTURE PROFITS

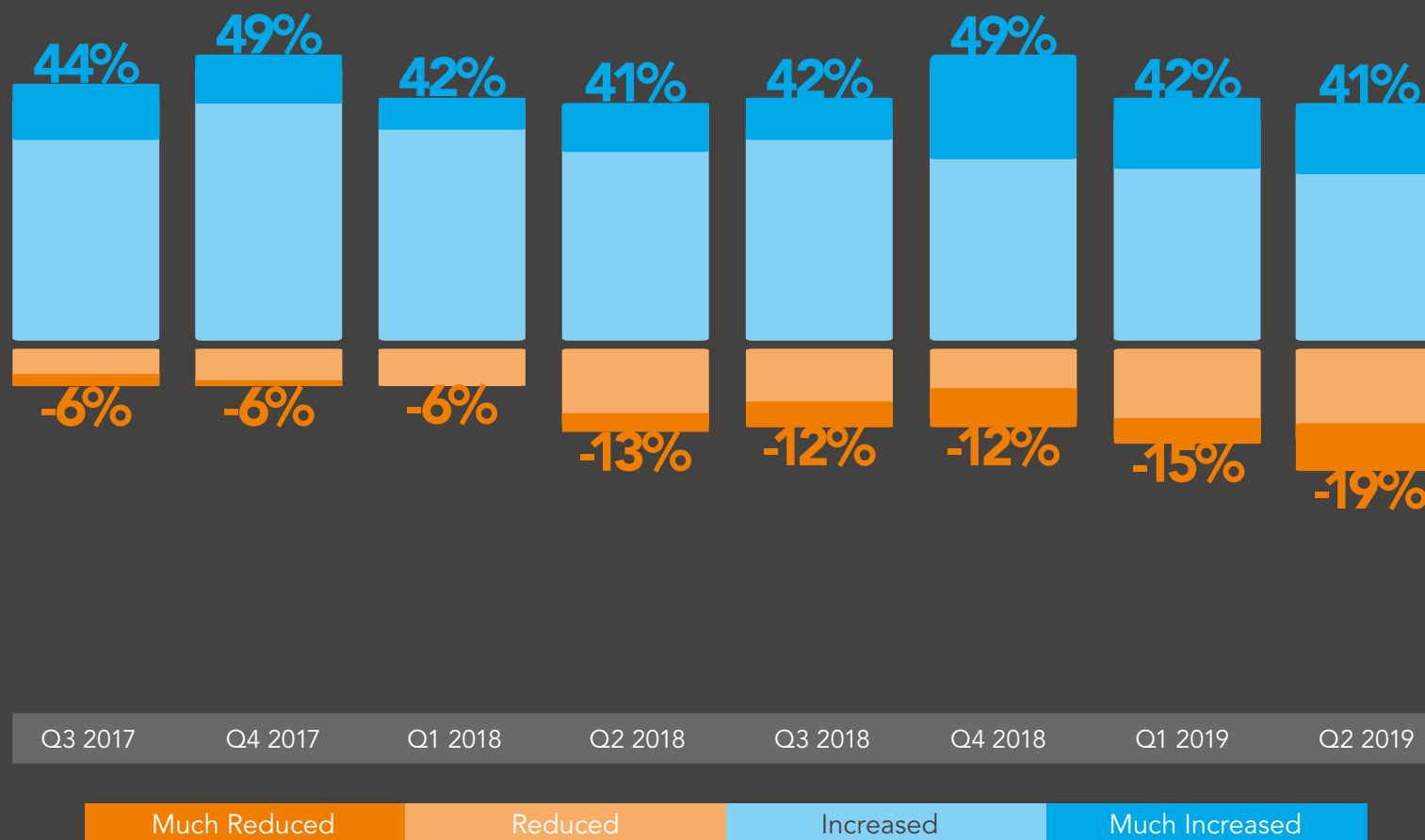
How do you expect your profit to change over the next 6 months?



