

In association with:



# INVESTMENT HEALTH:

BALANCING RISKS  
AND OPPORTUNITIES  
IN MANUFACTURING  
INVESTMENT

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# EXECUTIVE SUMMARY

Investment is both a risk and an opportunity. Since the Global Financial Crisis between 2007 and 2009, the perception of “risk” has changed, and industry has become more cautious in their investments. This was for good reason as businesses wanted to ensure they are less exposed to similar crises in the future.

Indeed, manufacturing investment grew at an average yearly rate of 4% in the five years prior to the financial crisis and declined at a rate of 2% annually for the five years after the financial crisis. It took many years for investment activity to recover before recent crises changed the nature of risk all over again.

That perception of risk and opportunity creates a paradox in which years of underinvestment can lead to a reduction in opportunities, even if those investments were made to protect opportunity.

Despite becoming increasingly digitalised, manufacturing remains a capital-intensive sector that must invest continuously to grow. In 2021, the manufacturing sector invested £33m in capital, accounting for 16% of total business investment. But this figure is 3% below the level of investment made in the pre-pandemic year.

In the presence of several positive investment incentives existing, it is evident investment has not accelerated at the pace we hoped it would. Nevertheless, plant and machinery still have a major role to play in manufacturing, from securing our ability to produce goods domestically to pushing forward technology adoption and automation. Manufacturing is highly competitive in the UK and significant opportunities exist if we are prepared to take the risks.

This report takes a temperature check of the current state of investment in UK manufacturing with a focus on plant and machinery. It sheds light on the challenges that manufacturers face when it comes to investing and presents a template of principles for Government to follow in future investment incentive design.

Our report finds that although many manufacturers held investment back due to the crises of the last two years, manufacturers plan to increase their investment activity in the next two years.

In fact, it is the very challenges created by the events of the last few years that are incentivising investment, from supply-chain disruption to shortages of labour and rising energy bills. Manufacturers are taking these issues into their own hands and finding solutions for them.

Skills, capital, and innovation remain the focus for industry going forward. Over half of manufacturers are prioritising investment in plant and machinery and almost six in ten plan to increase investment in plant and machinery over the next two years. Many manufacturers plan to invest more in skills and innovation too.

That said, manufacturers identify certain risks that could overturn those intentions too. Two-thirds of our survey respondents indicated increasing costs will demotivate new investment in capital. 43% said the possibility of a recession are a concern and will further demotivate investment intentions.

This research also busts a few myths about how and when manufacturers invest in capital. Manufacturers ideally prefer to buy brand new capital financed primarily with their own profits but become more open to external finance for more advanced machineries.

Manufacturers like to re-invest regularly too, but the schedules differ significantly for labour, digital technologies, and physical space. Manufacturers invest every two to eight years for plant and machinery. It is critical we understand this process if Government is to devise incentives to rejuvenate investment activity.

Finally, our report finds that manufacturers enjoy the benefits of generous schemes like the super-deduction but prefer long-term policies that are more accessible. Government needs to understand this too, or else it will continue to produce policies that only help those businesses that are in the right place at the right time.

Fortunately, the Chancellor recently made permanent the £1m limit for the AIA which will provide some certainty to manufacturers.

This reports concludes by proposing the following design framework for capital investment incentives to Government and recommendations for Capital, People and Innovation. This is detailed further in Part 4.

### The Principles of Capital Investment Incentive Design:

- Longevity
- Generosity
- Accessibility

### Recommendations:

1. Ensure consistency and stability in the access and use of the Annual Investment Allowance
2. Extend the super-deduction or introduce an additional first year allowance to turbo-charge investment in the short-term
3. Progress towards a permanent full expensing regime for capital allowances
4. Introduce a Training Investment Allowance
5. Create an Employer Training Fund
6. Expand the R&D tax credit to include capital expenditure
7. Expand Help to Grow Digital

# PART 1

# INVESTMENT

# IS THE BE ALL

# AND END ALL

This report will focus primarily on investment in plant and machinery and will make comparisons to other types of investment occasionally. Part 1 will highlight investment activity on plant and machinery over the last two years, as well as expectations for the next two years. The remainder of this section will focus on factors that motivate or demotivate investment in capital and gives insight into the thought process of a decision maker.

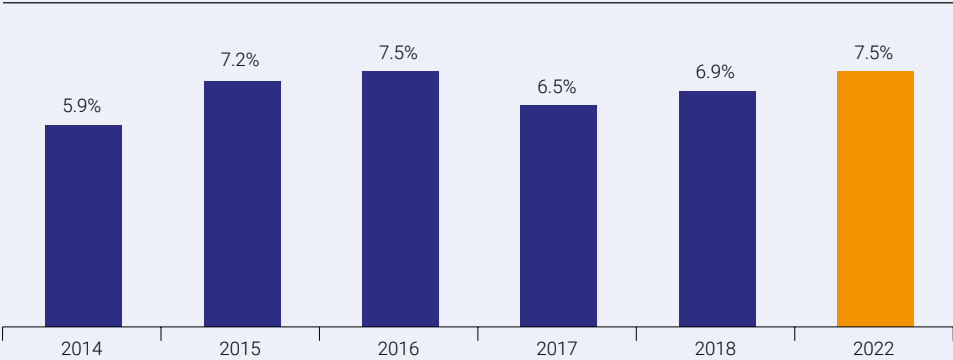
## INVESTMENT ACTIVITY IN THE LAST TWO YEARS

Investment is critical to the success of manufacturing. It is important that a share of earnings each year are re-invested into the business to maintain competitiveness. The latest survey finds that one in five manufacturers (26%) spent 1-3% of their turnover on investment in plant and machinery in the last two years. The bulk of the sample, or just under 70% of manufacturers, spent 9% or less of their turnover on investing in plant and machinery. In comparison to 2018 the average

investment as a share of turnover in plant and machinery has increased from 6.9% to 7.5%.

This is a positive development given the extreme levels of uncertainty businesses have faced in the last couple of years. The greater the challenge, the greater the need to invest to improve the chances of survival and get ahead of the competition and it is clear many businesses understood that.

Chart 1: Investment intensity increased since 2018  
Average investment in plant and machinery as % of turnover in the last two years



Source: Investment Health survey 2022, Investment Monitor survey 2014-2018

We know that investment in plant and machinery has also been held back because of the challenges of the last few years which begs the question (chart 2): *How are manufacturers becoming more investment intensive?*

One possibility is that the 7.5% is a misleading indicator of more investment, and more reflective of declining turnover in the last two years (assuming investment levels were fixed or declining slower than turnover). Given the economic shocks businesses have faced due to Brexit, Covid-19, energy costs, supply-chain problems, and others it is not so far-fetched to find more manufacturers have faced lower levels of turnover.

Alternatively, total investment levels have indeed increased as manufacturers had to expand capacity to deal with the resurgence of demand following the pandemic. It is possible that investment grew faster than turnover which could also lead to greater investment intensity levels. Despite dealing with reduced capacity and shortages of labour, since the end of global lockdowns manufacturers have been overwhelmed with an abundance of demand for their goods leading to unprecedented sales. But as margins have been squeezing more lately due to rising costs<sup>1</sup> profits are not increasing either meaning there is less cash available for new investment. Both scenarios are likely to hold true for some manufacturers depending on the subsector or business size they are.

The last two years have been filled to the brim with economic shocks that have shaken many industries at its core. From Covid-19 to supply-chain disruptions and, more recently, record rates of inflation impacting the cost of production at rates never seen. It was to be expected that investment activity would be impacted during this time, although not always negatively.

Whilst manufacturer's investments in other areas of the business were also held back, such as net zero (41%) and labour (39%), plant and machinery were the only type of investment to see a greater share of businesses holding investment back than those who did not hold investment back. Investment in plant and machinery is viewed as a riskier venture for most, likely due to its "sunk cost" nature.

Additionally, plant and machinery can go through wear and tear which requires continuous investment, but if businesses are willing to forgo maintaining productivity during times of economic hardship, delaying capital investments can support cashflow needs. These challenges can make plant and machinery more vulnerable to cancellations and delays.

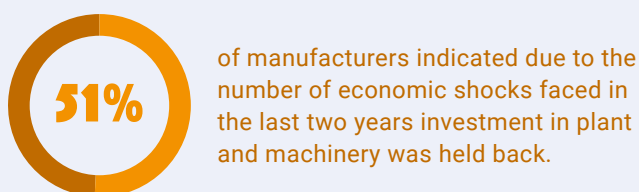
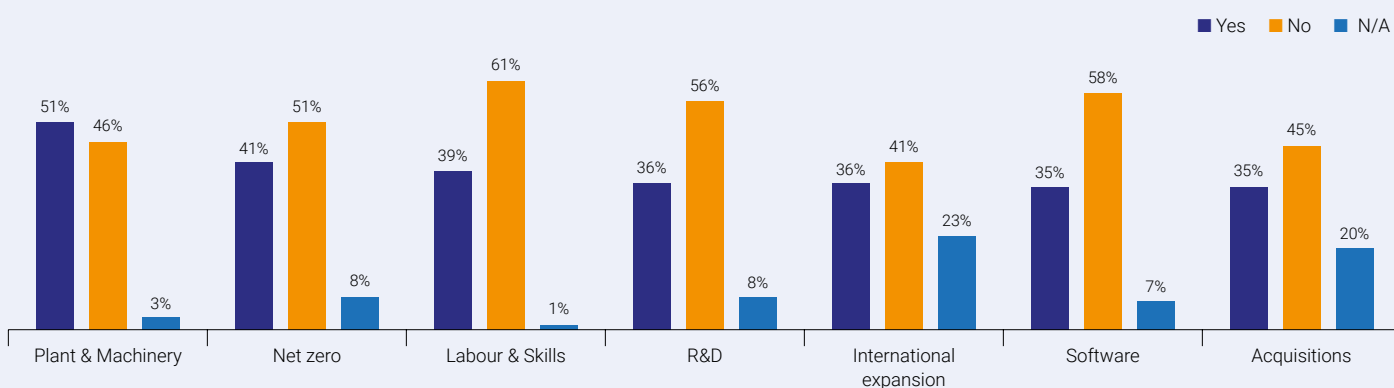


Chart 2: Investments held back because of economic events in the past two years

% share of responses



Source: Investment Health survey 2022

<sup>1</sup>Manufacturing Outlook Q3 2022



INVESTMENT BREAKDOWN BY CATEGORY

A typical manufacturer’s budget makes room for all types of investments. Our data found that for most manufacturers’ investment in Research & Development (R&D), software and labour accounted for less than 50% of total investments in the last two years.

