New Industry, New Jobs – one year on
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March 2010
We will work closely with the Devolved Administrations in Northern Ireland, Scotland and Wales, recognising their particular and varying responsibilities. While some of the policies in this paper are specific to England, the challenges are common across the four countries of the United Kingdom. Each will consider the most appropriate arrangements in those areas for which they have devolved responsibility, to address the issues in ways that meet their own circumstances and needs.
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“I wouldn’t go so far as to say that industrial policy is making a comeback – at least not in the way that some of us might remember it. But the challenge of long term, low carbon recovery and growth have pushed us to look more carefully at the way in which government can drive growth. How government policy can equip our country, our companies and our people to compete in a global economy.

Our New Industry, New Jobs paper removed a negative check on the subject that has been there for two decades or more. It argued that the choices government makes and the actions it takes are a huge part of what actually defines the shape of the market, and the capabilities of our people and companies when they compete in it. The more conscious we are of that, the better government will be at shaping the environment in which businesses are created and grow. In part this is about setting the right frameworks for the private sector to make its investment decisions.

Capacity building simply means recognising that while the market is irreplaceable as the ultimate arbiter of what is long-term viable in Britain, or anywhere else, industrial strength can be lost – or never built – for reasons that are totally avoidable and that have nothing to do with long-term viability and competitiveness. It can be a lack of growth or start-up capital. It can be a lack of information about opportunities. It can be the lack of a workforce with niche skills. It can be a lack of the right partnership between researchers and industry.

To argue that there is no role for active public policy in addressing these problems seems to me either dogmatic or complacent, or both. To argue that government is essentially the problem for competitiveness seems to me to make the same basic mistake. We’ve started to make the counter-argument, and we’ve put some serious resources behind it.”

Peter Mandelson, New Industry, New Jobs conference, October 2009
Chapter 1

An active industrial strategy for Britain

1.1 In April 2009, New Industry, New Jobs set out an agenda for equipping Britain to succeed in a radically transformed global economy. At the centre of this agenda was the need to think more strategically about the role of government in and alongside the market. Since its publication, New Industry, New Jobs has played an important role in reshaping the debate about the future of the British economy. This document sets out the progress in implementing this agenda since April 2009.

1.2 New Industry, New Jobs argued that, although government cannot and should not seek to substitute for the efficiency, discipline and dynamism of the market, there are ways that it can act that will complement markets to produce better outcomes for the aggregate productivity and growth of the UK economy. This is true, for instance, in the cases of infrastructure, training, finance for small and growing companies and investment in innovation. Government needs to be ready to intervene to address market failure or shape the parameters of markets to achieve wider social goals. Going for Growth – Our Future Prosperity built on this approach and described how the UK needed to invest in these capabilities to achieve sustainable economic growth.

1.3 Government also has an important role in setting the frameworks in which the private sector operates. It has a responsibility to set a long-term strategic vision for the economy with great clarity and coherence, so that firms and individuals can invest and make choices about their futures. Because the total business environment in the UK is shaped by almost everything government does, everything government does must reflect appropriate consideration of its effect on the firms and workers that are the bedrock of the UK’s economic strength.

1.4 Government action, whether as a purchaser, regulator or legislator, can create economic opportunities – but it can also limit or destroy them. Maximising the benefits of government action requires a cultural change in the way in which Government departments think about what they do. This is especially the case in a period of tight fiscal constraint, where resources have to be targeted to support private sector growth.

1.5 This need to focus on building the competitive potential of British businesses is even more important when set against the changing nature of the global economy. The rapid emergence of the large developing economies in the last quarter of the last century has reshaped the global labour market and radically changed global patterns of production and commerce. Production is increasingly
organised on a global basis through global supply chains, and we increasingly need to sell our goods and services into markets around the world. More than ever, business needs to be international in its outlook.

1.6 Our economic strength depends on our capability to compete in global markets and to develop the infrastructure to connect with, and integrate into, these markets. The transition to a low carbon and resource efficient economy, rapidly advancing technologies, demographic change and the growing markets of the emerging world all create opportunities for Britain and help provide the jobs of the future. Government has to understand where it can have a positive impact in unlocking the competitive potential of firms and workers to grasp them.

