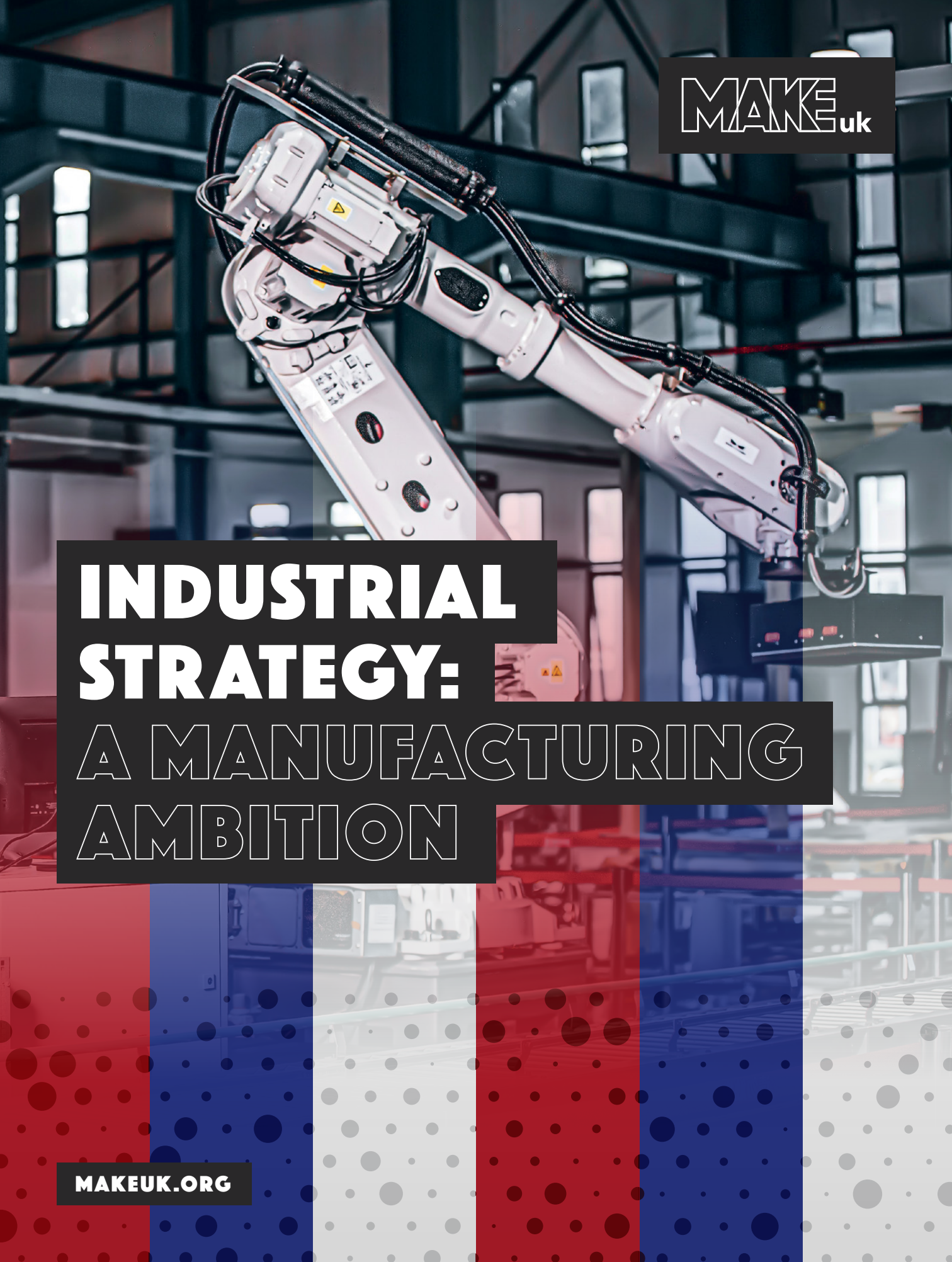

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INDUSTRIAL STRATEGY: A MANUFACTURING AMBITION

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FOREWORD

The UK manufacturing sector is an essential contributor to the country's economy generating £206bn gross valued added in 2022, a fifth higher than a decade ago. It accounts for around half of all UK exports, two thirds of spending on research & development, and despite accounting for just 9% of the overall economy brackets (GVA) and 8% of total employment, it contributes 15% of total UK business investment. The sector employs around 2.6m highly skilled people across the UK, mostly in areas that need levelling up, and pays salaries typically 12% above the regional average.

In short manufacturing matters massively to the prosperity and security of the UK.

However, the sector is now at a critical juncture. Ten years ago Make UK (then EEF) set out its case for an industrial strategy. This report provides an update on the state of play after a decade dominated by disruptions. The paper also analyses the shifts in the policy landscape post-Brexit and the lessons learned in the Covid-19 pandemic, the transition to net zero, rapidly accelerating technological change from the fourth industrial revolution, and the political imperative to spread growth more evenly across the UK, and then suggests opportunities and areas for improvement.

There is broad agreement among stakeholders about what the UK needs for a successful industrial strategy. These can be broadly categorised into five themes, skills; infrastructure; finance; innovation, and the business environment.

Internationally the UK risks being squeezed between the US Inflation Reduction Act alongside the European Union's Green Deal Industrial Plan which are already having a significant detrimental impact on UK investment. Yet as we face these challenges the UK remains the only developed economy without an industrial strategy. Never has the case been clearer to adopt one.

We now have the opportunity to harness the undoubted strengths the UK possess in its academic and research base working with manufacturing companies who are highly innovative. Firms are clear that an industrial strategy would bring the benefits of a long term vision and a stable environment in which they can plan, invest and grow.

KEY FINDINGS

99%

OF MANUFACTURERS BELIEVE THE UK SHOULD HAVE AN INDUSTRIAL STRATEGY

56% OF FIRMS

DON'T FEEL LIKE THERE HAS EVER BEEN A ROBUST GOVERNMENT VISION FOR UK MANUFACTURING IN THE UK

14% OF MANUFACTURERS THINK

THERE WAS A STRONGER VISION FOR MANUFACTURING TEN YEARS AGO

29% OF MANUFACTURERS

THINK THAT THE LACK OF AN INDUSTRIAL STRATEGY IS THE PRIMARY REASON WHY THE UK MANUFACTURING SECTOR HAS NOT BEEN ABLE TO GROW MORE QUICKLY IN THE LAST DECADE

6 IN 10

MANUFACTURERS SAID IT IS MOSTLY DUE TO THIS BUT WITH OTHER FACTORS

87%

OF COMPANIES SAY AN INDUSTRIAL STRATEGY WOULD GIVE THEIR BUSINESS A LONG-TERM VISION

THREE QUARTERS

OF MANUFACTURERS SAY AN INDUSTRIAL STRATEGY WOULD OFFER A STABLE BUSINESS ENVIRONMENT

7 IN 10

COMPANIES WANT TO SEE SKILLS AS A CORE FOCUS FOR A 2023 UK INDUSTRIAL STRATEGY

ALMOST 6 IN 10

WANT TO SEE INNOVATION

ALMOST HALF WANT TO SEE DIGITALISATION AS THE KEY FOCUS

THE SAME NUMBER AGAIN WANT TO SEE A GREEN TRANSITION AS A CORE FOCUS

8 IN 10

UK MANUFACTURERS FEEL THEY ARE AT A COMPETITIVE DISADVANTAGE COMPARED TO OTHER MANUFACTURING NATIONS WITH INDUSTRIAL STRATEGIES

3/4s OF FIRMS

CITED GERMANY AS A NATION WHICH HAS A BETTER ENVIRONMENT FOR THE MANUFACTURING SECTOR THAN THE UK

43%

CITED THE USA

3 IN 10

CITED FRANCE

OVER 3/4S OF COMPANIES

THINK AN INDUSTRIAL STRATEGY SHOULD BE GUARANTEED BEYOND GOVERNMENT TERMS AND MAINTAINED BY A SEPARATE BODY

POLICY RECOMMENDATION:

1 **Policy Recommendation:** Establish a Royal Commission on Industrial Strategy to determine a cross-party consensus on future priorities and ambitions for the manufacturing sector and wider economy and society, and to then agree aims and objectives that the state regards as strategically important markers of success. The Royal Commission should determine, as a first priority, the UK's offensive and defensive priorities for future trade deals. These would then be used to inform wider industrial strategy planning. Such an industrial strategy should include growth targets and timeframes but also whether to prioritise horizontal or vertical approaches to industrial development and it should set responsibilities for delivery for both the private and public sectors.

2 **Policy Recommendation:** Re-establish an Industrial Strategy Council, this time underpinned by statutory status to ensure longevity. The ISC's remit as an independent oversight body should be to ensure rigorous evaluation and to monitor and determine the efficacy of policy delivery. The ISC can be enabled to collate timely information on, and provide a feedback mechanism for, the industry to enable it to provide insights and institutional knowledge into better policymaking practice for the delivery and implementation of industrial strategy targets across all levels of government within the UK.

3 **Policy Recommendation:** The Cabinet Office should be made responsible for ensuring whole-of-government coordination and implementation of industrial policy. Following a plan devised via consultation with all relevant stakeholders, the re-established Industrial Strategy Council should be provided with a mandate to monitor and evaluate policy implementation and inform and advise the Cabinet Office on ways to improve delivery across all stakeholder bodies and levels of government.

4 **Policy Recommendation:** As part of the Royal Commission on Industrial Strategy, stakeholders should negotiate and agree institutional reforms to ensure the stability of policy delivery and outcomes. Such reforms should include alterations to the regulatory landscape, such as the corporate governance code, to incentivise private and public sector best practice and long-term productivity growth in UK manufacturing for the benefit of the public good.

PART 1: INDUSTRIAL STRATEGY – FROM THE PAST TO THE PRESENT

The UK's historical experience with industrial policy has been long and turbulent, characterised by frequent policy announcements and then reversals driven by political cycles, with a lack of coordination between the multiple public bodies, departments, and levels of government responsible for policy implementation and delivery.

State intervention, nationalisation, and subsidies were the primary tools of choice from the post-war years through to the 1960s and 1970s. Industrial policy used in an attempt to resist deindustrialisation by supporting declining firms and outdated industries but efforts to create new economic engines, such as commercial nuclear power, did not lead to sustained success. These episodes left a generation of British governments with a lasting distaste for "picking winners", given how many losers had ended up picking government.

Experiences such as these were reinforced from 1979 onward by an explicit ideological push to retrench the role of the state, paving the way for the large-scale privatisations, spending cutbacks, and deregulation programmes in the 1980s. The received wisdom in HM Treasury and elsewhere was that the best industrial policy is no industrial policy.

Major evolutions in computer technologies from the late-80s combined with the growth of the services sector and the relative decline in manufacturing employment shifted the emphasis to knowledge-based economic models thereafter. While remaining fundamentally market oriented and laissez faire, the UK's industrial policy in the 1990's and early-2000s aimed to promote economic growth and modernisation through a emphasis on innovation and entrepreneurship as government pursued policies to encourage international trade and investment.

However, the global financial crisis that began in 2008 had a significant impact on the public accounts and businesses access to finance. A policy of austerity in the public sector and liquidity shortages in the private sector marked a major turning point for businesses across the country, as a 'lost decade' of stagnant productivity and wage growth, combined with government spending cutbacks, technological disruptions, and entrenched inequality eroded economic security for large sections of the population.

That decade of disruption in industrial policy was further exacerbated by the destabilisation of public policy and economic outcomes brought on by the UK's exit from the European Union after 2016. The UK economy is facing significant challenges including low productivity, inequality, and uncertainty due to our changed global trading relationships post-Brexit. We now require a new approach to industrial strategy.

Today, the balance of academic evidence and public policy opinion is shifting back in favour of more active state direction of the economy. This reflects the state of the world post-Great Recession, combined with seismic transformations including digitalisation, demographic change, the rapid rise in global

competition, the climate crisis, and the lessons learned during the Covid-19 pandemic.

A re-evaluation of economic policy in many western economies has begun, marked by an interventionist turn. The United States' Inflation Reduction Act alongside the European Union's Green Deal Industrial Plan embody the re-emergence of manufacturing centered strategies for growth and security.

There is today a growing consensus that the UK needs a robust industrial policy in order to compete on the global stage. This is reflected in the interest in ideas such as 'mission-oriented' policies on the British Left[1] and 'defensive' industrial policy on the British Right[2]. The need to boost productivity, increase resilience and security, address regional imbalances, and promote sustainable economic growth is clear. The time has come for a new UK industrial strategy.

1.1 WHAT HAS HAPPENED TO UK MANUFACTURING OVER THE PAST DECADE

The greatest difficulty underlying all the UK's economic challenges over the last decade has been the productivity gap. Signifying the importance of UK manufacturing to national prosperity, the sector is 14% more productive per hour than the whole economy average. Manufacturing firms pay their workers significantly more than the regional average wage in every single region of the UK, with the sole exception of central London. Yet, the last decade has proved to be a turbulent time.

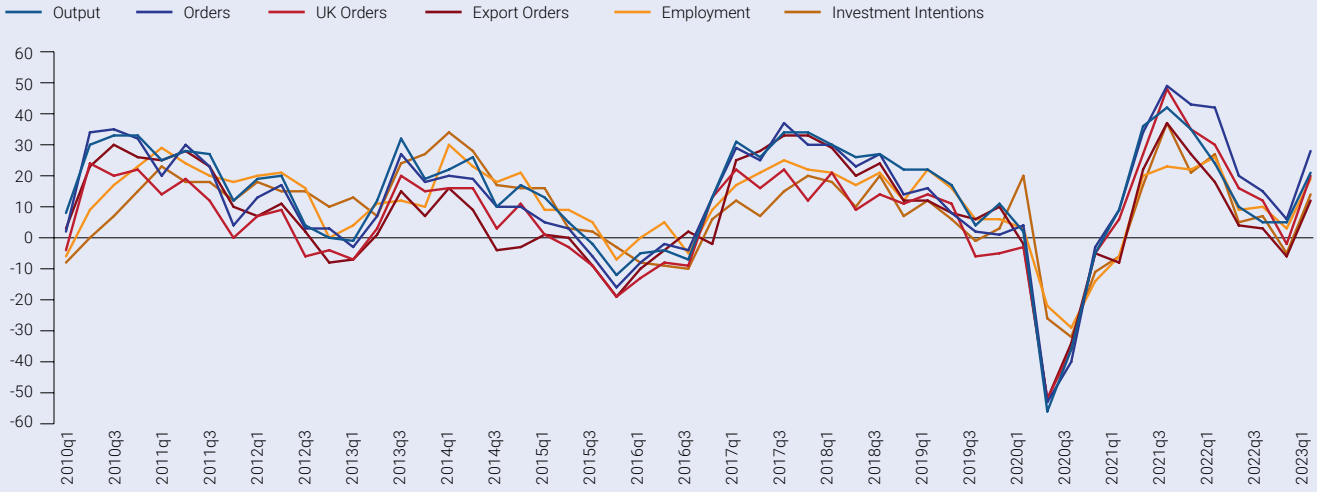
The manufacturing industry contributed approximately £206 billion in gross value-added (GVA) output last year. However, in the last ten years the share of manufacturing GVA relative to output for the whole economy remained close to 10% indicating that the manufacturing sector's contribution to UK economic output has not improved for a decade.

Without a long-term vision and strategy in place for the sector, UK manufacturing risks falling behind the rest of the world despite continuing to punch above its weight in critical categories vital to prosperity and security for our nation.

The last 10 years highlights one of the most tumultuous periods recorded since records began.