CORE TRENDS

SOUTH WEST PAST CAPITAL INVESTMENT

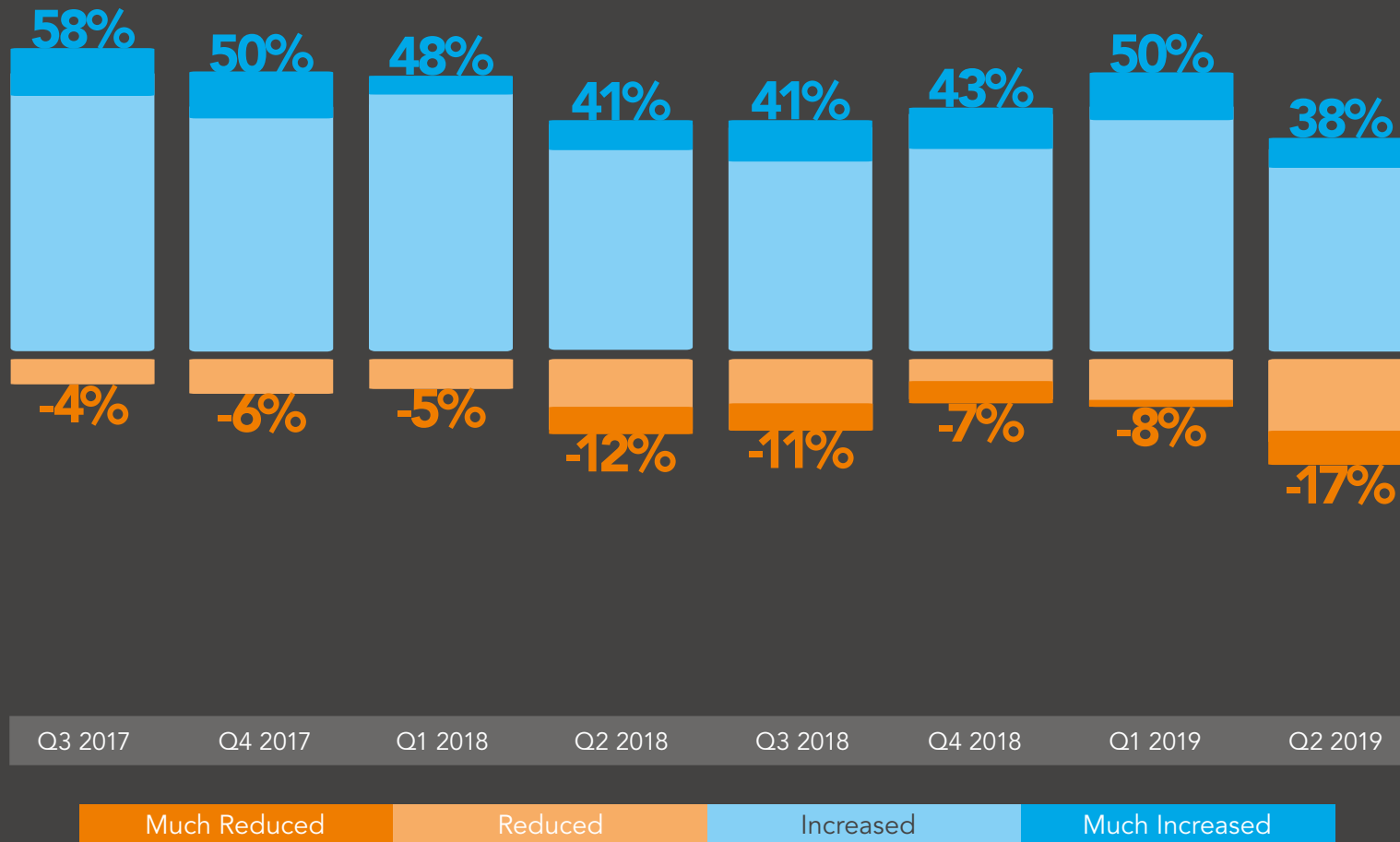
How has your investment in new machinery/premises changed in the past 6 months?