1.7 This document sets out what the Government has done across the three broad pillars established by *New Industry, New Jobs*:

- **investing in the basic capabilities UK firms and workers draw on** when they compete in markets at home and abroad, including skills, innovation, infrastructure and access to finance for enterprise;

- **targeted interventions in markets and sectors** where there are strong opportunities for growth and employment and where government action can make a positive difference;

- **a more strategic approach from government**, with a more sophisticated understanding of supply chains in the UK, so that policy makers can better take into account the impact of their decisions on business opportunities and industrial capability in this country.

1.8 Highlights of this work include:

- **the creation of the Department for Business, Innovation and Skills (BIS)**, which puts together for the first time some of the key policy levers for competitiveness, including skills, higher education, research, innovation and business policy, in a single department with a clear remit to drive future growth;

- **new frameworks for skills and higher education policy** that set out how we are making sure we have the pipeline of skills at every level to compete in the high-value markets of the future;

- **a range of sectoral strategies**, backed with new investment and aligned with the international work of UK Trade and Investment (UKTI) and regional delivery through Regional Development Agencies (RDAs). Our **advanced manufacturing strategy** in July 2009 focused on how the UK can benefit from its strengths in underpinning technologies, such as industrial biotechnology, advanced composites and plastic electronics, which can support growth across a range of sectors. We have also announced work with industry on strategies for space, business and professional services and low carbon construction;

- **the creation of Infrastructure UK** to map the UK’s future infrastructure needs and enable the investment to put this in place;
● the Digital Britain\textsuperscript{5} strategy to update the UK’s communications infrastructure to the standards required of a modern digital economy;

● the Low Carbon Industrial Strategy\textsuperscript{6} that has supported investment in wind and wave technology and implemented measures to help build the nuclear supply chain. The UK has the world’s largest demonstration of its kind for ultra-low carbon vehicles and is now set to be a global leader in ultra-low carbon transport and wind, wave and civil nuclear energy generation;

● a Life Sciences Blueprint\textsuperscript{7} to transform the UK for the pharmaceutical, medical biotechnology, and medical technology sectors;

● the creation of the Strategic Investment Fund, set up at Budget 2009 which has earmarked almost £1 billion to projects to develop the UK’s comparative strengths in new technologies and capacities for innovation\textsuperscript{8};

● the creation of the UK Innovation Investment Fund, which has drawn in £325 million of public and private money to support the growth of firms with innovative technologies;

● a more coordinated approach within government to realising business opportunities from its actions as a procurer or regulator, building on pilot projects on rail, digital economy, housing and waste management;

● a clear plan to use procurement to increase the number of apprentices, improve the way innovative Small and Medium-sized Enterprises (SMEs) can assess procurement opportunities and ensure public procurement contributes to the development of a low carbon economy;

● clear priorities for action at national, regional and local levels\textsuperscript{9} that put the RDAs at the centre of a new partnership for driving private enterprise and innovation in the regions and creating regional skills strategies. The RDAs have published their own action plan which sets out how they will deliver this role;

● an active role in embedding the principles of New Industry, New Jobs in European policy. In The Future of EU Competitiveness\textsuperscript{10}, the UK argued that Europe should focus its attention on strategic investment in Europe’s capabilities for growth in areas such as the transition to a low carbon and digital economy. The European Commission’s initial vision of where the European Union (EU) should be in 2020 closely follows the Future of EU Competitiveness.

1.9 The remainder of this document describes the key aspects of this ongoing work in greater detail. It sets out how we intend to embed the approach behind it at the heart of planning for the recovery and the UK’s future economic strength. Looking ahead, we will:

● respond to the first ever national skills audit produced by the UK Commission for Employment and Skills, to help us get a better match between skills supply and demand;

● launch UK Finance for Growth to oversee the Government’s £4 billion portfolio of SME finance products, including a new Growth Capital Fund;
● set up a **Green Investment Bank** to invest in the low carbon sector;

● develop a strategy to implement the recent report by Hermann Hauser, recommending a **network of Technology and Innovation Centres**;

● introduce new actions to exploit our strengths in **defence and security, creative industries and higher and further education**;

● establish **regional growth funds** for 2011/12 to promote high value investment in support of regional and national growth and industrial policy;

● **modernise the legislative framework** that underpins our industrial strategy.

