

In association with:



# EXECUTIVE SURVEY 2021 BUILDING AGILITY IN MANUFACTURING



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# EXECUTIVE SUMMARY

By any measure 2020 has been a challenging one for the UK economy, with the experience of the manufacturing sector no exception - a pandemic and its impact on our people arrived in what was already a challenging external environment with companies already working towards readiness for a very different trading relationship with our biggest export market, the European Union (EU).

When the pandemic first struck, far from battening down the hatches, UK manufacturers stepped up to the plate. Up and down the country they supported the production of ventilators and supplied critical PPE products for our treasured health service. They switched operating procedures to comply with public health measures and kept production lines flowing to ensure that essential goods remained available to consumers.

## **In a time of crisis, our sector did us proud.**

Yet, beyond a response to a crisis, 2020 will go down in our history books as a year of significant change in human evolution, as society learns its lessons and we build both a resilient and agile industry. During the past twelve months a wider set of changes have also taken place. Manufacturers have changed production processes to adapt to the new trading environment, increasing investment in digital and green technologies and embraced new ways of working for many employees.

The arrival of vaccines brings real hope that 2021 will see an end to the pandemic and much of the disruption it has created. For our manufacturers, we are determined that this will not signal a simple return to old working practices but rather present a new opportunity: to recognise that improving agility in an environment where shocks and uncertainty are increasing in frequency, will be imperative to future success.

The pandemic has in fact provided an opportunity to reconsider our approach to supply-chain resilience. If building agility can improve one aspect of a business's functions, it can be this one. More specifically, it can improve functioning through five key supply-chain attributes. These include visibility, flexibility, optimising productivity and end-to-end connections by embracing technological advancements.

This report is about now looking forward and realising these goals. More precisely, it is about what the business landscape will look like for manufacturers over the next 12 months. The survey covers ground in a number of areas that will interest

both manufacturers and policymakers alike. In particular, manufacturers were asked what they believe the key risks will be in 2021 as well as what they plan to do to mitigate those risks.

In addition, the survey looks to better understand where the investment opportunities are and specifically what the industry will do in order to meet critical goals to be successful. These are building a strong industrial base in the UK, navigating our new partnership – including with the EU), understanding the risks that lay ahead in 2021, and developing an agile and responsive manufacturing sector. This is being driven by a new focus on products, people, markets and resilience.

These goals are not represented in order of importance, nor are they mutually exclusive, and, naturally, businesses that are successful in developing agility will be more successful in strengthening their industrial footprint as well as navigating a new international trading environment with greater ease. Turning to those risks to which they must respond, manufacturers have cited a wide range of challenges for their business plans in 2021 including delays at customers, lockdowns and pressure on input costs.

According to manufacturers, the primary risks that they are most concerned about generally include external factors. Many of these are best viewed as “bad weather”, given the uncontrollable nature of the risks. Given the timing of the survey, it is not surprising the top three concerns relate either

to the new relationships with EU partners or to COVID-19. The level of risk identified by many will partly depend on how the next few months play out. For example, the risk associated with national lockdowns will diminish as the vaccination rollout begins to take effect.

In the context of the EU, beyond the critical point of divergence, it is also likely that negotiators on both sides will continue to sit at the table and develop the new relationship iteratively as time goes on.

While uncertainty exists, it is exactly why agility in business will be more important now than ever before. Challenges like these are increasing in frequency and therefore businesses are being tested on a more regular basis. For those who are prepared to rise to those challenges, it is important that they recognise what they need to do to remain agile within extremely dynamic conditions.

In fact, many businesses have stated that the opportunities in 2021 outweigh the risks, as manufacturers are already preparing for a shift in the playing field.

This Executive Survey 2021 shows that businesses expect productivity to increase, and they anticipate hiring more permanent staff. Manufacturers are showing greater interest in being green as a means of reducing costs and meeting the challenges imposed by climate change.

On top of this, in order to remain agile, manufacturers are investing in new product development, are expanding into new markets and digital technologies and are reskilling the workforce. If these investments are executed effectively with the right level of support delivered from Government, then the UK manufacturing sector will be well positioned as a global competitor in 2021 and beyond.



# KEY STATS FOR 2020

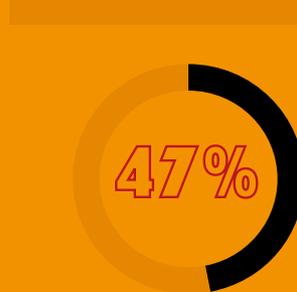
**THE UK IS THE**  
**9<sup>TH</sup> LARGEST**  
 **MANUFACTURING NATION**  
**BY VALUE OF OUTPUT**

**UK MANUFACTURING**  
ACCOUNTS FOR



**AT ITS PEAK THE**  
**JOB RETENTION**  
**SCHEME (JRS)**  
SUPPORTED MORE THAN  
**900,000**  
JOBS IN MANUFACTURING

**THE GOVERNMENT ANNOUNCED**  
**£12 BILLION**  
OF INVESTMENT TO  
ACHIEVE NET ZERO 

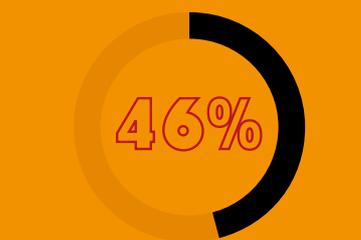


 BETWEEN  
 **JANUARY 20**  
 **AND AUGUST 20**  
THE NUMBER OF PEOPLE  
**UNEMPLOYED IN THE UK**  
**INCREASED**  
BY **260,000**

 **MANUFACTURING**  
**UNEMPLOYMENT**  
**STANDS AT 3.6%**

OF THE WORKFORCE  
ARE NOW DOING SOME  
**HOME WORKING**

**MORE THAN 49,000**  
BUSINESSES CLAIMED  
**£849 MILLION**  
THROUGH THE **EAT OUT**  
**TO HELP OUT SCHEME,**   
WHICH SUPPORTED  
**FOOD AND DRINK SUPPLY CHAINS**



46%

OF ALL UK MANUFACTURED GOODS  
WERE EXPORTED TO  
**EUROPEAN**  
**COUNTRIES**  
COMBINED, TOTALLING  
**£169 BILLION**

**7,376 CBILS**  
 **LOANS**  
WERE OFFERED  
**TO BUSINESSES**  
IN THE MANUFACTURING SECTOR,  
**WORTH £2,047**  
**MILLION**

# BUILDING A STRONG INDUSTRIAL BASE IN THE UK

For manufacturing, the start of the decade promised much by way of increased investment in capital, improving skills, going digital, going green and taking advantage of a year-long transition period as the UK would prepare for its new relationship with the European Union (EU).

## **If the sector is to build a strong industrial base, each of these is a necessary ingredient to achieve it**

Despite the adversity UK manufacturers are faced with, the qualities borne by agile businesses will enable the sector to respond to these challenges effectively in 2021.

As Make UK's Q1 2020 Manufacturing Outlook showed, investment intentions for the next 12 months reported a balance of 20% of manufacturers who were planning to increase their capex base for the first time in years.<sup>1</sup>

However, as the effects of COVID-19 spread across the nation, and as governments across the world implemented restrictions that were unheard of in natural human history, the economic impact became so dire, businesses almost unanimously and understandably repurposed any cash for investment into cash for survival.

