

# Industrial strategy fit for the future

Perspectives on building a  
competitive UK economy

“green  
alliance...”



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## Foreword

“The industrial strategy should recognise and capitalise on the growth in green goods and services.”

The prime minister’s commitment to “get the whole economy firing” has led to a new industrial strategy. Alongside trade agreements and tax regimes, this will define how the UK competes in the world.

Some are calling for a low tax, low regulation economic model post-Brexit. But this will fail to capitalise on global demand for low carbon goods and services, and is also not compatible with our climate change targets. Green Alliance sees low carbon development and greater resource efficiency as important drivers of competitive advantage in manufacturing, agriculture, construction and business services, as well as in energy and transport.

In this publication, we have brought together respected thinkers from politics, business, trade unions and academia to give their views on the kind of economy the industrial strategy should be building and the role low carbon and resource efficiency can play.

Despite their different perspectives, some common themes emerge. Successful businesses respond to change and take advantage of the opportunities it brings. All the authors here want the industrial strategy to recognise and capitalise specifically on the growth in green goods and services. Baroness Brown of Cambridge says that the government should send a strong signal that it is committed to building on our existing high environmental standards if industrial successes like offshore wind are to be replicated.

The importance of policy is highlighted by many, extending beyond the industrial strategy and into its relationship with the forthcoming clean growth plan which Carolyn Fairbairn says must be credible and work with the market. Opportunities exist across industrial and resource policy too. Juergen Maier and Professor Paul Ekins both draw attention to the often overlooked role of resource efficiency in business competitiveness and the additional rewards there could be for water and agriculture businesses from a more coherent approach to investment.

Rebalancing the UK economy, by tackling the disparity between the North and London and the South East, also has a strong green growth dimension. Paul Nowak and David Brown both see the development of low carbon energy and electric vehicle technology as a way to address the persistent gap in productivity and as a chance to reinvent local economies in the North.

Sir Vince Cable directly addresses the overriding challenge to UK business from government’s recent rolling back of climate policy which threatens to derail the UK’s low carbon economic progress.

The industrial strategy green paper has made a good start but, as these insights make clear, the government will have to go much further to convince business it has understood the economic potential of aligning the UK’s energy, resource and productivity plans.

**Angela Francis**  
Senior economist, Green Alliance

# We are reaching the tipping point for investors

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**Baroness Brown of Cambridge DBE FEng**

Chair, Committee on Climate Change's Adaptation Sub-Committee



We are approaching a climate change tipping point, one that I am eagerly awaiting. With all of the political changes going on in the UK and around the world, I just hope this one doesn't get delayed.

In my role as Low Carbon Business Ambassador for the UK I have been able to tell a wide range of global audiences that the fastest growing sector of the UK economy through the recession has been low carbon goods and services, which has been growing at between four and six per cent per year. As a non-executive director of the Green Investment Bank (GIB), I have seen, over a period of just four years, investment in UK offshore wind move from being something that needed a government partner to 'crowd' other investors in, to a sector where the competition to invest in operating assets is so strong that GIB has been able to launch a £1 billion wind fund. All of this activity is driving up confidence and delivering dramatic reductions in cost.

Major investors such as pension funds are looking at the long term return and value of their investments. They are realising that low carbon assets offer returns in the short and the long term, whereas carbon intense businesses look increasingly uncertain. The green bond market is developing, alongside a new services market for green assessments of potential investments.

“The low carbon economy is already comparable in size to energy intensive manufacturing, at two to three per cent of GDP.”

These shifts are reflected in the growing role of low carbon businesses in our economy. The recent *Energy prices and bills* report, published by the Committee on Climate Change, concludes that the low carbon economy is already comparable in size to energy intensive manufacturing, at two to three per cent of GDP, and is growing much faster than the rest of the economy. The UK is well placed to take advantage of the growing global market in low emissions vehicles; low carbon services such as finance, insurance and consulting; low carbon electricity, including offshore wind and smart grids; and energy efficient products. Some of these are already reflected in the government's new industrial strategy and research investments, including the recent announcements of funding for advanced battery developments.

So we are approaching a critical tipping point – the one where business and investors drive the low carbon future – whatever individual governments do. But we aren't quite there yet. In the UK we need to ensure that the government continues to send strong signals in its forthcoming clean growth plan and retains, or improves on, EU efficiency and environmental standards as we enact the 'great repeal bill' and leave the European Union.

The UK's leadership in passing the Climate Change Act in 2008 has put us in a strong position to benefit from the fast growing global low carbon economy. The evidence is accumulating that this is supporting UK growth. The industrial strategy is the place to capitalise on this opportunity. We mustn't stop now.