CORE TRENDS

SOUTH WEST FUTURE CAPITAL INVESTMENT

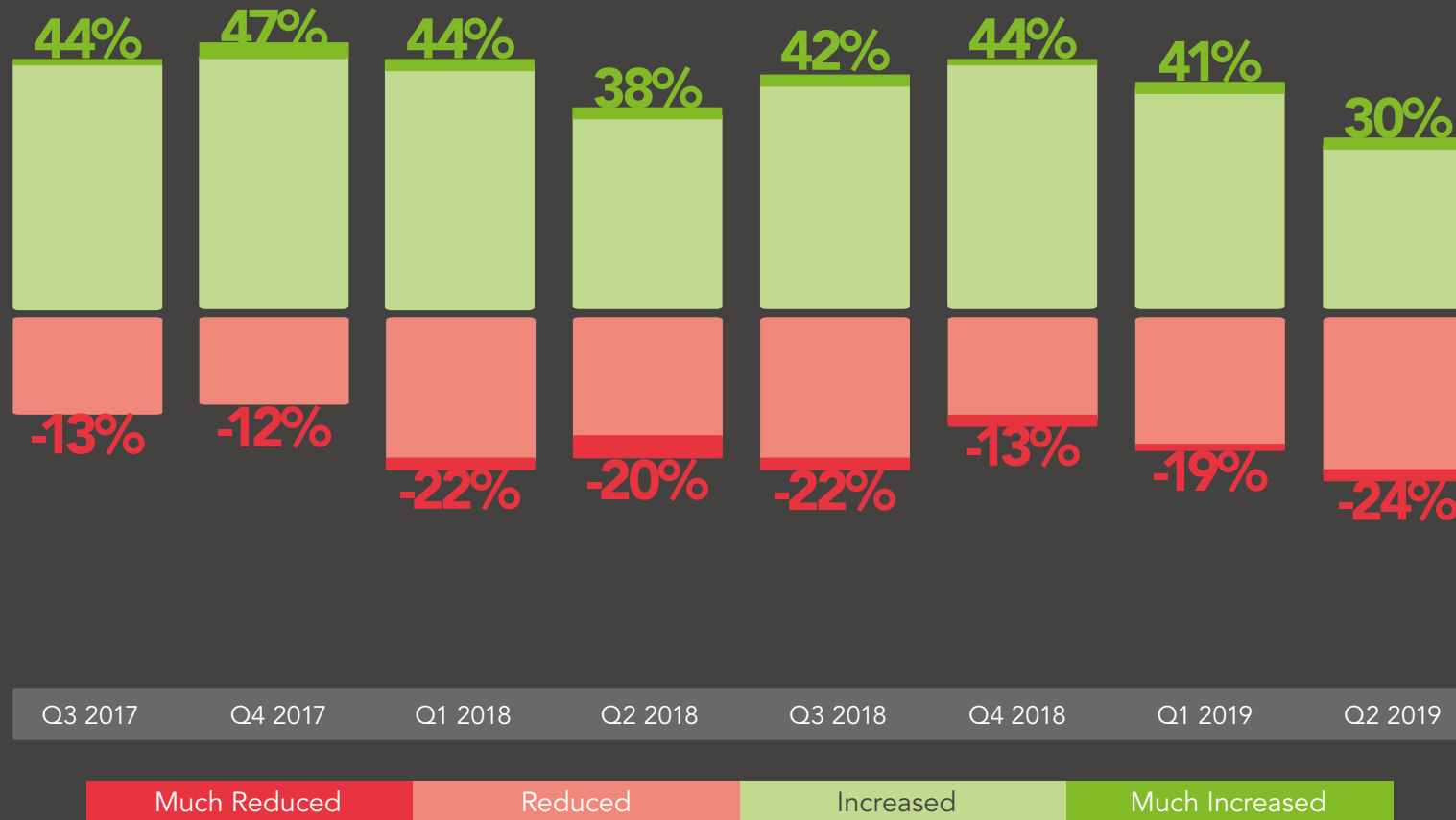
How will your investment in new machinery/premises change in the next 6 months?