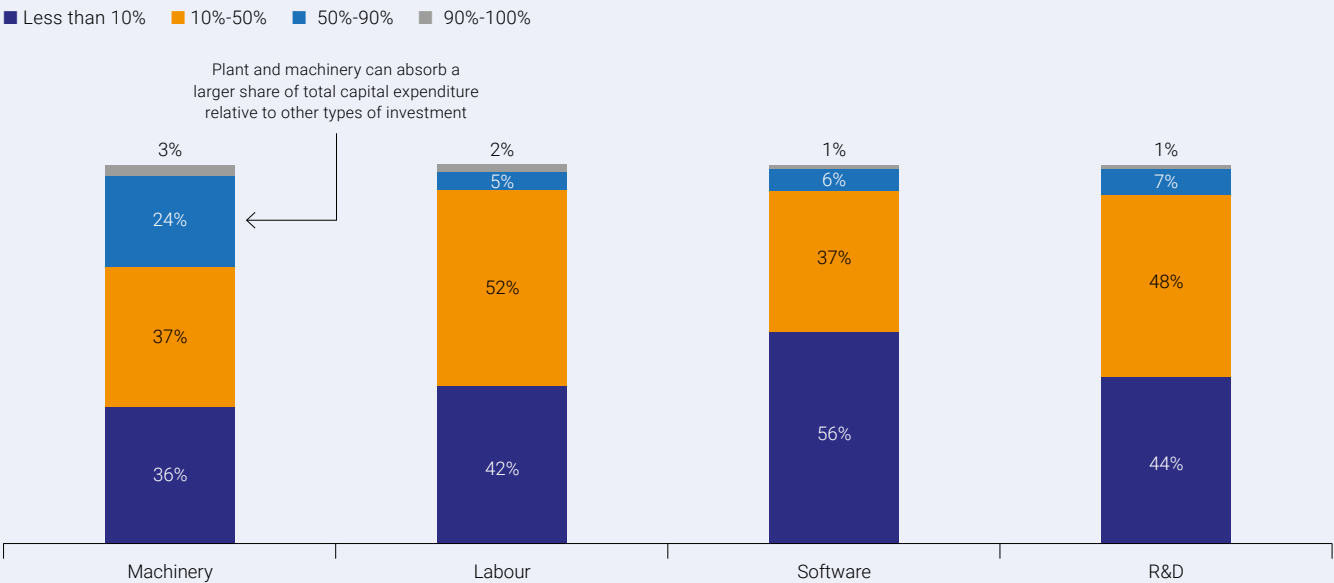
Investment in **plant and machinery** tended to make up a larger share of total investments for more manufacturers. One in four (24%) manufacturers’ investments in plant and machinery accounted for 50-90% of total investments in the last two years. This is because investment in physical capital is generally more expensive than other types, and take place

less frequently than, for example, investment in labour and R&D which happen more regularly.

Though investment in labour and R&D are important, manufacturing is still a capital-intensive sector in the UK despite becoming increasingly focussed on digitalisation and innovation in recent years. Plant and machinery are critical to the production process for many goods, from cars to pharmaceuticals and packaged food. Much of what we consume went through a factory either in the UK or elsewhere before we see it in our everyday lives.

Chart 3: Breakdown of total investment expenditure by category in the last two years

% share of responses for each category



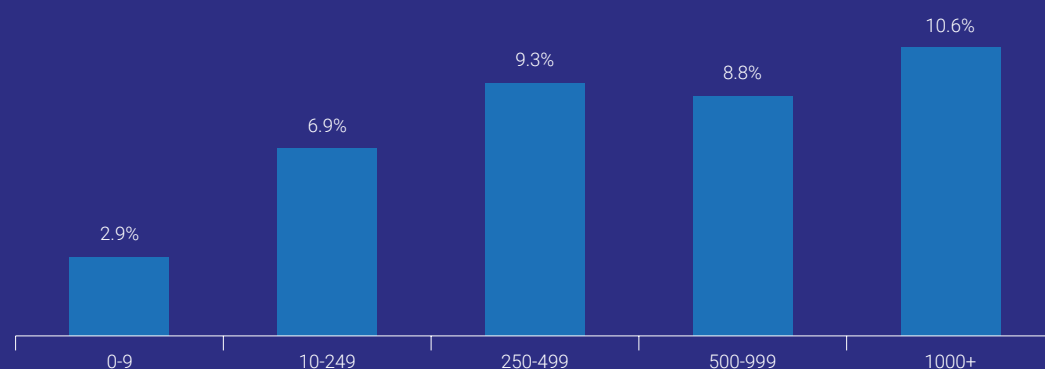
Source: Investment Health survey 2022

## IS BIGGER ALWAYS BETTER?

Average investment in plant and machinery as a share of turnover by business size (categorised by employment bands) indicates larger manufacturers tend to invest a greater share of their turnover in plant and machinery than smaller manufacturers. This is unsurprising as investment in physical capital is often riskier and more long-term. Larger firms historically have access to a more expansive network of external capital and the ability to diversify investments and spread risk more effectively. Make UK's Manufacturing Outlook survey data also indicates larger firms are less likely to suffer from poor cashflow positions which correlates positively with investment intentions over the next 12 months. Larger manufacturers are also likely to invest more to stay competitive and adopt the latest technologies first.

However, the results display a different picture for average investment as a share of turnover when looking at different ownership structures. The survey indicates manufacturers that are UK only based invest a greater share of their turnover in plant and machinery (8%) than international companies with UK subsidiaries (5%) or UK companies with international operations (7%). Interestingly, home grown companies are more investment-intensive than international companies with a presence in the UK. This may be because domestic only firms have less alternatives of where to channel investments than those firms that have access to international markets. Without a historical perspective it is difficult to say whether these figures also reflect declining interest for foreign investment in the UK.

Chart 4: Average investment in plant and machinery as a % share of turnover, by employment bands



Source: Investment Health survey 2022



INVESTMENT ACTIVITY OVER THE NEXT TWO YEARS

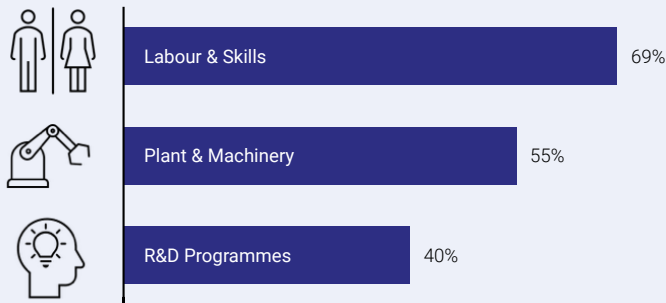
Priorities for manufacturers - Skills, Capital & Innovation

Investment in manufacturing is diverse and specialised. It is the high-risk high-reward mentality that keeps businesses going and places the UK as a top 10 manufacturing nation by value of output.<sup>2</sup> But investing is not a do-once-and-never-again type of deal in manufacturing. Much like manufacturing overall, it is a continuous process of improvement and advancement in the process of creation.

*Think higher skills, greater automation, and new ideas to meet the needs of consumers today and tomorrow.*

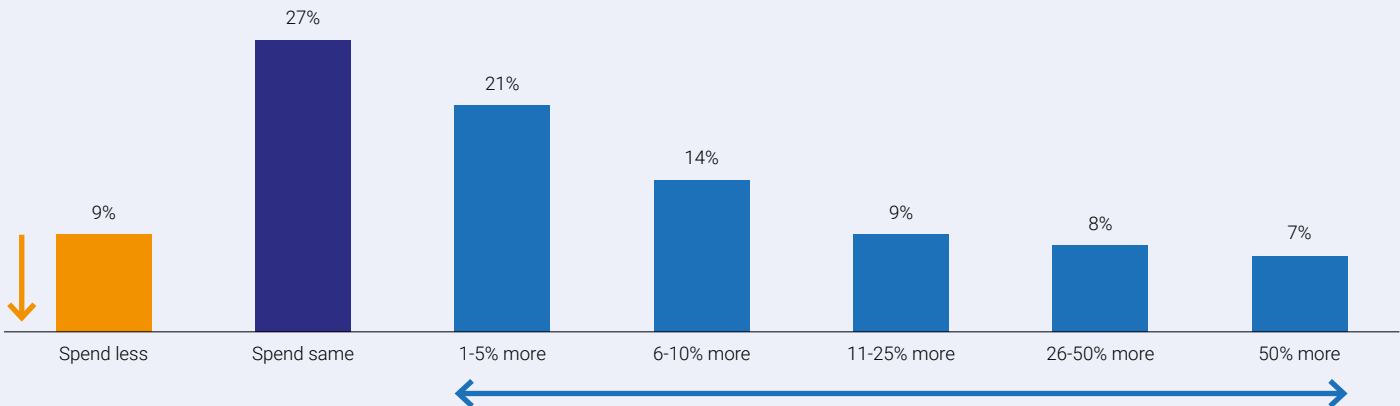
Manufacturers have highlighted their top priorities for investment in the next two years with skills (69%), capital (55%) and innovation (40%) topping the charts. As well as these three, manufacturers will be investing more in software (39%), acquisitions (26%), new facilities (24%), net zero (23%), and expanding internationally (21%) too as they seek to fulfil their wider growth ambitions to accelerate digitalisation, transition to net zero and tap into new global markers.