1.10 Increasing confidence and certainty will be crucial to business investment, an important driver of increased productivity and economic growth. Businesses report that a major source of uncertainty is the level of public borrowing and how this will be reduced. Business are looking to government to provide a credible plan to reduce the debt to a sustainable level without undermining growth. The Budget set out proposals to begin this process. Recognising that, even in tough times, it is vital to invest in growth the Budget also set out investment plans, summarised in this document, to develop UK capabilities that will help drive future economic growth.

1.11 As outlined in *Going for Growth*, the growth of the British economy after the banking crisis will need to be environmentally sustainable, more balanced and resilient to economic shocks, and shared across both regions and individuals. *New Industry, New Jobs* argued that greater activism from government in equipping the UK to grow in this way and produce workers and firms capable of competing at the top of global value chains is a necessary part of our recovery plan and our response to globalisation.

1.12 The challenge for both Britain and the EU is to build an activist industrial policy that equips them to retain a diversified economy, based on high-value, high-skill employment, without compromising their commitment to the benefits that flow from openness and the discipline of free competition.
The foundations of our competitiveness

Chapter 2

2.1 The UK’s basic approach to industrial competitiveness over the last decade has been to maintain a macroeconomic environment that promotes business growth and competition and which attracts inward foreign investment. This has been augmented since 1997 with a succession of supply side reforms that have given the UK one of the most open and dynamic economies in Europe and the world. The UK has:

- one of the best environments in the world to do business, ranked by the World Bank as the best in Europe and fifth globally;\(^{11}\)
- low inflation, following independence of the Bank of England, which creates greater certainty to invest;
- an internationally acclaimed competition regime, boosted by the UK and the European Union’s relative openness to trade;
- a university system that is recognised as one of the best in the world, with particular strength in undertaking outstanding research;
- an openness to inward direct investment coupled with the UK’s strengths as a financial centre, its location in the European single market and its general enterprise climate, have made the UK the largest recipient of inward direct investment in the world after the US;\(^{13}\)
- flexible labour markets that enable firms to grow and contract quickly, but which protect and help workers with retraining and support as they move between jobs. This flexible labour market has been one of the UK’s greatest assets during the downturn.

2.2 *New Industry, New Jobs* identified five key areas in which the frameworks for British competitiveness needed to be reviewed and strengthened. These were skills, innovation, finance, infrastructure and export growth. These horizontal policy areas all underpin key British industrial capabilities: strengthen them, and strengthen the viability and competitiveness of UK firms and their employees.

Skills: a demand-led system that fills strategic skills gaps

2.3 Education and skills are crucial for productivity and competitiveness. The UK has invested heavily in its skills system and has a strong record in producing skilled workers – 30 per cent of UK adults have completed tertiary education, above the OECD average.\(^{14}\)
However, the UK remains weaker in the vital intermediate skills that are integral to a modern economy. It has a large number of workers with no formal qualifications, who have to rely on effective systems of adult training if they are to realise their potential.\textsuperscript{15}

\textit{New Industry, New Jobs} argued that the UK needed to take a more strategic approach to identifying and meeting its skills needs. The skills system must be shaped above all by demand from employers and individuals, not government and its agencies through manpower planning. This requires active engagement from business to communicate their future needs and how the jobs they offer will make good use of the skills people have, and a better flow of credible, accessible information from government on the wider skills market in the UK.

But given the known market failures that exist in training and skills, this approach will not by itself create the world class skills base we need. Where there are identifiable gaps that threaten the current or future competitiveness of UK firms, then government must ensure that action is taken to close them. Since the publication of \textit{New Industry, New Jobs}, this approach has been defined and embedded in a new Skills Strategy \textit{Skills for Growth}\textsuperscript{16}.