CORE TRENDS

SOUTH WEST PAST EMPLOYMENT

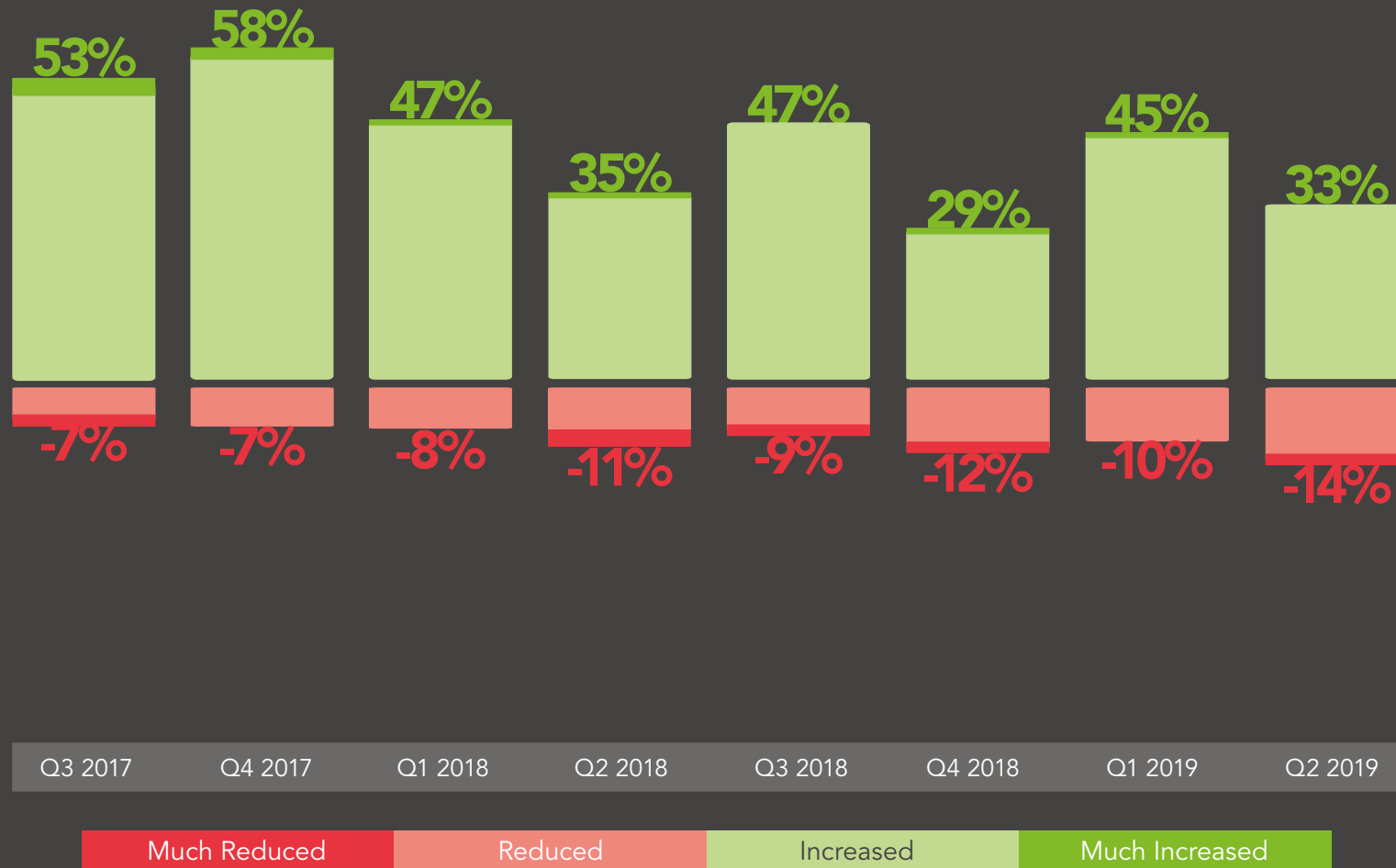
How have staff numbers in your company changed in the past 6 months?



