

The UK's industrial strategy (white paper – November 2017)



Background:

Almost a decade after the global financial crisis, and in the wake of the Brexit vote, business leaders, policy-makers and politicians have grown increasingly vocal about the need for new economic thinking if the UK is to overcome its problems of stagnant productivity and gross regional disparities in economic performance.

In July 2016, shortly after becoming prime minister, Theresa May established the Department for *Business, Energy and Industrial Strategy* (BEIS) – formerly the Department for *Business, Innovation and Skills* (BIS) – and in January 2017 the government published a green paper on industrial strategy *Building Our Industrial Strategy*. Seen as a natural extension of the *Fixing the Foundations* report (HM Treasury, 2015), the green paper set out the government's plans for supporting the UK's industrial sectors, improving productivity, driving growth across the country and making British business more competitive. The strategy was made up of 10 pillars.



The subsequent consultation on the green paper received 2,000 formal responses – among them APM's own response on behalf of the project management profession – with many more contributions received by the Department through its UK-wide programme of engagement. A period of silence ensued as responses were considered and a snap general election was called.

The industrial strategy white paper – context

The consultation on the industrial strategy green paper reinforced the importance of five foundations of productivity – the essential attributes of every successful economy.

The industrial strategy white paper provides a policy framework against which major private and public sector investment decisions can be made. It is a strategy that government says "is being implemented with, not just for, British enterprise – with the full involvement of innovators, investors, job creators, workers and consumers in England, Scotland, Wales and Northern Ireland". It is also a strategy that recognises the devolution settlements of Scotland, Wales and Northern Ireland. Indeed with many of the policies that can drive productivity being devolved, it is a strategy that necessarily brings the government's work together with that of the devolved administrations.

The consultation on the industrial strategy green paper reinforced the importance of five foundations of productivity – the essential attributes of every successful economy.

“Our five foundations align to our vision for a transformed economy”



Industrial strategy white paper, November 2017

Figure 1

The five foundations align to the government's vision for a transformed economy – a transformation that is “already taking place and will accelerate over the course of the coming decades”.

Through the consultation process the government also identified four “grand challenges”.

“We will set Grand Challenges to put the United Kingdom at the forefront of the industries of the future:”

<p>AI & data economy</p> <p>We will put the UK at the forefront of the artificial intelligence and data revolution</p> 	<p>Clean growth</p> <p>We will maximise the advantages for the UK industry from the global shift to clean growth</p> 
<p>Future of mobility</p> <p>We will become a world leader in the way people, goods and services move</p> 	<p>Ageing society</p> <p>We will harness the power of innovation to help meet the needs of an ageing society</p> 

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Figure 2

The foundations and grand challenges are set out in the sections that follow.

Headline policies:

- Creation of an independent **Industrial Strategy Council** that will assess the progress of the industrial strategy and make recommendations to the government.

Ideas (as per the autumn budget 2017):

- Raise total research and development (R&D) investment to 2.4 per cent of GDP by 2027.
- Increase the rate of R&D tax credit to 12 per cent.
- Invest £725m in new Industrial Strategy Challenge Fund programmes to capture the value of innovation.

People

- Establish a technical education system rivalling the best in the world to stand alongside our world-class higher education system.
- Invest an additional £406m in maths, digital and technical education, helping to address the shortage of science, technology, engineering and maths (STEM) skills.
- Create a new National Retraining Partnership in collaboration with the Trades Union Congress (TUC) and Confederation of British Industry (CBI) that supports people to re-skill – beginning with a £64m investment for digital and construction training.

Infrastructure

- Increase the National Productivity Investment Fund to £31bn, supporting investments in *transport, housing and digital infrastructure*.
- Support electric vehicles through £400m charging infrastructure investment and an extra £100m to extend the plug-in car grant.
- Boost digital infrastructure with over £1bn of public investment, including £176m for 5G and £200m for local areas to encourage roll out of full-fibre networks.

Business Environment

- Launch and roll-out *sector deals* – partnerships between government and industry aiming to increase sector productivity. The first sector deals are in life sciences, construction, artificial intelligence and the automotive sector.
- Drive £20bn of investment in innovative and high potential businesses, including through establishing a new £2.5bn Investment Fund, incubated in the British Business Bank.
- Launch a review of the actions that could be most effective in improving the productivity and growth of small and medium-sized businesses, including how to address what has been called the 'long tail' of lower productivity firms.

Places

- Agree local industrial strategies that build on local strengths and deliver on economic opportunities.
- Create a new transforming cities fund that will provide £1.7bn for intra-city transport. This will fund projects that drive productivity by improving connections within city regions.
- Provide £42m to pilot a teacher development premium. This will test the impact of a £1,000 budget for high quality professional development for teachers working in areas that have fallen behind.