Since those positive intentions for investment, subsequent Make UK surveys have reported consistently negative balances (where on average the share of manufacturers planning to decrease investment outweighs those planning to increase investment).

As manufacturers head into 2021, a key indicator of when businesses may increase their investment will correlate directly to their confidence in their own business environment, their confidence in the domestic economy and their confidence in the global economy.

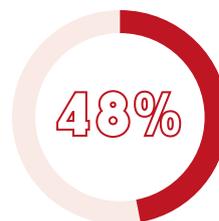
## **If the conditions are right, then businesses will respond by expanding**

This year's Executive Survey 2021 begins by reviewing manufacturers' views on exactly these features. However, as a word of caution, the question around business and economic conditions manufacturers were asked was left open to interpretation, as views on how conditions will change will differ from business to business. For example, for some, improved conditions in the manufacturing industry may relate to the ease of investing in automation technologies. For others, it may be about the ease of

attracting the best and brightest talent. The views represented on industry and on UK and global economic conditions provide a reflective overview of how business owners currently feel about their prospects in 2021.

## **The outlook for the industry is more positive than that of the wider economy**

The survey reports that just under half (48%) expect conditions within their industry to either moderately or significantly improve. Interestingly, of those that selected either moderate or significant improvements, more businesses feel confident about conditions in their industry than those that do about conditions in the UK economy (29%) or the global economy (33%). This is not a surprising result, as it is common for businesses to report some level of over-confidence when assessing market conditions. On the other hand, businesses may believe conditions in the UK economy are worse than in the global economy because of the media's representation of the UK doing poorly relative to its peers. Regardless, those views are not unfounded, as UK GDP is expected to contract on the whole by 11.3% while the global economy is only expected to contract by 4.2% in 2020.<sup>2</sup>

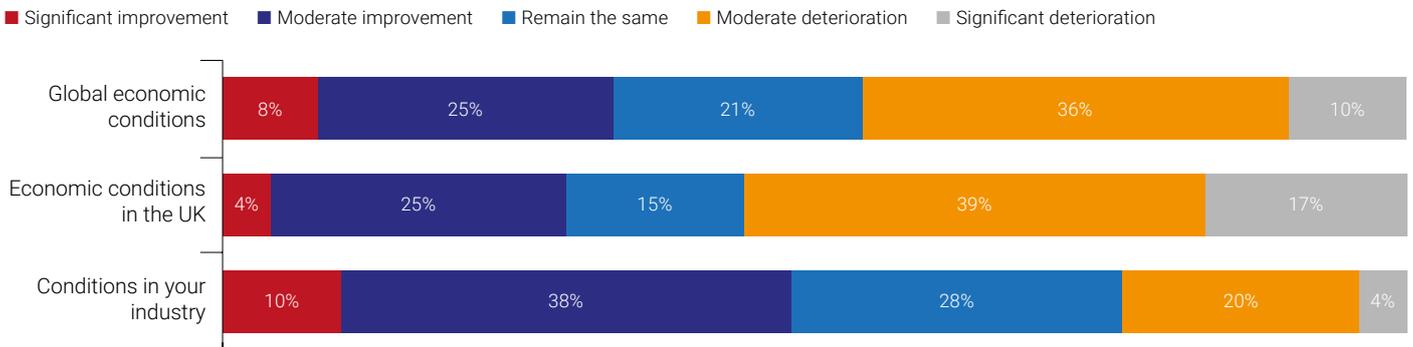


**OF MANUFACTURERS EXPECT CONDITIONS WITHIN THEIR INDUSTRY TO EITHER MODERATELY OR SIGNIFICANTLY IMPROVE**

On balance, the survey results indicate that UK manufacturers are generally more positive about industry conditions in 2021. However, they are generally negative about conditions in the UK and the global economy, as 56% and 46% respectively believe conditions will moderately or significantly worsen in 2021. If business views on economic conditions do not improve it will result in more firms playing it safe when it comes to investing in skills and digitisation than would be the case should economic conditions be positive.

<sup>1</sup>Make UK, Manufacturing Outlook Q1 2020.  
<sup>2</sup>Make UK/Oxford Economics data.

**Chart 1: What change in the following conditions is your company expecting in 2021, compared with 2020?**



Source: Make UK / PwC survey, November 2020

**Manufacturers have seen increases in productivity and continue to expect to in 2021**

When asked about what changes manufacturers expect in 2021 relative to 2020, interestingly, most (54%) expect to see a moderate or significant improvement in productivity. The result is promising, given the difficulties the UK has faced with the productivity puzzle ever since the Global Financial Crisis. Conversely, historical data (measured in output per hour) reveals that manufacturing productivity has consistently been greater than the average across all industries for many years now. The latest available data indicates that manufacturing workers produce on average £38 of output per hour whereas the average for all industries is approximately £34. In the last 10 years, manufacturing productivity by standard measures has been typically 12% greater than the average across all industries.<sup>3</sup>

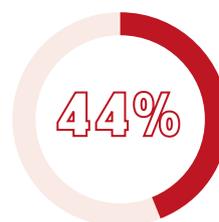
**OVER HALF OF COMPANIES EXPECT IMPROVEMENTS IN PRODUCTIVITY**

The results are not surprising, as the high output per hour is a result of the coupling of human and mechanical activity in a sector that is well accustomed to it. However, the fact that manufacturers are expecting further increases in productivity does indicate that more businesses are planning to invest in going digital as well as adapting to the new environment created by COVID-19, for example by providing flexible working environments for their staff. The latter has even been a priority, according to the Executive Survey 2021. Bringing this result to life in 2021 will be key to building a strong industrial base and will be actualised by those that have already developed, or are in the process of developing, agile and responsive business processes.

<sup>3</sup>Make UK analysis of ONS (2020), "Region by industry labour productivity" data

**They expect to also see positive movement in the recruitment of people into the industry**

On top of increasing productivity, 44% of manufacturers are expecting to moderately or significantly increase their number of permanent staff in 2021. The two former results combined indicates that manufacturers may not be looking to increase productivity by cutting the workforce. Rather, there is a growing interest in investing in the skill-sets of full-time staff. The latest survey data indicates that a large share of manufacturers are looking to invest more in training in 2021 too. Access to talent will be a key topic of discussion for manufacturers in 2021, especially as the pool of talent available to businesses will change because of the decision to leave the EU. As a result, the increased difficulties in acquiring skills will make retaining existing workers even more so important or else manufacturers, particularly those that are specialists, risk losing those skills for good.



**44% OF MANUFACTURERS ARE EXPECTING TO MODERATELY OR SIGNIFICANTLY INCREASE THEIR NUMBER OF PERMANENT STAFF IN 2021**

**What does the outlook on pay look like?**

Make UK's most recent Manufacturing Monitor found that half of manufacturers have made redundancies during the pandemic, with most companies reporting that up to a quarter of their staff have been cut. The Government's eleventh-hour decision to extend the Job Retention Scheme (JRS) until March 2021 was unfortunately too late to save many of these jobs. However, with nearly half of companies ruling out further redundancies, the extension of the JRS may just mitigate more staff being laid off. Large-scale redundancies and subsequently high unemployment levels will undoubtedly impact pay. Manufacturers will be forced to make cost-cutting measures, which are likely to include pay freezes and pay deferrals.