Make UK's *Manufacturing Outlook* survey data shows that the start of the era since the global financial crisis

Chart 1: Manufacturing activity since 2010 % balance of change, 2010 Q1 – 2023 Q1



Source: Make UK, Manufacturing Outlook Survey

[1]https://labour.org.uk/missions/
[2]https://www.gov.uk/government/publications/build-back-better-our-plan-for-growth

began with strong performances from manufacturers, with firms bucking the broader economic trend in the services sector by regularly posting positive balances for output, orders, employment, and investment intentions. Despite significant global economic challenges, manufacturing activity rarely fell into contractionary territory (below 0% on balance) during this period. Then two notable contractionary events occurred:

i) 2015: The first indications of the UK's potential exit from the European Union

Having made a commitment to Conservative voters in his Bloomberg speech on January 2013, upon winning re-election in May 2015, Prime Minister David Cameron began to set out a plan to renegotiate the UK's relationship with European Union (EU) in late-2015.

Despite no certainty of reform and the fact even potential material changes would not be implemented for several years, markets reacted poorly to the concept of a UK exit from the EU. Consequently, manufacturers posted back-to-back quarters of decline in output, orders, and investment for the first time that decade. Only employment remained somewhat resilient during the period, in part thanks to liberalisations in recruitment and retention laws and practices.

Counter-intuitively, after the result of the EU referendum was announced in July 2016, manufacturers output grew between Q4 2016 and Q1 2020, as an Indian summer for UK made goods began before the inevitable declines began to be observed in domestic orders, export orders, and investment intentions towards the end of 2019. It became evident that what had appeared to be growth in the data was really a change in behaviour from customers who were becoming increasingly cautious and more frequently forward planning their stock in anticipation of the UK's EU exit, which resulted in abnormal expansions to output and orders due to emergency stockpiling each time a new Brexit deadline was announced.

ii) 2019: The Covid-19 pandemic and global lockdowns

The Covid-19 virus first emerged towards the end of 2019, when infections were mainly circulating in China with the western world largely unaware of what was about to come. As Covid-19 began to spread to the rest of the world in early 2020, many economies responded by shutting down industries and services to limit the spread of the virus any further.

As a result, our Manufacturing Outlook survey recorded its worst output growth balance ever, -56% in Q2 2020. The pandemic resulted in the second worst score for total orders, with the worst ever reported during the financial crisis of 2008/2009. Manufacturers were laying off workers in troves at the time, despite unprecedented Government fiscal support, namely the Job Retention Scheme (JRS) and access to low-risk finance. Investment intentions at the time collapsed as unprecedented global lockdowns derailed plans for growth.

Despite the severity of the crisis, the pandemic highlighted the manufacturing sector's critical importance to the UK economy. Many manufacturers responded to the call to arms by helping to ensure the supply of medicines and vaccines for the NHS, food and drink for supermarkets, and PPE equipment for the public. The flexibility demonstrated in the shift of production processes to supply ventilators, hygiene products, PPE and produce vaccines at scale was essential to our national security and recovery.

1.2 WHAT WE'VE LEARNED ABOUT UK MANUFACTURING IN THE PAST FIVE YEARS

Remarkably, the UK did not experience a technical recession despite the absolute decline in economic output in money terms being one of the worst in history. As economies reopened globally, manufacturing activity responded sharply by reporting the best balances for output and orders ever in Q3 2021 but this surge in demand for goods brought about its own challenges. Shortages in inputs from paper to semi-conductors caused havoc in economies rush to recover from pandemic losses resulting in intense competition for limited goods. The only variable used to balance supply and demand was price and these shortages, coupled with supply-chain disruption set in train major increases in inflation.

As businesses ramped up production, demand for labour skyrocketed with record breaking levels of job vacancies in manufacturing. At its peak there were nearly 4 vacant jobs for every 100 roles in the sector, where historically this ratio would be less than 2:1. Manufacturers were not just facing a shortage of highly technical skills, but a shortage of workers able to fulfil jobs in vocational roles like toolmaking as older workers retired early or were reluctant to return to work post-pandemic. Our metric for employment growth shows that since Q1 2020, manufacturers failed to meet their forecast recruitment figures in almost every quarter.

The impact of rising energy prices since the Russian invasion of Ukraine has forced businesses to pass on rising costs as higher prices at historic rates for the last 8 quarters in a row. Much of this growth is down to high gas prices which prior to Government intervention threatened to shut down 13% of our member businesses.

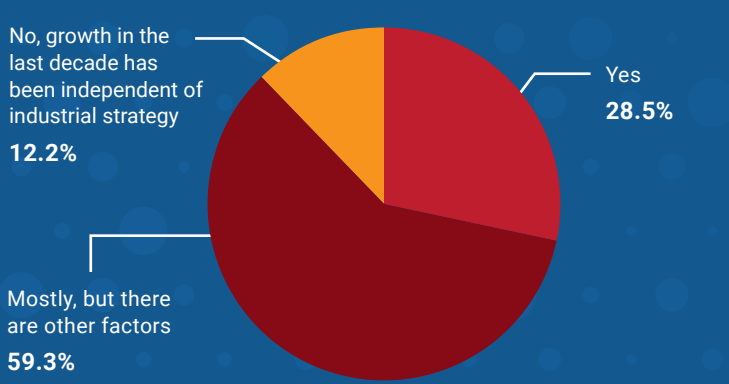
The relative reliance on domestic and international market is also shifting. The balance for UK orders has exceeded the balance for export orders in fewer than a third of all surveyed quarters since Q4 1998. However, in the last 10 years this share has increased to almost half (48%), and even higher at 60% over the last five years. This shows the turmoil of the last decade has resulted in more manufacturers relying on the domestic market to continue business as international customers move away from the UK market. It is, therefore, absolutely mission critical to target export growth as part of any long-term plan for manufacturing.

IS A LACK OF INDUSTRIAL STRATEGY THE REASON MANUFACTURING HASN'T GROWN OVER THE PAST DECADE?

Manufacturers seem to think so. When asked, whether a lack of industrial strategy is the primary reason the UK's manufacturing sector has not been able to grow more quickly in the last decade one in four said yes. Six in ten said mostly, but there are other factors.

Chart 2: Manufacturers think the lack of industrial strategy has held back growth

% companies citing whether the lack of Industrial Strategy is the primary reason manufacturing has not grown



Source: Make UK Industrial Strategy Survey 2023

PART 2: WHAT TO EXPECT IN THE NEXT DECADE

As our survey data shows, over the last decade uncertainty has held back investment plans and materially shifted the way businesses make day to day decisions.

It is clear that any vision for the manufacturing sector must provide certainty for businesses and a clear commitment from Government that the industrial strategy is here to stay. Over the last 15 years the government department responsible for managing industrial policy has been reorganised five times. The current Department for Business and Trade has been in existence since February 2023; preceded by the Department for International Trade and the Department for Business, Energy, and Industrial Strategy (2016-23); before which were the Department for Business, Innovation and Skills and the Department of Energy and Climate Change (2009-16); the Department for Business, Enterprise and Regulatory Reform and the Department for Innovation, Universities and Skills (2007-09); and the Department of Trade and Industry (1970-2009).

These reorganisations mask a myriad of other policy remit changes, the most prominent examples being the transfer of higher education and skills policies (including Apprenticeships) back and forth between education and business departments while trade policy is sometimes the responsibility of the Business department and sometimes the responsibility of its own bespoke trade department. More recently, energy policy, an increasingly important area of interest for manufacturers with climate change and the green transition integral to industrial strategy, has also been treated as an area meriting its own bespoke department while at other times treated as within the business department.

Furthermore, in those same 15 years there have been 15 different Secretaries of State responsible for business and industrial strategy (when including the various different iterations of departments and remits now housed under the Business Secretary).

2.1. POST-BREXIT, POST-COVID

The last decade has seen a significant change in the international trading environment for manufacturers in the UK, from navigating the UK's exit from the EU to managing and supporting the UK's response to Covid-19 pandemic. These acute impacts came alongside growing uncertainty about the international rules-based trading environment managed by the World Trade Organization (WTO) and a move in many countries away from globalisation and established patters on international trade.

The Covid-19 pandemic highlighted the interdependent nature of modern supply chains. The pandemic exposed how vulnerable global supply chains can be to national and international disruption, and while the impact of the pandemic was, thankfully, relatively short, as the UK and our international trade partners exited lockdowns a new disruption emerged in the form of a significant conflict erupted on the European continent with the Russian invasion of Ukraine in early 2022. This compounded an already volatile system resulting in significant trade restrictions and disruptions in the supply of goods and resources such as energy. The expectation of many manufacturers is that volatility is now becoming the new normal. In answer to this, many manufacturers are building greater resilience into their supply chains and moving from just-in-time models to just-in-case practices.

This matters most for the UK as the manufacturers here tend to be mid-supply chain, importing materials and components, adding value, and exporting around the world. As a result, manufacturers in the UK are subject to volatility in both imports and export markets.

Prior to the UK's exit from the EU, trading with different

European countries was often referred to as "exporting" when companies were not exporting to Europe but selling products on a single market within a single Customs Union. Except for logistical challenges, selling something in Sheffield was the same as selling something in Stuttgart. With the exit from the Single Market and Customs Union, businesses with the experience of technical trade rules were able to adjust more quickly to the new requirements of the UK-EU Trade & Cooperation Agreement (UK-EU TCA) but other have struggled when faced the complexity of full customs controls, the need to understand complex rules of origin and meet new market access rules when trading with EU counterparts.

UK-EU TRADE AND COOPERATION AGREEMENT

In addition, manufacturers operating an integrated UK and EU supply chain were required to separate their operations and manage the UK and EU supply chains differently. Going forward, while the technical elements of international trade, such as custom procedures, rules of origin and tariff rates are unlikely to change in the next five years, what is less certain is the legislative environment, both for market access rules abroad and the future legislative environment in the UK. Under the UK-EU Trade and Cooperation Agreement (UK-EU TCA) there are mechanisms for legislative cooperation which must be used to identify market entry barriers, manage divergence, and discuss future legislative proposal which could impact the trade relationship between the parties. These structure have made little progress since the agreement came into force. This is not, however, limited to the EU relationship. It is also a challenge for all third countries markets. The Government should look to establish market access units which track legislative proposals in major markets to avoid, or at least manage, technical barriers to trade. This is particularly the case as companies are being held back from maximising the potential of international trade in the UK through a lack of certainty in the destination of the UK economy and in particular the legislative environment. A strong industrial strategy is needed to feed into our trade policies and priorities.

UK manufacturers are not opposed to the idea of regulating differently but any changes must be informed and done with a balance. There needs to be an understanding of what the impact of any given change would mean for domestic production as well as for export access to foreign markets. This should be built on a firm understanding of future priorities and be built on a strong international trade strategy prioritising export growth.

The UK should develop our legislative environment domestically in line with our international trade strategy to maximise market access creating a system where you're maximising your access to international markets as a route to growth. The worst-case scenario is a diverging regulatory environment which means that the products made for one market are not eligible for the other markets. This builds in inefficiencies in production if firms need to develop and manufacture completely different products for different markets. Adding costs and the burden of needing to ensure products are certified for different markets reduces the competitiveness of an exporting business.

The Retained EU Law Bill (REUL Bill) has shown that it is not clear what is driving the desire for change in the UK's regulatory environment beyond a desire to do something different. Whilst Ministers have retracted on its plans to hold the report stage of the REUL bill, the uncertainty remains that the UK could still diverge significantly on regulations from the EU creating concern for international suppliers. Almost half of manufacturers (48%) are nervous about trading with the UK. It is important to decide on the direction of travel and then decide how to get there. Legislative change must therefore come after the strategy not before the strategy.

From an international trade perspective, an export strategy which is built on the UK's offensive and defensive priorities is essential. Trade negotiations require difficult trade-offs, and it is important to have open discussions between government and industry as to our priorities for each agreement. This includes considering the unique opportunities for Northern Ireland manufacturers and how they can take maximum advantage of Northern Ireland's unique position as a member of both the UK single market and the EU single market for goods. For the last seven years our trade strategy

has been dominated by negotiations by numbers. While the need to replicate the high volume of pre-existing trade agreements was an immediate necessity after Brexit, it is important not to lose sight of the need for high quality agreements. UK policymakers must think about this much more strategically than we have since 2016 and show greater awareness that the quality of the trade agreement is more important than the quantity of trade agreements.

DEVELOPING AN INTERNATIONAL TRADE STRATEGY

Government needs to develop an international trade strategy that allows manufacturers to feed into its planning, to highlight priorities, and to introduce a feedback mechanism for relevant stakeholder to inform policymakers of technical and non-technical barriers to trade. HM Government should work with industry to identify a list of priorities in terms of short-term market access challenges, as well as longer term market access priorities, for each of our major international trade partners. In addition, government should aim to create robust mechanisms of cooperation with major trade partners on these issues. However, we need to be realistic, our priorities for improving our trading relationship with any foreign partner must deliver mutual interest. A program of support for international trade must be coherent, strategic, and built on the UK's competitive advantages in international markets. It must cater to a range of different sorts of exporters and be agile enough to support very different businesses. Finally, it needs to support businesses on different parts of their export journey, from exploration to final delivery.

A first step should be aiming to secure a Free Trade Agreement with the US to benefit from the US' Inflation Reduction Act (IRA). Given US firms will only benefit from subsidies when using either domestic suppliers or suppliers from countries with which the US has a Free Trade Agreement (FTA), the IRA's impact is currently exclusively negative for the UK. HM Government must work hard and fast to secure an FTA with the US.

Government should also extend the geographical reach of the Export Support Service: The ESS should be extended to include all key UK export markets not limited to the EU. In addition, a 'continuous improvement' approach service levels, and to the advice available as early evidence suggests in its current form it is a 'signposting' service and not for bespoke advisory work.

On a similar theme, HMG must ensure the package of grants and practical support to assist exporters attend trade shows and similar events overseas remains in step with export market prioritise and demands of exporters: The removal of the Trade Access Programme (TAP) which was valued by manufacturing SMEs means it is more important than ever that current programmes meet the demands and prioritise of existing and potential exporters.

The Export Academy (or similar channel) should be used to create a bespoke financial package to boost the skills base for exporters to improve knowledge in exporting.

Company level exporting strategies should be as important as a marketing or business development strategy however businesses do not have easy access to provision to help build that expertise domestically. Too often business export strategies are underutilised, therefore there is a need identify partners to build up UK expertise on trade through schools, universities, and within business.

2.2. GREEN TRANSITION

In 2019, the UK became the first major economy to set a legally binding target to reduce its greenhouse gas emissions and achieve 'net zero by 2050'. We are also the first and only industrialised nation to have almost completely phased out coal over the last decade. Today almost half of the UK's energy mix comes from renewable energy, notably wind power. Simply put, the UK is a global leader in tackling climate change and capitalising on the exciting opportunities for growth that net zero will provide over the coming decades.

The manufacturing sector has a key role to play in this context, not least because it needs to decarbonise to continue making the products and providing the services that the entire economy will all need in the future low-carbon economy. Manufacturers produce 17% of industry emissions, but the sector is committed to net zero and has a target to reduce its scope 1 and 2 emissions by 67% from the 2018 baseline by 2035. To achieve this, emissions must have halved by the end of this decade.

REACHING 'NET ZERO'

Hitting our Net Zero targets will be a significant challenge but they also provide a major opportunity for economic growth. Manufacturers understand this and over 80% of UK producers already have a net zero strategy in place. Nearly half (46%) of manufacturing companies are already implementing their decarbonisation plans while a further quarter were aiming to start decarbonising within the next 12 months. An additional 17% are aiming to begin the process in the next 24 months.

The manufacturing sector's net-zero journey begins with driving energy efficiency throughout its businesses. Nearly half of manufacturers are already implementing their decarbonisation plan, putting sustainability at the heart of business growth, we now need to go further and faster to reap the benefits of a net zero economy.

This need to drive decarbonisation further and faster has become compounded in recent months following the firepower of the US and the EU with their Inflation Reduction Acts and Net Zero Industry Act.

