

Cultivating world-leading sectors



The opportunity

Much of the proposed approach of our industrial strategy is to identify the underpinning policies and institutions that can help drive up productivity and prosperity across the economy.

But it is also the case that particular sectors form an area of strength or opportunity – with the connections between companies, institutions, and at times, the Government important determinants of their success.

The United Kingdom has some world-leading sectors that have high productivity, competitive advantages at a global level, and growth potential. Sectors such as aerospace, automotive, the life sciences, the creative industries, digital, financial services and professional and business services have generated significant growth in recent years.

In the global economy, one of the most important determinants of the success of an industrial sector is the extent to which a vibrant, competitive supply chain of smaller companies exists to support the major players. Recognising the common interest across businesses, of having a successful supply chain in place, several sectors have taken deliberate steps to create the conditions for a vigorous ecology of suppliers to develop. The supplying firms are, in effect, a common resource, making it easier for larger firms to operate. As well as the existence of supply chains, some sectors have worked deliberately to improve the funding of suppliers and their capacity for innovation.

In other sectors, shared institutions such as those in research and development, training, or standard-setting allow industries to collaborate on projects or underpinning work that could not be undertaken by one company on its own.

Although the requirement for the UK economy to be open and contestable is to be highly prized in this strategy, that is not to say that there are not advantages to the Government being actively engaged with particular sectors. Indeed some of the successes of industrial policy in recent years have been for the Government's work with particular sectors – automotive and aerospace being two examples – to support efforts that can benefit all firms in an industry.

There is an opportunity to open up this approach to new sectors and industries, including challengers to existing sectors. For example, FinTech is a sector in which we have a burgeoning reputation but whose existence is disruptive to established ways of working. Our industrial strategy must be as open to encouraging such sectors as traditional ones.

The challenge

We have significant variations in the productivity of different sectors. Furthermore, within many sectors there are large disparities between the best businesses and the rest.

The challenge for industries, sectors – and government policy – is how to maximise the benefits of collaboration between firms in

a sector, and between the sector and the Government to drive up productivity, innovation and competitiveness either without the Government directing a sector, or unwittingly creating a strategy of incumbency.

Experience in other countries, and in our own, is that it is possible to recognise and benefit from these advantages if approached in the right way.

A number of themes will inform our approach and draw from successful practice in the UK in sectors such as aerospace and automotive and overseas.

- **Business Leadership.** Business should lead the relationship with the Government, rather than the other way round. Sector councils – on which businesses are directly represented – can engage companies but they should be open to smaller and newer, as well as bigger and more longstanding players.
- **Supply chain perspective.** Most modern business sectors benefit from a thriving supply chain which may require propagation and coordinated effort from larger firms.
- **Creation of long-term institutions.** The creation of institutions like the Aerospace Technology Institute and Advanced Propulsion Centre by businesses in the aerospace and automotive sectors has enabled companies to cooperate on research and development projects and the Government has supported these institutions by making them eligible for competitive research funding.

The automotive sector: institutions supporting a developed sectoral policy

A number of institutions support the continued growth of the automotive sector in the UK, and coordinate its relationship with the Government.

Leadership institutions

- **The SMMT** (Society of Motor Manufacturers and Traders) is the industry's trade association that acts as the voice of the motor industry, promoting its position to the Government, stakeholders and the media.
- **The Automotive Council** is a Government-industry body jointly chaired by the Secretary of State for Business, Energy and Industrial Strategy, and an industry chairman. It has its own secretariat, funded by industry, with subgroups working on issues such as supply chains. It was set up to develop a **sector strategy** which led to the creation of new institutions to support research and inward investment.
- **The Department for Business, Energy and Industrial Strategy Automotive Unit** supports the Automotive Council by co-ordinating Government policy affecting the sector.
- **Sub-industry groups** include the **Motorsport Industry Association**, the **Retail Motor Industry Federation** and the **British Vehicle Rental and Leasing Association**.