Indeed, Make UK's December 2020 Pay Bulletin found that a quarter of companies were deferring settlements. With access to a wider labour market, there is now less upward pressure on pay for manufacturing employers. It is interesting that access to skills, typically the Achilles heel for manufacturers, does not make the top five risk lists for 2021, possibly driven by this new, wider talent pool that is now available to them. As a result, manufacturers are citing lower pay settlement figures than we have seen in recent years. There will, of course, be outliers to this: highly skilled roles, which are in high demand and require scarce skills, will no doubt continue to attract a premium.

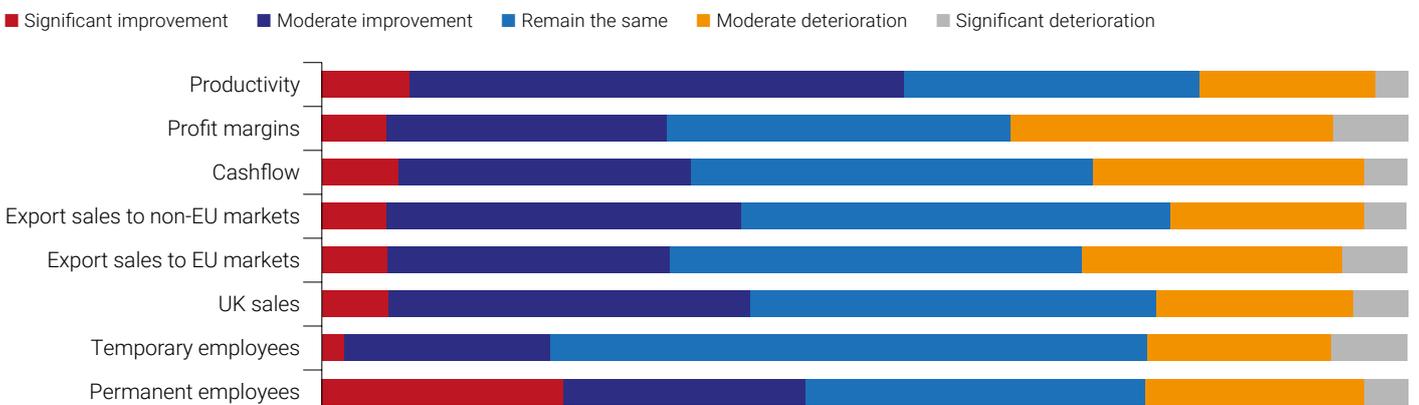
Looking ahead to 2021, the Chancellor's recent announcement to increase the National Living Wage (NLW) in April 2021 by 19 pence, or 2.2%, alongside increases to all the other National Minimum Wage (NMW) rates may on the surface seem viable for the majority of manufacturers who pay above this rate. However, the one to watch next year will be the impact that this has on firms' ability to maintain pay differentials. If settlement figures remain lower than the increases to the NLW and NMW, then the differences between pay grades and bands will eventually become obsolete, possibly forcing companies into settling at higher rates than they would have originally planned and, in some cases, be able to afford.

**Despite the challenging environment, manufacturers anticipate UK sales increasing**

39% of manufacturers believe UK sales will increase moderately or significantly, while only 24% expect a deterioration. Domestic orders have been subdued for a substantial period of time, even pre-dating the pandemic. Make UK's wider sector research shows that UK orders

(domestic sales) have consistently reported a negative balance of manufacturers reporting a drop since the third quarter of 2019. Therefore, it is promising that executives believe this downward trend for the domestic market is expected to end in 2021. As a notable mention, the data also highlights a greater share of manufacturers (39%) expecting to see export sales to non-EU countries increase, than those (32%) that expect exports to EU countries increase.

**Chart 2: What changes is your company expecting in the following areas in 2021 relative to the previous 12 months?**



Source: Make UK / PwC survey, November 2020

# DEVELOPING AN AGILE AND RESPONSIVE MANUFACTURING SECTOR

An agile manufacturing sector is one that is able to swiftly respond to shocks that interrupt the natural order of a commercial system. These can be global shocks, such as the pandemic or the financial crisis over a decade ago, or smaller, more specific shocks such as erupting volcanoes in Iceland that disrupted air freight capacity and logistics.

Regardless, manufacturers are more aware of these challenges today than they were one year ago and as such have opened the door to investing in its people, innovating new products, expanding into new markets all the while prioritising resilience in the industry to build agility.

The latter which has raised its priority on the to-do list of many business owners over the last year. Businesses that successfully develop a strategy that advances these four key areas will find themselves more agile in the face of future shocks.

## MARKETS, RESILIENCE, PEOPLE, PRODUCTS

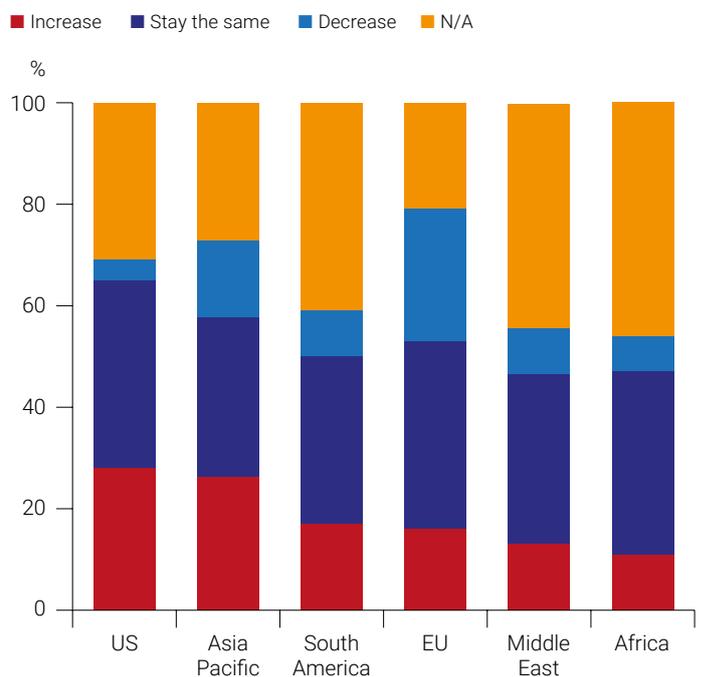
### Markets: Expanding into new markets

For the first time in more than 40 years, the UK will be competing on a global stage through its own independent trade strategy. While this will be challenging, it will also provide opportunities to expand into new markets. Exploring these new markets alongside their current EU trade is one of the ways in which manufacturers are looking to build agility and resilience into their supply chains.

Some 27% of manufacturers indicated that their exports to the US will increase in the coming year, a figure that may well increase if a Free Trade Agreement (FTA) is agreed, ratified and signed with the new administration. There is a further feeling of hope as we move into the New Year, with 48% of manufacturers expecting exports to South America to increase or stay the same, along with 57% stating that exports to the Asia Pacific region will either increase or remain the same.