Moreover, the energy crisis is the biggest issue faced by manufacturers today. It threatens to shut down 13% of manufacturers in the UK. Whilst investment, people and R&D are the lifeblood of manufacturing, energy is what ultimately fuels it all and for the first time the UK is at genuine risk of losing valuable economic activity through the extinction of viable manufacturers.

With the Covid pandemic and the Ukraine war leading to supply chain disruptions and record-high energy prices that will persist for a long time, alongside the US Inflation Reduction Act and the announcement of the EU Net Zero Strategy, competition for green products is mounting as more and more businesses move to become resilient in a sustainable way. A paradigm shift in the policy landscape is now needed to ensure manufacturers can meet the country's ambitious net zero targets.

An industrial strategy should therefore introduce a Help to Grow Green scheme: Existing funds such as the Industrial Energy Transformation Fund (IETF) should be extended, increased and reshaped into a more accessible fund. The current IETF does not reach manufacturers of all sizes, with the criteria pushing some companies out of being able to access the funds, as well as complexities of accessing the fund meaning small businesses are needing to access external advice if they want to attempt to use it. A revamp of the fund into a Help to Grow Green scheme would provide smaller funding (e.g., £20k) to companies with advisory services supplied by existing expertise from legacy ERDF staff on topics such as energy audit, submetering, and help with accessing the right finance, allowing them to take their first implementation steps.

The model of marginal pricing electricity has exposed economic vulnerabilities during the latest energy crisis. Though now wholesale gas prices are falling the current pricing arrangements will continue to expose businesses in the future to spikes in costs that could make manufacturers unviable. It is imperative we move away from pricing models that do not support growth in business and seek other means to incentivise investment in renewables. Underpinning any future energy plans from government should be an acceleration of energy market reform by decoupling the pricing of electricity away from marginal pricing.

HM government should also take forward plans with the Net Zero Review on UK carbon prices and electricity price structure. Work has already begun work on the demand side aspects including, a carbon border adjustment mechanism (CBAM). More, however, is needs to be done on UK carbon prices. The Government should look to work with industry to explore a broader carbon tax mechanism. The UK Emissions Trading System (ETS) should be extended to other sectors and linked it to wider ETS schemes to increase the market size. In addition, the Government must look at electricity network charges and policy costs in a bid to decrease costs, including exploring compensation and exemptions to current schemes.

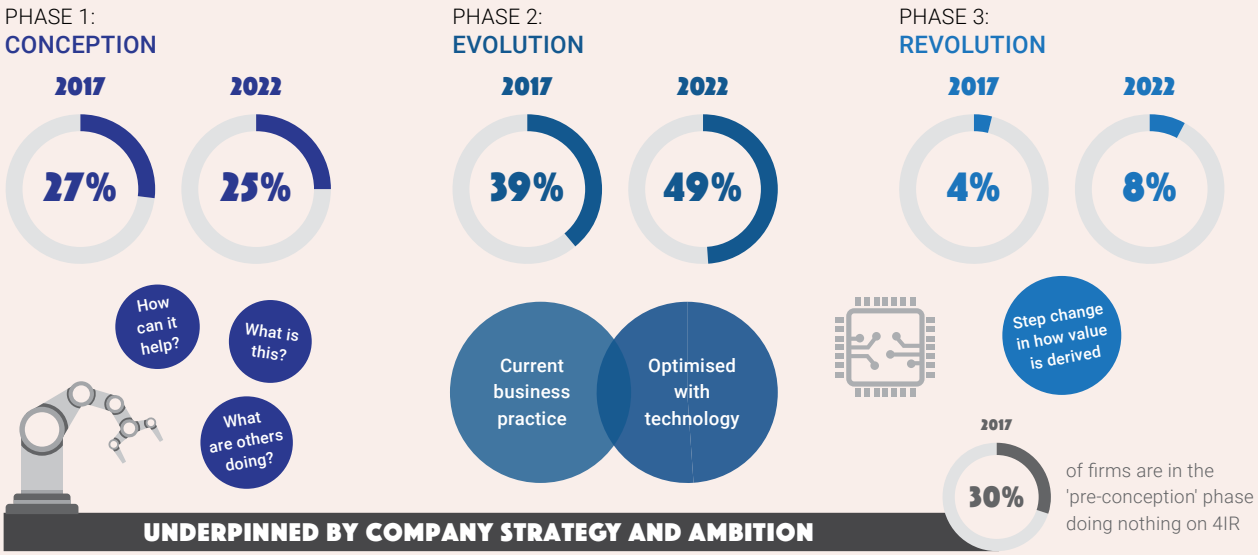
2.3 THE FOURTH INDUSTRIAL REVOLUTION

The global economy is undergoing a profound digital transformation. The Fourth Industrial Revolution is transforming the manufacturing sector at unprecedented speed making it more productive, resilient, and sustainable.

4IR TECHNOLOGICAL ADOPTION

Our research shows 70% of manufacturers believe digital technologies including AI and machine learning, additive manufacturing, digital twin cobots or robots help to provide a product to a market faster and 60% believe they increase productivity. Over the past decade Make UK has seen a clear shift towards new digital manufacturing technologies among our member companies. In 2017 30% of manufacturers had not yet explored or invested in new digital technologies such as AI and machine learning or cobots. Today, that number has reduced by almost a half to 18%. Five years ago, almost 3 in 10 manufacturers were exploring where and what digital technologies could help them grow or improve their productivity. Now that number is 25%. Five years ago, 39% manufacturers were in the evolution phase of technological adoption, changing some of their manufacturing processes to take advantage of new digital technologies but had not yet optimised impact. By 2022 this figure has seen a ten-point jump to 49%. The number of firms in the revolution phase, where businesses have derived the value of digitalisation and are reaping the rewards of their investment has doubled from just 4% of companies in 2017 to 8% of firms today having fully embraced 4IR technologies. While progress has been made it is clear that the rate of digitalisation needs to increase.

THE THREE PHASES TO THE 4IR TRANSFORMATION



The UK manufacturing sector's major strength is innovation; through our strong science base, our world class global companies, and across the many high value-added manufacturers which make up supply chains and provide bespoke solutions to global producers but UK industry needs to take a global view. Technological change is happening around the world and countries that are ambitious about change will harness the benefits.

Government can play an important part in increasing 4IR

adoption by aligning industrial strategy ambitions and actions to the digital future for manufacturing by addressing the most common barriers to growth – access to skills, finance, and expertise.

The biggest productivity gains from digital adoption can be made by SMEs and government programmes such as Made Smarter are perfectly suited to SME needs. However government needs to boost access to these programmes across different regions and increase awareness of them among smaller firms.

To boost productivity and drive energy efficiency, UK industrial strategy should focus on how manufacturers can digitalise to decarbonise. Technologies such as 3D printing, the Internet of Things, and artificial intelligence (AI) among others are rapidly transforming manufacturing industry. The Covid-19 pandemic, Brexit, and the UK's commitment to achieve net zero by 2050 have led manufacturers to adopt like never before. Lower costs, increased productivity, and achieving carbon emission reduction are some of the benefits manufacturers are starting to reap. Digital adoption is creating significant opportunities for investment in new and emerging technologies, placing the UK as a global leader in innovation and supporting the UK's transition to net zero.

There remains untapped potential to digitise factories across the country that could help to stimulate economic growth. Made Smarter is a proven concept that has bought great benefit to those companies that have engaged in the progress. Government should commit to the full roll out of Made Smarter across the UK as it has proven to support the adoption of new technology in manufacturing businesses. The remit of Made Smarter should be extended to include industrial decarbonisation.

The cost of upgrading capital equipment is cited as the biggest barrier to manufacturers decarbonising their processes. Government should build on the most recent qualifying extensions of the R&D tax relief to include capital equipment for green processing and industrial decarbonisation.

Manufacturers need certainty when planning investment, and sudden changes in government policy create uncertainty, impacting on companies' willingness to commit to any type of investment. At a time when the Government recognises the need to encourage greater investment by British businesses, it would make more sense to provide more notice to the introduction of significant changes to this vital area of relief for investment in R&D, relied on by so many manufacturers. Make UK would welcome the opportunity to work with Government on R&D Tax Credit Guidance to support members through this.

2.4 PLACE-BASED POLICY

Since 2010 the notion of 'rebalancing' has been one of the defining motifs of UK economic governance. Yet it is notable that there has been relatively little change in the regions seen as underperforming. Current Government economic policies remain wedded to continuing the 'Levelling-up' agenda.

LEVELLING-UP OUR ECONOMY

Make UK research has found that 42% of manufacturers are dissatisfied with the Government's levelling-up agenda in their region – a feeling most pronounced in Yorkshire and the Humber (37%) and the Northwest (27%). With over half (52%) saying they are neither satisfied nor dissatisfied, underlying a key theme amongst manufacturers – they cannot see any substantive change in their region so are indifferent to what they see as just a slogan.

LOCAL LEADERSHIP

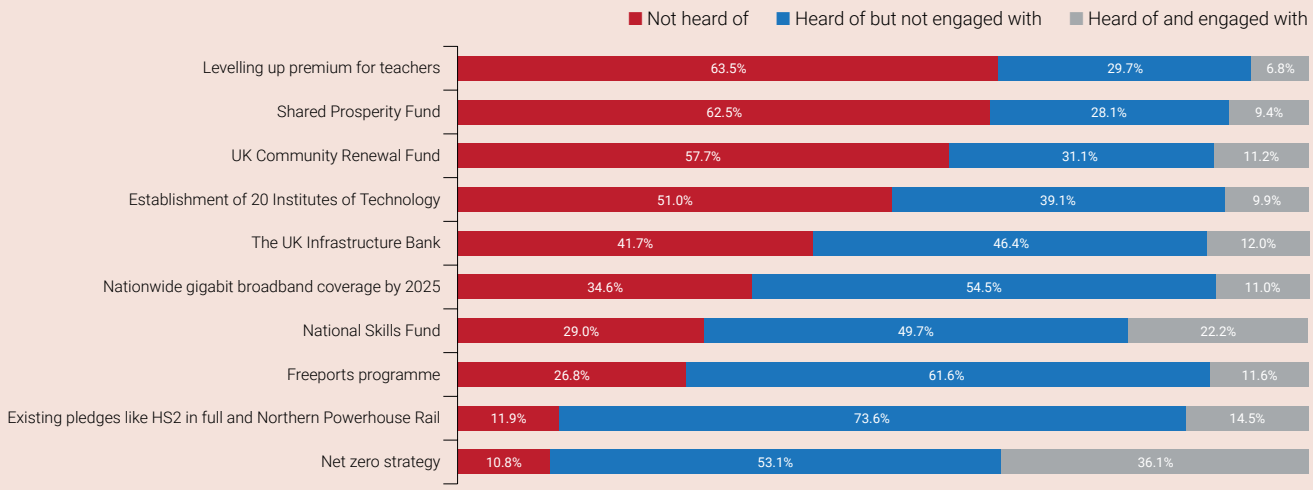
It is also clear from our research that manufacturers want local power for local leaders. When asked who should be tasked with overall responsibility for how to spend allocated funding in their region, a quarter of manufacturers (25%) said they want a City Regional Mayor to have that responsibility, followed closely by Local Councillors (22%). These results emphasise the need for national Government to focus on how to empower local leaders, and their role in making levelling-up a success. Devolution will be central to not only achieving the ambitions of the levelling-up agenda, but more importantly, to enabling and delivering local solutions to local challenges years ahead.

Almost a third of manufacturers (30%) are sceptical that the government's levelling-up plans will benefit their business, testament to the lack of tangible change experienced in lesser-developed regions and a history of inconsistency in governments' approach towards place-based policy.

Place-based policy crosscuts numerous government departments and remits, from housing, to skills, to R&D, to transport, to tax but a lack of consistency is limiting industry buy-in. A range of different initiatives have been launched but many manufacturers report a lack of awareness, and consequently a lack of engagement, with these initiatives. Manufacturers say that the initiatives announced feel scattergun or piecemeal which is leading to low awareness and engagement in the very regions these policies are designed to support. This underlines why so little progress made to date on the levelling-up agenda and there is no clear correlation between where a manufacturer is based and they not having heard about a particular levelling-up initiative, suggesting that the problem is industry wide and not place-based.

Chart 3: Levelling Up pledges by Government that manufacturers have heard of and engaged with

% manufacturers reporting by category



Source: Make UK, Levelling up: bridging the gap between policy and progress

Despite there being regional variations on what manufacturers see as a priority for their business there is a clear trend throughout all regions – accessing people and skills:

- More than two thirds of manufacturers (67%) want to see the Government prioritise better support for skills training and the creation of better job opportunities for all.
- Just over half (52%) said upgrading local transport infrastructure including rail and road closely

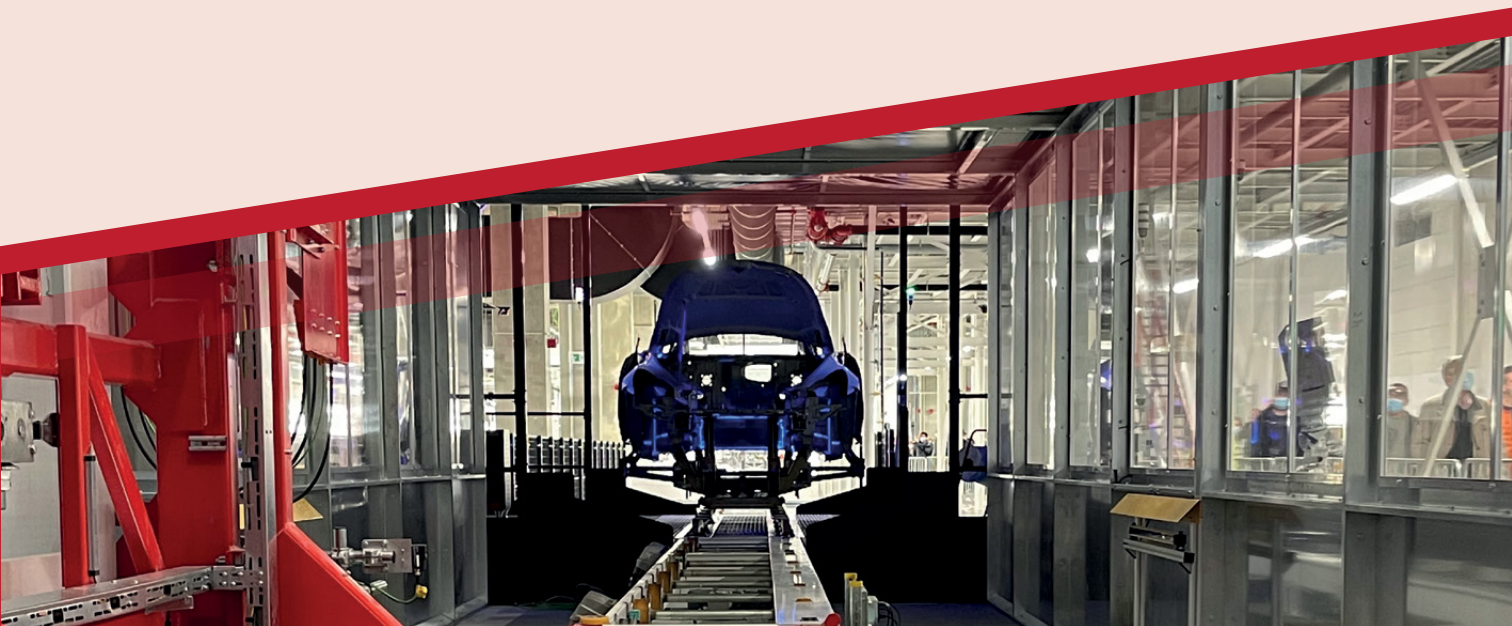
This shows that, for the manufacturing economy, levelling-up must not just focus on 'place'. It must also focus on 'people'. Levelling-up must look beyond the traditional focus of physical infrastructure projects clustered around major cities to instead place the emphasis on enabling local people by ensuring they can access education, training and job opportunities, supported by good transport connections, affordable housing and community resources, and digital connectivity.