This is written in a personal capacity.

# Industrial strategy and clean growth must go hand-in-hand

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**Carolyn Fairbairn**  
Director general  
CBI



Technology is changing the world around us at an unprecedented rate. The Internet of Things, the sharing economy, 5G and autonomous vehicles will all change the way we live and work. At the same time, Brexit is going to have a profound impact on our politics and the way the UK works and trades with Europe and the rest of the world.

These changes present both opportunities and challenges: new technologies open up new avenues for industry, with new processes and markets, but we are inevitably living in uncertain times, as the political sands continue to shift.

A modern industrial strategy will enable the UK to grasp the opportunities, by reinforcing the foundations of skills, infrastructure, research and innovation. It can also provide a long term agenda that will give firms consistency and clarity, enabling investment.

The green paper makes a good start on these priorities. It also rightly identifies low cost energy and clean growth as a critical part of the picture, just as the government finalises its clean growth plan to meet our 2030 carbon targets.

“Decarbonising our own economy and finding opportunities for growth are two sides of the same coin.”

As CBI’s recent report on the low carbon future, *Stepping up to the challenge*, makes clear, these two strategies should not be seen as separate entities. Globally, we will spend \$90 trillion on infrastructure by 2030, the majority of which will be low carbon, following the 2015 Paris Agreement. Developed and developing nations are setting out their plans for decarbonisation: China has targeted 20GW of offshore wind by 2020; Norway targets 100 per cent ultra-low emissions vehicle sales by 2025. These are areas the UK excels in. Therefore, decarbonising our own economy and finding opportunities for growth are two sides of the same coin.

But achieving these outcomes will require a clear and credible plan against which businesses can innovate and invest: this is what the clean growth plan should provide. With industry already making great strides, the plan needs to go with the grain of the market and look at what action can be taken across different parts of the economy to support further investment; identifying where we can build on significant progress already made, and where new thinking is needed. It is by no means expected to have all the answers, but it is expected to be ‘future fit’, helping businesses to plan ahead.

This refreshed plan, coupled with a new mindset which embeds low carbon growth within a modern industrial strategy, will not just help to address the challenges of energy affordability, sustainability and security, but can also build a prosperous and resilient economy. It is an opportunity we must seize with both hands.

# Providing essential resources is a big opportunity for the North

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**Juergen Maier**

Chairman, North West Business Leadership Team  
Chief executive, Siemens UK and Ireland





A successful and balanced economy that works for all will be both sustainable and resilient. The emerging industrial strategy must, therefore, address how we can both secure and, indeed, optimise, our use and exploitation of the UK's essential resources. This is one of the reasons I welcomed the creation of the new Department for Business, Energy and Industrial Strategy (BEIS) and the opportunity it presents to join up future energy, climate and industrial policy, under Greg Clark.

It is now widely accepted that the UK must address fundamental questions regarding the reliability of its energy supply, the sufficiency of its food production and the resilience of its water supply. The nexus of these three essential resources not only offers the key to future security, but also opens up significant business opportunities for those prepared to invest in solutions.

The North has an important role to play in this space. It is rich in potential for generating additional energy, predominantly from renewable resources, as well as in the provision of water, processing of waste water and in the production and processing of food. These vital resources are not yet being tapped to the extent they are likely to be required in the years ahead. There is obvious business advantage to be gained by focusing on these opportunities.

The North West Business Leadership Team, a group of companies that has been working for over 30 years on the contribution they can make to the economic development of the region, has seen the potential of resources, particularly the interaction of food, rural land use and water. We have calculated that, with the right strategic interventions by 2040, we can have in place:

- a reliable and climate resilient water supply that meets future business needs;
- key energy assets including tidal and wind, contributing to future energy security;
- global competitive advantage in food production and manufacture.

I am clear that the industrial strategy has the potential to be an important driver in addressing some of this country's most challenging resource needs, while delivering significant growth in the green economy. It is only through a holistic, collective national commitment that we can achieve these goals.

However, the number one risk, as highlighted in the recent World Economic Forum 2016 Survey, is failure to mitigate and adapt to climate change. The rewards for determining clear, coherent strategic interventions to deliver the requisite business investment will be considerable. Failure to do so will impact upon us all.

“The industrial strategy has the potential to be an important driver in addressing some of this country's most challenging resource needs.”

# Resource efficiency will improve UK competitiveness

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**Professor Paul Ekins OBE**  
Director, UCL Institute for Sustainable Resources  
University College London



There are many reasons to increase resource efficiency in an economy like the UK's. Among them are the need to reduce pressure on natural resources in a world with growing populations and economies; to reduce the vulnerability to imported material's supply shocks and price volatility; and to avoid the environmental impacts of natural resource extraction, even where they occur outside the UK.