The UK manufacturing sector has proved this year to be agile and resilient in the face of unprecedented challenges in 2020, and there is every indication that, moving into 2021, manufacturers can continue to grow, be innovative and create the goods that will enable them to compete on the global stage. Utilising the G7 presidency and hosting international events, such as COP26, in 2021 will enable the UK to promote itself on the world stage and will aid and offer manufacturers the opportunity to export UK-made products, and allow manufacturers to increase their export footprint in the years to come.

**Chart 3: Expected change in exports in the following markets in 2021**



Source: Make UK / PwC survey, November 2020

**Resilience: Investing in digital and green technologies**

2020 has shown that the more digitalised a business was, the more resilient it was to the external shocks it faced. To build on this agility in 2021, 43% of manufacturers said they will explore how to keep remote working where possible. The manufacturing sector has often been viewed as one that cannot operate in flexible working environments to the same extent as other industries, but the pandemic has proved that this is not the case. Indeed, previous Make UK research has shown that remote ways of working can be adopted by both production and non-production-based staff, on site and off site. It is likely, however, that the continuation of remote working will predominantly be for office-based staff, whose tasks can be more easily performed remotely.



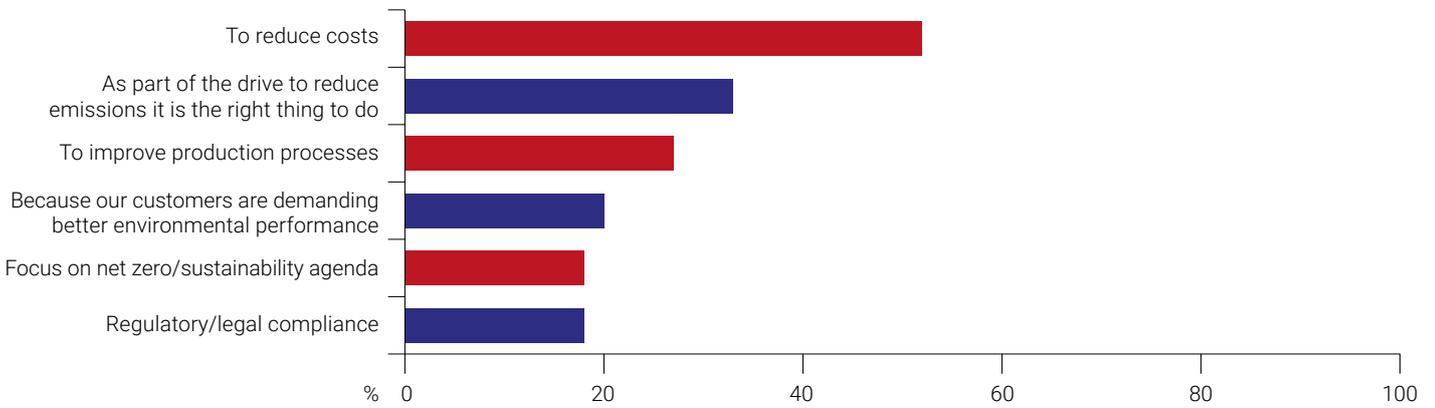
# **TWO-FIFTHS OF COMPANIES ARE LOOKING TO INVEST IN GREEN**

Moreover, almost three in ten (28%) manufacturers said they would invest in new digital technology, such as Artificial Intelligence (AI), to be used in predictive maintenance, to save money on repairs and trips for engineers to carry out checks on site.

But it is not just in digital technologies that manufacturers are exploring to build agility in 2021. Our survey found that two-fifths (42%) of companies are looking to invest in green. Manufacturers are aware that investment in green technologies and wider energy-efficiency measures can bring benefits to their businesses. One-third (33%) of manufacturers reported that they are investing in green technologies in an effort to reduce emissions, acknowledging that it is the right thing to do, and one in five are doing so because their customers are demanding better environmental performance. But, importantly, manufacturers plan to invest in green technologies because of the direct benefits to their business and the impact on their bottom line. Indeed more than half (52%) of companies said they are making such investments to reduce costs, and more than one-quarter (27%) to improve production processes.



**Chart 4: Why companies are planning to invest in green technologies/energy efficiency measures in 2021**



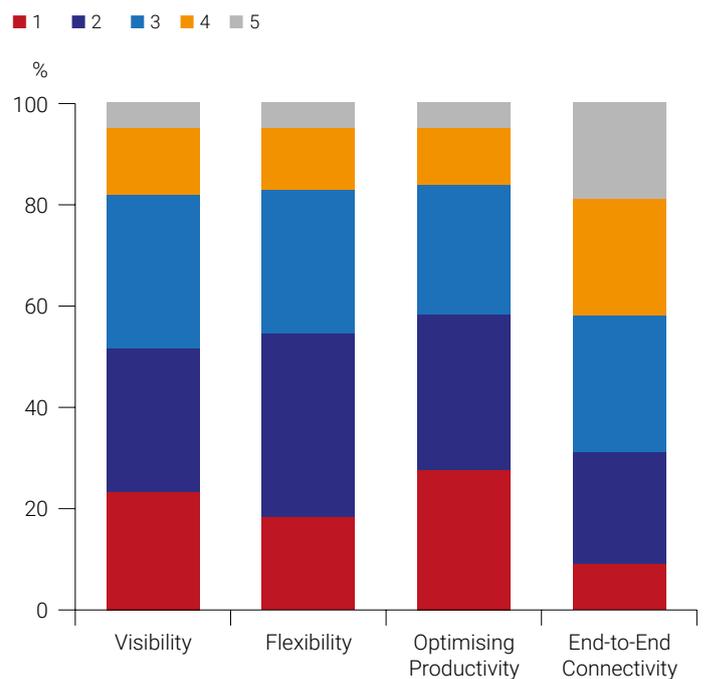
Source: Make UK / PwC survey, November 2020

Building agility in 2021 means recognising that the digital and green agendas go hand in hand. The adoption of industrial digital technologies and the transition to a net-zero economy have a number of common threads, including opportunities and barriers, which are best addressed as one. For example, recent announcements from the Government to invest in and switch to low-carbon hydrogen production capacity by 2030 and electric batteries will require investment and finance from both the public and the private sectors. Technology, data capture and analysis, for example through smart meters, is one of the methods that manufacturers can use to reduce their carbon footprint and energy costs. Yet too often these agendas are pursued separately – by both businesses and policymakers. A greater understanding of these synergies would support more effective implementation of both the industrial decarbonisation and the digitalisation agendas. For industry, this would enable greater opportunities for companies to proactively engage in these areas, not just directly, but also through their supply chains, making the sector agile and responsive.

**Resilience: Building agile, smart supply chains**

The complexity and diversity of global supply-chains, of which much of the UK’s manufacturing sector sits in the middle, have been both a boon and a bane for the industry. The vulnerabilities of these intricate supply-chain networks were exposed during the early days of the pandemic as a lack of freight capacity and differing lockdown policies between nations results in many challenges for manufacturers who were eager to access critical components for their goods. However, these networks are what also enabled the manufacturing sector to continue operating and deliver on essential goods, such as PPE, ventilators, hand sanitisers as well as ensure a supply of fresh foods remained plenty.