Chart 4: What manufacturers want to see prioritised from the Governments levelling up agenda

% manufacturers reporting per region their top 3 priorities

	Upgrading local transport infrastructure including rail and road	Better support for skills training and creating better job opportunities for all	Improving digital connectivity including full 5G coverage for businesses	Increasing in the volume of affordable housing	Greater devolution for the different regions through Regional Mayors	Incentives for businesses to become net-zero
North East	54%	54%	46%	31%	62%	46%
North West	69%	69%	38%	8%	31%	46%
Yorkshire & the Humber	74%	74%	53%	32%	47%	53%
East Midlands	56%	75%	25%	19%	6%	56%
West Midlands	45%	55%	35%	15%	25%	45%
East Anglia	45%	73%	18%	27%	0%	55%
London	32%	64%	68%	36%	45%	32%
South East	38%	77%	46%	38%	31%	15%
South West	39%	78%	56%	56%	11%	61%

Source: Make UK, Levelling up, bridging the gap between policy and progress



PART 3: HOW UK MANUFACTURING COMPARES INTERNATIONALLY

3.1 THE BENEFITS OF AN INDUSTRIAL STRATEGY

In 2013 Make UK (then known as EEF) surveyed UK manufacturers about industrial strategy. We re-ran that same survey this year and our research has found that a decade of policy turbulence and economic turmoil has, unsurprisingly, left the UK with a 'lost decade' and lagging our international competitors. After a decade where only minimal policy progress has been made, UK manufacturers are still asking for many the same reforms today as they were ten years ago.

Yet perhaps even more fundamentally, the last decade has seen a significant change in the international trading environment for manufacturers in the UK, from navigating the UK's exit from the EU to managing and supporting the UK's response to Covid-19 pandemic. These acute impacts came alongside growing uncertainty about the international rules-based trading environment managed by the World Trade Organization (WTO) and a move in many countries away from globalisation and established patters on international trade.

The past decade has seen a new consensus about the need for an industrial strategy emerge in the United Kingdom across the political spectrum. However, there is not yet a consensus on what that strategy should include.

3.2 A DECADE OF DISRUPTIONS HAS SEEN THE UK FALL BEHIND INTERNATIONALLY

UK manufacturers don't want an industrial strategy for the sake of it. They see benefits to their own business, their industry and the UK economy as a whole. In particular they see an Industrial Strategy as being key to ensuring a long-term vision (cited by 87%) of manufacturers. A long-term vision is needed if we are to take forward Make UK's own ambition to grow the manufacturing sector to 15% of UK GDP.

The lack of stability over the past decade is a key reason why investment and to some extent employment intentions haven't turned into reality. Three-quarters (75%) of manufacturers say an industrial strategy could provide them with a stable business environment.

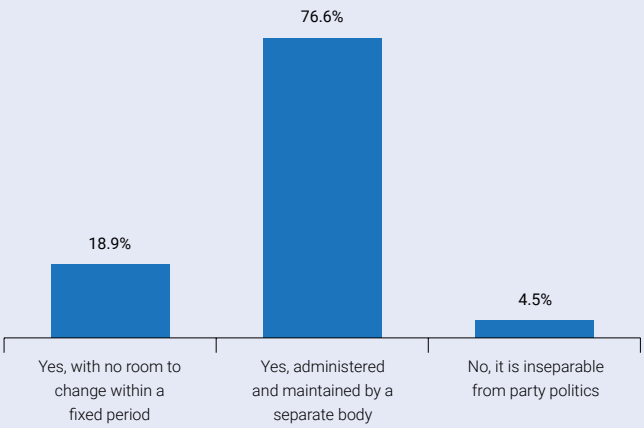
Just under half (47%) of UK manufacturers say it will bring about public-private coordination. We need to decide what our competitive advantages here in the UK and ensure first mover advantage when the opportunity arises. The pandemic shone the spotlight on our domestic capabilities but also our vulnerabilities. We have not yet exploited the former or tackled the latter.

Three in ten firms (30%) said it offers accountability. We can't set a mission, ambitions, targets without accountability. With this in mind it comes as little surprise that over three-quarters (77%) of firms think an industrial strategy should be guaranteed beyond parliamentary terms and administered and maintained by a separate body.

While an industrial strategy should be long-term and above fundamental political chop and change, manufacturers also recognise that in exceptional circumstances it should be open to tweaking and updating if necessary. As the last decade has shown, sometimes significant surprises can come along that change the rules of the game and necessitate a change of plan.

Chart 5: Manufacturers think an industrial strategy should outlast Government terms and be administered separately

% manufacturers responding if an industrial strategy should be guaranteed beyond government terms



Source: Make UK Industrial Strategy Survey 2023

3.3 WHY THE LACK OF PROGRESS?

The stop-start style of government policy means more uncertainty for business and makes it difficult for manufacturers to plan ahead effectively. This increases costs for firms and wastes time that could be better spent elsewhere.

There are many examples that could be highlighted, most recently HM Government scrapping the Industrial Strategy Council in March 2021, replacing it with a new Plan for Growth. Led by HM Treasury, this was widely considered the Government's central economic plan for recovery and growth post-pandemic until it too was changed in 2022, twice.

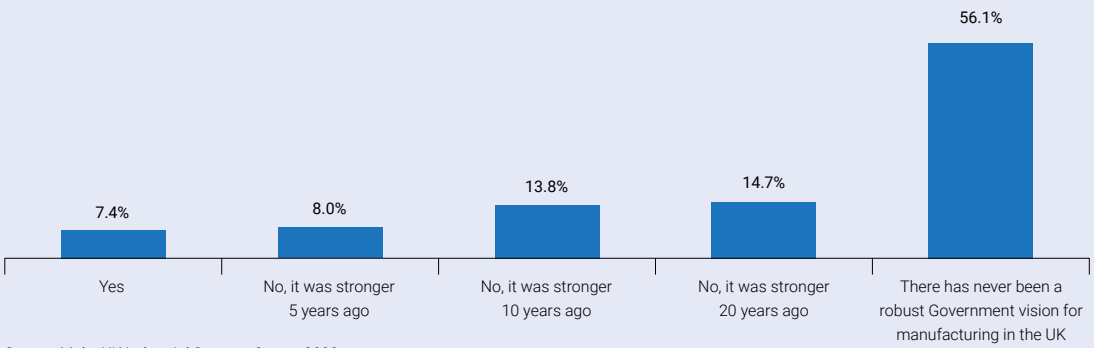
This constant chopping and changing of Industrial Strategy hasn't been restricted to just the last few years. It has been standard practice for over a decade. Significant political churn has meant in in just over a decade industry has seen a never-ending cycle of new initiatives and short-term fixes that fail to deliver sustained results.

Indeed, over the last 15 years the government department responsible for managing industrial policy has been renamed and reorganised five times. In those same 15 years there have been 15 different Secretaries of State responsible for business and industrial strategy when including the various different iterations of departments and remits now housed under the Business Secretary, and seven different plans for growth:

- **BIS – Low carbon industrial strategy, 2008-2010**
- **BIS – Plan for Growth, March 2011**
- **HMT – Creating a more prosperous nation, July 2015**
- **HMG – Industrial Strategy, November 2017**
- **HMG – Forging our Future, December 2018**
- **HMT – Build Back Better, March 2021**
- **HMG – Levelling-up, February 2022**

Chart 6: The majority of industry thinks there has never been a robust Government vision for UK manufacturing

% manufacturers reporting whether the Government has a more robust vision for UK manufacturing now, than in the past 20 years



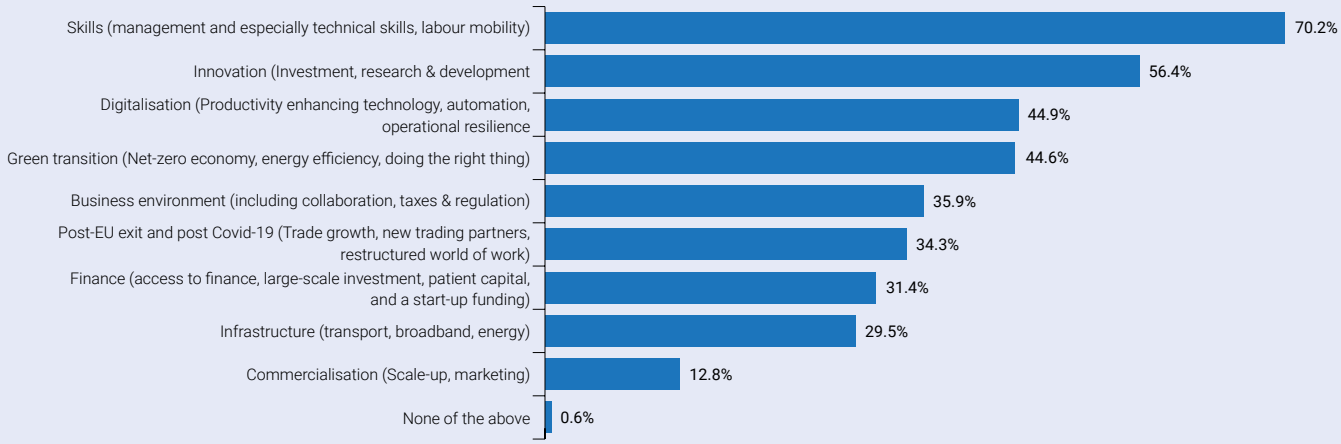
Source: Make UK Industrial Strategy Survey 2023

WHEN GOVERNMENT CHANGES A PLAN, POLICIES CHANGE TOO

An example of the ever-shifting goalposts is the current iteration of the government's Investment Zones plan. The Investment Zones scheme introduced in the Spring Budget 2023 is a significantly scaled back version of the previous Chancellor's initiative, from the original announced in Autumn 2022. From the initial 200 sites of low-tax, low regulation announced in 2022, just 8 remain in the new 2023 plan. While the current iteration has a welcome focus on academic and private partnership, the seismic shifts in the scheme's scale and objectives in only a matter of months has undermined businesses faith in the government's determination and ability to deliver this vision.

Chart 7: Industry details what should comprise the core focus of a contemporary UK industrial strategy

% manufacturers reporting what should comprise the core focus for a 2023 UK industrial strategy, selecting up to four options.



Source: Make UK Industrial Strategy Survey 2023

3.4 WHAT DO MANUFACTURERS WANT FROM A MODERN INDUSTRIAL STRATEGY?

A lack of a proper, planned, industrial strategy is the UK's Achilles heel. Every other major economy, from Germany, to China, to the US, has a long-term national manufacturing plan, underlying the importance of an industrial base to the success of its wider economy. The UK is the only country to not have one. If we are to not only tackle our regional inequality, but also compete on a global stage, a national manufacturing plan is required.

- When thinking about what comprises the core focus of a modern UK industrial strategy skills comes at the top of the list and was cited by three-quarters of survey respondents.
- The second most cited focus is innovation capturing research and development.
- This was followed by the green transition, with digitalisation following close behind.

Yet what is clear from our findings is that the wider business environment, finance, trade rules, and infrastructure, are all crucial to a modern industrial strategy.

3.5 LEARNING FROM INTERNATIONAL BEST PRACTICE IN INDUSTRIAL STRATEGY

When asked which other states' industrial strategies provide a better environment than the UK, it is perhaps not surprising that Germany ranks number one. Its industrial strategy published in 2019 with a vision that looks to 2030 has a strong focus on securing economic competitiveness, technological innovation, and industrial leadership at a national, European, and global level.

The USA ranks second, with China coming in third position. However, it doesn't stop there, some manufacturers cited France, India, Sweden, Poland, Italy and Spain as all having better environments for manufacturing than the UK.

81% OF MANUFACTURERS

FEEL THEIR BUSINESS ARE AT A COMPETITIVE DISADVANTAGE COMPARED TO OTHER MANUFACTURING NATIONS

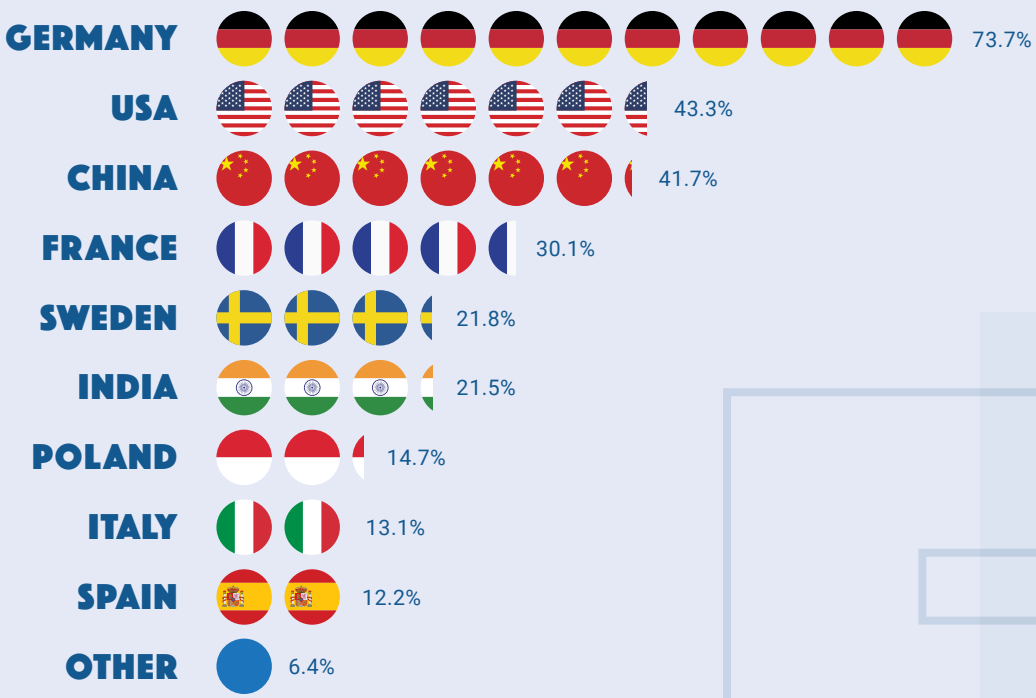
DUE TO A LACK OF INDUSTRIAL STRATEGY

SOME MANUFACTURERS CITED GERMANY, THE US, CHINA, FRANCE, INDIA, SWEDEN, POLAND, ITALY AND SPAIN AS ALL HAVING

BETTER ENVIRONMENTS FOR MANUFACTURING THAN THE UK

Chart 7: The USA ranks second, with China coming in third position. However, it doesn't stop there, some manufacturers cited France, India, Sweden, Poland, Italy and Spain as all having better environments for manufacturing than the UK

% manufacturers responding to "Are there nations where you think the industrial strategy provides a better environment for the manufacturing sector than in the UK?"



Source: Make UK Industrial Strategy Survey 2023

UNITED STATES OF AMERICA:

The United States industrial strategy centres around the Inflation Reduction Act 2022[3]. The overarching aim of the act is to ensure that the United States remains the world leader in clean energy and tackling climate change but also to make sure that the United States remains a global leader in manufacturing. As such, $370 billion is committed to meet these ends. For several of the clean energy tax incentives, for example, the law offers bonus credits for projects that are located in economically distressed (left behind) communities or traditional energy communities and for projects that meet requirements to pay the prevailing wage and hire qualified registered apprentices. The law will also advance President Biden's Justice40 Initiative, which commits to delivering 40 percent of the overall benefits of climate, clean energy, and related federal investments to communities that are marginalized, overburdened by pollution, and underserved by infrastructure and other basic services.