CORE TRENDS

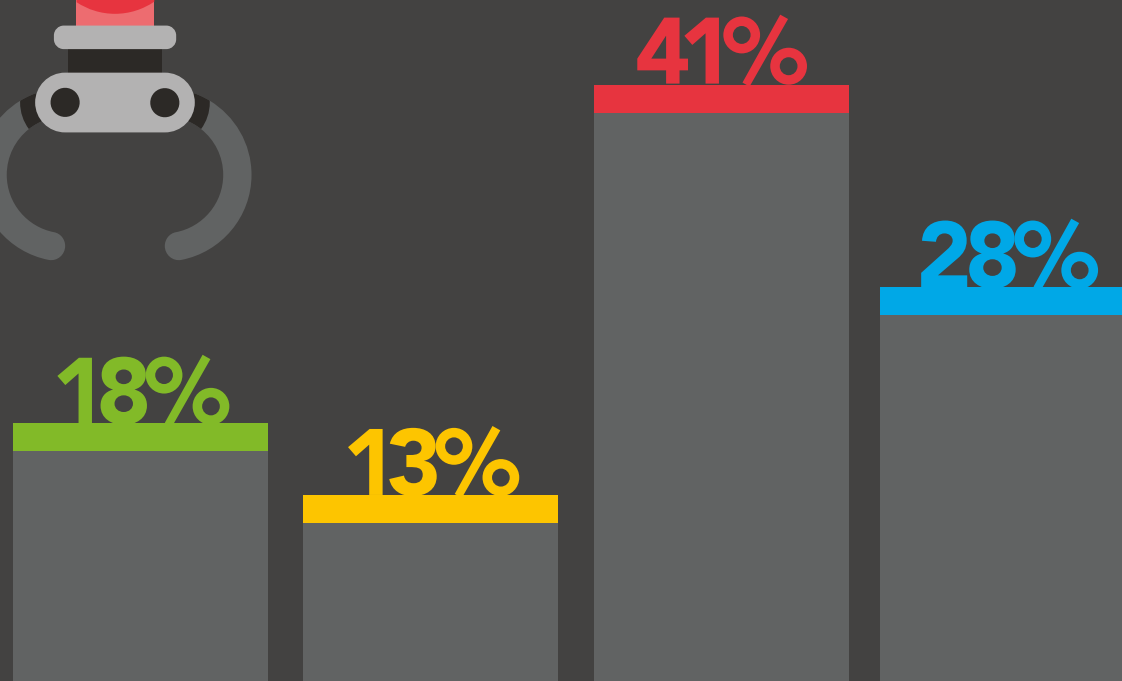
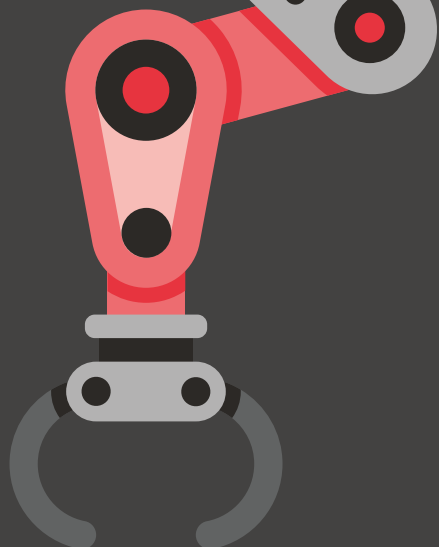
SOUTH WEST FUTURE EMPLOYMENT

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



SPECIAL FOCUS

ROBOT ADOPTION: THE SME CHALLENGE



“Our product is handmade - robots kind of defeat the object of having a handmade product.”

MD, BRISTOL

“The Government should be aware that robots will be adopted only where highly repetitive relatively slow processes but high volume production can justify them. Most SME manufacturers will struggle to get payback.”

MD, DEVON

“Not sure what is available, but very interested.”

MD, DORSET

- Already use robots in their business
- Plan to start using robots
- Do not plan to start using robots
- Not sure if they will use robots