**Chart 5: Manufacturers ranking the importance of the four supply-chain attributes**



Source: Make UK / PwC survey, November 2020

There are many variables to consider when attempting to understand supply-chains, yet the chains themselves can be thought of having five key attributes. The latest survey asks manufacturers to consider these attributes, which include – visibility, flexibility, optimising productivity and end-to-end connections – and rank their importance from 1 (most important) to 5 (least important).

Optimising productivity through the use of demand forecasting on the needs of partners and suppliers was selected by most manufacturers as the top attribute businesses wanted to see from the supply chain in 2021, with nearly 60% putting it at number one or number two. This is not surprising as accurate forecasting relates almost directly to building resilience.

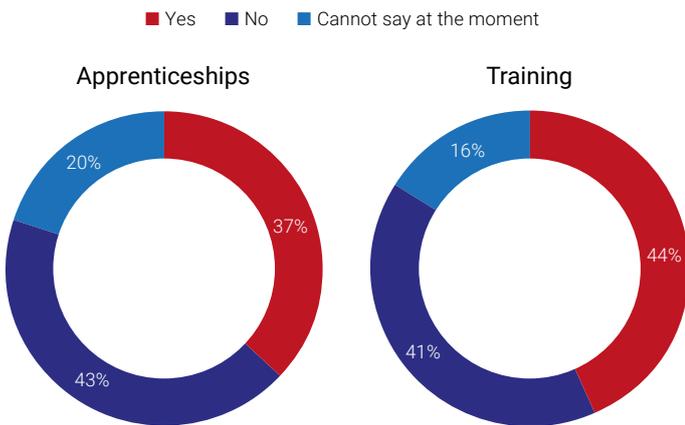
Flexibility and visibility were also highlighted where over 50% said they needed greater diversification and resilience in the supply chain. Meanwhile visibility was picked as being needed for early identification of vulnerability and mitigation of risk through a supply chain resilience review. In contrast, a lower share of manufacturers viewed end-to-end connectivity as essential indicating some businesses did not see cloud technologies and digital transformation as a suitable way to build supply-chain resilience. This does not mean manufacturers are opposed to digitisation, rather businesses view the purpose of going digital differently.

As the data indicates, supply-chain resilience for manufacturers comes from having the data and insight to make well informed decisions as early as possible, with a diverse and secure supply chain in place, the agile are able to move nimbly to respond to change and uncertainty.

**People: Developing, attracting and retaining talent**

To be agile and responsive, manufacturers will need to build workforces fit for the future. This will mean adapting to the rapid changes in technology and automation we are seeing,

**Chart 6: Companies planning to increase investment in skills in the next 12 months (% of companies)**



Source: Make UK / PwC survey, November 2020

embracing the new ways of working as a result of the pandemic, and leading on the generational issues of our time, including climate change. It is therefore pleasing to see manufacturers committing to investing in their people throughout 2021 – 44% of manufacturers said they plan to increase investment in training in the next 12 months, and 37% said the same for apprenticeships.

Bringing in new talent and retaining skills within businesses will be crucial to be agile and responsive in 2021 – 25% of manufacturers said reskilling their workforce is one of the top three ways they are seeking to remain agile in 2021.



To support this effort, Make UK, alongside unions and industry, has called for a National Skills Taskforce so manufacturers can attract, develop and retain talent. In the immediate term, the taskforce would:

- ensure that the surplus of skilled workers who will inevitably be leaving UK manufacturing businesses are matched with demand, including opening up opportunities for those skills to be transferred into other sectors where they are needed;
- support workers to identify jobs where their skills have relevance and cross over within both the manufacturing and wider sectors;
- develop a flagship upskilling programme that would see employees develop the digital skills they need for the new economy so the recovery can be future proofed.

An even larger proportion, 43%, are planning to provide a flexible working environment for employees in 2021, including exploring remote working options, where possible. Remote working has been advantageous for manufacturers, and has increased productivity and collaboration. The quick adoption of digital technology enabled companies to deliver virtual trade exhibitions, use of 3D avatars for sustainable sampling and virtual commissioning, alongside delivering remote production and monitoring systems to keep vital lines working effectively.

Even day-to-day office management, once thought only to be possible through face to face contact, continued almost seamlessly thanks to quick learning programmes in the use of video conferencing platforms. Two-fifth of companies saw an increase in communication between staff, which was enabled through the use of meeting chat rooms, which could recreate the sensation of an employee walking through a business and visiting different departments in turn.

It is by adopting new ways of working that manufacturers have been able to keep their doors open and critical supplies in production.

Manufacturers should seek to incorporate the benefits of remote working into their new way of operating in 2021 to ensure whatever external shocks that may come their way, they are best placed to adapt and mitigate the impact of them.

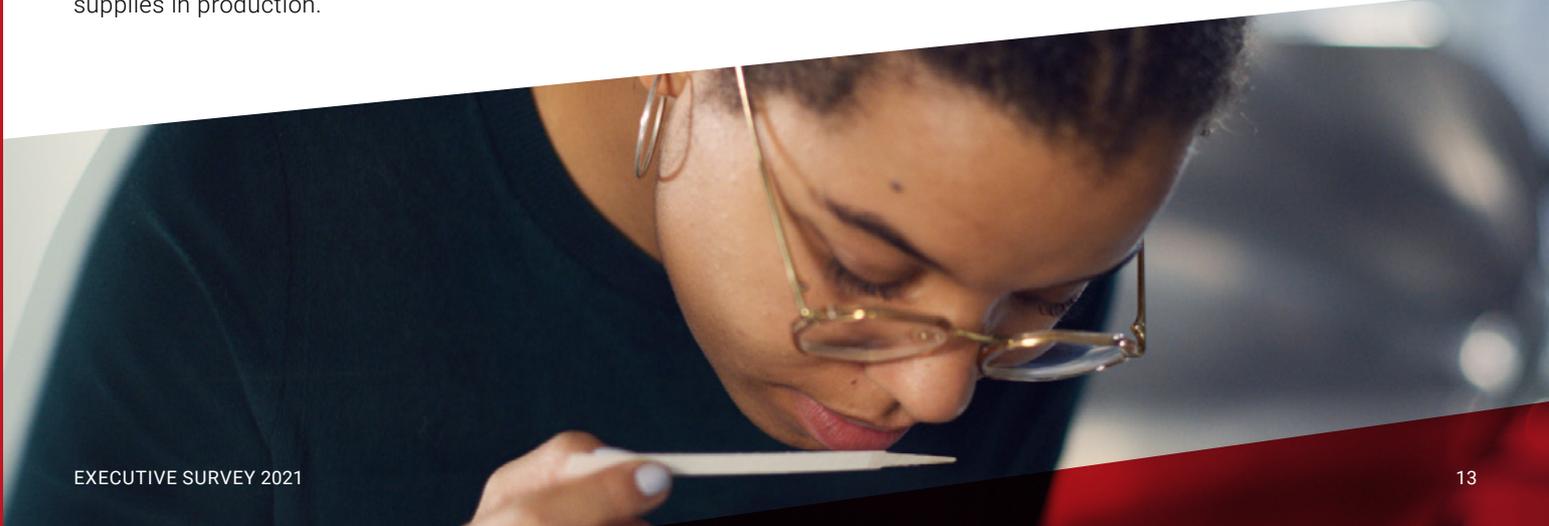
#### **Products: Exploring new products and services**

Lastly, but by no means least, manufacturers have indicated that they are looking to explore new products and services to remain agile in 2021. Almost four in ten manufacturers said new product development is something their business is planning for 2021. This coincides with earlier findings indicating that, despite the challenging operating environment, companies are looking beyond their current offerings to explore new markets and new products. With more and more businesses adopting technology to boost efficiency and drive productivity, technology can also be an enabler to unlocking the possibility of new products in new markets.

