

PLACING DECARBONISATION AT THE HEART OF INDUSTRIAL STRATEGY

JULY 2024

Introduction

We welcome the Government's commitment to developing an industrial strategy and council at the heart of its growth mission.ⁱ A successful industrial strategy for the UK must deliver growth and decarbonisation in parallel, while seizing opportunities for clean energy supply chains and incentivising sustainable growth in high-potential sectors.

The Aldersgate Group is a politically impartial alliance of businesses and academic and civil society organisations that champions action for climate and nature. Tackling climate change and restoring our natural environment are fundamental to creating a resilient and competitive economy. Businesses recognise this and are acting on it, but they need the right policy landscape to accelerate progress. By creating a credible enabling framework, the UK Government can capitalise on the opportunities of transition and meet climate and environmental goals. Doing this will also drive economic growth, boost energy security and deliver jobs for a just transition across the country.

We asked Aldersgate Group members to think ahead to 2035. What would a successful industrial strategy look like? What would a failed version look like? What's at stake for the UK and for their industries? How do we deliver success? This paper draws on our members' insights and builds on our previous work, such as WPI Economics' report on the economic benefits of industrial decarbonisation.^{ii,iii,iv} This is the first in a series of papers which will conclude with next steps for delivery.

Summary of key points

- » International competition and industrial policy interventions in other markets are rising, leaving the UK lagging. Without an effective industrial policy, the UK's economic growth prospects and decarbonisation ambitions are both at risk.
- » Decarbonisation presents significant opportunities for growth. New technologies, products and services are becoming part of the decarbonisation of the UK's economy. The UK Government can link industrial policy to decarbonisation targets, enabling supply chains to develop and deliver wider benefits. The UK's next industrial strategy must futureproof growth in high-potential sectors. For example, it could link growth and decarbonisation with strong energy efficiency and environmental sustainability incentives. It must work with the net zero strategy, showing businesses how to understand these intersections.
- » A whole-value chain and joined-up policy approach is essential to ensuring the strategy works in practice.



Recommendations for the government

- 1** The Government should first set out an industrial strategy that **identifies which value chains are a priority for growth and takes a spatial lens**, considering regional opportunities. Low-carbon technologies must be included where the UK has strengths or high potential. On these, the strategy should recognise the scale of the opportunity and identify what will be necessary to deliver the UK's decarbonisation ambitions.
- 2** As part of the industrial strategy, the Government should **take a whole-value chain approach to developing policy interventions**. By looking along the value chain, Government can maximise opportunities and give businesses confidence to invest. Measures could include an increase in the security of raw materials supply, support for the development of the wider supply chain, or the mitigation of problems like skill shortages and the lack of clear demand signals. It was welcome to see the Government confirm, in the King's Speech (July 2024), that the National Wealth Fund will play a central role in the industrial strategy. The speech also suggested there will be strong collaboration between Skills England and the Industrial Strategy Council to ensure the skilled workforce needed to enable the strategy is in place.^v
- 3** The Government must place **decarbonisation at the heart of its industrial strategy**. At the same time, it should build a cross-government approach to create a policy environment which enables businesses to invest, grow and create jobs.
- 4** The **Industrial Strategy Council** is vital if the strategy is to work in practice. It should be set up as a priority. The Council must be appropriately connected with other groups and relevant government departments.
- 5** Alongside its industrial strategy, **the Government must set out a decarbonisation strategy with pathways for all industry and manufacturing sectors** and a blueprint for necessary infrastructure. Joined-up industrial and decarbonisation strategies will provide the foundations and support for the growth of the low-carbon economy, and give businesses confidence to act on decarbonisation.

1. What's at stake?

The UK economy is stagnating. The country needs to leverage £50-60 billion in private investment per year by the end of the decade to ensure delivery of the net zero transition,^{vi} but has endured the lowest levels of private investment in the G7 for 24 of the last 30 years.^{vii} Eleven growth strategies set out by successive UK governments over thirteen years have failed to deliver policy certainty or business confidence to invest at a time of global instability.^{viii}

Meanwhile, international competition is growing, driven by government interventions and soaring demand for low-carbon technologies. Private investment is highly mobile and global competition to attract it is increasing. UK progress towards net zero has stalled at this crucial inflection point while other nations' ambitions and actions have dramatically increased.