\textit{New Industry, New Jobs} established an annual national “Skills Audit”, the first of which has been developed by the the UK Commission for Employment and Skills (UKCES)\textsuperscript{17}. The Skills Audit identifies specific skills that will be required across the economy and in particular sectors. This provides a high-level assessment of current and future skills needs and will be repeated annually.
to help business, government, universities and students better understand how to anticipate and respond to future demand. Data from the *Skills Audit* will be made available through the Adult Advancement and Careers Service, and through careers guidance for schools, colleges and universities, alongside labour market information on individual sectors and details of the availability and quality of local courses. This reflects our commitment in both higher education and further education to provide a much better flow of easily accessible, clearly presented information to businesses and individuals, so they can make informed choices that will drive demand in the system.

2.8 The *Skills Audit* will also help the RDAs, in tandem with local authorities and employer-led Employment and Skills Boards, in their new role of producing Regional Skills Strategies and annual priority statements which will articulate the employer voice in each region. These will be included in the annual National Skills Investment Strategy, against which the Skills Funding Agency will fund colleges and training organisations.

2.9 The *Skills Audit* identifies a range of areas in which we need to strengthen our skills base: management and leadership skills; professional skills – notably science, technology, engineering and mathematics (STEM) skills – in a wide range of sectors including computing, manufacturing and teaching and research; technician and equivalent skills across many sectors; intermediate vocational skills and care services. The report also highlights the need to continue to raise the level of generic employability skills in graduates.

2.10 The Government has already taken a number of direct steps to **address the kinds of skills shortages identified by the *Skills Audit***. Some act across the whole economy and labour market, while others address specific market and sector priorities.

2.11 The **number of advanced and higher level apprenticeships for 19-30 year olds will be doubled** over the next two years, with an additional 35,000 places by 2012. Over time, and as the volume of employer demand for apprenticeships rises, the National Apprenticeship Service will prioritise the growth sectors identified in the *Skills Audit*.

2.12 To increase the supply of technician level skill in SMEs, Government has provided an extra £11 million to create 3,000 additional apprenticeships to support large employers and facilitate redeployment into SMEs.

2.13 This expansion of advanced apprenticeships will help create a **new class of modern technicians**. Lord Sainsbury is working with business and the wider STEM community to develop proposals for improving the status of technicians. Significant progress has been made towards developing a new *Technicians Council* that will bolster and promote the professional status of technicians.

2.14 Universities already work closely with employers in teaching, research and spin-out activities. Yet major businesses continue to express concerns about their ability to recruit enough people with the skills and aptitudes they want.
And for their part, the choices students make about the subjects they study and the jobs they subsequently apply for are powerfully influenced by employers’ own behaviour in offering attractive, rewarding jobs that make good use of their skills.

2.15 To help bridge this gap, we will ensure that leading employers can play a major part in shaping the way HEFCE works with universities to get a better match between skills supply and demand. Building on the work HEFCE already undertakes, we propose to set up a high level task and finish business group with the aim of strengthening HEFCE’s funding response to strategic skills priorities. However to do so, we need this group to be a real partnership, with business playing its part in articulating demand and in providing co-investment. As highlighted in Higher Ambitions, we want to use funding levers in a targeted, deliberative way in order to create the right incentives for the higher education sector to respond to economic priorities even during a period of financial constraint. We are also brokering High Level Skills Market Teams to address specific new skills needs faced by a small number of employers that could be met by universities.

2.16 New Industry, New Jobs emphasised the need to produce more STEM graduates. This was reinforced by the framework strategy for higher education, Higher Ambitions. Government will continue to strengthen incentives for universities and colleges to increase the volume of provision in priority areas, including those identified in the Skills Audit. We have asked the Higher Education Funding Council for England (HEFCE) to draw up recommendations to incentivise universities to keep adapting the design, delivery and scale of the courses they offer, so that they match the skills needs of employers. This will build on existing mechanisms to strengthen the flow of STEM skills.

2.17 Progress in filling strategic skills gaps will be closely monitored. HEFCE will review each year how patterns of provision in higher education are adapting as individual universities respond to the evidence on employers’ skills needs, particularly in priority markets and sectors. A-level data in 2009 shows a 5.2 per cent increase in entries in maths and science subjects compared to 2008. The Government provided 10,000 additional higher education places in STEM and other priority subjects in 2009/10, and HEFCE will provide £10 million in 2010/11 to help universities switch activity into expanding STEM places and other priority subject areas.