The United States government has provided a guidebook (January 2023)[4] on how these tax incentives and investments would work out in practice. Specifically relating to manufacturing, the guidebook states that the Act has some two dozen tax provisions that will – amongst doing many other things – help transition the manufacturing sector into becoming "clean". It makes explicitly clear that one of the main objectives of the Act is to boost domestic manufacturing and reduce the United States dependence on foreign nations for critical components of the clean energy supply chain. There are also other pieces of legislation that relate to the US's industrial strategy.

FRANCE:

The France 2030 plan[5] aims to reindustrialise France by focusing on the critical role of industrial and DeepTech startups. Out of the €30 billion set aside for the France 2030 plan, €2.3 billion will boost technological and industrial innovation. This follows a change in thought amongst the French government – who now think that offshoring much of its industry was a mistake.

The number of manufacturing start-ups has increased in France in recent years, with around 1,500 as of February 2022. These start-ups operate around strategic sectors such as biotech, health, industrial digital technology, and robotics. French startups are also getting into the gigafactory market, with the start-up named Verkor announcing the construction of a gigafactory in the Hauts-de-France region (in the North East of France), with the factory being built in Dunkirk and planned to be finished by 2025[6]. When it comes to the €2.3bn fund specifically, the French government has three main priorities:

- Strengthen the financing of startups and first factories
- Supporting deep tech startups in laboratories
- Strengthen and simplify administration: to create a unique helpdesk

As part of this package, there is also the "First Factory" which will help reinforce the financing of industrial startups, with innovative SMEs being endowed with €550 million over the 2022-2026 period. The factories that are financed must be intended to produce innovative products in growth sectors. Businesses who apply through the "First Factory" scheme must have a total expenditure base of €5 million – with 60% of the financing coming from grants and 40% through loans.

[3]https://www.whitehouse.gov/cleanenergy/inflation-reduction-act-guidebook/
[4]https://www.whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf
[5]https://world.businessfrance.fr/nordic/2022/02/08/france2030-the-french-strategy-to-support-industrial-startups/#:~:text=%23France2030%3A%20the%20French%20strategy%20to%20support%20industrial%20startups,Enough%20bureaucracy%2C%20a%20single%20point%20of%20contact%20
[6]https://verkor.com/en/verkor-selects-dunkirk-for-its-first-gigafactory/

THE NETHERLANDS:

One thing that sets the "Vision on Industry in the Netherlands"[7] strategy apart is that the Dutch government makes it clear that they cannot "go it alone" – seeing the need for the Netherlands to collaborate with Europe more, in order for its industrial strategy to be successful. Crucially, the document states that if the Netherlands is to continue to have a globally competitive industry, that is innovative and productive, then it needs to respond to two dominant trends: digitalisation and sustainability.

The Netherland's industry does start off from a good place, relative to that of the UK's. Industry makes up 12% of the Netherlands GDP (with it growing from 11.4% in 2013 to 12.3% in 2019) and labour productivity in industry is very high, with it being 28% higher than in the rest of the Dutch economy. Labour productivity growth is also at 1.3% per year in recent years, which is still far higher than the 0.3% in the rest of the economy.

The Dutch government states that it does have programmes that can help meet its ends; which include the generic innovation policy, the Mission-driven Top Sector and Innovation Policy, the Dutch Digitalisation Strategy, the Technology Pact, the government-wide Circular Economy programme, and the National Climate Agreement. The Dutch government again puts the emphasis on investing in technologies, in order for the Netherlands to attract investment and grow in the long-term. The paper states that as part of the Netherland's "offensive industrial strategy", the Dutch government should not shy away from protecting the Netherland's economic interests against improper competition from outside of Europe.

GERMANY:

The aim of Germany's "National Industrial Strategy 2030"[8] is to make a contribution, together with stakeholders from industry, to securing and regaining economic and technological competence, competitiveness, and industrial leadership at a national, European and global level in all relevant areas. One of the central aims is to gradually extend the share assumed by industry in gross value added to 25 per cent in Germany and 20 per cent in the European Union by 2030. The means of choice to achieve the goals are rooted in a market economy according to the government at the time. Taking a private sector and pragmatic approach. The document states that state activity can only come into question as an exception, temporarily, and only in cases of fundamental importance once all other options have proven to be inadequate.

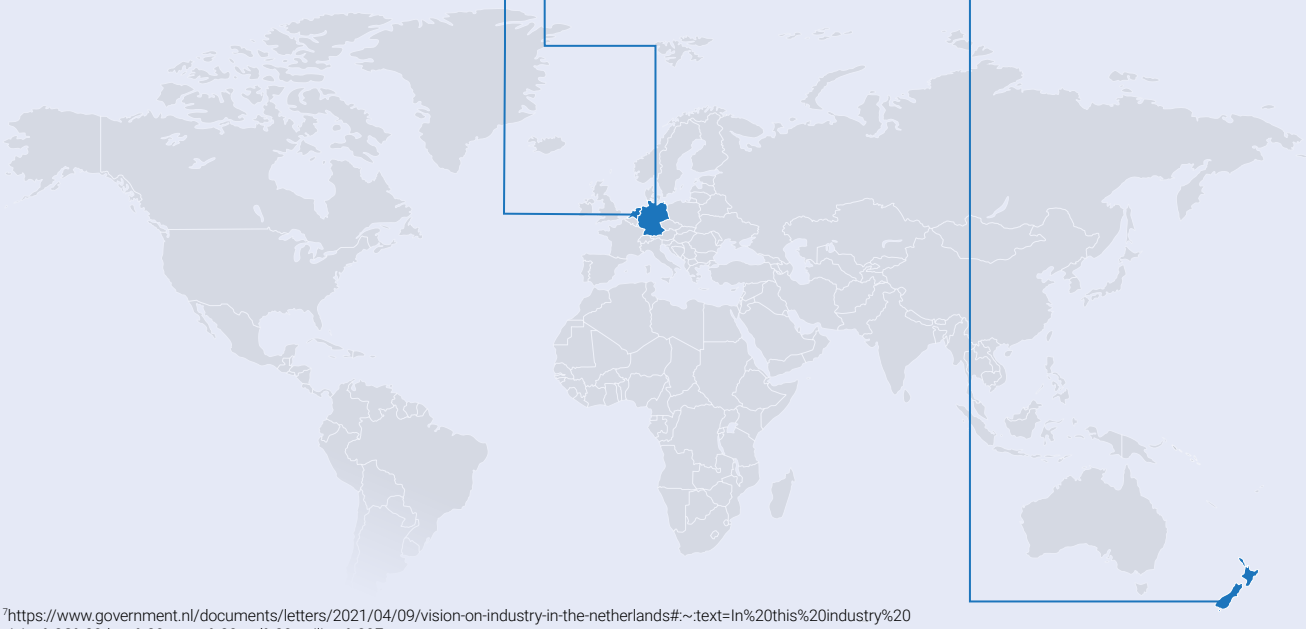
By firmly opposing arbitrary interventions of others in the processes of the market economy and systematically preserving their economic interests, the German government at the time claimed that Germany and the European Union will also make a long-term contribution to the development of a global social market economy which can lead to more market and greater prosperity for all.

NEW ZEALAND:

The Advanced Manufacturing Industry Transformation Plan[9] for New Zealand has six key priorities:

- To increase investment in advanced technologies and processes to lift productivity and wages.
- Develop and attract a high-skilled and high-wage workforce.
- Create a leading sustainable circular net zero emissions sector.
- Improve understanding and perceptions of advanced manufacturing.
- Make innovation, R&D and science work for advanced manufacturing.
- Enhance global connectivity and opportunities.

The strategy notes that whilst all six priority areas are important, their consultation has made clear that 1 and 2 are the most urgent. The strategy also has an action plan on how it intends to implement the different priorities.



[7]https://www.government.nl/documents/letters/2021/04/09/vision-on-industry-in-the-netherlands#:~:text=In%20this%20industry%20vision%2C%20the,a%20strong%20and%20resilient%20Europe
[8]https://www.bmwk.de/Redaktion/EN/Publikationen/Industry/national-industry-strategy-2030.pdf?__blob=publicationFile&v=1
[9]https://www.mbie.govt.nz/dmsdocument/26245-advanced-manufacturing-industry-transformation-plan

PART 4: A MODERN UK INDUSTRIAL STRATEGY

The UK manufacturing sector is an essential contributor to the country's economy, generating jobs, new technologies, tax revenue, security, productivity growth, and economic prosperity. To remain competitive in today's global market, manufacturers need an effective industrial strategy to provide support from government in key areas.

The priority areas of support for UK manufacturers can be broadly categorised into five key themes:

1. **Requisite Skills**
2. **Sufficient Infrastructure**
3. **Access to Finance**
4. **Innovation, Research & Development**
5. **Business environment**

ALMOST EVERY MANUFACTURER

(99%)

THINKS THE UK NEEDS AN INDUSTRIAL STRATEGY

4.1 REQUISITE SKILLS

People and workforces remain the lifeblood of UK manufacturing. Make UK's research calculates that filling current vacancies in the manufacturing sector along could contribute close to £7billion extra annually to UK GDP. Capitalising on that potential requires exploring how we can support business to invest in training, whilst also supplementing their workforces with skills from overseas. Access to the right skills has been a persistent challenge for manufacturers over the last decade. A combination of an ageing workforce, declining apprenticeship starts, and rapidly changing skills requirements have left employers struggling to recruit and retain the talent they need. Current shortages of skills and labour in critical areas of industry, made worse by the impact of the pandemic and a restrictive approach to immigration, are having a damaging effect on industry.

Manufacturers are already investing heavily in their workforces. Make UK research shows that more than half of manufacturing employers have increased their investment in skills training the last year, and 45% have increased spending in areas such as health and wellbeing as they seek to retain the talent they have and attract new skilled workers to the sector.

However, they are finding it difficult to find available skilled workers in the domestic labour market. Make UK research shows that 57% of manufacturers found that they were not able to recruit the labour they needed in the last three months as a result of a lack of candidates with

the right technical skills, and 49% did not receive enough applications to fill all of their vacancies.

Part of this can be tackled through more timely updates to the Home Office's Shortage Occupation (SOL) List and the recent updates by the Migration Advisory Committee to the SOL have been welcomed by our industry.

Through greater alignment of skills and immigration policy, government can support manufacturers to solve both immediate labour shortages and long-term skills and productivity gaps. While it will help to address the most pressing labour challenges in manufacturing, facilitating recruitment from overseas is not the long-term solution that industry wants. The priority is investment in training the current and future manufacturing workforce.

Manufacturers view apprenticeships as a high-quality, high-value form of work-based training that equips their workforce with the technical skills and industry experience they need. However, the main purpose of the levy and related reforms to the system was to increase the number of people choosing apprenticeships and the decline in numbers over the years since the levy's introduction shows that apprenticeships policy is currently failing to support manufacturers to develop the pipeline of talent they need. An industrial strategy with skills at its centre can begin to put this right by exploring greater flexibility in how the levy can be used, and more direct support from government for apprenticeships. Manufacturers have consistently called for more flexibility since the policy was first developed yet only minor changes have been made since 2017; increasing how much funding can be transferred between employers and reducing the mandatory financial contribution for non-levy payers from 10% to 5%.

Given the priority attached by manufacturers to apprenticeship training – both as an entry route into skilled employment, and for the upskilling and retraining of the existing workforce – this should focus on the creation of employer incentives in the apprenticeship system.

New employer incentive payments should be introduced for apprenticeship standards that correspond to skills and labour shortages. Government has previously successfully introduced apprenticeship incentives which have helped to increase starts. Incentive payments for employers should be introduced for standards which relate to the occupations included on the updated Shortage Occupation List, and areas of current and future skills shortages identified by the Unit for Future Skills.

THE APPRENTICESHIP LEVY

Despite positive intentions, skills reforms over the last decade have not so far enabled manufacturers to recruit and train the people they need. The number of engineering and manufacturing apprentices has fallen by more than a third since the introduction of the apprenticeship levy in 2017, with over £3 billion of unspent levy funds returned to the Treasury in that time. More than half of manufacturers say they cannot access the talent they need locally, and fewer than one in five believe that current government support for skills training is adequate.

The apprenticeship levy continues to frustrate manufacturers. Despite a large reduction in the underspend in the levy in the last year, annual starts remain significantly lower than prior to the introduction of the policy and – after an initially strong recovery post-pandemic – apprenticeship starts appear to be declining again. To ensure that the system is sustainable and that employers are able to invest in the right forms of training, government should commit to undertaking a full review of the levy. It is time to carry out a root-and-branch review of the apprenticeship levy.

Beyond apprenticeship training, manufacturers are keen to prioritise the upskilling and retraining of the existing workforce – an investment in keeping hold of the talent they have, and ensuring employees are equipped with the technical skills they need to continue to thrive. Make UK welcomes the measures recently announced on the introduction of the Lifelong Loan Entitlement, and the additional funding for Skills Bootcamps and Sector-Based Work Academies, which will contribute to this effort. However, for manufacturers this still represents an often-confusing patchwork of support for upskilling and retraining.

Government should therefore create a tax relief for training investment. Building on current exemptions for investment in work related training, government should establish a tax relief for employer investment in upskilling and retraining existing workers that enables employees to refresh, update and gain new skills at lower and intermediate levels.

Business and government must also work together to enshrine digital skills across the education system. Manufacturers' skills needs for the next decade and beyond are largely defined by demand for digital and green skills, as firms consider the rollout of new technologies to improve productivity and reduce carbon emissions. To ensure that employers have access to the skills they need in the long term, government should focus on the delivery of digital skills through pre-16 and post-16 education and training, by introducing a digital skills account for lifelong learning and instituting a digital gatepost to enshrine digital skills across the national curriculum for schools.

Make UK firmly supports the introduction of T Levels and is working together with other sector bodies and the Department for Education to ensure that the policy is a success and employers in our sector are offering the industry placements to learners that are crucial to this. While it is welcome that government is taking steps to provide additional financial support and practical guidance for employers, more can be done to support employer engagement with T Levels.

In many safety-critical engineering and manufacturing settings, it is typical for apprentices and other employees undergoing training to complete this in a simulated environment. This is not yet fully reflected in the approach to engineering and manufacturing T Level industry placements, where a maximum of one-third of the placement can take place in such an environment. The work in simulated environments proportion should be increased to ensure that employers are comfortable offering placements and learners experience the same approach to training as those entering full-time skilled employment.

There is also some concern that the current limit on dividing the industry placement between two employers does not provide enough flexibility. We propose increasing the limit to three employers. The levy should be reformed to allow the ability to split the placement between more employers.

Make UK's members say that leadership and management skills are among the most in-demand skills for manufacturers, both now and in the future. Digitalisation, net zero and flexible working are all changing the manufacturing workplace. The digital and green transition means that the skills needs of manufacturers have changed significantly over the last decade and will continue to evolve quickly over the coming decade. As such, there is growing demand not only for more effective targeting of apprenticeship funding towards skills and courses most relevant to these trends, but also for more effective support for upskilling and retraining the existing workforce. Adult and lifelong learning will become a much more important part of developing a resilient manufacturing workforce and is an area where recent policy interventions such as the Lifetime Skills Guarantee, Skills Bootcamps and others provide only inconsistent support for this.

This creates a stronger emphasis on the need for good leaders and managers who can navigate complexity, innovate and manage people effectively. Government should introduce a Manufacturing Mentor Scheme: The current Help to Grow Management scheme is a welcome start to tackling the leadership and management challenge in the UK. However, leadership and management schemes need to be far more tailored with both sectoral and regional focuses. The Government should look at how it encourages recent or early retirees back into industry to educate and guide the next generation of leaders, managers and business owners. This could be built on existing matching platforms but with a focus on sectoral peer to peer support.

4.2 SUFFICIENT INFRASTRUCTURE

Infrastructure is necessary to the success of any economy. As per education and skills, infrastructure is viewed by many manufacturers as something that should be delivered and maintained by the state. However, sometimes manufacturers themselves invest in infrastructure by building their own industrial parks and roads for heavy goods vehicles.