Innovation and knowledge institutions

- **The Advanced Propulsion Centre (APC)** was created by the industry as a focal point for R&D projects. It is jointly funded by the Government and the sector with half a billion pounds of investment in research over the coming decade. Research projects funded by the APC include cleaner engines, energy recovery systems, and more efficient stop-start diesel engines.
- **The Office of Low Emission Vehicles (OLEV)** works to catalyse the transition towards ultra low emission vehicles. OLEV is delivering grants for electric vehicles, schemes to support charging and refuelling infrastructure, R&D competitions to harness innovation in the UK, and work to ensure the effective integration of electric vehicles into a smarter electricity grid.
- **The Centre for Connected and Autonomous Vehicles (CCAV)** helps ensure that the UK remains a world leader in developing and testing connected and autonomous vehicles. CCAV is a joint unit of the Department for Transport and Department for Business, Energy and Industrial Strategy set up in 2015, and has a research programme worth up to £200 million and further £100m to be matched by industry to establish a testing ecosystem.
- **Major independent research centres.** The Government has created an enterprise zone around **HORIBA MIRA** (originally the Motor Industry Research Association), now a thriving automotive technology park. **Millbrook**, based near Bedford, is another major test facility and technology park. **WMG at the University of Warwick** is another leading automotive research centre and is creating the **National Automotive Innovation Centre** to foster collaboration and cross-fertilisation of knowledge.

Skills institutions

- **The Institute of the Motor Industry** is the professional body for individuals working in the motor industry, setting standards and qualifications.
- **The Automotive Industrial Partnership** through which the sectors comes together to tackle skills challenges.

International investment institutions

- **The Automotive Investment Organisation** within the Department for International Trade, leads on attracting inward investors to invest in the UK, particularly supply chain companies.



Our approach

Many of the policies in this Green Paper are cross-cutting: they apply economy-wide and benefit all businesses. But, as has been described above, in our own experience and in the experience of our competitors, there is advantage in addressing the opportunities in particular industries and sectors – such as helping create conditions for a thriving supply chain, and developing institutions in which companies can share in research and development and training.

In all cases, arrangements must be open to new entrants and challengers to existing incumbents, and be agile so that emerging industries and sectors can avail themselves of cross-industry institutions, not just traditional sectors.

1. Challenging all sectors of the economy to upgrade through ‘Sector Deals’

Businesses rather than the Government are best placed to identify what companies need in order to enhance their competitiveness as a sector.

That is why, as part of the industrial strategy, we propose to set an ‘open door’ challenge to industry to come to the Government with proposals to transform and upgrade their sector through ‘Sector Deals’. This is not about the Government providing additional funding; rather, it would be an open call to business to organise behind strong leadership, like the automotive and aerospace sectors, to address shared challenges and opportunities.

We are looking for businesses to collaborate with other stakeholders, such as universities and local leaders to produce a clear proposal for boosting the productivity of their sector, setting out detailed plans to address challenges such as:

- delivering upgrades in **productivity**, including in supply chains;
- promoting **competition and innovation**;
- facilitating **long term investment and coordination** between suppliers and primes;