But perhaps the main reason to improve resource efficiency in current economic and political circumstances is to improve the UK's national competitiveness.

Most natural resources come at a financial cost. Using less of them in relation to economic output reduces costs to firms and makes them more competitive. More competitive firms can more easily win in markets at home and abroad. Increasing exports, while reducing our resource imports, benefits the UK's trade balance.

There are substantial opportunities for increasing resource efficiency across most sectors of the economy, and convincing evidence that it will deliver macroeconomic benefits. These are the main messages from the UN Environment's International Resource Panel report, *Resource efficiency: potential and economic implications*, of which I was the lead author. Commissioned in 2015 by the G7 governments during the German Presidency, resource efficiency remains a major theme running through the Italian G7 Presidency this year. The governments of the world's largest economies are, it seems, increasingly paying attention to the evidence that higher resource efficiency can deliver economic, environmental and resource benefits.

“The main reason to improve resource efficiency in current economic and political circumstances is to improve the UK's national competitiveness.”

The report also highlights that intelligent public policy is required for these benefits to be delivered. Market forces by themselves will get some of the way there, but there are numerous constraints to increased resource efficiency, which are well documented in terms of both their existence and how they can be addressed by government action. The UK has, in the past, been something of a pioneer in relevant policies, such as landfill taxation, support for industrial symbiosis and legislation for extended producer responsibility. But the appetite for such progressive measures appears to have diminished in recent governments.

It is time for that to be rekindled. The Industrial Strategy green paper contains the odd welcome reference to resource efficiency, but there is little sign that the concept is at the heart of government thinking. One remedy would be for BEIS and the Treasury to give as much attention to resource productivity as they do to labour productivity, to signal that resource efficiency should be a key consideration across all government policy. That really would signal seriousness of intent to make the UK more competitive by adding more value to the materials which overwhelmingly the UK has to buy from abroad.

# Low carbon development is a chance to rebalance our economy

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**Paul Nowak**  
Deputy general secretary  
TUC



Climate change is the biggest challenge facing the planet. But, for many working people, it can seem a remote issue; one not directly related to their everyday lives. That's why the TUC is keen to draw the links between tackling climate change and some of the other major themes of our campaign work: rebalancing our economy; investing in the UK's physical and social infrastructure; and ensuring working people are not asked to pay the price for Brexit.

As the 2006 Stern review reminded us, there are major economic opportunities to be found in the development of green goods and services. The government's green paper on industrial strategy has highlighted some important questions, including how to deliver affordable energy and clean growth. It is now up to the government, and the rest of us, to answer those questions in a way that brings benefits for working people, their families and communities.

In our 2016 report, *Powering ahead: how the UK can learn from Europe's environmental leaders*, the TUC called on the government to set an ambitious target of 50 per cent of our energy coming from renewable sources by 2050. We asked the government to map the technologies needed to bring us up to this target and to consider what industries could be developed in the UK. We then called for the power of active government to target those technologies towards particular communities that have suffered as a result of the demise of heavy industry, such as coal, but we have seen no significant industrial development in the years since. This would help to rebalance the economy away from its over reliance on London and the South East.

“It is essential that Brexit does not derail progress on carbon reduction or weaken the UK's environmental and climate change policy.”

If the government is serious about delivering long term productivity growth in the former industrial towns, it needs to have a credible plan for decarbonising industry. The government should use the industrial strategy to commit to a carbon capture and storage (CCS) demonstration project. The previous competition for such a project was cancelled on cost grounds but, as the Committee on Climate Change has pointed out, CCS is critically important for industry to meet the UK's carbon targets at least cost, and to fulfil the ambitions of the Paris Agreement. If CCS is too expensive for the UK acting alone, we should collaborate internationally to support a demonstration project.

Finally, it is essential that Brexit does not derail progress on carbon reduction or weaken the UK's environmental and climate change policy. Of course, we need to be mindful of the UK's economic and industrial needs – we need a level playing field for Britain's energy intensive sectors, for example – but Brexit cannot, and must not, become a climate change denier's charter.

# The North is ready to rise to the low carbon industrial challenge

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**David Brown**  
Chief executive  
Transport for the North



The success of the UK in the global marketplace, and achieving the ambitions set out in the government's industrial strategy, will depend on transforming the economy of the North of England.

There has been a persistent economic gap between the North and the national average. It necessitates a radical change in the North's economy which, as home to internationally regarded assets, expertise, research and businesses, it is ready to deliver. The challenge is to deliver in a way which is sustainable.