But infrastructure is not just physical. Since the digital age began in the late twentieth century, when widespread adoption of digital technologies increased, particularly through the development of microprocessors, computers and the internet manufacturers also benefitted from a fourth industrial revolution.

As a result, infrastructure extended beyond physical manifestations such as roads, rail, ports, and energy into wires that could transmit data across the globe. Today, that investment extends to high-speed broadband, 5G and WIFI allowing households and businesses to connect via spectrums.

Having sufficient infrastructure, whether physical or digital provides a number of benefits to manufacturers, such as:

- **Better Connectivity:** Transport systems, energy networks, communication and physical space creates the capacity for businesses to produce anywhere and bring goods and services to consumers. The National Infrastructure Commission (NIC)
- **Increased Productivity:** The quality of infrastructure can support businesses to operate efficiently by optimising logistics. Access to transport, energy and high-speed internet can enable businesses to produce at minimum cost and ensure goods are delivered as fast as possible.
- **Improved labour mobility**: Labour and skills is a must-have for manufacturing despite the increasing level of automation and digitalisation in the industry. Many manufacturers locate in areas that can be difficult to reach, particularly for younger workers or school leavers who are less likely to be able to drive. Improving labour mobility also related closely to the supply, affordability and quality of housing available in these areas.
- **More competitiveness:** the pandemic highlighted that even in the presence of trade deals manufacturers can face disruption due to failing logistic systems. Even the increasing number of strikes by transport unions impacted competitiveness as manufacturers were less able to receive or deliver goods. Higher quality infrastructure can support businesses to be more competitive.

The National Infrastructure Commission (NIC) has highlighted that much more work needs to be done to progress on digital, energy, flood resilience, water, waste, and transport investment. Whilst acknowledging some positive progression, such as committing to gigabit capable broadband networks and expanding 5G coverage the UK still has a gap to close if it is to meet its infrastructure needs in the next decade.[10]

In addition, energy provision has been highlighted by businesses as in need of a substantial overhaul if we are to meet our net zero ambitions without comprising on the manufacturing sector's ability to deliver. The UK Government recently announced a number of measures such as £20bn investment in Carbon, Capture, Usage and Storage (CCUS) as well as a committing to exploring nuclear energy more in the coming years. However, many manufacturers are energy intensive and there is no clear solution to balance against our needs for gas, other than hydrogen. Whilst several hydrogen projects will be fast tracked by the Government, an industrial strategy must include a plan for our energy needs. This includes changing how we set the price of energy on the wholesale markets.

Sufficient infrastructure must be coupled with sufficient housing. While businesses need infrastructure to succeed, their employees do too. The current cost of living crisis and record levels of house prices have highlighted how no industrial strategy or place-based government policy can achieve its aims if firms aren't able to find the workers they need, and workers won't join a firm if they can't find a home nearby to live in.

[10]Infrastructure Progress Review 2022 - NIC

SPOTLIGHT ON MODULAR HOUSING

Manufacturing is a success story for our economy, with the sub-sectors within it rightly celebrated for their innovation, dynamism, resilience and potential for growth. However, there remains an undiscovered gem within manufacturing in the form of modular housing. Each day manufacturers working in the modular housing sector are making homes for the future. Making homes in state-of-the-art factories, modular house building represents a radical department from traditional building as homes are precision engineered and built with manufacturing's continuous improvement processes.

With the construction industry needing to recruit nearly 1 million people by 2030 the UK does not have the labour force to meet the Government target of building 300,000 homes a year by 2025. In fact, no Government can come close to delivering the current target of 300,000 homes a year even by 2030 without radically changing how we build our homes. The housebuilding workforce is simply too small. Modular house builders require up to 50% fewer workers to deliver the same number of homes, and 90% of their workforce is from non-construction backgrounds bringing desperately needed new labour into the industry.

With assembly line processes and the procurement of more innovative materials, modular homes are far more energy efficiency, reducing occupant bills at a time of rocketing energy prices. Modular homes are also built with less embodied carbon – up to 45% less in high rise and up to 80% less in low rise, meaning the sector is leading the charge when it comes to achieving the UK's net zero ambitions. This is a sector that has major growth potential of more than 400% in the next 3 years and can be the answer to so many of our societal, economic, and financial challenges we face.

To aid this progress an industrial strategy should repurpose the £10m allocated for the MMC Taskforce: These funds should instead be used to support a match funded supply chain transformation programme based on those Government has successfully delivered in aerospace, offshore wind, and nuclear.

Government should also stipulate that 40% of the Affordable Homes Programme is given to homes built with MMC. This would further support this growing and innovative sector. Of this, half (20% of to the total) should be given to modular housing also known as Category 1 MMC. This would give extra support to modular producers, who have faced the highest barriers to entry but deliver the best and most transformational results.

It should also remove the apprenticeship levy and CITB levy duplicate charge on modular manufacturers. Modular home manufacturers should be immediately exempt from the scope of the CITB levy companies which is principally engaged in construction of building activities where they take place offsite, with the possibility of an opt-in for any individual companies who wish to benefit from the scheme.

Underlying all infrastructure projects at every level of government throughout the UK policymakers must ensure that their procurement processes do not overly prioritise lowest tender cost but instead the wider economic cost/benefit. HM Government procurement still over prioritises tender price cost, rather than wider economic cost/benefit.

One of the potential benefits to the UK's exit from the UK was deemed to be an ability to apply a better set of criteria to public procurement, yet action has not been taken to fulfil this ambition. Government should move swiftly to ensure that the procurement process considers the wider economic benefit in the tendering process.

4.3 ACCESS TO FINANCE

Finance is a critical component of business growth, whether that be for a start-up or an established company. This is particularly the case for UK manufacturers as manufacturing is both the most capital and investment intensive sector in the UK economy due to the sunk cost nature and generally higher sums of cash required for many investments in plant & machinery when compared to services sector businesses. In the last decade, for example, despite all the economic turbulence, UK manufacturers have increased their business investment as a share of total private sector investment from 13% (£20bn) in 2012 to 16% (£33bn) in 2021[11]. Improving access to finance must therefore form a key pillar of any industrial strategy.

Every business is different, but they all need access to finance. This is particularly the case for SME manufacturers, barriers to finance and a lower risk appetite means that most smaller businesses tend to avoid external finance. Make UK research shows that 67% of manufacturing SMEs prefer to re-invest past profits to grow their businesses than to seek a bank loan. Whilst this is sensible to reduce risk, it limits their growth potential. In many cases, SMEs are found to be facing greater barriers to access than their larger counterparts partly because they lack the expertise and knowledge of how to navigate the financial markets.

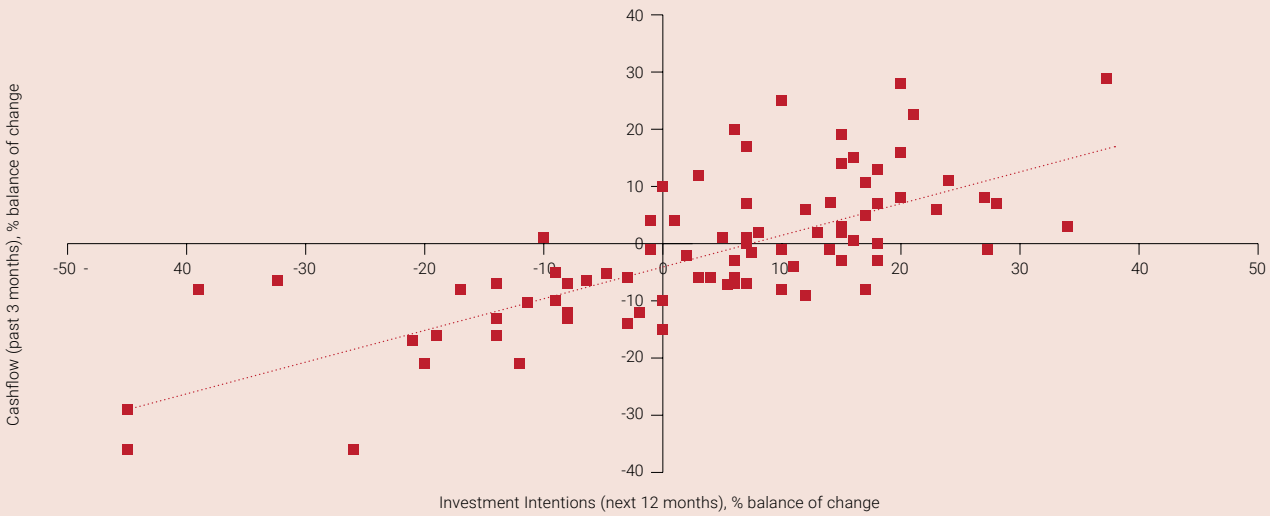
For example, application processes being too complex, lacking sufficient collateral to match funding, having irregular cashflow, shortages of patient finance, and lacking information on available sources of finance.

When designing policy solutions for manufacturers to improve access to finance and incentivise investment, an industrial strategy needs to consider the characteristics of manufacturers, which separate these businesses from companies in other sectors. For example, Make UK research shows that 61% of manufacturers (re)invest in plant & machinery every 2 to 8 years while 70% of manufacturers (re)invest in digital technologies every 1 to 4 years. This research demonstrates how longevity in support is critical to affecting manufacturer's investment decision making. Whilst a new industrial strategy should include policies to improve access to and reducing cost of finance, ensuring certainty and longevity in lending policies and investments are just as important.

Decades of data from Make UK's quarterly *Manufacturing Outlook* survey shows that there is a positive relationship between recent cashflow performance, and manufacturer's intentions to increase investment over the next 12 months. Better cashflow unsurprisingly improves confidence

Chart 8: Cash flow performance today increases investment Intentions in the future

Correlation of Make UK cashflow and investment data demonstrating positive relationship between past cashflows and future investment



Source: Manufacturing Outlook Survey (Q1 2002 – Q1 2023)

[11]Make UK analysis of ONS data

in investment. This relationship helps us understand how finance can improve investment, as well as how Government can target incentives to impact investment decision making positively. The UK Government took a positive step forward by introducing Full Expensing capital allowances for the next 3 years, but the scheme still lacks the longevity it needs if the policy is to succeed. Fixing access to finance will be critical to maximising digitalisation across the sector, meeting our net zero targets as well as generating growth in all parts of the UK.

The fundamental issue for a business is the degree to which lenders are willing to lend. In 2017, the Patient Capital Review recognised that while there was an abundance of funding available for start-ups and scale-ups, there was a shortage of finance options available for investments that require a longer wait before delivering returns. As the review found, finance is generally quite "impatient" as investors and lenders seek quick returns on their investments. This culture of short-termism is a tax on growth and has pushed manufacturers away from raising funds through equity too.

Following the Patient Capital Review, HM Government created the patient capital fund and have made investments in targeted sectors such as life sciences and aerospace. Whilst this has been welcomed by start-ups, more than two in five manufacturing SMEs (44%) say they have ambition to grow into a large business in the next 5-10 years but there remains a lack of funding for established manufacturers that still have ambitions to grow.

The UK needs to find a way to ensure better long-term-oriented access to capital for manufacturing firms. Not all of this, however, is about increasing the availability of bank or state supported finance. A focus on maximising shareholder value and an enthusiasm for merger and acquisition activity in the corporate sector has resulted in a pervasive short-termism and decline in industrial capacity across a wide range of areas and manufacturing subsectors over the past 50 years. The common factor has been an emphasis on corporate reorganisation, mergers, acquisitions, and divestments rather than through researching, developing and scaling the production and market delivery of innovative new products.

An industrial strategy should create incentives for longer-term planning and investment. Possible incentives could include, tax reductions for dividends from longer-term shareholding, heavier taxes for capital gains made from short-term shareholding, the introduction of greater voting rights for longer-term shareholders, and reforming the UK corporate governance code to provide greater balance by reducing shareholder primacy centric forms of management that focus solely on maximising the value for shareholders while not considering the company's value to its customers, employers or the national interest. The corporate governance code should instead incentivise broader stakeholderism, for example through board-level employee representation (BLER), which is known to improve firm level profitability and productivity in the long-run while also improving environmental, social and governance (ESG) outcomes.

4.4 INNOVATION, RESEARCH & DEVELOPMENT

The UK's expenditure on Research and Development (R&D) as a percentage of GDP was previously thought to be around 1.7%. However, after a major revision of ONS methodology in 2022 that figure increased to 2.7%. This change places the UK above the OECD average (2.5%).[12] The change to the methodology now means that small and medium enterprises (0–249 employees) account for more than 95% of the increase in R&D expenditure.[13] Nevertheless, the UK still lags behind Germany, the US, and South Korea, which each invested between 3.2% and 4.6% of GDP on R&D, respectively.[14]

Compared to other countries, however, the UK lags behind on spending on R&D by businesses. Though manufacturing punches above its weight as a top contributor of R&D expenditure, business funding amounts to only around 55% of the UK's R&D spend – a lower proportion than in countries such as Germany (66%), Korea (77%), and Japan (79%).

[12]ONS (2022). Business enterprise research and development (R&D), UK: 2021 (published on 22 November 2022); and ONS (2021). Research and development in UK Businesses, 2020 – Datasets. Note: Following ONS changes of methodology to estimate R&D activity by businesses in the UK, manufacturing is no longer the largest contributor to business R&D in the country. According to the updated figures in 2019, the contribution of manufacturing to total business R&D conducted in the UK was 43%, a drop from the previously published 63%-65%).
[13]UK Innovation Report 2023 https://www.ciip-group.org/uk-innovation-report-2023/uk-innovation-report-2023/download/
[14]Cambridge Institute for Manufacturing, Innovation Report 2023, https://www.ciip-group.org/uk-innovation-report-2023/uk-innovation-report-2023/download/

The UK needs to increase private investment in R&D. An industrial strategy is needed to incentivise it.

Attractive tax systems, access to skills – both technical as well as leadership and management - and supportive partner institutions that enable SMEs to de-risk their projects and intermediate bodies that advertise the potential advantages of new technologies and spread the latest research insights to the industry are all on the list of initiatives that our global competitors are using to their advantage.

The nature of R&D carried out by UK manufacturing firms is also qualitatively different to our international competitors. Due to greater policy instability, shorter-term access to finance, and higher pressure to avoid longer term risk taking, UK firms tend to focus on projects that are most likely to be implemented quicker such as process innovations rather than the more exhaustive product innovations prioritised in other countries.

It is clear therefore that to encourage R&D, a successful UK industrial strategy must focus on three key areas: awareness, stability, and simplicity.

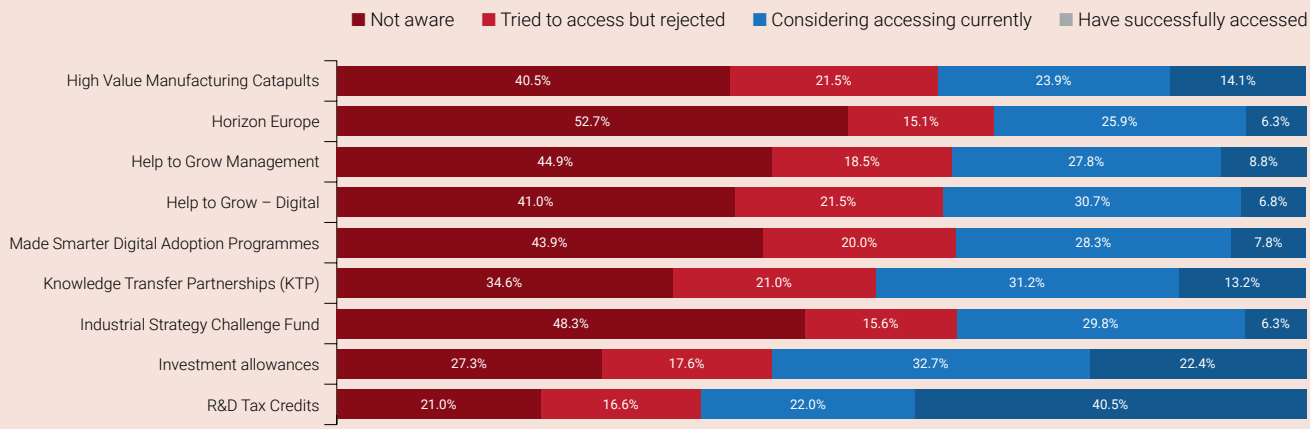
Awareness and uptake of schemes are particularly relevant to smaller companies who are less likely to access innovation support than their larger counterparts. If companies are not aware of available support, they will be unable to access it. Smaller manufacturing firms aren't usually aware of the opportunities offered by the government or institutions that could help with de risking their projects, accessing additional funding, bringing their product faster into the market or help upskilling their workforce.