Top three investment priorities till 2024



Source: Investment Health survey 2022

Chart 5: Manufacturers plan to increase investment in plant and machinery in the next 2 years  
% share of responses



Source: Investment Health survey 2022

<sup>2</sup>Make UK, The Facts 2022

## 9% OF MANUFACTURERS PLAN TO REDUCE INVESTMENT IN THE NEXT TWO YEARS

The most important reasons they identified include –

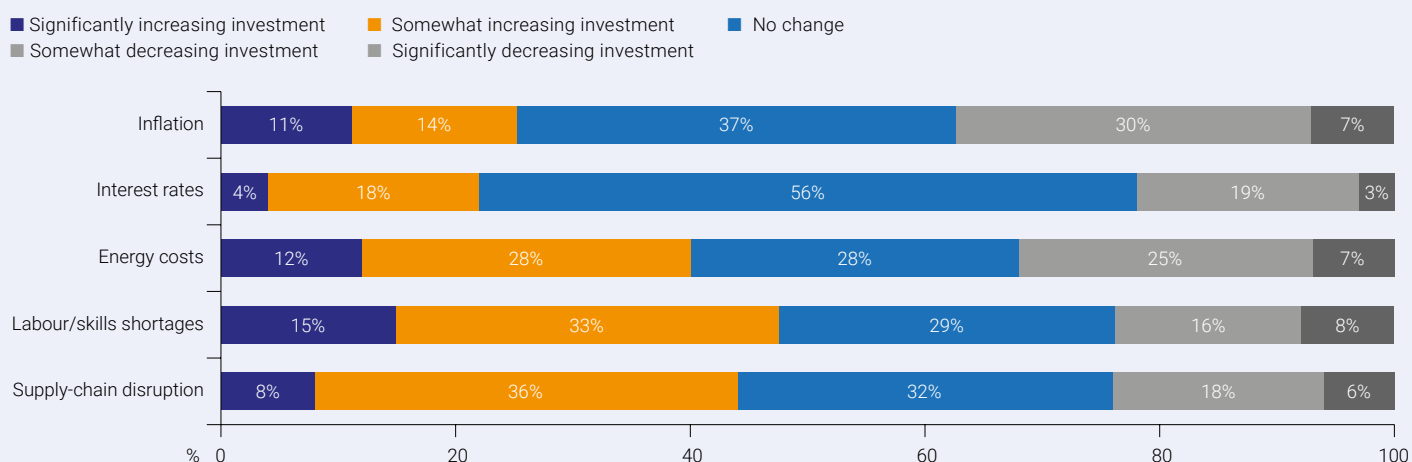
1. Confidence in the domestic market worsened (56%)
2. Profits reduced from inflation (50%)
3. Order book uncertainty (50%)

Although one in ten manufacturers planning to invest less is not significant, their reasons are likely to impact the other nine in ten at some point next year. As market demand falls and inflation continues to worsen, as forecast by the Bank of England, then many manufacturers will need to re-evaluate their positions in 2023. Despite investment intentions being strong, risks remain that some of these investments do not come to pass, leading to more cancelled projects or delays until the economic environment improves.

Several challenges that industry is facing, from supply-chain disruption to rising energy costs are itself incentivising greater investment now (chart 6). The main factor currently disincentivising investment is inflation. As rising costs bite harder on business cashflow it is becoming increasingly more difficult to plan when short-term challenges are impacting manufacturers more and more.

Businesses also have several other priorities, particularly net zero which 41% of manufacturers indicated they held capital investment back in the last two years. However, recent Make UK research highlighted 62% of manufacturers plan to increase capital investment significantly or moderately in equipment to reduce carbon emissions. 55% of manufacturer's plan to increase capital investment in improving processes and 43% plan to increase investment in low carbon technologies.<sup>3</sup>

Chart 6: Many challenges are incentivising more investment, but inflation is a barrier to investment



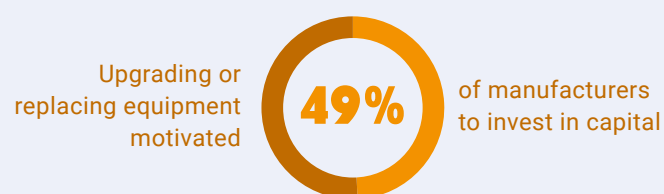
Source: Investment Health survey 2022

<sup>3</sup>Make UK, Decarbonising Manufacturing: Challenges and Opportunities

## EVERY ACTION HAS A MOTIVE

### Understanding what matters to a decision-maker

There may be an unlimited number of reasons why a business would want to invest more or less in plant and machinery. Often these can be either internal or external factors which must be weighed before pulling the trigger. Table 1 highlights some of the reasons that could motivate or demotivate an investment. These motivations are also followed by highlighting a decision maker's thought process to shed light on the considerations that may be accounted for by an individual or group (Figure 1).



The need to upgrade or replace existing capital is the biggest motivating factor for manufacturers when investing in plant and machinery. Manufacturers invest to both maintain and improve productivity. Plant and machinery go through wear and tear (i.e., through regular use performance falls over time). Like how a car or smart phone wears over time requiring individuals or businesses to re-invest or replace. To maintain output levels manufacturers must replace or upgrade existing technologies, and this is the main factor for at least 49% of manufacturers. However, this share is down significantly from 2018 which had 65% of manufacturers reporting replacement/upgrading as the top reason.<sup>4</sup>

It is possible that the advancement of technology in terms of quality is improving over time resulting in less need to replace or upgrade plant and machinery. It can also reflect the increasing "servitisation" of manufacturing that increasingly offers maintenance and repairs to customers as part of orders allowing manufacturers to extend the life of their equipment.

Alternatively, this may be down to the economic environment having drastically changed resulting in other factors becoming more prominent. Manufacturers cited having confidence in the domestic market (48%), exports (32%) and expanding into new areas (30%) as other motivating factors to increase investment. Interestingly the need to automate has also factored for 28% of manufacturers whilst one-in-four believe in Government incentives to increase investment. Other motivations that were highlighted also included emerging capacity constraints (25%), more external finance available (19%), increasing supply-chain resilience (15%), a more

Table 1: Motivations and demotivation's to invest – Top 6 factors

Motivating factors to invest ↑	Demotivating factors to invest ↓
Need to upgrade/replace equipment (49%)	Increasing cost of day-to-day expenses (66%)
Confidence domestic demand has improved (48%)	Recession (43%)
Confidence export outlook has improved (32%)	Inflation reducing rate of return (ROR) of investments (39%)
Expanding into new areas of activity (30%)	Prospect of paying higher corporation tax (21%)
More automation (28%)	Increase in other national taxes (e.g., National Insurance) (19%)
New Government incentives making it more attractive to invest (25%)	Risk of increasing business rates (13%)

Source: Investment Health survey 2022

supportive tax environment (11%) and more internal finance available for investment (11%).

Nevertheless, there are several risks to keep an eye out for throughout the years ahead. Manufacturers have indicated that rising costs, a recession and inflation reducing investment returns as some of the reasons that will reduce the likelihood of investing in plant and machinery. The Bank of England has forecast the UK to fall into recession by the fourth quarter of 2022 and expects this to last deep into 2023.<sup>5</sup> Alongside this, consumer inflation is expected to exceed 13%, with some forecasts saying it will exceed 18% by January 2023 due to energy prices which will impact household demand. However, the Government has announced a package to subsidise energy costs for households and businesses which will limit inflation growth for at least until the end of Q2 2023. unless of course the Government responds with additional fiscal support.

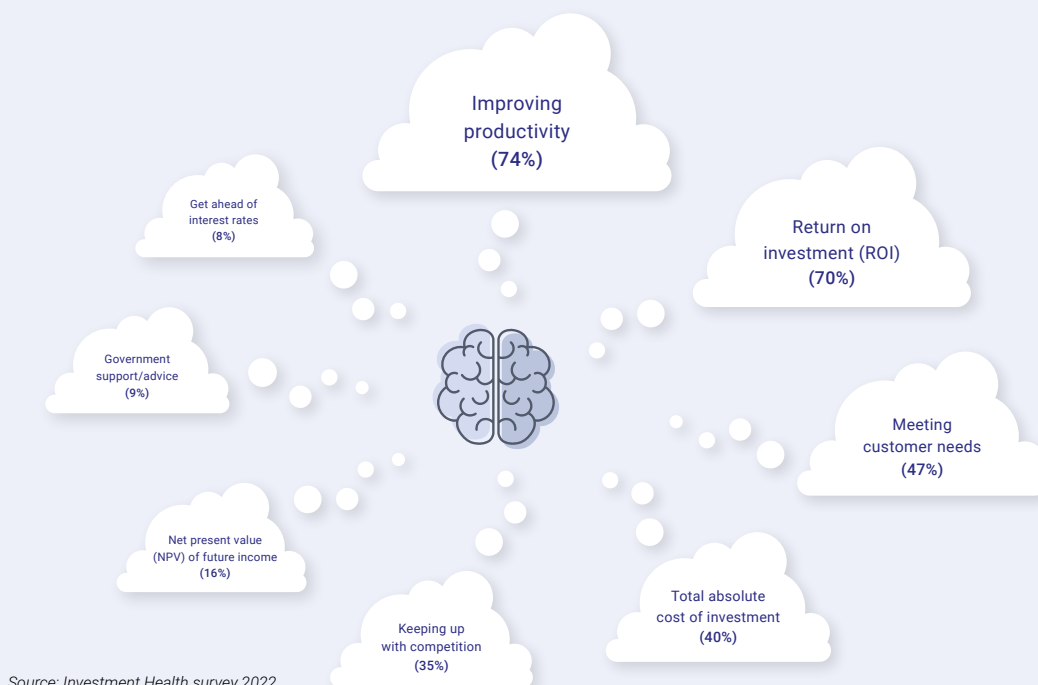
Manufacturers, however, remain very optimistic about the future, with almost six-in-ten planning to increase investment in capital over the next two years. That is great news for the sector, but there is a real risk that many of the demotivating factors identified by manufacturers will outweigh the motivating factors resulting in lower-than-expected investment in capital.