China dominates the clean energy technology supply.^{ix} The US Inflation Reduction Act offers significant fiscal incentives, providing long-term certainty for investment in clean energy technologies and manufacturing. The EU has also set out a response with the Net Zero Industry Act and Green Deal policy package. The UK's successes in decarbonisation so far will be difficult to repeat without a new approach which also pays closer attention to the implications for our domestic industries.

Inaction is highly risky: research for the Aldersgate Group found that £224 billion or 5.9% total gross value added (GVA) risks being wiped out from the UK economy by 2050 without further policy support for heavy industrial decarbonisation.^x The current lack of policy intervention threatens the UK's ability to capitalise on the economic and social opportunities of decarbonisation. It puts the UK's own decarbonisation ambitions at risk.

The new Government's missions to kickstart economic growth and make Britain a clean energy superpower are a crucial and welcome signal to businesses. The UK urgently needs an industrial strategy to deliver growth and a decarbonised, resilient and competitive economy.

2. Why place decarbonisation at the heart of industrial strategy?

We welcome the Government's commitment to introduce a new cross-sectoral industrial strategy. As the Government looks to identify sectors where the UK has an existing advantage or potential to be a fast follower, opportunities from the transition to net zero must be included. While the industrial strategy is not the primary mechanism to deliver the UK's decarbonisation ambitions, it nevertheless has an important role in growing those sectors that will deliver the technologies and services to transition to a low-carbon and nature-positive economy. It must work with a wider

decarbonisation strategy, providing the foundations and support for a sustainable and resilient future economy.

Businesses recognise the net zero transition as the economic opportunity of the 21st century. At this time of global instability, the UK must show certainty and clarity in its long-term direction to give businesses the confidence to invest. Too often we hear of barriers and uncertainty that block private sector investment in decarbonisation. For example, the lack of clear government signals and policy has seen the UK miss opportunities to develop battery manufacturing and supply chains. Countries with more attractive policy environments have attracted that investment instead. The UK now risks the loss of £13.3 billion car exports as electric vehicle sale targets are introduced across the world.^{xi}

The UK's decarbonisation policies must create demand for low-carbon sectors. An industrial strategy is a great opportunity to consider where decarbonisation will create opportunities for UK-based supply chains and manufacturing. It also represents a point at which to provide the framework they need to develop. Global supply chains will continue to have a key role and, in some cases, may be more time or cost-effective in meeting targets. In such a competitive global environment, however, UK supply chains will miss out without an industrial strategy.

A new industrial strategy can identify priority sectors for growth, taking a whole-value chain and cross-government approach to set the UK towards a sustainable, resilient, and competitive economy. Its key goals must be to enable growth and to attract private investment through targeted policy intervention. Measures beyond industrial policy must also align to nurture an enabling environment. They must take a spatial lens and consider regional opportunities. If Government's focus is too narrow, or if it fails to link policies to support industry, decarbonisation and other goals, it is likely to miss opportunities and increase future risks.

Industrial strategy must seize opportunities for growth in low-carbon sectors and their supply chains. Reducing greenhouse gas emissions and restoring nature are global challenges; with this scale of transformation comes huge opportunities. In 2023, the UK's net zero economy grew by 9%: this highlights the immense potential of the sector.^{xii} We should focus on opportunities for growth in low-carbon sectors and wider supply chains where the UK has existing strengths or potential as a fast follower. An effective industrial strategy would increase certainty of demand and create an enabling policy and regulatory environment. This will help to remove barriers and maximise benefits for the UK as we set out in more detail later in the paper. For example, offshore wind is one of the UK's decarbonisation success stories. Yet despite the UK's competitive advantage, the country has missed out on £30 billion between 2008 and 2022 due to its failure to develop wind power supply chain manufacturing.^{xiii} Without an industrial strategy that focuses on capturing the opportunities of decarbonisation, the UK risks missing out on many socio-economic benefits and will jeopardise the net zero target.