Providing robust and sustainable transport links which connect the North's industrial strengths will help the region rise to this challenge. The Northern Powerhouse independent economic review identified four prime capabilities which are pan-Northern, highly productive and compete at a national and international scale. These are: advanced manufacturing, health innovation, energy (nuclear and renewables) and digital technologies.

World class universities, major logistics capabilities and professional and business services will play an essential role in supporting the development of leading expertise in these industries. Transport for the North will be working with its partners (local and combined authorities and Local Enterprise Partnerships from across the North) and industry to enable the region to get the most from new technologies, building on its capabilities in advanced manufacturing, renewable and nuclear energy, and digital innovation to capitalise on the drive towards a low carbon economy.

“The North is a significant exporter of energy to the rest of the UK, with specialisms in offshore wind, nuclear, waste to energy and electricity distribution.”

In autumn 2017, we will publish the first strategic transport plan for the North. This is designed to support the region's transformational economic growth plans to 2050. Its main features will be a more reliable, resilient and efficient use of road and rail networks, and emphasis on good growth, helping to drive down resource use and carbon. It will look across the whole network to make the most of existing and local infrastructure and at how the region can meet climate change challenges.

The North is well placed to deliver on low carbon; it is a significant exporter of energy to the rest of the UK, with specialisms in offshore wind, nuclear, waste to energy and electricity distribution. For instance, there could be significant economic benefits in linking the energy sector with established car manufacturers such as Nissan and Jaguar Land Rover, and investing in electric vehicle enabling technologies.

The industrial strategy will be judged a success if it has promoted innovation and enterprise, increased the productivity of businesses and opened up good job opportunities and education in a broad range of growing sectors. The North expects to contribute to a more diverse and resilient UK economy, by building a highly skilled and mobile workforce in these new low carbon industries and by safeguarding its environment and excellent quality of life for generations to come.

# Now is not the time to row back on green economic progress

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## **Sir Vince Cable**

Former secretary of state for business,  
innovation and skills





We are at a dangerous turning point at which the achievements of the past decade or so in building a green dimension into policy and, in particular, a strong commitment to decarbonisation, could be undermined and even reversed.

Much has been achieved. The Climate Change Act embeds ambitious targets in British law. Lord Stern's 2006 report provides perhaps the best analysis anywhere of the economics of climate change. Britain has provided international leadership on global environmental issues going back to Mrs Thatcher's sponsorship of the Montreal Protocol on the ozone layer and, more recently, to the coalition's role in the Paris climate change negotiations. European legislation has given the UK strong environmental protection laws in respect of air and water quality and species protection.

In the coalition government there was tension between the two parties over the priority given to green objectives. Nonetheless, there was radical reform of electricity pricing and the introduction of the carbon price floor. I was able to launch a Green Investment Bank which now has £12 billion investment in offshore wind, waste disposal and energy efficiency projects; a chain of Catapult innovation centres, several focused on new green industries, such as new renewables and energy storage; and an industrial strategy which incorporated support for a new generation of efficient car engines, electric cars and supply chains for offshore wind.

The context for the new industrial strategy looks very different and there is a rowing back from some of these objectives. New onshore wind has been effectively blocked, though it is now commercially competitive. Subsidy cuts and a lack of long term targets have seriously dented the development of solar and offshore wind, though their costs are falling rapidly. Privatisation will mean the government can no longer be sure the Green Investment Bank's patient capital or green mission will be around for the long term. The government is contemplating cutting back environmental protections as a consequence of Brexit. The environment secretary has talked of a third of EU environmental regulations not being transposable into UK law. And the prime minister, no less, has trailed the idea of the UK becoming a low regulation competitor.

There is also a sustained drip drip of scepticism by climate change deniers, some with links to the American right, in popular tabloids, who are influencing mainstream opinion and think tanks and inserting a steady flow of superficially plausible material into the public debate.

With climate change scepticism gathering momentum, particularly in the USA, this is an important time for the government to reassert its domestic and international commitments in terms of climate change reduction; to maintain its support under the industrial strategy for the Catapults specialising in renewable energy and energy efficiency, and for supply chain development of renewable energy industries; and to ensure that the Green Investment Bank is supported in building up its portfolio of green investments.

“This is an important time for the government to reassert its domestic and international commitments in terms of climate change reduction.”

# Industrial strategy fit for the future

## Perspectives on building a competitive UK economy

### Green Alliance

Green Alliance is a charity and independent think tank focused on ambitious leadership for the environment. We have a track record of over 35 years, working with the most influential leaders from the NGO, business, and political communities. Our work generates new thinking and dialogue, and has increased political action and support for environmental solutions in the UK.

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