A man and a woman are sitting at a table, looking at a document together. The man is on the left, smiling, and the woman is on the right, also smiling. They appear to be in a professional setting. The image is overlaid with a semi-transparent pink filter.

“For all the excellence of our world beating companies, the high calibre of our workforce and the prosperity of many areas, we have businesses, people and places whose level of productivity is well below what can be achieved. By improving productivity while keeping employment high, we can earn more – raising living standards, providing funds to support our public services and improving the quality of life for all our citizens.”

Rt Hon Greg Clark MP, secretary of state for business, energy and industrial strategy
– foreword to industrial strategy white paper - November 2017

Grand challenges:

Following the consultation, the government identified four 'grand challenges' to put the UK at the forefront of the industries of the future, so that the UK can "take advantage of major global changes, improving people's lives and the country's productivity."

As well as setting a path to improved productivity, the industrial strategy white paper sets out four areas where Britain can "lead the global technological revolution." These four grand challenges will be supported by investment from the Industrial Strategy Challenge Fund and matched by commercial investment.

The first four grand challenges are focused on the global trends which will transform the future:

- *growing the artificial intelligence and data-driven economy;*
- *clean growth;*
- *future of mobility;*
- *ageing society.*

As well as setting a path to improved productivity, the industrial strategy white paper sets out four areas where Britain can "lead the global technological revolution."

AI and data revolution:

The government pledges to put the UK at the forefront of the AI and data revolution.

- "Artificial intelligence and machine learning are general purpose technologies already starting to transform the global economy. They can be seen as new industries in their own right, but they are also transforming business models across many sectors as they deploy vast datasets to identify better ways of doing complex tasks – from helping doctors diagnose medical conditions more effectively to allowing people to communicate across the globe using instantaneous speech recognition and translation software."
- "Embedding AI across the UK will create thousands of good quality jobs and drive economic growth."

Clean growth:

- "We will maximise the advantages for UK industry from the global shift to clean growth – through leading the world in the development, manufacture and use of low carbon technologies, systems and services that cost less than high carbon alternatives."
- "The move to cleaner economic growth – through low carbon technologies and the efficient use of resources – is one of the greatest industrial opportunities of our time. By one estimate, the UK's clean economy could grow at four times the rate of GDP. Whole new industries will be created and existing industries transformed as we move towards a low carbon, more resource-efficient economy."
- "The UK has been at the forefront of encouraging the world to move towards clean growth. We are determined to play a leading role in providing the technologies, innovations, goods and services of this future."

Mobility:

- "We will become a world leader in shaping the future of mobility. We are on the cusp of a profound change in how we move people, goods and services around our towns, cities and countryside. This is driven by extraordinary innovation in engineering, technology and business models."
- "The UK's road and rail network could dramatically reduce carbon emissions and other pollutants, congestion could be reduced through higher-density use of road space enabled by automated vehicles, and mobility could be available when we want it, where we want it and how we want it."
- "We will look for opportunities to improve customers' experience, drive efficiency and enable people to move around more freely."

Ageing society:

- We will harness the power of innovation to help meet the needs of an ageing society."
- "The UK population is ageing, as it is across the industrialised world. The prospect of longer lives will require people to plan their careers and retirement differently. Ageing populations will create new demands for technologies, products and services, including new care technologies, new housing models and innovative savings products for retirement. We have an obligation to help our older citizens lead independent, fulfilled lives, continuing to contribute to society."
- "If we succeed, we will create an economy which works for everyone, regardless of age."

Sector deals

A key part of the government's industrial strategy plan is made up of "partnerships between the government and industry on sector-specific issues can create significant opportunities to boost productivity, employment, innovation and skills." As part of the debate following the green paper there have been a number of emerging sector deal bids. The government has announced four as part of the November 2017 launch with further deals to be announced in early 2018.

Life sciences sector deal:

- The government and the life sciences sector have agreed a multi-billion pound deal, ensuring that the UK remains at the forefront of innovation in this sector.
- The sector deal will seek to ensure new pioneering treatments and medical technologies are produced in the UK, improving patient lives and driving economic growth. The deal involves investment from private and charitable sectors and significant commitments in research and development from the government.
- The government the sector is highly productive and export focused, generating £64bn of turnover and employing over 233,000 scientists and staff. The UK is home to world-leading companies such as GSK and AstraZeneca, a strong small and medium-sized business sector, major health charities such as the Wellcome Trust and Cancer Research UK, and the NHS.
- The sector deal builds on the life sciences industrial strategy, which was led by the sector and Professor Sir John Bell.