## **4 IN 10 MANUFACTURERS ARE PLANNING NEW PRODUCT DEVELOPMENT IN 2021**

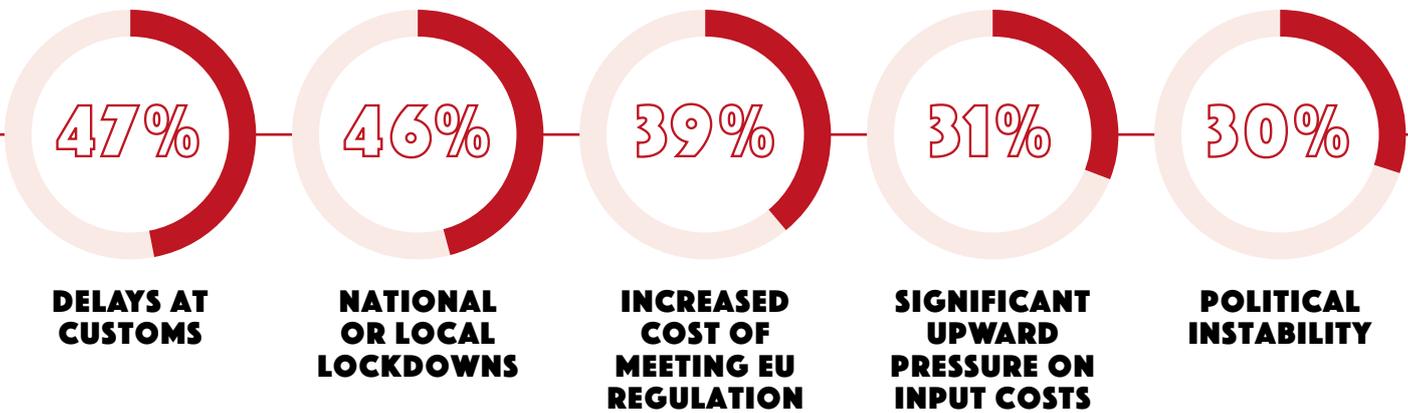
A wider product offering is in some way unsurprising, given the challenges the sector has faced in 2020 owing to the pandemic. Many subsectors of manufacturing have been particularly hit, with low demand still prevalent in aerospace and automotive and unlikely to return to normal trading conditions or indeed demand levels for some years to come. As a result, many companies will look at diversifying their product range in the hope of entering new markets.

We know that such diversification can be achieved, and achieved quickly. One of the lessons learnt from the pandemic has been manufacturers' ability to repurpose production lines at speed in order to support national efforts. Manufacturers have the opportunity to build on this new-found flexibility to offer, produce and deliver new products and services to customers.



# RISKS THAT LIE AHEAD IN 2021

The top five biggest risks identified by manufacturers to 2021 business plan (% of companies)



Source: Make UK / PwC survey, November 2020

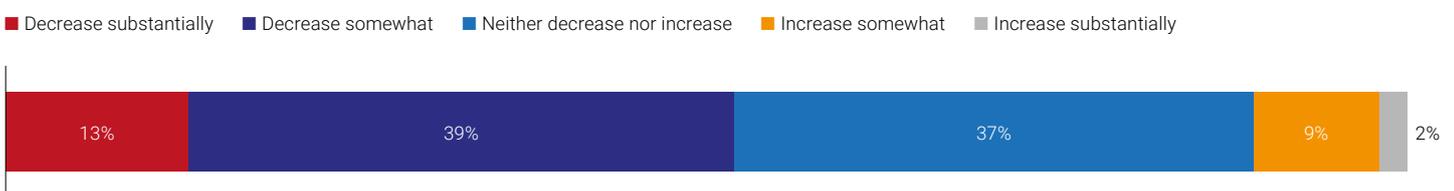
## Ensuring the UK is a good place to do business

People are the lifeblood of the UK manufacturing sector. With 2.7 million people employed in the sector, protecting workforces during the COVID-19 pandemic has been of paramount importance. Manufacturers have taken every measure possible to safeguard their staff and retain the skills their businesses need. However, this has not always been possible; indeed, half of manufacturers have made redundancies during the pandemic. That said, as we move into 2021, our survey indicates an increase in permanent employees, providing positive signs for those who may have lost their jobs this year and are seeking opportunities in the manufacturing industry. In 2021, retaining people and skills will be even more important to compete on a global platform. Manufacturers are rightly concerned about the UK’s ability to attract international talent after the end of the transition period – more than half (52%) reported concern that the impact of the UK leaving the EU would either somewhat or substantially decrease our ability to attract international talent.

The need for skills, particularly specialist skills that manufacturers are unable to source easily in the UK, means that businesses often look overseas to fill skills gaps. But with a new immigration system in place from 1 January 2021, navigating these new rules and facing new costs will be uncharted territory for many manufacturers. Therefore, attracting and retaining international talent, particularly for higher-level roles, will prove challenging.

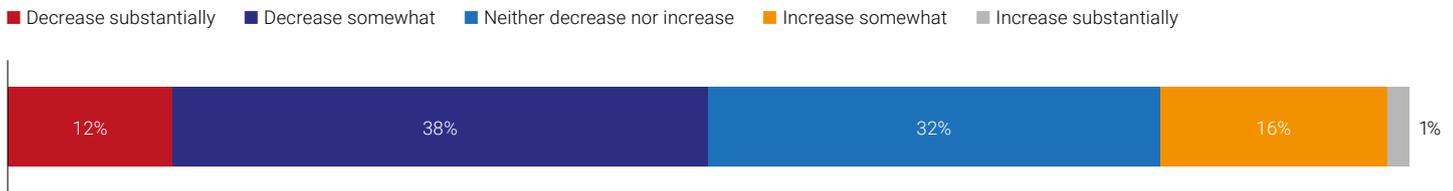
This concern about attracting international talent is likely to extend to students also. International students (both EU and non-EU) continue to make up a high proportion of STEM (science, technology, engineering and maths) graduates. If the new immigration system impacts the higher education sector’s ability to attract international students, this will have a knock-on effect on the supply of graduate labour into sectors such as manufacturing. Together, these challenges mean that manufacturers are likely to experience difficulties in filling positions in 2021, with the infamous skills gap in our sector widening further.