If the external environment disincentivises investment in capital, then it is critical that we conjure ways to rebalance those incentives through Government support. This is discussed in more detail in part 3.

<sup>4</sup>Make UK, Investment Monitor, 2018

<sup>5</sup>Monetary Policy Report - August 2022 | Bank of England

Figure 1: A decision maker's thoughts: should I make this investment? (% share of responses)



A typical decision maker in a manufacturing business will think about many issues when deciding to invest in capital or not. The biggest factor for a decision maker, cited by 74% of respondents, was whether the investment would improve productivity. If an investment does not improve output capacity, improve quality, or reduce cost then it becomes redundant to do anything. Except in the situation physical capital breaks down or requires replacing, which has already been identified as an investment motivator.

A decision maker will also consider its return on investment (ROI) and whether such expenditure today will lead to better financial outcomes in the future. Investments in physical capital is often large and requires significant cash up front, and even taking on debt which often requires demonstration of positive cash flow to guarantee repayments.

However, a business's purpose is to meet the needs of its customers. Without a market to service there is no need for a business. And without investing to ensure the customer's needs are met opens the door for competitors to get ahead, which has also been identified as an important factor.

Interestingly, Government support and interest rates have been classified as important for only 9% and 8% of manufacturers, respectively. This may be because both are uncontrollable for the business and therefore do not reach board level discussions. It is more common for a business's accountant or CFOs to consider these factors as part of their recommendations to the owner of a business. Alternatively, as interest rates are low and Government support historically has not been generous enough, this may result in minimal impact removing these factors from the thought process altogether.

The low proportion of manufacturers placing weight on Government incentives as a deciding factor is quite alarming and should generate more debate as to whether current policies are appropriate. Based on this result it is easy to conclude that Government support is not necessary and therefore there should be no incentives for investment. However, many advanced economies offer support for critical industries to boost investment in capital and R&D and have found success from it. Before the introduction of the super-deduction scheme and making the £1m threshold for the AIA permanent, the UK ranked 30th across the OECD out of 37 in terms of net present value of capital allowances, suggesting we host one of the least generous capital cost recovery regimes across advanced economies.<sup>6</sup>

We cannot expect decision makers to treat capital allowances as a serious incentive if they are too weak to make an impact on investment. It is important Government reviews these differences between countries and adopts an approach that implements the best elements of what already exists. If we do that, then decision makers will begin to discuss the use of capital allowances as an incentive more frequently.



<sup>6</sup>Capital Cost Recovery across the OECD, Tax Foundation (2021)

# PART 2

# METHODS OF MATERIALISING INVESTMENT

Once the conditions of making an investment are met i.e., the incentives are right, the motivations are there and there is an opportunity to improve productivity, manufacturers must decide how and when to make that investment. This section focusses on the strategies of investing in capital such as financing, buying new or old, and the cycle of re-investment.

We define different types of investment in plant and machinery into three broad categories:

**Basic** – general equipment for staff for day-to-day running of the business

**Advanced** – on-site machinery used in the production process

**Long-term** – physical space, such as factories/ warehouses and HGVs

## FINANCING AN INVESTMENT: COVER THE TOTAL COST OR SPLIT THE BILL?

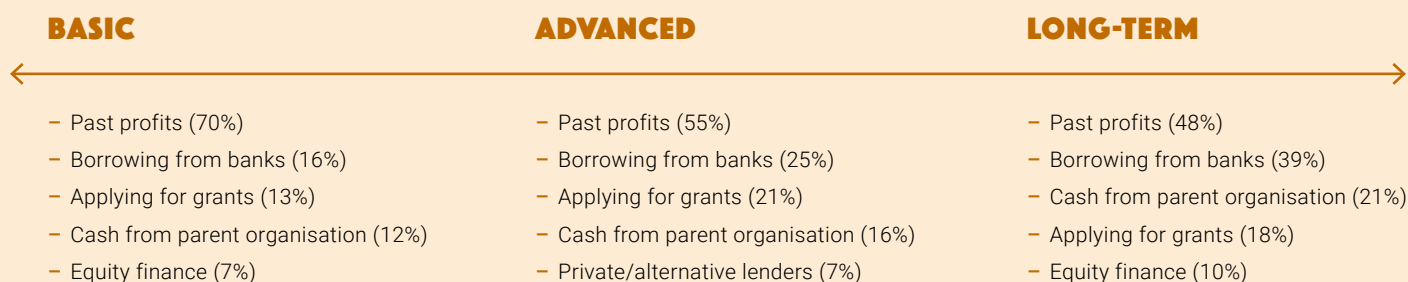
Investing in capital requires access to finance, which can take several different forms. From personal cash or selling ownership in exchange for funds (equity) to loans from banks or private lenders. There are many sources available to businesses across the UK. However, preferences are determined by the type of investments being made. Previous Make UK research shows, when looking to expand, 67% of SME manufacturers predominately tend to re-invest their own past profits, whilst only 33% tend to take out a loan from a bank.<sup>7</sup>

<sup>7</sup>Make UK, Start-up to Scale-up: Supporting SMEs to Grow



**Figure 2: Manufacturers tend to use past profits more than other forms of finance, but openness to external finance increases as the cost of capital increases**

% share of manufacturers preferring/using each type of finance source



Source: Investment Health survey 2022

### The different forms of capital

There are **Basic** capital needed for the day to day running of the business, for example, equipment and tools for staff. For many businesses this can include laptops and work phones, but in manufacturing this can also include other tools.

There are **Advanced** capital such as large machines needed for production as well as robots for automation.

All manufacturers based in the UK have need for **Long-term** capital such as a factory and warehouse space. How these are financed can differ depending on the investment businesses are looking at.

Manufacturers tend to invest the profits generated by their own business when purchasing different types of capital. However, as investment needs get close to advanced or long-term capital, manufacturers tend to use more finance from external sources. For example, 16% of manufacturers use loans to finance investment in basic capital. This percentage share increases to 25% for advanced capital, and peaks at 39% for long-term capital. There is a similar trend observed to using grant money, although existing grants are often more specific to innovation and R&D rather than investment in capital. Cash injections from parent organisations, for those manufacturers

that have access to it, also fared highly as a source for funding capital investments, relative to other options.

Equity finance came in low for likelihood of being used as many manufacturers do not favour this type of fund raising relative to borrowing. Debt is traditionally regarded as cheaper than equity due to its tax benefits and allows owners to maintain autonomy in decision making. For businesses that have already raised finance through equity, the prospect of forgoing a greater share of ownership is not an attractive one for many manufacturers, particularly SMEs which are often family owned.

Credit cards and overdrafts were also proposed as options but were never a preference for advanced or long-term capital. Overdraft finance may sometimes be preferred for investment in basic capital.

If manufacturers are going to commit to predominantly spend their own past profits, then we must do more to ensure that businesses have enough internal cash available to invest. Existing Government tools, such as capital allowances and business rate exemptions are useful tools to allow businesses to improve cashflow and increase the pool of funds available to invest in the future but clearly the current system is not working if the costs outweigh the benefits too often.

## BARRIERS TO ACCESSING FINANCE

One in five SME manufacturers with less than 249 employees indicated the main barrier to accessing finance was uncertainty in the economic climate. Outside of this, SMEs were more likely to be prevented from accessing finance due to the following reasons:

1. Application process for loans and grants too bureaucratic
2. Lack of collateral to support the size of loans required to expand
3. Insufficient cash flow
4. Lenders reluctant to offer finance to risky investments
5. Lack of patient capital, i.e., investors willing to wait a significant amount of time before receiving positive financial returns
6. Lack of information on available sources

*Make UK Start up to Scale up survey 2021*

## BRAND NEW OR OLD

It is unsurprising that manufacturers prefer to purchase brand new for basic capital as equipment to run the business day-to-day is often inexpensive (relative to other costs). It is interesting this dominance is also shared by advanced capital too, where 81% of manufacturers preferred to buy brand new for on-site plant and machinery. Only 5% indicated they prefer to lease.

Previous Make UK research found some of the main reasons manufacturers could not use the super-deduction for their capital investment is the exclusion of second-hand and leased capital.<sup>8</sup> But if brand new investments are preferred

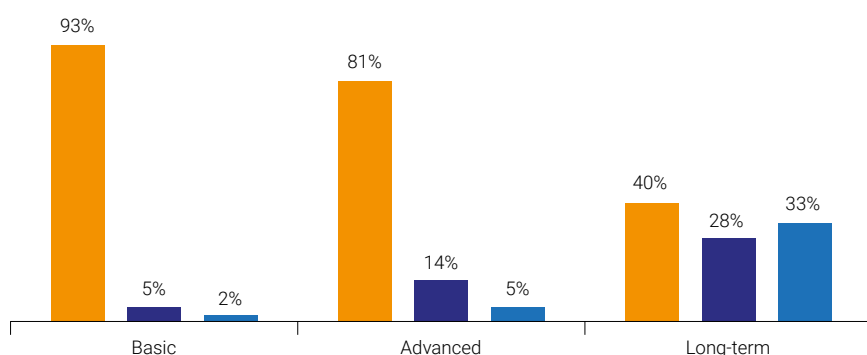
by manufacturers, then there may be other issues that superseded those reasons too. The preference towards brand new may reflect the specialised nature of manufacturers in the UK which requires bespoke solutions to plant and machinery to produce and process unique products. This may prevent access to second-hand machinery that often do not exist for specialised manufacturers.