An industrial strategy must futureproof growth, placing sustainability at the heart of high-growth sectors.

All sectors of the economy face decarbonisation challenges. If the Government does not encourage sectors to grow in a sustainable way, it risks creating stranded assets and problems for future retrofit and energy. The Government must encourage high growth-potential sectors – like financial services, artificial intelligence (AI),^{xiv} and the life sciences – to grow as competitively and sustainably as possible. The Government should incentivise energy and resource efficiency and protect UK-based industry from high-carbon competition. This can be done by creating a level playing field for businesses that act on decarbonisation and environmental sustainability, including through the introduction of a carbon border adjustment mechanism (CBAM).

As an example, AI's energy demand for computational power is doubling every 100 days.^{xv} In a highly competitive environment, governments around the world will be wary of stifling the growth of emerging sectors in their countries if it risks placing the sector at a disadvantage compared to the same sectors in other countries. The industrial strategy must drive innovation that embeds energy efficiency and sustainability as much as possible in both developing and existing sectors. It should also provide incentives to do so while not stifling competitiveness. A joined-up policy approach across industrial strategy and decarbonisation can help to identify the other crucial policies that government must deliver, such as planning of the future low-carbon grid and considering energy demand for emerging sectors.

Industrial strategy and the just transition

For some sectors, decarbonisation will lead to significant operational changes. The UK's foundation industries currently contribute 21% of UK exports, £152 billion in GVA and over 1.4 million jobs across the UK.^{xvi} These industries are essential to the supply chains of critical low-carbon sectors like green steel for wind turbines, chemicals for battery storage and glass for solar power technology. The industrial strategy should consider opportunities across the supply chain, especially where UK sectors have a comparative advantage.

Phasing out fossil fuels means an end to operations in relevant sectors in future. While it is not appropriate for an industrial strategy to focus on maintaining these industries in their existing form, the skills and expertise in their workforces may be highly transferable for growth sectors or present opportunities for retraining and upskilling the workforce. To deliver a just transition, central Government must ensure local and regional views are sought early in the process. Alongside other just transition policies, an industrial strategy should consider how best to use these strengths and create jobs in impacted areas. The right framework can enable a transition to net zero emissions without deindustrialisation in key areas.

3. What are the implications of success and failure?

In May 2024, we asked Aldersgate Group members to think a decade ahead to 2035 and explore what a successful or failed industrial strategy would mean for the UK and for their industries (Figure A). This is by no means a prediction of the UK's future, but it gives a snapshot of what outcomes an industrial strategy should seek and where it could go wrong.

A vision for success was tied to retaining UK business competitiveness, achieving growth in key sectors – especially manufacturing – and UK leadership in green finance. The broad range of desirable outcomes included high quality job creation and ease of access to training, as well as improved wellbeing with better housing and air quality. Decarbonisation of the energy system would be achieved with both new renewable energy generation and increased energy efficiency. Our members' responses showed global instability and increasing temperatures remained concerns. They emphasised the need for resilience across the economy: from supply chains and the circular economy to cooling and nature recovery.

The implications of failure were stark: the UK cannot decarbonise its energy system without an industrial strategy. Our members expected that failure to build a low-carbon energy system would result in higher energy costs and continued reliance on fossil fuels. UK manufacturing would see competitiveness hampered and growth stifled. At the same time, the prospect of disorganised growth, with rises in inequality and vulnerability to global shocks, concerns our members.