Construction sector deal:

- The government and the construction sector, through the Construction Leadership Council (CLC), have agreed a sector deal to transform the productivity of the sector benefiting the wider economy. This is particularly significant as the construction sector has been accused of poor productivity in past decades so the CLC sector bid being chosen as one of the early phases of sector deals is a major success for the CLC and construction sector.
- As the government makes clear, construction is one of the largest sectors in the UK economy – with a turnover of £370bn, contributing £138bn in value added to the UK economy and employing 3.1 million people (9 per cent of the total UK workforce).
- The paper argues that *"The deal will substantially boost the sector's productivity, through greater investment in innovation and skills, creating new and well-paid jobs and maximising its export potential. This will also reduce the environmental impact, improve the efficiency and reduce whole life cost of new projects and buildings to help build the houses, schools, hospitals and major transport projects we need."*

Artificial intelligence sector deal:

- The AI deal is a boost to the UK's global position as a leader in developing these technologies. The government argues that "AI's potential is already well known: by one estimate it will add £232bn to the UK economy by 2030. The UK is a recognised world leader in developing AI. Deepmind, Babylon and Swiftkey – which was backed by Innovate UK – are all globally renowned companies founded here."
- The sector deal builds on the review by Professor Dame Wendy Hall and Jérôme Pesenti, 'Growing the artificial intelligence industry in the UK', which involved an extensive range of business leaders, academics and research councils."

Automotive sector deal:

- The sector deal for automotive builds on strong UK growth in this sector in recent years. The sector deal will attempt to ensure that the UK reaps the benefits from the transition to ultra-low and zero-emission vehicles by continuing to build the agile, innovative and cost competitive supply chain needed to secure internationally investment.
- The paper argues that the UK automotive sector is a great success story and that "we are the third largest European car producer and have the highest productivity in Europe among major automotive producing nations. The sector employs 159,000 people directly in vehicle manufacturing, with an additional 238,000 in the supply chain.



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Sara Drake, APM chief executive



Five foundations:

The five foundations are as follows (with some key examples from the white paper).

Ideas:

"To be the world's most innovative economy"

- Invest in R&D: a commitment to reach 2.4 per cent of GDP investment in R&D by 2027 and to reach three per cent of GDP in the longer term, placing us in the top quartile of OECD countries.
- Invest an additional £2.3bn over what was previously planned in 2021/22, raising total public investment in R&D to approximately £12.5bn.
- Invest a further £725m in a second wave of the Industrial Strategy Challenge programme.
- Invest £300m over the next three years in world-class talent.
- Work with UK Research and Innovation (UKRI) to develop a new competitive Strategic Priorities Fund.
- Develop an agile approach to regulation that promotes innovation, the growth of new sectors, and innovative market entrants while ensuring effective protections for citizens and the environment.
- Commit to reaching a total of £250m a year by 2020–21, as recommended in the Witty Review.

People:

"To generate good jobs and greater earning power for all"

- Establish a technical education system that rivals the best in the world to stand alongside our world-class higher education system.
- Invest an additional £406m in maths, digital and technical education, helping to address the shortage of science, technology, engineering and maths (STEM) skills.
- Create a new National Retraining Scheme that supports people to re-skill, beginning with a £64m investment for digital and construction training.
- Update school and college performance measures to ensure that students can make an informed choice between technical or academic education in time for the introduction of the first T-levels.

Infrastructure:

"A major upgrade to the UK's infrastructure"

- Increase the National Productivity Investment Fund to £31bn, supporting investments in transport, housing and digital infrastructure.
- Support electric vehicles through £400m charging infrastructure investment and an extra £100m to extend the plug-in car grant.
- Boost digital infrastructure with over £1bn of public investment, including £176m for 5G and £200m for local areas to encourage roll out of full-fibre networks.

Business environment:

"The best place to start and grow a business"

- Launch and roll-out sector deals (see page 8) – partnerships between government and industry aiming to increase sector productivity. The first sector deals are in life sciences, construction, artificial intelligence and the automotive sector.
- Invest £20bn of investment in innovative and high potential businesses, including through establishing a new £2.5bn Investment.
- Fund, incubated in the British Business Bank.
- Launch a review of the actions that could be most effective in improving the productivity and growth of small and medium-sized businesses, including how to address what has been called the 'long tail' of lower productivity firms.

Places:

"Prosperous communities across the UK"

- Agree local industrial strategies that build on local strengths and deliver on economic opportunities.
- Create a new transforming cities fund that will provide £1.7bn for intra-city transport. This will fund projects that drive productivity by improving connections within city regions.
- Provide £42m to pilot a Teacher Development Premium. This will test the impact of a £1,000 budget for high-quality professional development for teachers working in areas that have fallen behind.



What this means for project management

There is no doubt that project management – as a profession at the heart of transformation – is well placed, and indeed essential, to the successful execution of a number of the streams identified in the industrial strategy as set out by the white paper. As the various sector deals are rolled out in the coming months we will see greater detail of how this will be achieved, whether it is in traditional heartlands for project management like construction or newer sectors like life sciences.