As expected, a greater share of manufacturers (33%) prefers to lease long-term capital (such as factories/ warehouse space or heavy goods vehicles). However, it is interesting even here businesses still slightly prefer brand new more (40%).

**Chart 7: New is always preferred to old**

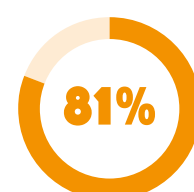
% share of manufacturers preferred type of purchase for capital

■ Brand new ■ 2nd hand ■ Leasing from 3rd party



Source: Investment Health survey 2022

<sup>8</sup>Make UK, Manufacturing Monitor, February 2022



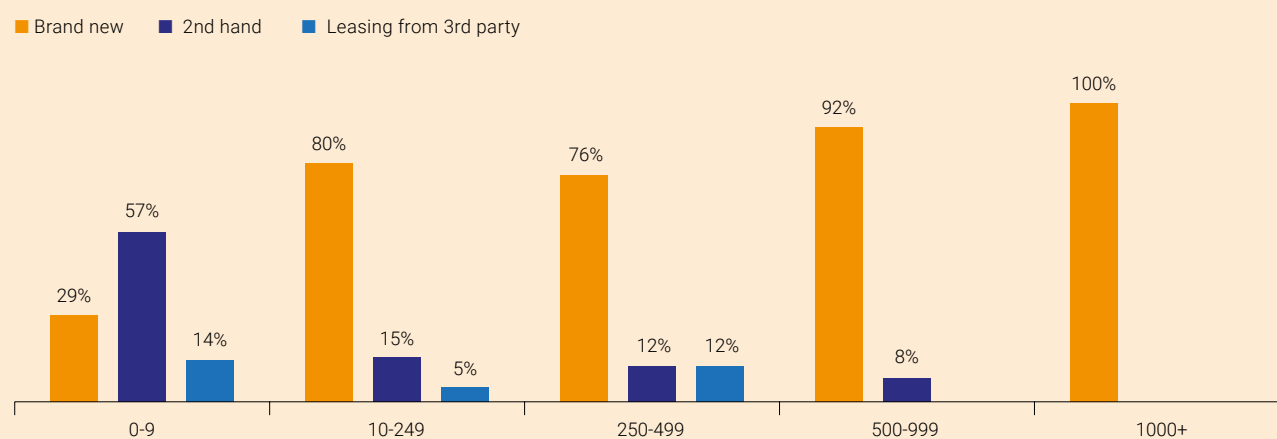
81%  
of manufacturers  
prefer to buy  
brand new plant  
and machinery for  
production

## DIVING INTO ADVANCED CAPITAL: SMALL VS LARGE

Micro manufacturers, those with less than 10 employees, significantly prefer to buy second-hand for on-site capital. This is expected as smaller manufacturers have access to less finance and therefore do not have the luxury of purchasing brand new equipment as easily. However, the negative impact this may have on productivity makes it harder for this group of businesses to catch up to larger ones.

Manufacturers with the number of employees ranging between 10 and 999 prefer to buy new, whilst the share of those preferring to buy second-hand decreases as the business grows. The largest manufacturers with more than 1000 employees exclusively buy new for advanced capital.

Chart 8: Preference to buying brand new, 2nd hand, or leasing for Advanced capital



Source: Investment Health survey 2022

## THE CYCLE OF (RE)INVESTMENT

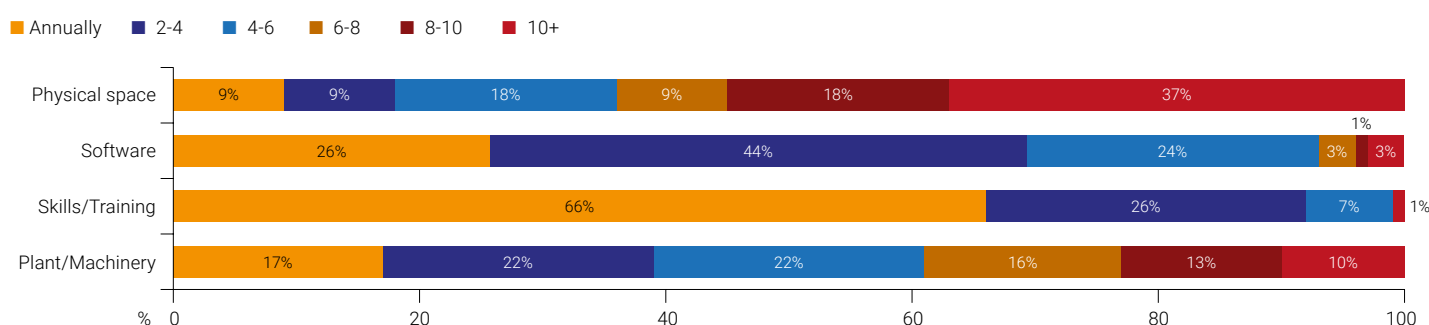
Investment is a game of repetition. It is continuous and requires ongoing oversight, ensuring manufacturers do not slow their output. It is necessary to push forward productivity by adopting the latest technologies, skills, software and taking risks on new ideas to stay ahead of the competition, both domestic and abroad.

As diverse as investment is, different areas of the business have differing expectations for how long an investment's life cycle should last before it requires replacing or upgrading.

*We debunk certain myths about investment cycles and highlight that Government support should take this cycle into account when designing policy tools.*

Chart 9: Average years for investment cycles (i.e., how often a manufacturer must re-invest)

% share of manufacturers selecting years by investment category



Source: Investment Health survey 2022



### **Skills and training**

For two-thirds (66%) of manufacturers investment in skills and training is an annual endeavour, while one in four will invest in training every 2-4 years. This is expected given skills shortages has been a major thorn in the manufacturing sector for decades, with the education and training system not producing talent in the numbers required for the industry or keeping pace with industry. Despite the level of automation increasing, investment in skills will always be necessary for manufacturers; more than half of firms identify automation as the primary driver behind changing skills needs in their workforce over the next decade.<sup>9</sup> Make UK's most recent skills report found that more than half of manufacturers had increased their investment in training of both production and non-production staff since before the pandemic, a trend we would expect to continue as only a quarter of firms currently feel confident that they will have the right skills in their business in the next 10 years.<sup>10</sup>



### **Software**

Most manufacturers (70%) re-invest in upgrading or replacing software and digital technologies within 4 years, with the largest share (44%) within this group investing every 2-4 years. This is important as digital technologies advance quickly with upgraded software or programmes. For example, automation and software are closely linked with programmes encoded within robots or cobots that determine their operational efficiencies. Additionally, manufacturers use software to record and analyse information, such as input/output ratios and logistics to minimise costs and maximise efficiency. The Government's Help to Grow Digital scheme is a useful voucher to increase adoption of software within

business, but if the software will require updating/upgrading within 4 years then it is important Government schemes take this into account too.



### **Physical Space**

As expected, most manufacturers (55%) re-invest in physical space (either by upgrading their current space or moving to a new location) every 8 years or more. Most of those in this group (37%) re-invest every 10+ years. Many manufacturers, particularly SMEs, may remain in their start-up location for many years. Often choosing to invest in upgrading their facilities by improving energy efficiency or the surrounding infrastructure. However, the business rates system in the UK can penalise manufacturers who make these sorts of investments which can result in underinvestment in physical space quality.



### **Plant & Machinery**

The life cycle of investment for plant and machinery is much more varied than other types of investment. 17% of manufacturers re-invest annually, 22% re-invest every 2-4 years, 22% re-invest every 4-6 years whilst the remainder invest every 6 years or more. The bulk of manufacturers (61%) sit in a wide middle area, 2-8 years. This is because investment in plant and machinery can differ significantly from everyday tools to big ticket machinery used in the production process. Basic capital likely goes through more wear and tear daily and are designed to be replaced more frequently. On the other hand, machinery for production is designed to last for long-term use with a slower rate of depreciation but even these must be replaced eventually.

## **TIME IS OF THE ESSENCE IN POLICY DESIGN**

The challenge with recent Government support is the variation in life cycles were not accounted for when temporarily raising the threshold for the Annual Investment Allowance (AIA) to £1m or opening a Super-deduction (SD) scheme for a 2-year period. For manufacturers who are investing in basic capital with short life cycles or are nearer to the end of their life cycle for large machinery (i.e., in the right place at the right time) these policies can be helpful.\*

For most businesses who are still in the middle of their investment cycle the window of opportunity is too short. This indicates the true challenge with capital investment incentives. For example, the exclusion of leasing and 2nd hand capital in the SD scheme, albeit problematic, is not so much of an issue in comparison to the challenge of timing these policies correctly. Going forward Government must consider these cycles by prioritising longevity into the design process of investment incentives. This is discussed further in Part 3.

\*We are encouraged by the Government's move to make permanent the £1m threshold for the AIA which will instill much needed certainty into the sector.

<sup>9</sup>Make UK '2030 Skills'

<sup>10</sup>Ibid

# PART 3

# GOVERNMENT

# INTERVENTIONS

Government has a crucial role to play in incentivising investment across industry. The UK has struggled to compete on productivity for over a decade now, and poorly designed incentives are partly to blame for this. However, many opportunities exist and as this report has already found, many manufacturers are eager to invest more over the next two years.