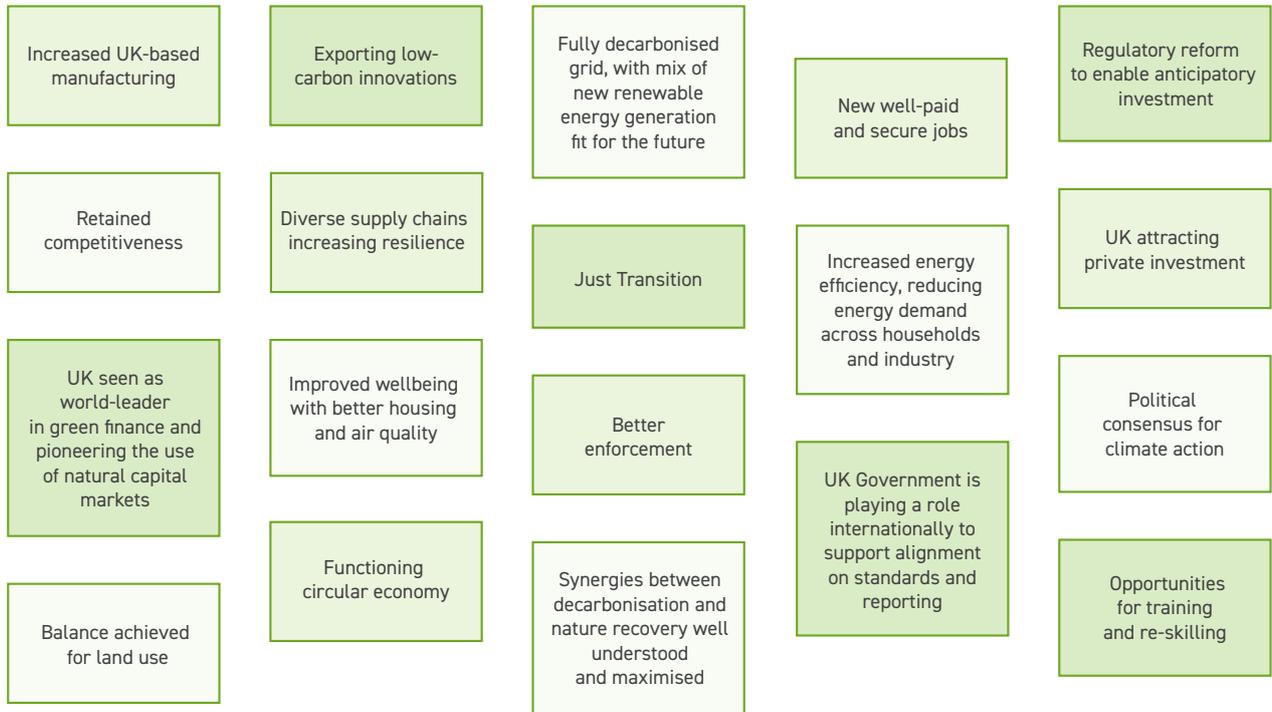
4. How to deliver a successful industrial strategy?

A cross-sectoral industrial strategy with decarbonisation at its heart must set out a long-term vision for the UK's green industrial growth. This will include a supportive policy framework and key milestones. As it develops policy interventions as part of its strategy, the Government should take a whole-value chain approach to maximise opportunities and give businesses confidence to invest (Figure B). This could be done by increasing security of raw materials supply, supporting the development of the wider supply chain or by mitigating challenges such as skill shortages or lack of clear demand signals.

The Government must tailor its strategy to the UK's strengths and opportunities, and must identify the best mechanisms to foster those strengths. The UK cannot expect to copy plans built around very different international economies, such as the level of subsidy the US Inflation Reduction Act offers.