**Chart 7: Impact of the UK’s departure from the EU on the UK’s ability to attract international talent (% of companies)**



Source: Make UK / PwC survey, November 2020

**Chart 8: Impact of the UK's departure from the EU on the investment prospects for UK businesses**  
(% of companies)



Source: Make UK / PwC survey, November 2020

Manufacturers also expressed concern about the investment prospects for UK businesses after the end of the transition period – 50% reported that they are concerned that the impact of the UK leaving the EU would either somewhat or substantially decrease investment prospects for UK businesses. This may, in part, be a result of the uncertainty of what comes next. Manufacturers cannot yet predict the business environment in which they will be operating, but for the most part are sure that the impact of the end of the transition period will be a negative one. This, coupled with the fact that investment intentions remain, since the start of the pandemic, are at their worst level for 29 consecutive quarters, is a growing concern for 2021. Despite green shoots that industry investment intentions may be moving in the right direction, it may be some quarters before we see the investment balance figure creep back into positivity. The big question for 2021 is whether financial intentions lead to implementation.

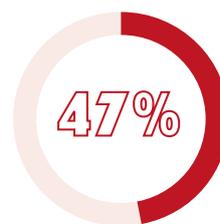
Finally, 30% of manufacturers reported that political instability will be a significant risk to their business in 2021. International trade and globalisation has already been subject to a number of economic, geopolitical and demand side challenges, including the Financial Crisis in 2008 and the UK's decision to leave the EU. But with a forthcoming change of presidency in the US, a new relationship with the EU and a seat at the World Trade Organization, political uncertainty will be another factor for businesses to contend with through 2021.

### Navigating a new relationship with the EU

Manufacturers will again be faced with a myriad of challenges in 2021, arguably the biggest being navigating our new relationship with the EU. Many manufacturers will only have known trading within the Single Market and Customs Union as an EU Member State; therefore checks will be inevitable regardless of any deal made between the UK and the EU. Any new relationship that is struck with the EU will mean an increase in administration and checks required to trade with the EU. This increased administrative burden is a concern for manufacturers, with 47% of members saying that delays at the border owing to customs inbound or outbound is a major risk.

Manufacturers are particularly concerned with what delays at customs would cause, in terms of shipping and receiving

goods, with 47% reporting this as the biggest risk in 2021. With 'just-in-time' manufacturing the norm in businesses across the country, adjusting and planning for potential delays beyond their control will be costly. Unsurprisingly, just under one-third (31%) of manufacturers also said that significant upward pressure on input costs is a key risk in 2021.



**47% OF COMPANIES REPORT DELAYS AT CUSTOMS A KEY RISK IN 2021**

Further risks to UK manufacturers in the coming year which are a direct result of the decision to leave the EU include the impact of EU regulation. Some 39% of manufacturers are concerned about how EU regulation, such as Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), will impact their businesses moving forward. In addition, some 31% of respondents said concern around upward pressure on input costs is a major worry, which would especially affect manufacturers importing raw materials from the EU or the rest of the world. This, compounded with a further 27% of manufacturers worried about significant movement in currency exchange rates in 2021, means there is still a high level of uncertainty.

Despite valid concern expressed by manufacturers in being exposed to risks emerging from leaving the transition period with the EU and being treated as a third country when trading with the bloc from January 2021, there is still a feeling of positivity moving into the New Year – 53% are confident that their exports to Europe will remain the same or improve over the coming year.

### Responding to the ongoing health crisis

Over the past year, the country has faced a once-in-a-generation health crisis. That in its own right has caused significant complications for the economy, but it is the response to this health crisis that has created the seismic

shift not only in how the economy performs, but also in how it is structured.

This response has come in two forms. Firstly, individuals, particularly at the beginning of the UK's pandemic, demonstrated a significantly reduced proclivity to find themselves in social settings. Not only was this evident in daily life, but industry absenteeism data shows that many businesses, despite being legally allowed to operate, were challenged with sourcing sufficient staffing to meet operational needs.

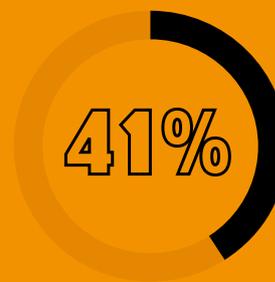
Secondly, Government intervention, primarily in the form of national and local lockdowns, saw swathes of the country's businesses legally unable to operate. However, even those that were allowed to continue operations found, and are still finding to this day, the business environment exceptionally difficult to navigate. From collapsed demand streams, illness in the workplace and cash-flow crises to key supplier shortages, simply being 'allowed' to operate is a far more challenging prescription than the words entertain.

Those that have continued to operate throughout the lockdowns, and will during potential future lockdowns, have had to implement new working practices to adapt to what is reluctantly referred to as the 'new normal'. The operational challenge in the manufacturing sector is more severe than in many other sectors of the economy. High-volume labour, combined with the in-person nature of the production industry, has precluded many manufacturers from having the option to allow all their staff to work from home, unlike what has occurred with the majority of office-based roles in the UK. That said, manufacturers have adapted the way in which they work, and are operating new and innovative off-site and on-site production models. For example, manufacturers took advantage of virtual commissioning - the practice of using virtual simulation technology to commission (design, install or test) control software with a virtual machine model before connecting it to the real system as well as using 3D avatars which for example can be used to manufacturer made to measure garments for on-demand production.

These measures also come with a not-insignificant cost, reaching further into already dwindling cash reserves. It is therefore no surprise that 46% of surveyed manufacturers have identified further national and local lockdowns as a primary threat to their 2021 business plans, making this the second largest concern for manufacturers in 2021 overall. Not only has the industry experienced first-hand the effects on their own business that these lockdowns have had over the past year, but they have also had a pervasive, and sometimes unexpected, detrimental effect up and down the supply chain, both domestically and abroad. With stockpiles depleted and workforces smaller than pre-COVID levels, manufacturers are pleased to see the roll-out of a national vaccination programme already started and are keen to support in any

### Preparing, implementing and leading through the COVID-19 lockdown

During both the first and the second national lockdowns, the manufacturing sector was one of a few sectors allowed to remain open. This was vital, as many subsectors came together to support the country in producing PPE and ventilators and helping the nation prepare for the second wave. But manufacturers and wider industry need a clear strategy from Government that ensures that we prepare, implement and lead as we face the prospect of further lockdowns in 2021. For many, the risks of future lockdowns loom.



**41% OF MANUFACTURERS SAID NATIONAL OR LOCAL LOCKDOWNS ARE A RISK TO THEIR BUSINESS IN 2021**

It is vital that we learn lessons from the first and second national lockdowns and local lockdowns to protect the public, businesses and local communities. Businesses need as much certainty and stability as possible during these challenging times. Moreover, they need consistency of support. The current piecemeal and ever-changing models do not provide firms sufficient time to plan and prepare. Consistent, longer-term support, which mirrors that of our international competitors, is now needed. And finally, in 2021, just as manufacturers supported the efforts in the production of PPE for the NHS and key workers during the first lockdown, the sector stands ready to support the mammoth effort to roll out vaccinations across the country. Industry has shown it has the capability to coordinate, innovative and step up to the challenge. This will be needed more than ever as we lead our way out of the pandemic.

way possible. Not only will this bring confidence back to consumer and commercial demand, but workforces will also feel safe as they travel to and from work.

**Operating with smaller cash reserves**

The COVID-19 pandemic had a profound impact on orders and sales. This began during the first national lockdown and has continued to have an impact in subsequent national and local lockdowns. The knock-on effect has seen businesses' cash flows depleted in an effort to stay operational through the crisis – this was partly done to avoid taking on too much debt. For many businesses, the extension of the Job Retention Scheme (JRS) to April 2021 will allow cash-strapped companies the breathing space they need in order to develop a stronger business footing to emerge from the pandemic-induced crisis in the best position possible.