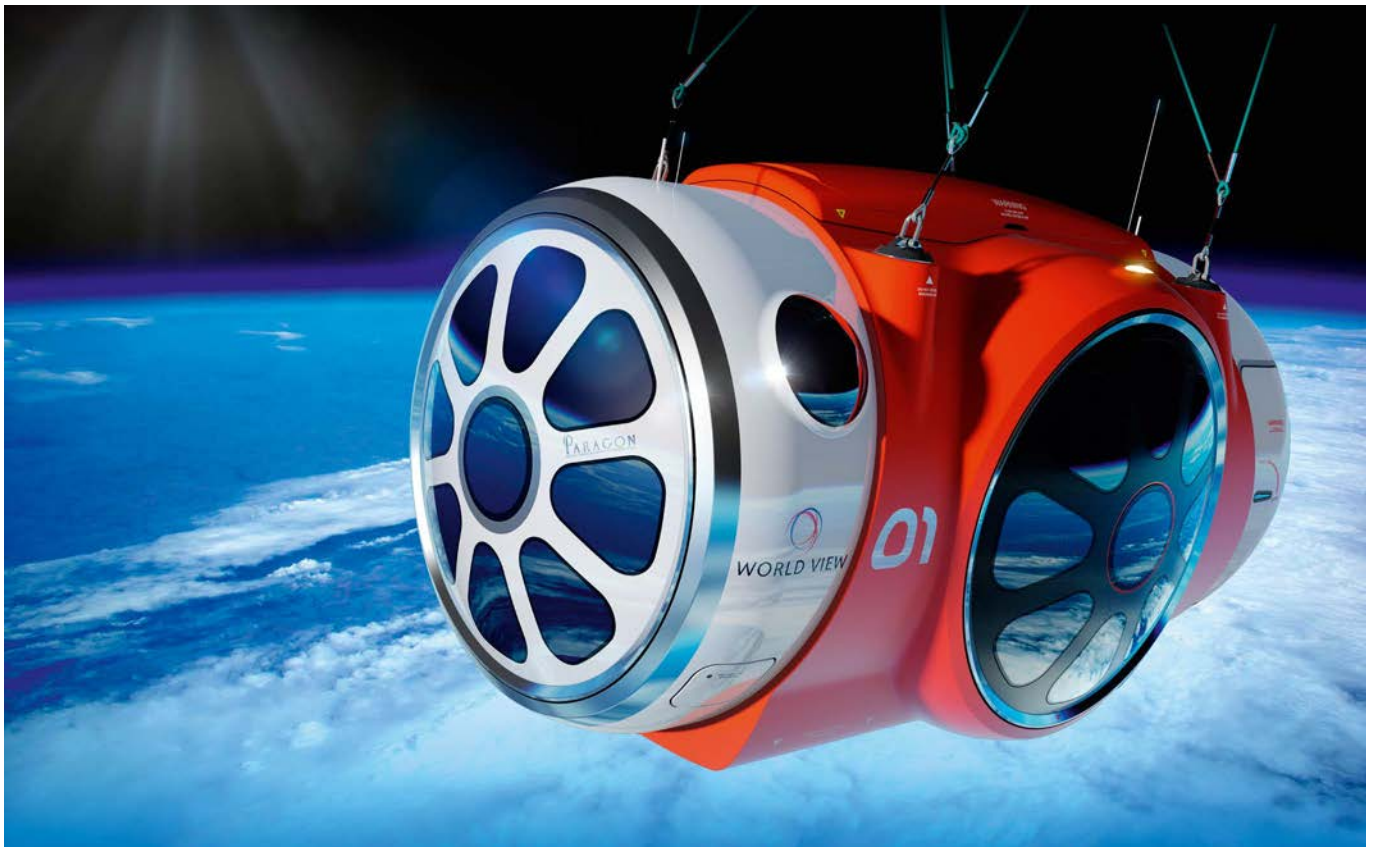
- **accelerating growth across the value chain**, including by identifying where the greatest value can be gained from technology development and investment;
- developing and growing the strengths of particular **clusters**;
- **increasing exports**; and looking at how we can use trade and investment deals to help the sector;
- **commercialising research** across sectors; and
- **boosting skills** and the number of high value, high productivity jobs.