FIGURE A: WHAT DOES THE UK LOOK LIKE IN 2035?
REFLECTIONS FROM ALDERSGATE GROUP MEMBERS

THE UK IN 2035 FOLLOWING A SUCCESSFUL INDUSTRIAL STRATEGY



THE UK IN 2035 FOLLOWING A FAILED INDUSTRIAL STRATEGY

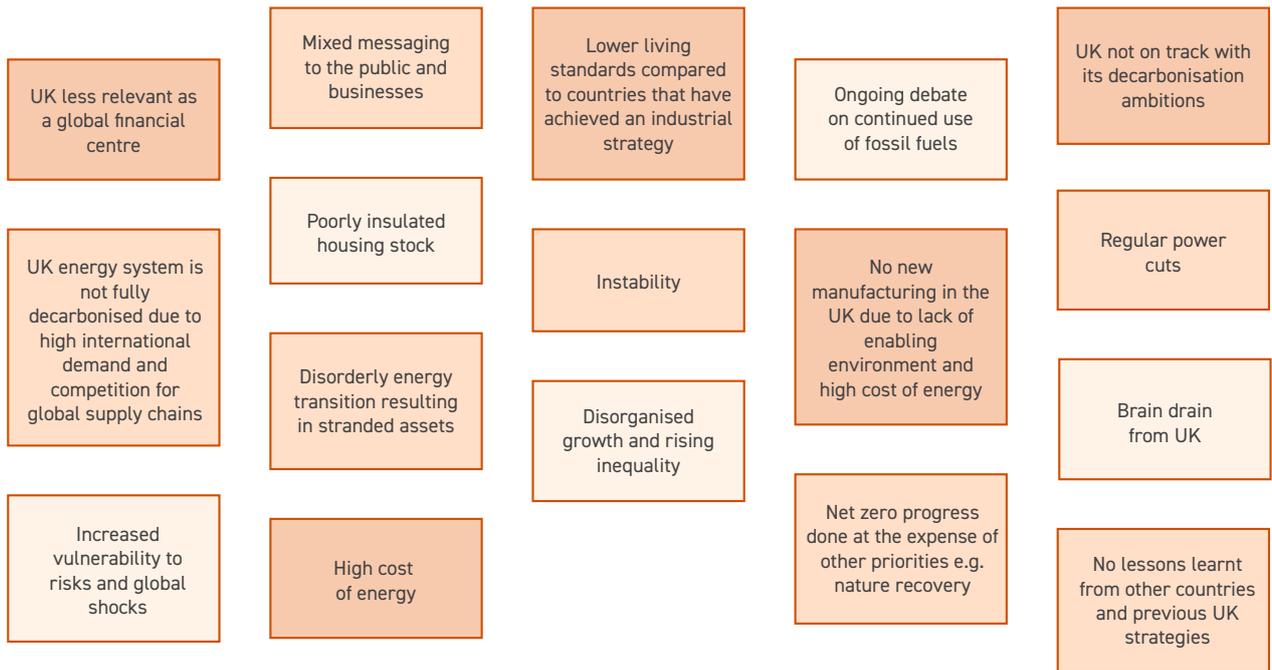
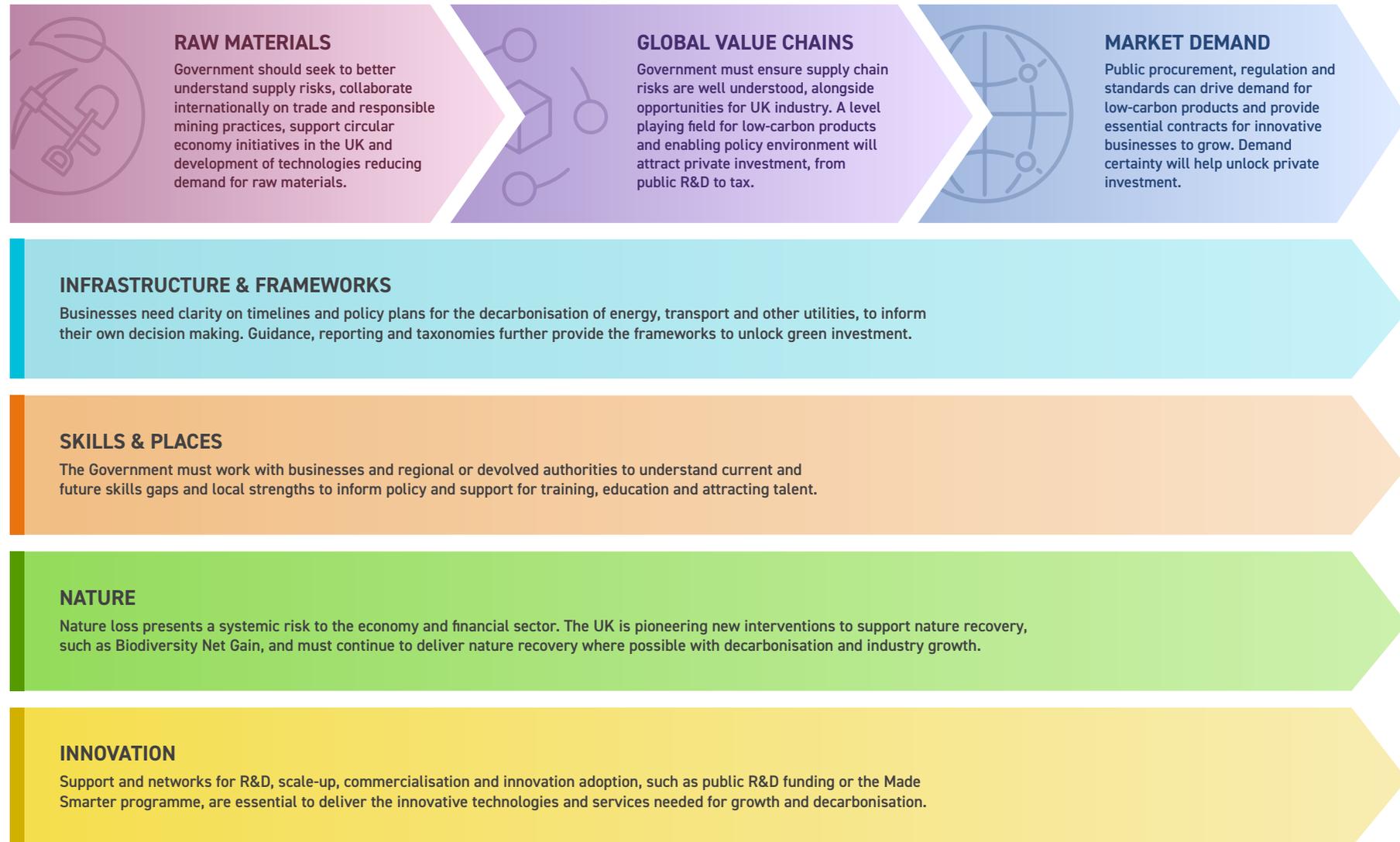