Astonishingly only 9% of manufacturers consider Government support as an important deciding factor for investment. Whether it is a lack of awareness of the benefits Government support can provide or the limited impact of such schemes making them unworthy of discussion altogether – changes are needed. It is clear neither industry or Government are aligned in their motivations or understanding of how incentives should be developed but with a few tweaks to the design framework we can unlock significant value in the UK by getting investment activity back on track.

This section will focus on the Annual Investment Allowance and Super-deduction schemes as well as a brief look at the impact of the Government's reliefs to Business Rates.

The last two years has offered Government an opportunity to experiment with different policy tools, but it is yet to find an answer to what works best, and how. This section aims to shed some light on the best types of capital investment incentives, and the impact of disincentives, like taxation. Additionally, using the earlier findings of this report a framework of principles is developed to be used in future policy design.

Manufacturers indicated that the best type of Government incentives were short-term schemes like the super-deduction (SD). This was true for just over half (51%), whilst 46% also believed the Annual Investment Allowance (AIA) to be a great incentive. We explore why this is the case later.

## THE ANNUAL INVESTMENT ALLOWANCE EXPLAINED

The AIA is a tax benefit developed by HMRC to incentivise business investment in the UK. The scheme allows businesses that purchase qualifying assets to deduct this value against taxable profits in the tax year the expenditure is incurred.

The Government's recent mini-budget announced that the annual limit on the tax relief which is currently set at £1 million will be made permanent.

## THE SUPER-DEDUCTION EXPLAINED

The super-deduction scheme was an extraordinary measure announced by the Chancellor in the Spring budget of 2021.

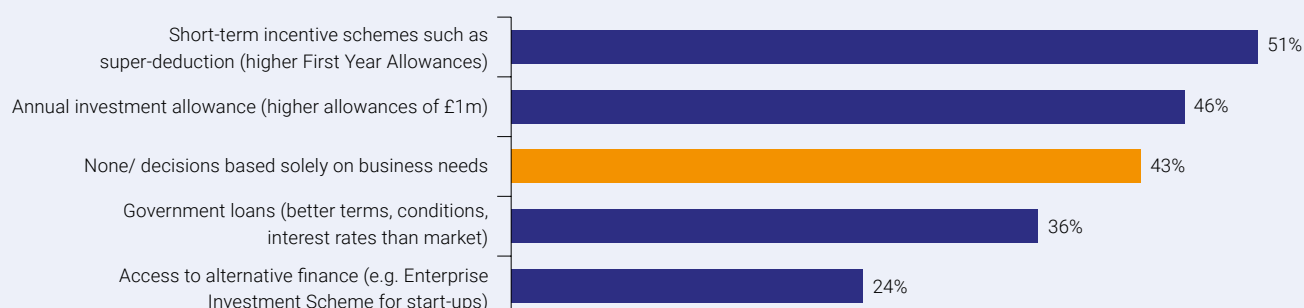
The scheme is very similar to the AIA but with 130% tax relief on qualifying plant and machinery expenditure, and a 50% first year allowance on qualifying special rate pool expenditure such as electrical and lighting systems, heating and cooling systems and lifts and moving walkways. The main difference to the AIA is that leased and second-hand capital are excluded from claims and there is no cap on investments that a business can claim for.

This scheme was developed to last two years and will expire on the 31st of March 2023. Currently it is not clear whether a new scheme will follow as a replacement.



**Chart 10: The preferred types of Government investment incentives according to manufacturers**

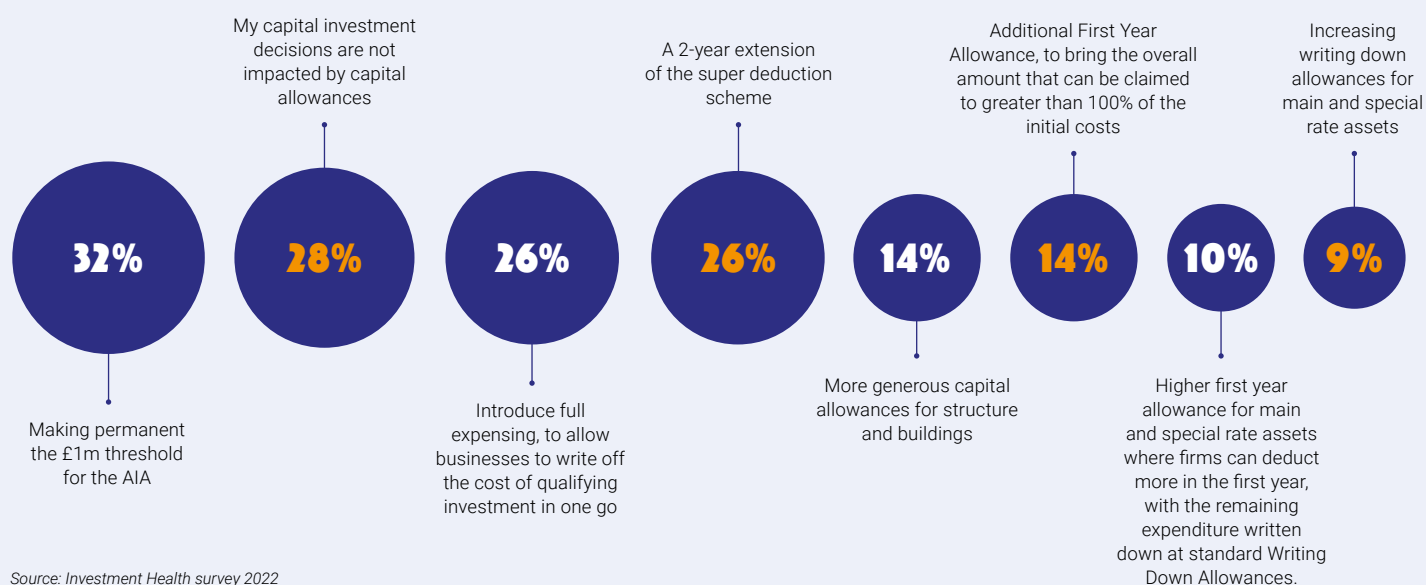
% share of responses (select two)



Source: Investment Health survey 2022

**Chart 11: Investment incentives that would encourage a business to invest more in plant and machinery**

% share of responses



Source: Investment Health survey 2022

However, 43% of businesses also indicated that decisions to invest were solely based on business need and not motivated by Government support. This agrees with earlier findings in this report that placed Government support as a weak motivator compared to the need to upgrade or replace plant and machinery. This may also be because the value and length of incentives are not significant enough to impact decision making and therefore Government policy design needs to be progressed to target the aspects of investment making that matter most.

Fortunately, the Government announced that the £1 million allowance for the AIA will be made permanent instead of reverting to £200k. This is welcome news to manufacturers,

particularly for the 32% of respondents who believe this would directly incentivise investment in plant and machinery.

Despite the short-term schemes being viewed as the 'better' type of investment incentive, manufacturers still prefer to opt for long-term solutions.

Manufacturers were also proposed alternative options based on the possible ideas HM Treasury listed following the Spring Statement 2022 of what could follow the end of the super-deduction scheme in April 2023<sup>11</sup>. Outside of the AIA, 26% of manufacturers would prefer the introduction of full expensing (100% capital allowance) however, this would be

<sup>11</sup>Spring Statement 2022

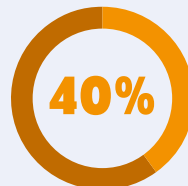
an expensive option costing over £11bn in a single year at its peak. Given the recently announced government backed support to cap energy prices costing in excess of £100bn, full expensing might be too costly an option. Some type of first year allowance option was preferred by 40% of manufacturers, either a 2-year extension of the super-deduction scheme (26%) or an additional first year allowance (14%), both of which give more tax relief than the amount spent. Other solutions were proposed but they fell lower on preferences, and it is not clear if this is due to a lack of understanding of those policies or if they are not helpful to investing.

The contradictory nature of these two results (chart 10 and chart 11) raises interesting perspectives for capital allowance design. In the current economic climate, the more generous scheme that supports cash flow is preferred (the super deduction scheme). But manufacturing is a long game, and so when given a choice longevity is preferred for the future (the AIA scheme). Whilst the super-deduction scheme is generous, it is too short sighted and lacks accessibility, in contrast, the AIA offers long-term certainty but is not as generous and is tweaked too often. What manufacturers would prefer is first year allowance relief (ideally an extension to the uncapped super-deduction regime) that is in place for a longer timeframe to match their typical capital investment cycle (between two to eight years) as well as a permanent £1m annual investment allowance which has now been confirmed by Government. Government incentives need to balance capital allowance design according to these principles: Longevity, Generosity and Accessibility. This is outlined in more detail in part 4.