2.18 We announced in the Budget we would provide funding for universities to recruit an additional 20,000 undergraduates, with priority given to the subjects that will best support growth, such as STEM and priority areas identified in New Industry, New Jobs and the Skills Audit. These will be funded from a £270 million Higher Education Modernisation Fund, available in 2010/11 and administered through HEFCE.

2.19 The range of actions described above will strengthen our skills base overall, creating a labour force that has the skills and aptitudes to respond flexibly to
changing business needs. But we also need targeted action in priority markets and sectors.

2.20 To build capacity to meet priority skills needs, the Government has launched a prospectus for the new Joint Investment Programme for skills. Co-funded by the Government and employers, the programme will invite proposals for new and expanded training in areas that will directly address the priorities identified in the UKCES Skills Audit, and in Skills for Growth, New Industry, New Jobs and regional statements of skills priorities. The newly-relicensed Sector Skills Councils and Industry Training Boards will develop and broker the proposals with employers in their sector, to ensure that the training meets their priorities. To reinforce employer leadership of the initiative, a Board member of the UKCES will chair the panel that decides the winning proposals.

2.21 National Skills Academies enable employers to collaborate to drive and shape the design and delivery of training in their sectors. Approximately one million people have already been supported by the 15 academies in the existing national network. We announced last week £5 million public funding towards an Academy for Underground Construction in Ilford, London run by Crossrail to train 1,800 people a year in the complex engineering and technical challenge of tunneling. We also announced that a further four National Skills Academies in rail engineering, logistics, green building services and emerging technologies (covering biotechnology and composites) will go forward to the next stage of business planning. The Academy for the Power Industry has just opened and will help us prepare our workforce to exploit low carbon energy.

2.22 We are working to improve skills in the domestic labour market in the relatively small number of cases, representing about 6,500 vacancies in 2009, where employers recruit individuals from outside the European Economic Area (EEA) for specialist jobs requiring intermediate and higher level skills when there is a shortage of suitably skilled workers resident in the UK. We will do this by ensuring that UKCES works even more closely than before with the Migration Advisory Committee (MAC) and by prioritising action to respond to skills needs within these occupations. We will:

- work with Sector Skills Councils and Industry Training Boards to ensure that employers are demonstrating progress to recruit and train increasing numbers from the UK labour market, with relevant qualifications, before the MAC decides whether it is sensible to include the occupation on the shortage list;
- strengthen the response to skills shortages identified by the MAC, with a clear role for RDAs, the Skills Funding Agency, colleges and other training providers to ensure that local provision increases the number of UK residents with the required skills, and for JobCentre Plus to identify and refer suitable clients to gain the skills that will equip them to fill identified vacancies. JobCentre Plus will also actively engage those employers that currently use migrant workers to encourage them to recruit from the domestic labour market and, where necessary, will extend eligibility for full time training beyond the current eight weeks as needs arise.
2.23 In addition to shaping the supply of skills and training to better meet the economy’s needs, action is also needed on demand, if skills are to be deployed effectively to raise productivity:

- leadership and management performance in this country lags behind international best practice. The high number of managers with relatively low skills impedes our ability to exploit innovation and talent and drive growth. More than 30,000 small business leaders have been helped with a personal development plan through Train to Gain. We will continue to address the leadership and management skills gaps identified in the UKCES Skills Audit;

- the new Healthcheck for Growth, available through Business Link, will help SMEs to use existing skills and analyse what new skills they require to drive growth. SMEs completing the Healthcheck for Growth will be the priority for support through the Train to Gain programme;

- employee engagement and other high performance working practices can have a significant impact on competitiveness and performance. On 23 March, building on the recommendations of the MacLeod Review, we launched a suite of materials to support employee engagement;

- we will continue to use public procurement to promote skills training and apprenticeships. There is now a presumption that departments and arms length bodies include apprenticeship requirements in their procurements (where relevant and consistent with value for money principles and EU procurement rules). This new presumption underpins our aim to secure 20,000 apprenticeships over the next three years through public procurement. As part of our overall ambitions, we are also working closely with local authorities and the Local Government Association to exploit opportunities to promote skills and apprenticeships through local government procurement;

- we will encourage Sector Skills Councils to work with regulators and regulated industries to develop a shared approach to addressing the skills challenges facing their industries, following the example of the actions taken by Energy and Utilities Skills, electricity and gas distribution companies, and OFGEM to address skills issues facing their sector.