FIGURE B: A WHOLE-VALUE CHAIN APPROACH TO INDUSTRIAL STRATEGY, AND THE ROLE GOVERNMENT CAN PLAY



Instead, the UK must develop its own approach, learning from previous experience and other countries' approaches, and including innovative interventions to drive investment. 'Contracts for Difference' are one example of innovative and impactful UK policy thinking.

We identified the following three key features of a successful policy framework.

- i. A whole-value chain approach which engages businesses, trade unions, and national and local public sector bodies** to unlock private investment for growth and decarbonisation and aid a smoother transition.

By taking this approach, the Government can look broadly at the opportunities and maximise potential for spill-over benefits and success. As we set out below, a whole-value chain approach can inform comprehensive policy interventions. In turn, this will enable supply chains to deliver while demand is available or stimulated. Without this, Government could fail to see risks to the success of an industrial strategy. For example, businesses will look at the availability of skills when considering where to invest or locate their operations. The demand side is also a crucial signal of growth opportunities that can unlock business investment. Policy, regulation, incentives or consumer messaging can also stimulate this.

Looking across value chains can also help identify cross-sector opportunities that may otherwise be missed. For example, if an industrial strategy includes wind power, policy support might unlock opportunities for the UK steel industry to increase its participation in the supply chain. To ensure success, an industrial strategy must work for businesses.

Effective engagement, such as through the proposed Industrial Strategy Council, will be essential. This will ensure the Government makes the best use of insights and understands opportunities and challenges on the ground, ensuring the strategy works in practice. Government must give a clear purpose and a meaningful role to such groups.

Beyond business, external engagement must be broad. It should include regional expertise, research and innovation organisations, and trade unions, all of which bring invaluable knowledge to inform the development and delivery of an industrial strategy. Central government must directly involve regional and local government when developing plans. This will ensure local expertise is fully harnessed and local strengths and workforces are engaged in shaping industrial strategy interventions relevant to their local areas and industries.