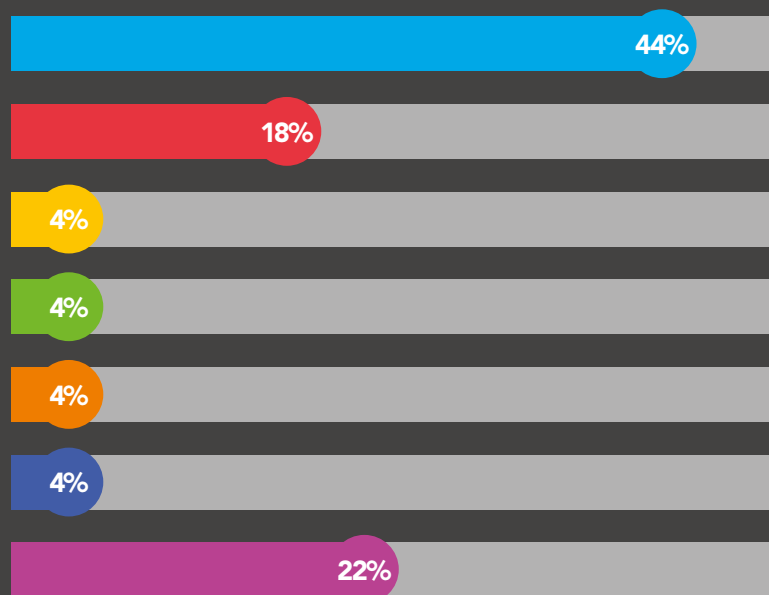
SPECIAL FOCUS

ROBOT ADOPTION: THE SME CHALLENGE

WE ASKED THOSE WHO ALREADY USE ROBOTS IN THEIR BUSINESSES:

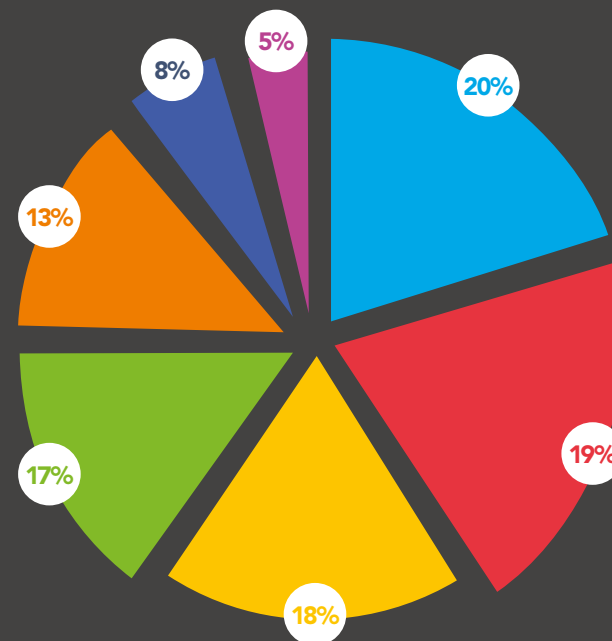
SOUTH WEST:

Where in your business do you use robots?



- Machine loading/unloading
- Assembly
- Cutting/forming
- Welding
- Testing/inspection
- Painting/coating
- Other

What are the main benefits of using robots?



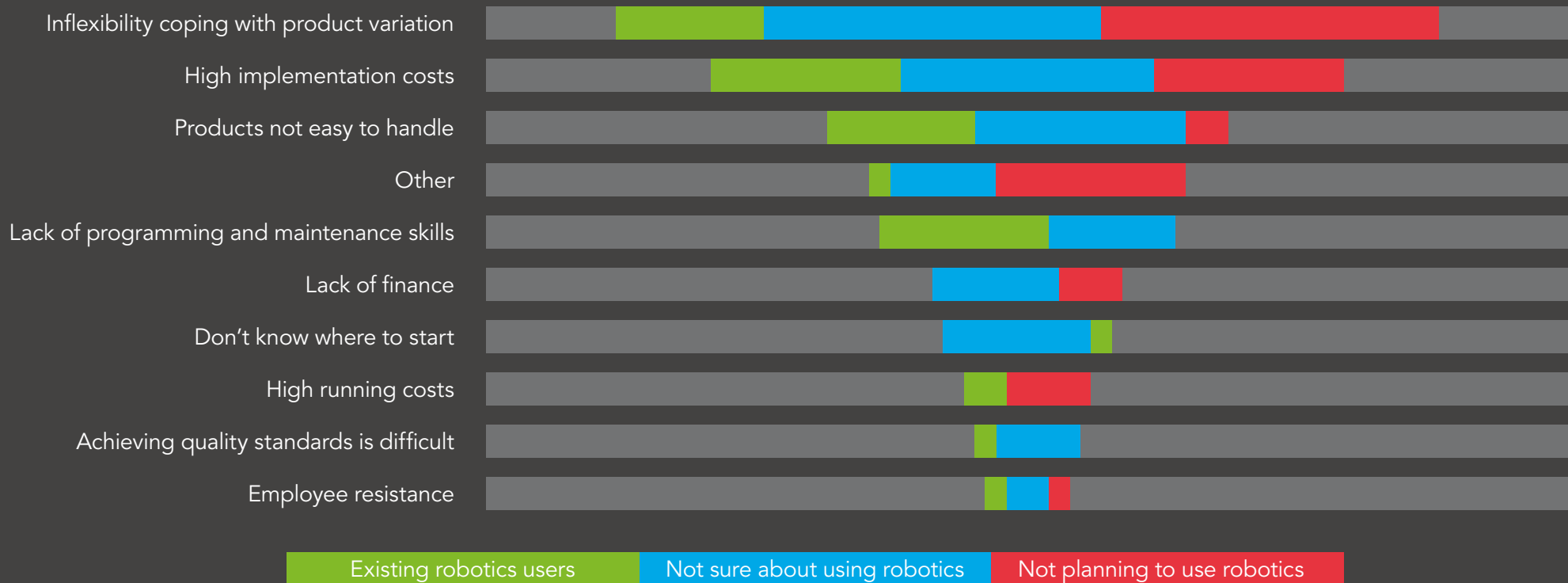
- Lower cost of operations
- Improved safety/well-being of staff
- Better quality and repeatability
- Faster operations
- Increased flexibility and responsiveness
- Business image
- Other