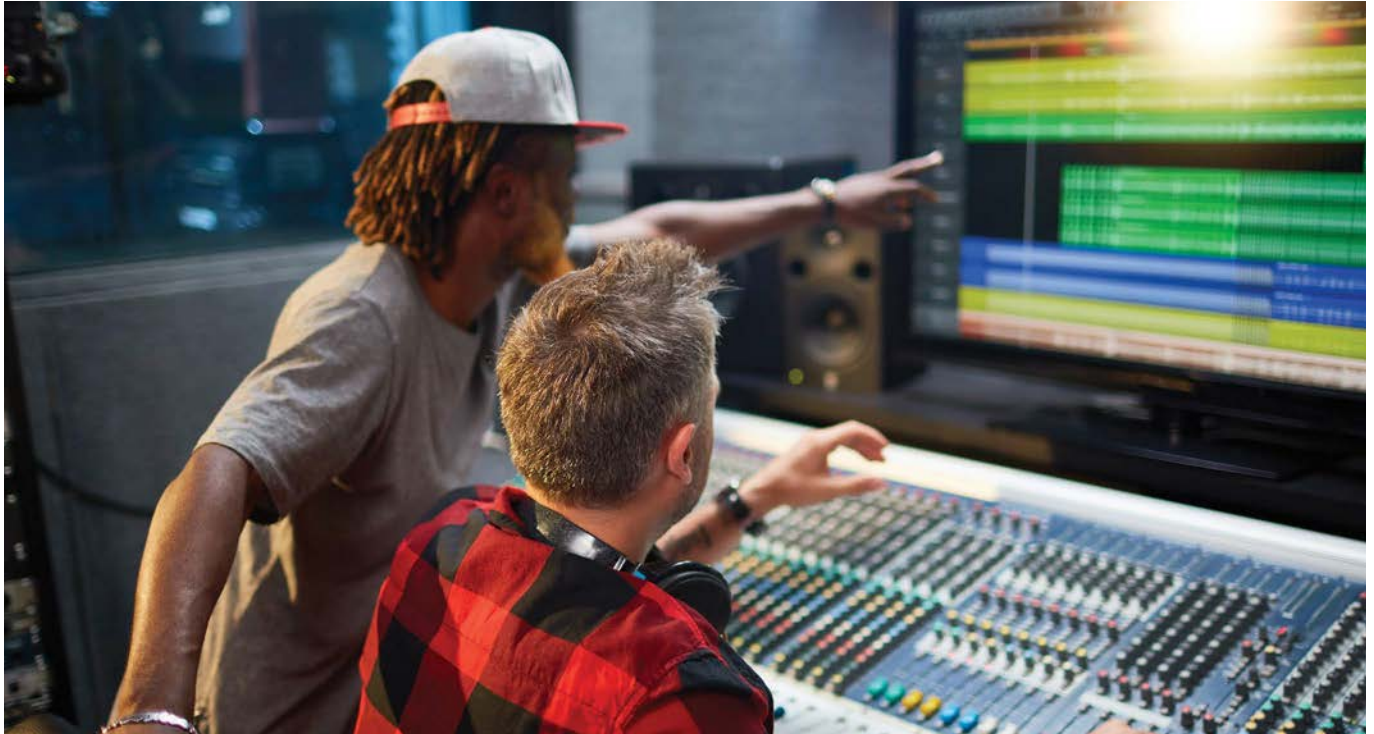
This invitation applies to both established and emerging sectors, and to businesses of all sizes.

To develop a deal with the Government, an industry or sector would need to show how the companies within the sector could take actions

to transform their strategic prospects, and how the Government could increase the prospects of success. This could be by:

- helping align government policies around a sector, including training and skills;
- addressing a regulatory issue or deregulating;
- promoting the creation and diffusion of new technology and good practice;
- ensuring existing sources of funding are used most effectively;
- helping address market access barriers with other countries; and
- supporting the creation of new institutions to support the sector, whether they are institutions to provide leadership, support innovation or raise skill levels





We intend this approach to be UK-wide. We will need to develop approaches to sector deals that work for business and are best aligned with resources in local and central government, and with the Devolved Administrations in Scotland, Wales and Northern Ireland.

Sector deals will not be confined to existing or traditional industrial sectors. The UK already has a number of sectors which are highly competitive internationally from advanced manufacturing to financial, legal and business services to life sciences and the digital and creative industries. There are new or growing industries like artificial intelligence and satellite technology where the UK has a real competitive advantage. Sector deals will enable us to build on our competitive advantages, and enhance emerging areas of strength.

Our experience of negotiating City Deals is that the prospects of creating a compelling proposition are significantly enhanced if there is clear leadership acting as a focal point for the development of proposals.

The Government will respond positively to compelling propositions from a wide range of sectors and industries if they can demonstrate that they can take action to improve the competitiveness of their sector.

The Government welcomes work on early sector deals:

- **Sir John Bell** has offered to lead work on a new strategy to make the UK the best place in the world to invest in **life sciences**;
- **Richard Parry-Jones** will lead work with the auto council to accelerate the transition of auto manufacturing to **ultra low emission vehicles**;
- **Juergen Maier** will undertake a review of **industrial digitalisation** to consider how UK industry can benefit from the accelerated adoption of digital technology across advanced manufacturing;
- **Lord Hutton** will oversee work to improve UK competitiveness and skills in **nuclear**;

- **Sir Peter Bazalgette** will conduct an independent review into how the UK's **creative industries**, like our world-leading music and video games industries, can help underpin our future prosperity by utilising and developing new technology, capitalising on intellectual property rights, and growing talent pipelines.