This is unlikely to change through 2021, with 37% of companies reporting no change in their expected cash flow in 2021 in comparison to 2020. Worryingly, just under one-third expect their cash flow to either moderately or significantly decrease next year, suggesting that for some companies, despite the health impact coming to an end, the economic cost is only just beginning.

**Table 1: Expected change in cash flow in 2021 relative to the previous 12 months (% of companies)**

Significant increase	6.8
Moderate increase	26.7
No change	36.9
Moderate decrease	25.2
Significant decrease	4.4

Source: Make UK / PwC survey, November 2020



# KEY STATS FOR 2021

OFFICE FOR BUDGET RESPONSIBILITY (OBR) EXPECTS FORECASTED **UNEMPLOYMENT TO PEAK IN THE UK IN Q2 2021, AT 7.5%**



**UK GDP** IS EXPECTED TO GROW BY **5.4%**



MANUFACTURING GROSS VALUE ADD (GVA) IS EXPECTED TO GROW BY A **MERE 2.7%**



MANUFACTURING CASH FLOW LEVELS ARE EXPECTED TO **FALL MORE NEGATIVELY IN 2021**



 INVESTMENT TRENDED BACK TOWARD **POSITIVITY IN 2021**

 APPROXIMATELY **55,000** LEARNERS AT RISK OF NOT COMPLETING THEIR APPRENTICESHIPS IN THE COMING YEARS

**“While by mid-2021 it is hoped the immediate effects of the pandemic will be waning, a renewed, unemployment driven, economic crisis may strike just as the economy endeavours to restart.”**

OBR

## CONCLUSION: SURVIVAL OF THE AGILE

For the past century, UK manufacturing has proved again and again that it is both resilient and adaptable. These attributes stood our sector in good stead to rise to the challenges of 2020.

That is not to dismiss the pain that these businesses, and the people who make them up have experienced, but simply to illustrate that through this past year another manufacturing renaissance has taken place – albeit in an accelerated form.

The challenges of a health crisis and a new trading environment have led manufacturing leaders to focus sharply on digital solutions to everyday challenges and new working practices.

While some of the choppiest waters may lie ahead, the outlook for our industry is more positive than for much of the wider economy. That we have learned to adapt, embrace new markets and innovate effectively before is no doubt the building block for this optimism.

Manufacturers have seen increases in productivity and continue to expect to in 2021 and anticipate UK sales increasing. We are ready to embrace new international markets and a majority of makers are confident in holding their own within the new arrangements with the EU.

When we asked sector leaders about the factors most likely to determine manufacturing success in two to five years' time, many talked about adaptability and flexibility - the need for adoption of further new technologies, AI and digitisation came across strongly. But it was the practice of 'agility' that came up again and again, agility driven by human determination and a clean, green digital revolution. 2021 needs to see the best of our manufacturers properly supported to maximise success and that we ensure no one is left behind.

# VIEWPOINT

2020 has been a year that even Nostradamus would have struggled to predict accurately; as Brexit negotiations continued to unfold and COVID-19 emerged and tightened its grip across the globe.

During this time, UK manufacturers have faced a series of unprecedented challenges, from supply-chain shocks, managing on-site and remote workforces to changing customer expectations, but the industry has rallied to the call, showing its grit and determination to not only survive, but thrive.

We've seen manufacturers adapt their production processes, increase their investment in digital and green technologies, as well as, embrace new ways of working, with around 47% of people already doing some form of home working.

However, 2021 will bring with it new challenges and businesses need to recognise that improving agility in an environment where shocks are increasing in frequency will be imperative to remain competitive and build market share.

Our joint Executive Survey aims to get under the skin of this new environment, identifying where the investment opportunities lie and, specifically, how businesses will meet critical goalposts along the way. It is clear that priorities include building a strong industrial base in the UK, navigating our new relationship with the EU and developing an agile and truly responsive manufacturing sector.

While fears over the impact of the UK's new trading relationship with the EU and the attractiveness of the UK for both investment and talent weigh heavily for some manufacturers, there is still optimism to be found.

The survey results show that a third of companies believe the investment prospects for UK businesses will decrease after the end of transition. Yet many of our manufacturers still believe the opportunities to come will outweigh the current risks for their businesses. Almost 40% see a significant or moderate improvement for the industry in 2021, which is something to embrace and encourage.

As the UK manufacturing industry seeks to redefine its role in the world, one priority should be increasing international trade and investment in innovative growth sectors, such as clean tech, electric vehicle technology, artificial intelligence, advanced robotics and space. We can - and must - build on our strengths to become a world leader in these manufacturing and product technologies of the future.

The survey findings back this up with four in ten manufacturers focusing on new product development in 2021, and many others looking beyond current offerings to explore new markets and adopting technology to boost efficiency and drive productivity.

We know that such diversification can be achieved, and achieved quickly. One of the pleasant reminders we had in 2020 was of our manufacturers' ability to collaborate and repurpose production lines at speed in order to support national efforts. Manufacturers can build on this new-found flexibility to offer, produce and deliver new products and services to customers. And 2021 will be the year they can really show their mettle, playing their role in building a stronger, innovative industry and helping to make the UK a great place to work and do business for generations to come.



Make UK is backing manufacturing – helping our sector to engineer a digital, global and green future. From the First Industrial Revolution to the emergence of the Fourth, the manufacturing sector has been the UK's economic engine and the world's workshop. The 20,000 manufacturers we represent have created the new technologies of today and are designing the innovations of tomorrow. By investing in their people, they continue to compete on a global stage, providing the solutions to the world's biggest challenges. Together, manufacturing is changing, adapting and transforming to meet the future needs of the UK economy. A forward-thinking, bold and versatile sector, manufacturers are engineering their own future.

[www.makeuk.org](http://www.makeuk.org)

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At PwC, our purpose is to build trust in society and solve important problems. We're a network of firms in 155 countries with over 276,000 people who are committed to delivering quality in assurance, advisory and tax services.

Through our work with both UK headquartered and overseas organisations with a UK presence, we are in tune with the many emerging challenges facing the UK manufacturing industry, as well as the range of opportunities available to businesses as market dynamics continue to change.

The costs and rewards of operating in different countries around the world continue to evolve, making decisions about where to design, make and service products increasingly difficult. Manufacturing leaders are also facing tough competition against other industries in trying to attract the best people and skills to develop the next generation of products.

Our focus is to help businesses evolve and thrive in this changing world, where disruptive technologies and talent challenges are taking centre stage.

We work alongside businesses, providing guidance in areas such as revenue growth, inventory costs, supply chain management, M&A, product lifecycle management, and sales and operations management. As events such as COVID-19 and Brexit continue to test the resilience of businesses, we're proud to stand with them, helping them to react, adapt and thrive in this new business landscape.

For further information, please visit [www.pwc.co.uk](http://www.pwc.co.uk)

[www.pwc.co.uk/manufacturing](http://www.pwc.co.uk/manufacturing)    [@PwC\\_UK](#)

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