All parts of the economy will benefit from using project management and so it is vital that we get the skills part right and central to this will be generating a *new pipeline* of talent into the profession as well as continuing to upgrade the skill-sets of the existing project management population.

Hopefully, the transition to a chartered profession will be recognised by leaders in various organisations who will increasingly acknowledge the part that can be played by good project management to transform innovation and productivity.

Central to the success of each challenge is the need for transformational skills like those provided by project management.

APM response to the industrial strategy white paper:

APM welcomes the publication of the Strategy and in particular the focus on the four "grand challenges" of artificial intelligence, life sciences, clean growth, and future mobility – as all four will require project management at the heart of the transformation required to achieve success. The UK's productivity challenge requires remedies to current weaknesses – as indicated by the secretary of state in his foreword – and therefore delivering major and indeed less major projects successfully would provide a clear benefit to UK productivity and turbo-charge the economy over the longer term.

Appendix – What others said:

Labour party:

- "What detail there is concentrates on a few elite industries in which Britain already has an advantage, and will do nothing to help the millions of people who work in low productivity and low wage sectors such as retail, hospitality and social care, or those based outside the 'golden triangle' made up by London, Oxford and Cambridge."
- "After the budget last week, the government's economic credibility has been shot to pieces. This white paper falls far short of the change of direction needed to improve our dire productivity, income and GDP growth. Labour's industrial strategy set out a radical programme of investment and genuine partnership between industry and government, to build an economy for the many, not just the few."

The Institute of Directors:

- "Business leaders will welcome the government's grand ambition to turn around the UK's woeful productivity performance. The measures in today's industrial strategy could be the beginning of a bold, new approach to the economy, but only if what has been announced today is followed through, not just in this parliament, but over many parliaments to come."
- "The government's aim to establish a technical education system that rivals the best in the world is very welcome. Last week's news, however, that there has been a 60 per cent collapse in the number of people taking up apprenticeships is proof that we need structural reforms alongside investment."
- "The root cause of much of Britain's underperformance in science and maths begins in schools. Alongside the measures in last week's budget, the additional £406m for education announced today, which includes the plan to up-skill 8,000 computer science teachers and funds to develop innovative Edtech to address the STEM skills gap, will be a big help."

The Confederation of British Industry:

- "Nine in ten firms see a modern industrial strategy as vital to improving living standards in the face of Brexit uncertainty and a sombre economic outlook. This announcement shows the government has its eye firmly on the horizon, not just the next few yards. We welcome the recognition that success will require urgent action in partnership with business. This is the route to raising living standards in every corner of the country."
- "The hard work starts now. Today's announcement must be the beginning of a strategic race, not a tactical sprint. And it needs to last. This is a time for consistency and determination, not perpetual change with the political winds. The creation of an independent council with teeth to monitor progress will help this."

Resolution Foundation:

- "A key new strand to today's strategy is the welcome focus on tackling the output gap between different parts of the UK, with new powers for metro mayors to support job creation and stronger pay growth in Britain's major cities."
- "Industrial strategies inevitably focus on exciting new industries, such as AI and life sciences. But to be truly transformative for living standards, this new strategy needs to focus more on lower paying sectors such as retail, which employs three million people."

Appendix – What others said (continued):

The Nuclear Industry Association:

- "A key new strand to today's strategy is the welcome focus on tackling the output gap between different parts of the UK, with new powers for metro mayors to support job creation and stronger pay growth in Britain's major cities."
- "Industrial strategies inevitably focus on exciting new industries, such as AI and life sciences. But to be truly transformative for living standards, this new strategy needs to focus more on lower paying sectors such as retail, which employs three million people."

The Nuclear Industry Association:

- "The government's industrial strategy recognises both that low carbon, secure and reliable nuclear power is a "vital part of our energy mix" and the wider economic contribution the nuclear industry can continue to make across the UK."
- "As we build new capacity to replace retiring power stations, and decommission old ones, the UK is well placed to develop supply chains, skills and international opportunities for the long term. Industry has made significant progress with government towards agreeing a sector deal which will maximise those opportunities and help improve productivity, foster innovation and reduce cost."

techUK:

- "There is still plenty to do, including supporting those millions of small businesses not yet taking advantage of basic tech. Companies can't take advantage of AI until they have built their basic digital foundations ... However, this white paper shows a clear commitment from government to prepare for and embrace the future. Given the challenges that lie ahead for the UK economy post-Brexit, there is a clear need to commit to the long-term."

University Alliance:

- "To deliver a prestigious system of technical education the government must build on universities' strengths in providing world-class professional and technical qualifications at degree and postgraduate level. This will ensure we develop the right mix of skills the country needs to meet the ambitions the government has set out today."

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