This is not an exclusive list and the Government is prepared to work with any sector which can organise behind strong leadership to address shared challenges and opportunities.

2. Supporting emerging sectors and innovative businesses

In some cases, industries are too new and too small to have well-developed sectoral institutions, but companies could still benefit from starting to build a stronger partnership with the Government, particularly to overcome the regulatory issues that often affect new industries.

The Challenger Business Programme works with businesses in these areas applying new technologies, innovative products and services, and transformational business models. The programme is founded on collaboration between businesses, regulators, and the Government. It aims to gain a full and rounded understanding of the issues facing businesses operating within emerging sectors and agree a set of actions for different partners to take forward, driving growth and boosting the UK's comparative advantage.

We now want to:

- undertake more deep dives into emerging sectors, and are keen to hear from industry about new areas the programme could look to explore; and
- intensify our efforts on driving through the recommendations from previous Challenger Programmes.

We would welcome views from industry on the Challenger Programme, and specifically new areas to explore, as we shape the next steps in this work.

3. Building on existing sector relationships

Where cooperation between the Government and sectors is already working strongly, we will deepen cooperation. This could involve updating existing strategies, or strengthening existing institutions, making most efficient use of existing sources of funding.

As well as the automotive industry (discussed above), the UK has strategies for a range of sectors from tourism to FinTech, helping remove regulatory barriers to the growth of these sectors. We will also shortly publish the 25 Year Plan for Food Farming and Fisheries and the Digital Strategy.

As noted above, aerospace is an example of a sector where partnership between government and industry is already well developed. The UK has one of most successful civil aerospace industries in the world, but competitive pressures are intense.

The Government is therefore working with the sector on a long term partnership, underpinned by a joint government-industry commitment to funding £3.9 billion of aerospace research and development projects between 2013 and 2026.

Much of this investment is directed towards research on new technologies that will help develop more environmentally-friendly aircraft, reducing emissions and noise. Considerable investment is also being made in new manufacturing processes to raise productivity and improve the cost competitiveness of UK suppliers.

The Government's long-term commitment to work with the aerospace sector in support of research and development and supply chain competitiveness, together with the UK's strong overall business environment, is encouraging world-leading companies like Airbus, Rolls-Royce, Boeing, Bombardier Aerospace, GE Aviation and GKN to invest in new facilities, technology, and skills, positioning the UK to win work on future aircraft programmes.

As part of the government-industry £3.9 billion commitment to the sector, we are jointly investing £14 million with Rolls-Royce and Loughborough University in a collaborative research and technology project to reduce engine emissions. The confidence provided by this type of support has helped Rolls-Royce

to invest £75 million in a brand new facility in Solihull, to design and develop engine control systems. These systems are integral to the production of the company's latest aero-engines, for which they have an order book of over £70 billion supporting thousands of jobs across the breadth of the UK.

This is a prime example of how the Government's approach to industrial strategy – with the Government and industry working together through the Aerospace Growth Partnership – is driving increased private investment in business, including in research and development, and in new, modern facilities, creating and sustaining thousands of highly-paid jobs in the UK.



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Actions under way:

- We are expanding the Challenger Business Programme to remove barriers that stop innovative businesses from thriving in the UK

New commitments:

- The Government welcomes work on **early sector deals**:
 - Sir John Bell on life sciences;
 - Richard Parry-Jones on ultra low emission vehicles;
 - Juergen Maier on industrial digitalisation;
 - Lord Hutton on the nuclear industry; and
 - Sir Peter Bazalgette on creative industries.
- This is not an exclusive list. The Sector deals process will be **open to all** and the Government is prepared to work with any sector that can organise behind strong leadership to address shared challenges and opportunities.

Questions for consultation

31. How can the Government and industry help sectors come together to identify the opportunities for a 'sector deal' to address – especially where industries are fragmented or not well defined?
32. How can the Government ensure that 'sector deals' promote competition and incorporate the interests of new entrants?
33. How can the Government and industry collaborate to enable growth in new sectors of the future that emerge around new technologies and new business models?