While there are support measures in place to help companies fund digital adoption, these can be limited. For example, funding provided for SMEs by the Made Smarter adoption programme is not accessible for manufacturers across the country, as it operates fully in the Northwest with little rollout across other region's main schemes that manufacturers use in terms of financial incentives are R&D tax credits and the annual investment allowance. 40% of firms have successfully used the R&D tax credit scheme with a further one in five currently considering doing so.

Tax cuts and tax relief type schemes are clearly the preferred option with 22% of companies saying that they have taken advantage of investment allowances and a third (33%) considering doing so. Help to Grow programme with its two segments focusing on digital and management skills. Help to Grow Digital, which no longer exists (cancelled in the Autumn Statement 2022 although Help to Grow Management remains), was accessed by only 7% of manufacturers during its lifetime, and the scheme's management equivalent has been used by just 9% of businesses.

Chart 9: Government support – funding schemes for UK manufacturers

% manufacturers reporting their awareness and use of funding schemes available to industry intentions



Source: Make UK Digital Adoption Survey 2022

Catapult centres were launched over ten years ago to address the barrier to accessing facilities yet still today 45% of companies remain unaware of this service. We need to raise the awareness of these facilities.

Stability of innovation support is evidently crucial to enabling higher value-added firm level R&D. As Make UK survey data on awareness suggests, schemes that have been stable over time tend to have the highest levels of awareness amongst innovative companies. Schemes should only be changed where there is a clear rationale to do so. It is also important (within reason) that providers do not change, and the method of accessing support does not change, as this can add to complications in the application process, which manufacturers already find frustrating. It's important for these schemes to be long term support for the manufacturers. The government is chopping and changing R&D tax credit. For example, the Help to Grow programme only lasted a year in its original form.

Tax incentives for R&D will continue to play a role in manufacturer's growth for the next decade, but recent changes to the tax credit system could negatively impact the sector. The definition of the R&D tax credits should be broad, recognising that process and organisational innovation play an important role in the way companies differentiate themselves and compete. Recent changes to R&D tax credit, one of the most popular schemes among manufacturers, however, has disadvantaged small and medium manufacturing firms.

The Chancellor announced that the SME additional deduction will decrease from 130% to 86%, and the SME credit rate will decrease from 14.5% to 10%, making the SME scheme less generous. Make UK members estimated that could lose out approximately 30% of their previous R&D tax relief due to these changes. The focus on the SME R&D tax credit is seen as a significant blow for SMEs, which account for 9 in 10 of all manufacturing businesses, who have relied on relief to support their innovation efforts.

The ambition to improve the R&D tax credit system needs to include all businesses. We have UK-owned SMEs who invest £2m a year in R&D projects who use the R&D incentives to cover cost of research, such as uncertain work conducted by lab technicians.

HOW INCOMING CHANGES TO R&D TAX CREDITS WILL IMPACT MANUFACTURERS

Take a loss-making SME as an example: they can currently get £33.35 for every £100 spent on eligible R&D. From April next year that same company will only receive £18.60 for every £100 spent on eligible R&D – a reduction of 44%. In contrast, profit-making SMEs see a reduction of 13% in tax savings.

These changes will put SMEs that invest in R&D at a huge disadvantage, it would be significantly worse when by creating a single pot scheme manufacturing sector wouldn't be able to include subcontracting in their R&D tax credit expenditure.

In addition, simpler application processes and R&D tax credit schemes would also help ensure that companies with truly innovative projects can access the support they need to help them undertake more complex R&D, develop innovations, and deliver them to market. Instead, however, the past decade has seen government's focus shift onto more complex grant processes managed by Innovate UK and Made Smarter Innovation instead of Made Smarter Adoption which fits perfectly to SMEs needs.

4.5 BUSINESS ENVIRONMENT

Manufacturers have faced unprecedented disruption in recent years, from leaving the EU, a global pandemic, to rocketing transport, and raw material costs. Remaining globally competitive will mean ensuring manufacturers can overcome these challenges and continue be in the top ten for largest manufacturers. There remains untapped potential to export more UK manufactured goods across the globe and create a low cost, low tax environment in the UK that attracts investment and encourages manufacturers to grow. However, the UK business environment remains in many ways restrictive, actively inhibiting the development and growth of our manufacturing sector.

Where HM government gives with one hand, it sometimes takes away with the other. Examples of this mixed outcomes to policy approach includes the way government wishes to encourage firms to invests in plant & machinery improvements to boost productivity or reduce their carbon output while maintaining a business rates taxation system that actively discourages firms from making those investments. Currently, if a manufacturing firm purchases new productivity improving production equipment or installs a carbon footprint reducing wind turbine in their factory those investments will result in the company paying higher business rates tax. Whereas our international competitor states, notably Germany, offer tax reductions to firms that make investments in the national interest, the UK business rates system punishes firms for making worthwhile investments.

Part of the policy problem is a lack of understanding in government about the nature of modern UK manufacturing. At the heart of HM government's distorted view of UK manufacturing and the misunderstanding of what this sector comprises and contributes to the UK lies data deficiencies. Relying solely on the Standard Industrial Classification (SIC) system to monitor the UK manufacturing sector is insufficient to understanding modern UK manufacturing. It is no longer in line with international best practice and it is no longer fit for purpose.

The nature of manufacturing has evolved considerably since the UK's SIC system was first developed in the 1930s. Recognising this, other countries began to move away from a sole reliance on SIC codes in the 1980s but HMG has fallen behind. The consequence is that HM government has a grossly distorted view of modern manufacturing. As an example, an automotive company is assigned a single SIC code. Yet increasing servitisation in the manufacturing sector means that some automotive manufacturers generate as much revenue from their finance divisions, by providing loans to customers to purchase the manufactured cars, as they do from the physical manufacturing process. Similarly, as we move towards an era of self-driving autonomous vehicles manufacturers are increasingly focusing on the in-car experience developing entertainment and information systems software that mean they are evolving into computer companies as much as they are carmakers. The industrial policy needs of a computer hardware company are clearly very different from those of an automotive manufacturer yet poor quality data means government underestimates the proportion of firms who would benefit from policy reform and has not adopted to manufacturers changing needs.

Today, a more comprehensive approach that includes other data sources, such as supply chain maps and trade networks, is needed to fully understand the size, scale and value of the sector. The United States, for example, developed its North American Industry Classification System (NAICS) system to enable individual companies to be assigned with multiple industry classification codes as their business models and markets broaden and evolve. Japan, too, has moved to use Input-Output (IO) tables which provide a detailed view of the interconnections between companies in the broader economy. Germany's Industry 4.0 initiative involves integrating digital technologies and data collection systems throughout the manufacturing process, to provide valuable insights both for in company firm-level planning and regional and national economy wide support.

Better data can help policymakers develop a more informed and effective industrial strategy that takes into account the interconnections between different parts of the manufacturing sector and their role in the wider economy. This would ultimately lead to a better understanding of how to support and strengthen the manufacturing sector in the UK. It is also vital for government to have an up-to-date map of UK manufacturing to inform our offensive and defensive asks in advance of any future trade treaty negotiations.

Increased information sharing within and between industry, academia, and government will also likely encourage greater collaboration and innovation. The Smart Specialisation approach taken by some EU countries, which involves bringing together regional stakeholders to identify key strengths and opportunities for collaboration in manufacturing, is proving invaluable to better regional and national policy planning and could be applied here too.

More granular and timely record keeping by HMG could also be used to proactively target supports to industry. HMRC, for example, already keeps a record of a company's tax contributions and payroll rate. As firms scale across their growth journey, HMRC is in an ideal position to be able to identify where and when the firm is likely to benefit from targeted advice and support. For example, if a medium sized enterprise is shortly too pass the 250 employee threshold after which firms become liable for a number of extra tax and reporting requirements, HMRC could, through supplementary brochures sent to the firm alongside its latest tax bill, invite the firm to meet with their local trade department export support representatives to explore potential new markets the firm might not have considered. This could be especially useful for exploiting any of HMG's newly negotiated trade deals as and when they become operable. Firms could equally be advised of funding opportunities with bodies such as UKRI or R&D opportunities with local universities or a relevant Catapult centre. Many great government supports and funding initiatives are already available, but these are often under exploited because company bosses can be too busy minding their business to be aware of such support opportunities or new markets for export growth. HMRC data can be deployed, relatively easily, to help.

PART 5: THINKING LONG-TERM

Industrial policy change has been a recurring feature of political discourse in Britain since the global financial crisis of 2008. In general, this discourse extols the importance of rebuilding Britain's manufacturing sector, suggesting the need for a stronger focus by government on supporting manufacturing industries through industrial policy.

Yet UK industrial policy is too often treated as a distinct area of policy, separate from macroeconomic policy. This categorisation stems from a misunderstanding of the relationship between the state and market. Consequently, the core objective of industrial policy to increase the productive capacity of the economy is often obscured by more nebulous aims related to supporting business in general.

MAKE UK'S MANUFACTURING GROWTH TARGET

Growing our manufacturing sector to 15% of UK GDP could add an additional £142bn worth of output to the UK economy. This could be used to support the creation of thousands of new jobs, improve the public finances and public services, as well as boosting wages and reducing regional inequalities across UK.

Growing the manufacturing industry to 15% of GDP does not necessarily mean that other parts of the economy need to shrink, but putting an industrial strategy in place can help manufacturing growth outpace the rest of the economy.

In order to succeed any industrial strategy must think long-term, be independent of unnecessary interference, and driven by industry for industry. It should be focussed on identifying what the pillars of growth are, including:

- boosting innovation
- building a competitive, yet business sector
- spurring and sustaining investment
- supporting productivity and economic growth

Furthermore, an Industrial Strategy must provide clear strategic direction; include adequate information feedback channels for monitoring, evaluation, and accountability; enable funding, support, and interventions to be targeted efficiently and effectively to the places that need them the most; ensure coordination and cooperation between all stakeholders, private sector companies, universities, colleges and research institutes, all levels of government, and independent delivery bodies; and it must be built on consensus and stability of delivery to build an conducive environment conducive to grow, expansion, and success.

This requirements can be summarised as 4 key priorities:

VISION **COORDINATION**

ACCOUNTABILITY **STABILITY**

5.1 VISION

Although successive UK governments have for over a century been concerned about the need to raise the efficiency and competitiveness of British industry, historically there has been little consensus on how best to do so.

Often the focus has been on maintaining employment in areas affected by the decline of staple industries. While measures to save lynchpin employers are welcome, however, such interventions are reactive. There is little evidence of strategic intent or deeper introspection as to the causes of the affected firms' difficulties or how the UK manufacturing ecosystem can be enabled to better support and sustain economic growth.

Industrial policy achieves more when it is part of a broad vision for the economy and society. There is not much point in saving individual factories if they are unable to recruit new staff with the necessary skills, if they lack affordable energy or adequate internet availability, if they struggle to transport their inputs easily and cost effectively, or if they face an unhelpful domestic tax and regulatory regime, or foreign export barriers.

Though the rhetoric of reinvention is prominent post-Brexit, so far, the actions of successive governments retain an emphasis on job preservation, instead of the coherent overarching industrial strategy that will be required to grow our economy into the future. There is little evidence yet of coherent thinking or of institutions working together within an overarching programme for the retooling of a more productive economy.

Since 2010, for example, the notion of 'rebalancing' has become one of the defining motifs of UK economic governance through the provision of freeports and enterprise zones or similar measures. Yet it is notable that there has been relatively little change in the regions seen as underperforming. Most often, regional policy has simply replicated or duplicated the horizontal approach of national government by encouraging all regions to pursue similar economic objectives, often in competition with each other, and paradoxically with little sense that strategies are genuinely 'place-based'.

Selective industrial policy has thus long formed part of the United Kingdom's economic governance repertoire but much of this activity took place outside the confines of industrial policies formally declared by governments. We need to move away from the UK's conventional ad-hoc style of policymaking and towards an industrial strategy with a more coherent, coordinated, and sustained plan at its core. Done right, industrial strategy should enable the state to meet its strategic goals while at the same time providing the new business opportunities for the private sector.

The past decade has seen a new consensus about the need for an industrial strategy emerge in the United Kingdom across the political spectrum. However, there is not yet a consensus on what that strategy should include.

The United Kingdom needs to build an innovation and industrial ecosystem appropriate for its current challenges. The boundaries of what the state defines as strategic may change with time, of course, but any industrial policy should directly support objectives that the state regards as strategically important and must be devised following widespread stakeholder consultation and engagement and be implemented in a way intended to last regardless of short-term political or economic circumstance.

Suggestions should center on solutions that will be required for our long term national and international challenges. An industrial strategy needs to recognise the importance of the state as an actor uniquely able to coordinate activities and create new markets. The government can have a central role, by using its spending power purposefully to encourage innovation in the private sector, especially when linked to the strategic goals of the state.

In the UK's case, strategically important industries to target in an industrial strategy could include, for example, a long-term commitment to reducing the carbon intensity of the economy while maintaining the security and affordability of energy to domestic consumers and industry. The United Kingdom also maintains a wide, cross-party consensus in support of universal health care coverage for which technological inventions and innovations could help improve outcomes and reduce costs. We are also a world leader in the aerospace and transport industries and in Artificial Intelligence, all of

which will be vital industrial sectors for our national security into the future.

From an international trade perspective, it is vitally important to develop an export strategy which is built on the UK's offensive and defensive priorities. Trade negotiations require difficult trade-offs, and it is important to have open discussions between Government and industry as to our priorities for each agreement. For the last seven years our trade strategy has been dominated by negotiations by the number of trade deals we can get rather than the quality of trade treaties we want. UK policymakers must think about this much more strategically than we have since 2016.

Government needs to develop an international trade strategy that allows manufacturers to feed into its planning, to highlight priorities, and to introduce a feedback mechanism for relevant stakeholders to inform policymakers. HM Government should work with industry to identify a list of priorities. A program of support for international trade must be coherent, strategic, and built on the UK's competitive advantages in international markets. It must cater to a range of different sorts of exporters and be agile enough to support very different businesses. Finally, it needs to support businesses on different parts of their export journey, from exploration to final delivery.

POLICY RECOMMENDATION:

Establish a Royal Commission on Industrial Strategy to determine a cross-party consensus on future priorities and ambitions for the manufacturing sector and wider economy and society, and to then agree aims and objectives that the state regards as strategically important markers of success. The Royal Commission should determine, as a first priority, the UK's offensive and defensive priorities for future trade deals. These would then be used to inform wider industrial strategy planning. Such an industrial strategy should include growth targets and timeframes but also whether to prioritise horizontal or vertical approaches to industrial development and it should set responsibilities for delivery for both the private and public sectors.

5.2 ACCOUNTABILITY

The UK policymaking and implementation framework is institutionally complex and constantly evolving but rigorous evaluation of performance and a subsequent mechanism for learning from outcomes are not institutionally embedded into the process. The practice of engaging stakeholders and incorporating consultations from expert groups and relevant interests is done haphazardly, with little understanding as to how the information derived from these discussions are to be effectively incorporated into the policymaking process. There is no channel for independent and objective evaluation of present policies with the intention of learning lessors to better inform future decisions.