SPECIAL FOCUS

ROBOT ADOPTION: THE SME CHALLENGE

DRAWBACKS OR PERCEIVED BARRIERS TO USING ROBOTS IN SME MANUFACTURING BUSINESSES

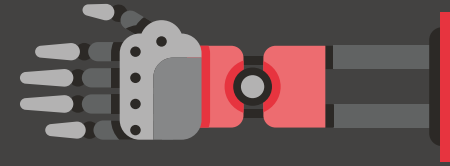
Drawbacks or perceived barriers to using robots



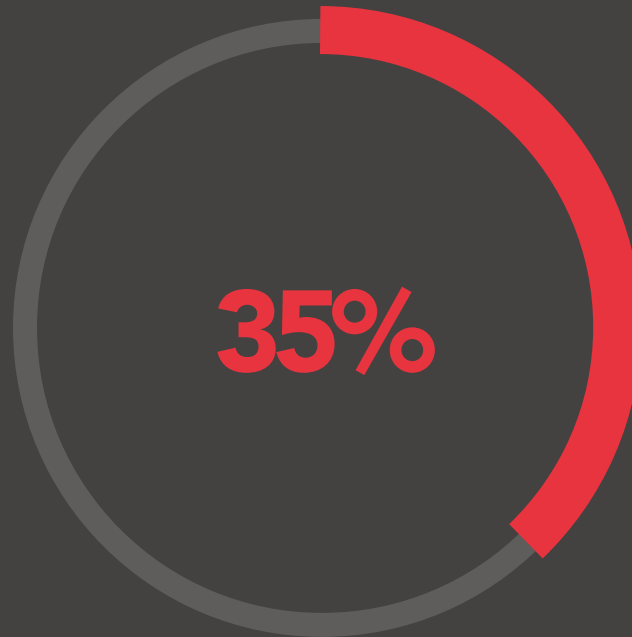
SPECIAL FOCUS

ROBOT ADOPTION: THE SME CHALLENGE

DO YOUR COMPETITORS USE ROBOTS?



Of those SME manufacturers who **do not already use robots**



...are unsure if their competitors do.

ABOUT THE MANUFACTURING BAROMETER



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

This South West focused report is generated using the input of businesses from Gloucestershire, Bristol, Somerset, Devon, Cornwall, Dorset and Wiltshire.

Run by SWMAS, part of the Exelin Group, the Manufacturing Barometer has its roots in the South West of England. It launched here in 2009, before extending to represent the view of SME manufacturers across the UK in 2012.

The Manufacturing Barometer records core trends in employment, turnover and investment and each quarter has a 'special focus' that explores an issue in greater depth. The special focus tests current thinking in the sector, and delves into issues such as productivity, overseas production, and energy efficiency.

Thank you to the survey respondents for taking the time to contribute and helping to form this collective voice of the sector. We will use the results to help raise the profile of, and inform the future of business support for, the UK SME manufacturing sector. Companies can use the Manufacturing Barometer to compare themselves against other firms within their sector or region.

If you would like to talk to one of our team about the challenges and opportunities in your business, to receive a personal invitation to contribute to the next Manufacturing Barometer, or more information about this report, please contact:

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