## HOW MUCH OF THE AIA DO MANUFACTURERS USE?

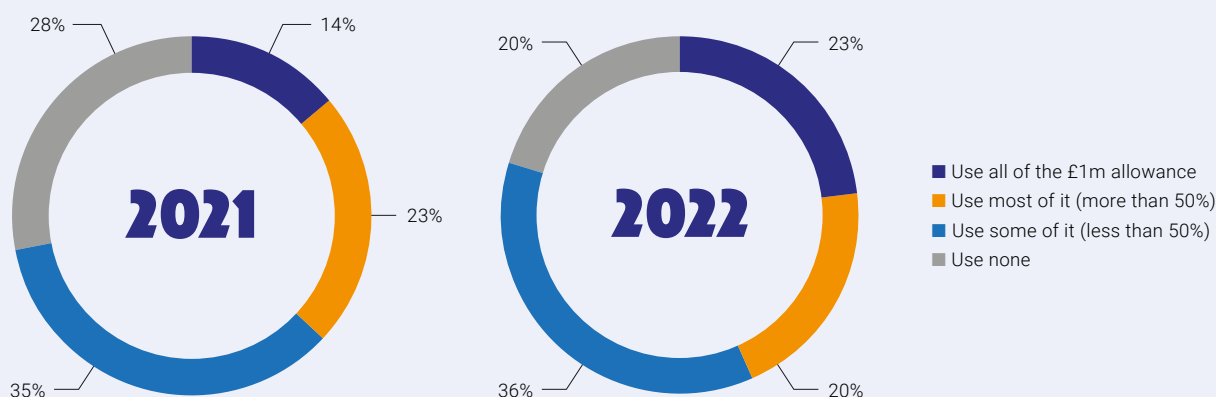
This year only 14% of manufacturers utilised the entire £1m allowance of the AIA. This share is set to increase to 23% for the end of the next tax year (March 2023). It is possible that businesses plan to utilise the scheme more because they are going to invest more.<sup>12</sup>

Many manufacturers used less than 50% (35% of manufacturers) of the allowance for the 2021/2022 tax year, equating to a maximum of £500k whilst 23% of manufacturers used more than 50% (but not all) which would be in the range of £500k to £999k. These percentage shares will not change significantly for the current tax year. However, it demonstrates that many manufacturers likely utilise more than the £200k threshold previously offered by the AIA. Given it is now confirmed the £1m allowance will not be reduced, this announcement will provide certainty to those investment intensive manufacturers.



believe that an extension to the super-deduction scheme or the introduction of an additional first year allowance would incentivise investment

Chart 12: How much of the AIA limit did manufacturers use in the 2021/2022 tax year? And how much do they plan to use for the 2022/2023 tax year?

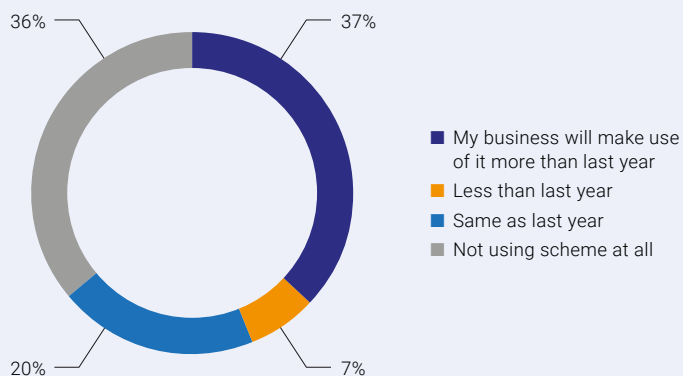


Source: Investment Health survey 2022

<sup>12</sup>As this data was collected before the Chancellor announced making the £1m threshold for the AIA permanent it is possible manufacturers were more likely to maximise the use of the scheme believing it would revert to £200k. The change in policy may impact these expectations going forward.

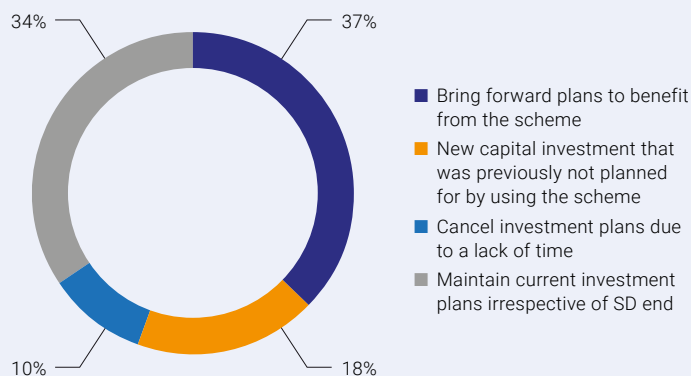
## WILL MANUFACTURERS USE SUPER-DEDUCTION AND WHY WAS IT NOT MORE SUCCESSFUL?

Chart 13: Manufacturer's intentions to use super-deduction for the current tax year



Source: Investment Health survey 2022

Chart 14: The impact of ending super-deduction in 2023



Source: Investment Health survey 2022

The super-deduction was an extraordinary measure to turbo charge capital investment in the UK at the onset of the nation's recovery period following the pandemic lockdowns. The UK's productivity growth has lagged behind other competing countries for almost a decade and a half already, and this scheme should have raised investment activity to reduce this gap somewhat.

There is no doubt the scheme has proved successful for some businesses, particularly those with investment plans already on the move. However, many manufacturers pointed out the

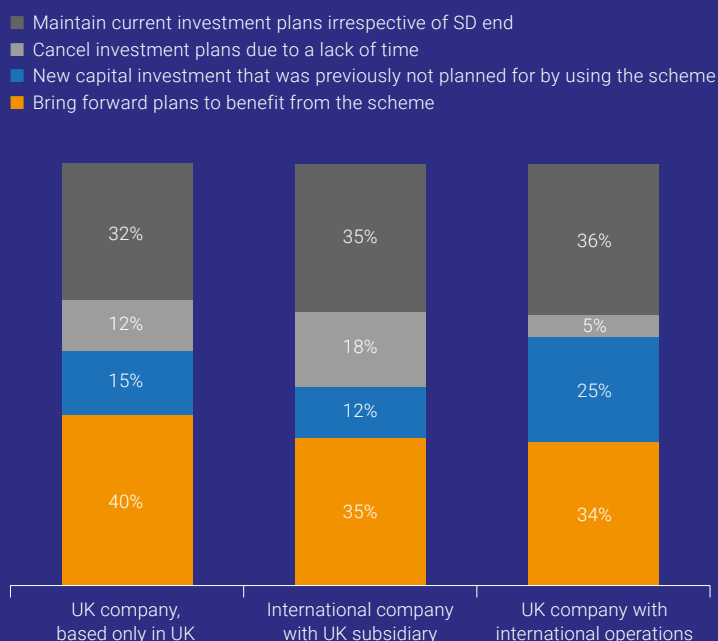
scheme was also unsuitable for SME's and was too short sighted to plan for new investment, particularly because of supply-chain disruption which means many types of capital equipment will not be delivered until after the 31st of March 2023. Instead, most manufacturers brought forward existing plans. But even this should result in a boost to GDP.

### The behaviour toward the SD scheme ending can differ slightly depending on the ownership structure of a manufacturer.

With the scheme's end looming it is evident here that UK companies with international operations are more likely to plan for new investments to take advantage of the scheme than UK only firms, or international firms with UK subsidiaries. What is also highlighted are home grown manufacturers (UK only and UK with international) are both more likely to invest more, and less likely to cancel investments.

Additionally, this data indicates that international companies with subsidiaries are now more likely to cancel investment plans, as suggested by 18% of companies, due to the ending of the super-deduction scheme. Albeit UK firms appear more committed to the UK than non-UK firms, it is imperative we do not take steps to make the UK less attractive for foreign investment by international companies too. Many of these companies have access to significant capital to grow British industry and drive productivity improvements. In an ideal environment all types of companies would want to invest in the UK.

Chart 15: The impact of ending super-deduction (SD) in 2023, by ownerships structure



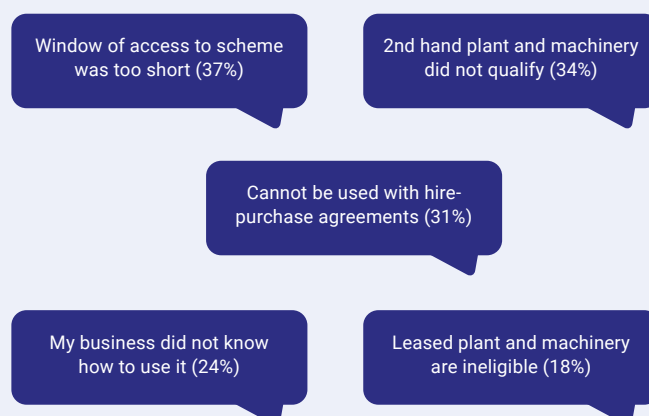
Source: Investment Health survey 2022

As this is the final tax year for the super-deduction scheme 37% of manufacturers plan to use it more than they did in the previous year. However, almost a similar share (36%) does not plan to use the scheme at all. Whilst the remainder will either use it the same (20%) or less (7%).

Given the super deduction scheme will be coming to an end next year it will incentivise some acceleration of investment to avoid missing out on the benefit. 37% of manufacturers plan to bring forward existing investment plans, whilst 18% plan to use the scheme for new capital investment.

However, one in ten manufacturers plan to cancel investment plans, but this is likely not entirely due to the timing of the scheme. External costs pressures due to inflation may also be playing a role here with costs outweighing the benefits of the scheme.

### Why was the super deduction scheme not used by more manufacturers? (% share of responses)



Source: Investment Health survey 2022

As expected, based on the challenges identified earlier in this report, the window of opportunity to access the scheme being too short was the biggest issues highlighted by manufacturers. Surprisingly, the barrier to accessing second-hand capital was more significant as a reason than accessing leased capital. This is likely because the sector is dominated by SME and micro manufacturers with less than 249 employees, a group that is more likely to use second-hand plant and machinery.

### Business Rates: A penalty on investment?

Business rates have long been considered by manufacturers as a tax on investment. Businesses that invest in improving the quality of their physical spaces are often subject to higher business rates during revaluation periods. This has resulted in an infamous cycle of business rates acting as a disincentive for investment in capital and property infrastructure. Although significant reforms are necessary, operationally they are challenging to implement.