While the political process in a developed Western democracy such as the UK does, to a certain extent, act as the medium through which dispersed sources of information around the country are discovered and incorporated into policy, relying on this process alone is increasingly suboptimal. In complex domains such as industrial policies — where the time horizons of structural transformations are long and uncertain, gains are diffuse and difficult to quantify, and costs highly visible — heuristics and biases in decision-making by political decision makers can militate against impartial or objective judgements.

Historically, the short-term nature of UK industrial policymaking has induced several problems. The first casualty tends to be the interruption of the structural transformation process that industrial policies are designed to catalyse. Structural reforms can only occur over longer periods than electoral or governmental budgetary time horizons and therefore suffer setbacks from a lack of policy continuity. The lack of consistency in policies over time also makes it difficult to evaluate the impacts of past policies and cultivate long-term institutional knowledge capability in industrial policy. In short, there is no capacity in the system to learn and improve.

The disbanding of the Industrial Strategy Council, the sole body in the UK explicitly dedicated to assessing the effectiveness of the UK's industrial policies, removed the only dedicated body that could have developed and embedded the capacity to learn. That decision did not involve any consultation with the wider industrial policy

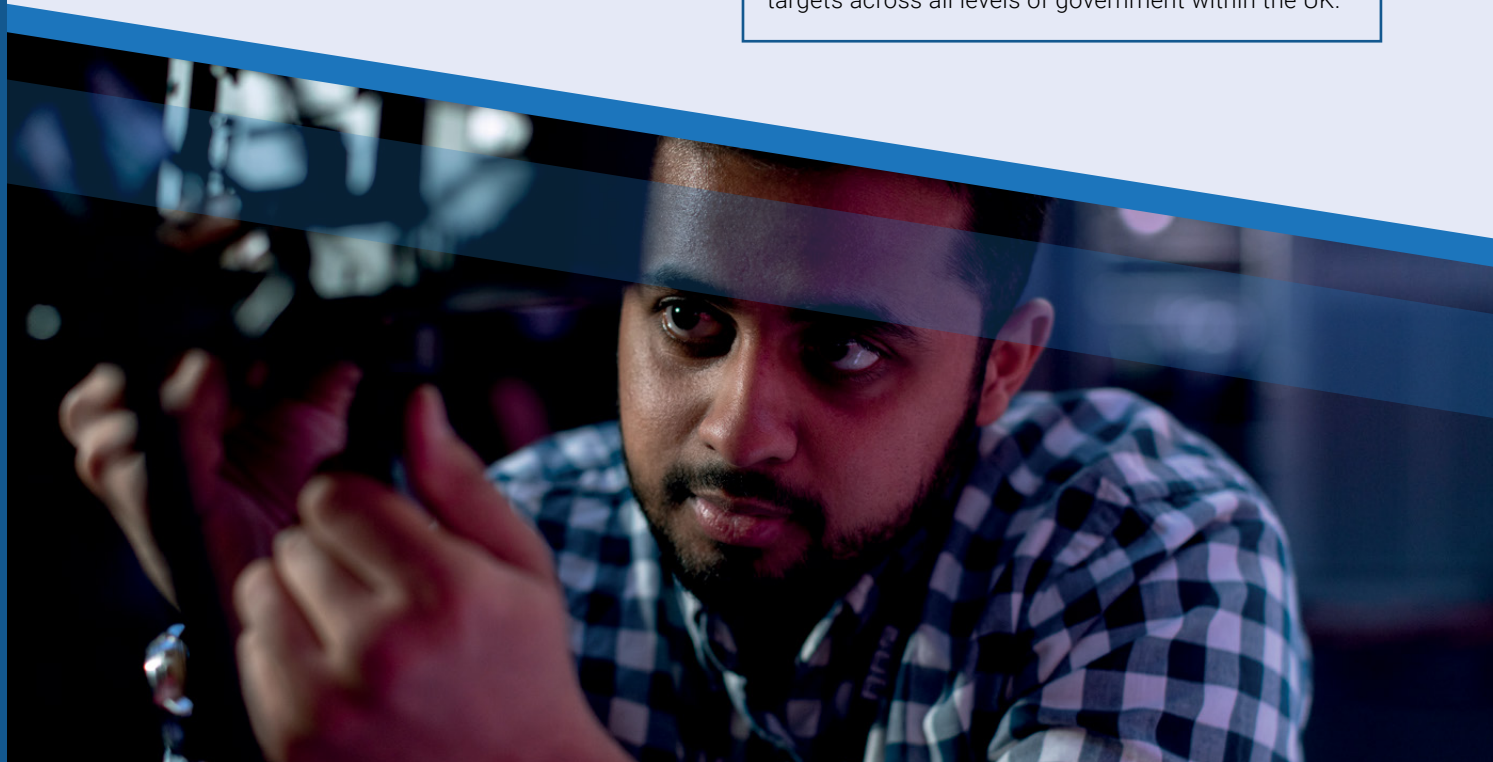
community. Instead, the UK has returned to a top-down policymaking approach that is highly susceptible to political pressures; and an institutional structure that leaves policymakers remote from policy delivery vehicles and recipients of support. This stands in sharp contrast with international and indeed domestic policy best practice, whereby rigorous oversight and evaluation by independent and arms-length bodies, such as the Office for Budget Responsibility (OBR), are vital in determining the efficacy of policy delivery and gaining insights into better policymaking practice for the future.

HM Treasury's focus on other important remits such as fiscal management and the public finances means that issues of industrial policy get a lower priority, and can also fall foul of the Treasury's institutional aversion to intervention by government.

A type of industrial development initiative that the UK could consider is the delegation of some types of interventions to a special purpose vehicle, such as an independent oversight body to evaluate the efficacy of its industrial policies. This body would not craft policies, per se. Nevertheless, the provision of independent scrutiny would deliver credible and actionable information to Parliament and guidance for future policymaking. This accountability body should be underpinned by statutory status, a crucial insurance policy to provide institutional longevity. While independent bodies cannot compel decisions by the sovereign Parliament or the Executive, this does not mean that such an institution is not influential in the process of policymaking. In UK fiscal policy, for example, the indirect influence of independent fiscal institutions such as the Office for Budget Responsibility (OBR) on the policymaking process — via pre-emptive effects on budget preparations, informing public debate, and fuelling political will for action — highlights their capacity to shape the policy debate in an important, informed, apolitical, and evidence-based manner. Importantly, a body of this kind can also provide a coordination function across ministries and other public bodies, even though reporting to a single ministry.

POLICY RECOMMENDATION:

Re-establish an Industrial Strategy Council, this time underpinned by statutory status to ensure longevity. The ISC's remit as an independent oversight body should be to ensure rigorous evaluation and to monitor and determine the efficacy of policy delivery. The ISC can be enabled to collate timely information on, and provide a feedback mechanism for, the industry to enable it to provide insights and institutional knowledge into better policymaking practice for the delivery and implementation of industrial strategy targets across all levels of government within the UK.



5.3 COORDINATION

Past UK Industrial Strategies have often had lofty ambitions and objectives while lacking the requisite whole-of-government approach to delivery. For any industrial policy to change an economy structurally, its deployment cannot simply be an isolated effort by a single department. It must comprise a co-ordinated mission across various ministries and agencies and levels of government.

Currently, HM Treasury, in addition to being the key ministerial department designing overarching economic policy, also houses the UK Government Investments (UKGI), the primary holding body for many key state-owned enterprises. HM Treasury, via UKGI, also manages other important institutions that it does not have direct shareholdings in. Economic development institutions such as the British Business Bank (BBB), which is the parent company for agencies including British Patient Capital (BPC) and the Start-Up Loans Company, is managed by UKGI despite being nominally owned by the Business department. These bodies, coupled with the fact that the Treasury is the final approval body for many industrial policy-related expenditures, gives it unparalleled influence over all aspects of industrial policy.

Outside the Treasury, the Business department (currently, the Department for Business and Trade) plays a pivotal role housing the teams and government agencies that execute industrial policies, including UK Research and Innovation (UKRI), the primary administrator for all grant-related funding of research.

Other ministries such as the Department for Education, the Home Office, the Department of Health and Social Care, the Ministry of Defence, the Department for Levelling-up, Housing and Communities, the Department for Transport, and the Department for Environment, Food and Rural Affairs, help support specific bespoke aspects of industrial policy such as export promotion, business procurement programmes, skills and social policy provision, and regional or local industrial, social and infrastructure planning.

Government agencies such as UK Research and Innovation (UKRI), the British Business Bank (BBB), UK Government Investments (UKGI), the National Health Service (NHS), the Advanced Research and Invention Agency (ARIA), and the UK Infrastructure Bank play specific roles in implementing the policies set by the British government. These agencies often house other sub-agencies, such as Innovate UK, or British Patient Capital (BPC).

Periodically convened expert councils, such as the Prime Minister's Council for Science and Technology, and the Business Innovation Forum, for example, also function as ad hoc consultation and stakeholder engagement bodies, advising the Government in various areas of policymaking according to their remit and subject matter expertise.

Decisions and delivery in the UK policymaking landscape is thus complex and often disjointed across ministries and agencies. In terms of industrial policy, implementation mechanisms in the UK are dispersed between national, regional and local government, with the identity of the lead department in central government in constant flux. Policy is generated largely via top-down directives from ministers but requires buy-in across institutions to succeed. Partial devolution to the Scottish, Welsh and Northern Irish governments and to agencies in the English regions further complicates this landscape. Inter-ministerial and inter-body issues of jurisdiction and autonomy can lead to siloes within the implementation framework and is frequently an impediment to effective policy rollout. Many aspects of effective industrial policy coordination - such as export support, financing, R&D initiatives, public procurement, or capability development, for example - and the ability to achieve major objectives - such as climate change adaptation, or tackling disease pandemics - requires implementation and roll-out across ministerial jurisdictions.

Joined-up government, with effective communication across different departments and between different national, regional, and municipal levels needs an effective coordinating agency, not only because so much of what constitutes industrial policy is about coordinating interdependent activities between distinct bodies but also because different aspects are delivered more effectively by different bodies and at different levels of government and non-governmental institutions.

Intermediate institutions and networks of semi-public, and private agencies, that promote communication and cooperation between the government and the private sector can play an important role in delivery and policy

success. Employers' associations, sectoral industry bodies such as Make UK, large enterprises, key financial institutions, deliberation councils, universities, training providers, and trade unions are therefore vitally important for effective policy coordination.

The UK needs to develop better industrial policy coordination processes, including an institutional framework to enable effective information gathering and analysis and an institutional means of bringing together dispersed bodies of government and industry to shape policy rollout and channel relevant and timely information to the relevant public and private sector body.

POLICY RECOMMENDATION:

The Cabinet Office should be made responsible for ensuring whole-of-government coordination and implementation of industrial policy. Following a plan devised via consultation with all relevant stakeholders, the re-established Industrial Strategy Council should be provided with a mandate to monitor and evaluate policy implementation and inform and advise the Cabinet Office on areas in need of delivery improvement across all stakeholder bodies and levels of government.

5.4 STABILITY

The UK approach to industrial policy has historically been ad hoc and haphazard, characterised by regular cycles of new policy announcements that are often linked to political cycles, prematurely changed or rolled back. Episodes of policy change generally follow ideological lines reflecting the prevailing paradigm of the day: from the subsidies and nationalisations of the post-war years up through the 1950s, the power sharing arrangements of government, business, and workers in the 1960s and 1970s, to the privatisations and spending cutbacks of the 1980s and 1990s. Since the 2000s, policy change has occurred when transitions happened within one party, such as the rollback and replacement of the 2017 Industrial Strategy of Theresa May's Conservative government by Boris Johnson's Conservative government in 2021.

This tendency is indicative of the personality and party-political driven nature of British industrial policy. Projects that are not firmly institutionalised or are seen as pet projects of former administrations might not survive long. There is an ever-present risk that policies could be scrapped whenever administrations change.

It is not just government policy that is at risk of incessant alteration or revocation. Departmental configurations of industrial policy is in constant flux and consequently ineffective too. Over the last 15 years the government department responsible for managing industrial policy has been reorganised five times. The current Department for Business and Trade has existed since February 2023; preceded by the Department for International Trade and the Department for Business, Energy, and Industrial Strategy (2016-23); before which were the Department for Business, Innovation and Skills and the Department of Energy and Climate Change (2009-16); the Department for Business, Enterprise and Regulatory Reform and the Department for Innovation, Universities and Skills (2007-09); and the Department of Trade and Industry (1970-2009).

These reorganizations mask a myriad of other policy remit changes, the most prominent examples being the transfer of higher education and skills policies (including Apprenticeships) back and forth between education and business departments while trade policy is sometimes the responsibility of the Business department and sometimes the responsibility of its own bespoke trade department. More recently, energy policy, an increasingly important area of interest for manufacturers in the context of climate change and the green transition, has also been treated as an area meriting its own bespoke department while at other times treated as within the business department.

Furthermore, in those same 15 years there have been 15 different Secretaries of State responsible for business and industrial strategy when including the various different iterations of departments and remits now housed under the Business Secretary. The consequence is that promised green papers on the government's industrial strategy, net zero ambition, trade policy and other areas are regularly postponed – a development which invariably indicates destabilising intra-Whitehall disputes over contents.

Successful industrial strategy can only be delivered if underpinned by a clear and long-term government commitment not just by spending money but by

instilling confidence in private companies that their own investments would endure.

Presenting new policy shifts without challenging the frameworks within which industrial policy is conceived and delivered mean any new industrial policy is destined to fail. The UK Government needs an established vision of industrial policy but firms also need that policy and the institutions for its delivery to be embedded.

The UK needs to find a way to make its policy environment provide more stability so that long-term-oriented industrial policy is in sync with enterprise management. A focus on maximising shareholder value and an enthusiasm for merger and acquisition activity in the corporate sector has resulted in a pervasive short-termism and decline in industrial capacity across a wide range of areas and manufacturing subsectors. The common factor has been an emphasis on corporate reorganisation, mergers, acquisitions, and divestments rather than through researching, developing and scaling the production and market delivery of innovative new products.

As well as the accountability measures suggested above for the public sector, possible private sector measures to incentivise long-term planning and investment could include, tax reductions for dividends from longer-term shareholding, heavier taxes for capital gains made from short-term shareholding, the introduction of greater voting rights for longer-term shareholders, and reforming the UK corporate governance code to provide greater balance by reducing shareholder primacy centric forms of management that focus solely on maximising the value for shareholders while not considering the company's value to its customers, employers or the national interest. The corporate governance code should instead incentivise broader stakeholderism, for example through board-level employee representation (BLER), which is known to improve firm level profitability and productivity in the long-run while also improving environmental, social and governance (ESG) outcomes.

POLICY RECOMMENDATION:

As part of the Royal Commission on Industrial Strategy, stakeholders should negotiate and agree institutional reforms to ensure the stability of policy delivery and outcomes. Such reforms should include alterations to the regulatory landscape, such as the incentives toward counterproductive short-term behaviours in the corporate governance code to incentivise private and public sector best practice and long-term productivity growth in UK manufacturing for the benefit of the public good.

Make UK is a powerful voice at local, national and international level for all companies from small to large in the manufacturing and engineering sector.

We create the most supportive environment for UK manufacturing growth and success, and we represent the issues that are most important to our members, working hard to ensure UK manufacturing remains in the government and media spotlight.

Our services help manufacturers increase efficiency, productivity, and capability across areas such as HR & legal support; health, safety & sustainability; compliance; and training & skills.

Our HR experts are on hand to support you through the entire employment cycle, from challenges around recruitment, retention and employee engagement to broader strategic issues involving your workforce.

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