- ii. A joined-up and enabling policy environment**

An industrial strategy should bring together a package of policy interventions targeted at delivering opportunities for growth and supporting investors to manage risk. 'Always on' policies, especially those which affect businesses' costs or the health of the wider research and innovation

ecosystem, are also important to nurture an enabling environment for business investment. To ensure the strategy's success, Government must ensure it is joined up with policy across departments, from tax to skills, planning to public investment, regulation to international collaboration. Policies should enable success and remove barriers as they emerge.

To identify opportunities for alignment and to resolve barriers, we need to see effective engagement and coordination across government departments, devolved authorities, and relevant public sector bodies and regulators, including the co-development of solutions.

iii. Clarity on decarbonisation pathways, infrastructure and timelines to support businesses that are navigating uncertainty.

The pathways to meet targets are not always certain, such as where new technologies and solutions are in development or demand for new technologies is unclear. Business decision-making is skewed towards short-termism. Taking a 2-to-5-year time horizon, it gives greater weight to corporate priorities and supply chain constraints. 2050 is too far ahead to be prominent in most boardroom discussions. Government can provide clarity with shorter-term milestones and a level playing field. This will ensure those taking action to decarbonise are never at a short-term disadvantage.

Such clarity will help build certainty for demand and confidence for businesses and investors to invest in low-carbon sectors of which the UK can take advantage. For example, the zero-emission vehicle mandate creates a clear signal for electric vehicle manufacturing. At the same time, certainty for wider policy and infrastructure, such as the roll-out of electric vehicle charging infrastructure, is also key to support demand for electric vehicles and will factor into businesses' decision-making.

For other sectors, clarity on decarbonisation pathways is crucial to ensure businesses factor decarbonisation into decision-making and avoid unexpected policy developments that may introduce uncertainty and investment risk.

5. Next steps

This paper is the first in a series that sets out the Aldersgate Group's vision for a successful UK industrial strategy which can deliver growth and decarbonisation in tandem. Other topics we are planning to explore include, but are not limited to:

- » An industrial strategy data dashboard, monitoring and building in agility for success;
- » Setting up for delivery: machinery of government;
- » Unlocking investment and the role of financial institutions.

ENDNOTES

- i UK Government (2024), [The King's Speech 2024](#).
- ii WPI Economics for the Aldersgate Group (2023), [Economic benefits of industrial decarbonisation](#).
- iii Aldersgate Group (2023), [Keeping pace in the global race to net zero – responding to the Inflation Reduction Act](#).
- iv
- v Aldersgate Group (2024), [Response to the Business and Trade Select Committee's inquiry into the UK's approach to industrial policy](#).

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- vi Transition Finance Market Review (2024), [Call for evidence](#).
- vii IPPR (2024), [Revealed: investment in UK is lowest in G7 for third year in a row, new data shows](#).
- viii IPPR (2023), [Making markets in practice](#).
- ix IEA (2023), [Clean energy supply chain vulnerabilities](#).
- x WPI Economics for the Aldersgate Group (2023), [Economic benefits of industrial decarbonisation](#).
- xi ECIU (2023), [UK car exports on a cliff edge](#).
- xii ECIU (2024), [The UK's net zero economy](#).
- xiii IPPR (2024), [A second wind: maximising the economic opportunity for UK wind manufacturing](#).
- xiv Tony Blair Institute for Global Change (2024), [Greening AI: a policy agenda for the artificial intelligence and energy revolutions](#).
- xv WEF (2024), [How to manage AI's energy demand – today, tomorrow and in the future](#).
- xvi WPI Economics for the Aldersgate Group (2023), [Economic benefits of industrial decarbonisation](#).



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With thanks to a range of Aldersgate Group members for their valuable input, and to those external organisations who also offered a wider perspective.

Images by jarmoluk (front cover) and byrev (page 2), via Pixabay.

Published July 2024