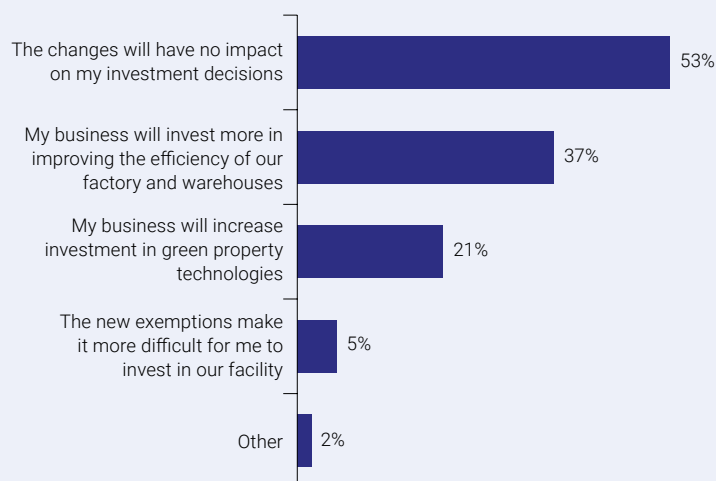
The Government, however, announced two reliefs to Business Rates calculations in 2021, the investment (or green) relief and the improvement relief. The green relief would exempt some investments in energy related technologies (such as solar panels) from rate calculations for at least 12 months. The improvement relief would act similarly for other qualifying structural investments. These changes were important steps in reforming business rates, but their impact will be limited if we do not pursue further reforms.

Over half of manufacturers (53%) indicated these two reforms will have no impact on investment decisions. This may be down to the reliefs themselves being insignificant as a 12-month delay in cost rises is not considered a lot of time in the current climate. Therefore, the reliefs are not generous enough and do not offer any ounce of longevity.

However, 37% of manufacturers indeed plan to invest more in improving the efficiency of their factories and warehouses which suggests for some manufacturers the reform is a benefit. One in five also plan to invest more in green technologies, which is good but not as high as we would like it to be, especially as the energy crisis has made abundantly clear to many of us – investment in renewables and clean energy is no longer a moral need, it is now a business need.



**Chart 16: The impact of Business Rates reliefs on investment**  
% share of responses



Source: Investment Health survey 2022



# PART 4

# CONCLUSION AND RECOMMENDATIONS

## CONCLUSION

The findings of this report show risk and opportunity can be a paradox. Taking actions to reduce risk may result in underinvestment, reducing opportunities for all in the long run. There is no doubt the turbulent economic environment since 2020 has led to more than half of manufacturers holding back investment in capital. As the UK recovers, the need for more capacity and resilience became clear, but the required investments had not yet been made. This makes the need to invest today significantly greater if we are to avoid losing opportunities that exist for improved productivity and greater prosperity.

Fortunately, manufacturers are ready and willing to increase their investment in expanding capacity, as recent crises have turned needs into necessities. But new challenges and threats could derail these plans, many of which are uncontrollable.

What is controllable are the support mechanisms provided by Government to rebalance the scales on risk and opportunity.

The super-deduction scheme proved successful for many manufacturers, but its impact was limited and failed to generate investment in long-term capital. This report shed light on the methods manufacturers use to invest in capital

from how they finance purchases to choosing between new and old machinery and how often these investments need to be made. Using these findings, we have created a framework to adhere to ensure future versions of capital investment incentives are suitable for manufacturers. These are:

### The Principles of Capital Investment Incentive Design

- **Longevity** – ensure the timeline of investment cycles are accounted for so manufacturers can plan forward.
- **Generosity** – ensure the benefits gained from the incentives are large enough to make an impact on cashflow, thereby increasing investment even further.
- **Accessibility** – ensure a wide range of exemptions apply so all manufacturers can access the scheme. Smaller manufacturers are more likely to buy second-hand or leased capital than larger manufacturers.

These principles should help policy makers formulate the basis of new incentives for businesses across the UK. By ensuring longevity, generosity, and accessibility the Government can enable many industries to grow whilst supporting domestic goals such as levelling Up, net zero and closing the productivity gap.

## RECOMMENDATIONS

### Capital:

- 1. Ensure consistency and stability in the access and use of the Annual Investment Allowance:** Now that the Government has made permanent the £1m allowance for the AIA, which will provide much needed longevity and certainty we must ensure that we do not make the mistake of adjusting the scheme too frequently. Manufacturer's often say that frequent modifying of policy tools can itself be a cause for uncertainty. According to our proposed framework to achieve longevity we must ensure this scheme is both long-term and consistent.
- 2. As a short-term solution to give the industry a quick boost the Government should extend super-deduction or introduce an additional First year allowance for a minimum of 3 years:** The UK is amid a potential financial crisis. To turbo-charge investment activity in the short-term the Government should consider extending the super-deduction scheme or introduce an additional first year allowance from 1st of April 2023 for a minimum of three years. However, this time the exemptions of the policy should be widened to allow for at least leased capital investment. Otherwise, we will once again see limited take up. This will provide significant generosity for businesses to invest their way out of the existing crisis and raise the UK's position in the OECD as a friendly place to do business. This will also provide a better than average cashflow benefit for businesses at a time where liquidity is scarce.
- 3. Progress towards a permanent full expensing regime for capital allowances:** The Government must continue to work towards improving the system of capital cost recovery in the UK. Although the AIA is a strong benefit that acts as a lever like full expensing for some businesses, many capital-intensive manufacturer's that exceed the current limit of £1m are placed at a competitive disadvantage. By moving towards a permanent full expensing regime (100% tax relief which allows for 2nd hand and leased capital) we can ensure our most valuable industries can thrive. According to our proposed framework this will balance longevity, generosity, and accessibility.

Investing in capital cannot alone lead to the growth the UK is looking for. Manufacturers must also continue to invest in people and innovation, which will work in conjunction with investments in capital. As such, the following recommendations are included to support investment in skills and innovation.

### People:

- 4. Introduce a Training Investment Allowance:** The Government should expand the current tax exemption for work-related training into a Training Investment Allowance, providing a tax rebate on investment in training for existing employees. This reflects manufacturers' desire to access tax relief on investment in training which is easy to understand and provides a clear incentive, offsetting the cost of training through their tax bill.
- 5. Create an Employer Training Fund:** Reform to the apprenticeship levy is essential to make it work better for employers. The high level of unspent funds being returned to the Treasury indicates that the levy is not functioning as it should do, and employers want to ensure that they can use all avenues available to them to invest more in high-quality training. A portion of unspent levy funds should be formally ringfenced as part of a new Employer Training Fund, which could support the upskilling and retraining of existing employees.

### Innovation:

- 7. Expand the R&D tax credit to include capital expenditure:** The R&D tax credit should be expanded to include capital equipment within qualifying expenditure to spur on further digitalised R&D. In addition to capital allowances, tax credits should also be used for certain activities that combine efforts in research, development and adopting technologies to improve productivity. This would enhance the quality of investments made to ensure they are focussed on improving the business as well as providing a cash flow benefit.
- 8. Expand Help to Grow Digital:** To include ERP/MRP, MES and PLM<sup>13</sup> software or allow at least for packaged solutions that may also include CRM and accounting as part of the product. This would allow for the voucher to also be used to upgrade software with existing providers. In addition, the Government should introduce higher tiers of the voucher scheme with greater subsidies for manufacturers that may be willing to adopt a complete package of systems (CRM/Accounting/supply-chain etc.). For these larger investments, the funding available should grow alongside it and be more than £5k.

<sup>13</sup>ERP - Enterprise/Material Resource Planning, MES - Manufacturing Execution Systems, PLM - Product Life Cycle Management

# VIEWPOINT



The relationship between investment, greater productivity and economic growth is almost synonymous yet UK manufacturing investment activity has been languishing for many years. For Government, productivity remains one of the defining economic issues of our time, particularly given UK productivity levels compared to that of our G7 peers. The last few years in particular have not provided an easy backdrop for business leaders to make major investment decisions, and now, as the industry navigates its way through further choppy waters, it's vital that we explore the sector's investment plans in depth if we are to see tangible productivity and sustainability gains in the medium term.

With this in mind, we are delighted to partner with Make UK in producing this report and believe that it provides a template of principles for Government to follow when designing future investment incentives.

## The impact on investment activity so far

The manufacturing industry is a capital-intensive sector that must continuously invest in order to grow. When discussing investment plans with our manufacturing sector clients over the past year, the risks and potential challenges have been laid bare. For some, liquidity issues, inflationary pressures and threats of recession have resulted in investment being held back. Meanwhile, for others, investment plans have continued with productivity gains, environmental pressures and labour shortages driving these decisions.

Throughout all of this, one thing is clear, the UK economy needs a buoyant manufacturing sector that continues to make investments in capital to improve productivity and compete on the global stage. It is therefore concerning to see that more than half of respondents to our survey confirmed they had held back investment in plant and machinery because of the events of the last few years. With environmental pressures growing and Net Zero strategies seemingly gathering momentum, it must also be viewed as equally concerning that 41 per cent of respondents confirmed they had held back Net Zero investments too.

## Future investments

More encouragingly, a significant proportion of respondents have indicated that they plan on increasing capital investment over the next couple of years with only 9 per cent suggesting they plan on investing less. The sector knows it needs to invest, which given the volatile market conditions is great to see. But these good intentions come with an element of caution as the industry references high energy costs and inflation as major concerns that are likely to negatively impact future investment decisions.

These survey results clearly indicate that capital investment cycles vary hugely and that short term incentives will not necessarily incentivise the large parts of the sector that invest less regularly. Consistent, long term government policy on future investment incentives will ensure that the manufacturing industry can invest with certainty.

## What next?

Just 9 per cent of manufacturers confirmed that Government support factored into their decision-making process when making investment decisions. This is disappointing and reinforces the opportunity for Government to stimulate greater investment. More generous and accessible incentives, and more time to make use of them would both be welcome. With this support, we may yet see significant productivity improvements and strong output levels throughout the current decade.



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.

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If you would like to receive invitations to our events and to receive our monthly manufacturing industry insight pieces, please visit our [preference centre](#).

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