Innovation: creating a British innovation infrastructure

2.24 Driven by a decade of rising investment, the UK research base is among the very best in the world. In New Industry, New Jobs the Government undertook to protect and raise investment in science and research, and set as a priority an improvement in the UK’s ability to commercialise the knowledge generated by its strong science and research base.

2.25 Better links between universities and the private sector over the last decade have already led to a doubling in real terms of external income that universities receive, reaching £2.8 billion in 2007/08. Research Councils now work directly with around 3,000 British businesses, in sectors from broadcasting to biotechnology and engineering to insurance. Similar partnerships are also created through the government-funded Technology
Strategy Board and RDAs. As part of New Industry, New Jobs, the Government strengthened the resources of the Technology Strategy Board with an additional £50 million at Budget 2009.

2.26 UK universities are among the best in the world. To exploit further their commercial potential, the Government will invest up to £25 million in a University Enterprise Capital Fund. This will provide crucial early-stage funding for the most promising university innovations.

2.27 In Going for Growth, the Government commissioned technology entrepreneur Hermann Hauser to evaluate the UK’s landscape for knowledge commercialisation and innovation, reflect on best practice internationally and set out how Britain can begin to knit its many strengths in technological innovation into a national innovation infrastructure. His review has recommended growing a network of national centres, capitalising on existing Technology and Innovation Centres by investing further in research and developing selected technologies. The Government has committed to taking forward these recommendations and has given the TSB the task of working with industry, the Research Councils, RDAs and devolved administrations on how to implement them.

2.28 New Industry, New Jobs also saw the renewal and reform of the Small Business Research Initiative (SBRI) programme. Working with the Technology Strategy Board, the Government has reformed the SBRI programme to focus it on technological innovation, particularly in SMEs. The SBRI funds special procurement competitions that require bidders to develop innovative technological solutions to problems in public service provision. Twenty-five competitions have been launched, resulting in more than 350 contracts worth £24 million. Firms participating in the Retrofit for the Future competition, for example, have been able to develop techniques widely applicable in the growing private building retrofit market. To help more SMEs win contracts to develop technology-based solutions, the Government is investing an additional £20 million in SBRI. The UK has strongly advocated the creation of a similar scheme at EU level as part of the European Commission’s upcoming Innovation and Research Plan in 2010.

2.29 Within key sectors identified in New Industry, New Jobs, we have provided targeted support to stimulate and accelerate innovation. For example, the Carbon Trust has helped more than 100 innovative low carbon companies through its Business Incubator to grow their business. In addition, it has set up successful research and technology Accelerators to help UK businesses address barriers to development and deployment of new technologies across a range of sectors including biofuels and offshore wind.

Enterprise and finance: starting and growing companies

2.30 New Industry, New Jobs argued that the UK needed more ambitious measures to address the persistent evidence of a funding gap for start-ups and growing businesses in Britain. Although we expect a recovery in the financial sector over the next few years, it is unlikely that lending practices by banks will return to
the unsustainable pre-crisis levels, particularly for smaller and more innovative firms. Two key initiatives to address this gap are the UK Innovation Investment Fund and the Growth Capital Fund.

2.31 To support high technology firms seeking capital the Government has created the UK Innovation Investment Fund, part-funded by the Strategic Investment Fund. In less than eight months, a £150 million cornerstone investment from the Government has leveraged an additional £175 million from the private sector. The fund is expected to be worth up to £1 billion over its lifespan of 12 to 15 years. This is being invested in two new commercial venture capital funds of funds: the Hermes Private Equity Environmental Innovation Fund, aimed at increasing the efficient use of resources; and the European Investment Fund’s Future Technologies Fund which will invest in life sciences, digital technology and advanced manufacturing.

2.32 A large number of SMEs look beyond banks for growth capital financing. The Government commissioned a review by Chris Rowlands24 that led to the announcement of a Growth Capital Fund in 2009 to draw on public and private sources of capital to provide a source of growth capital for British SMEs. So far, £200 million of cornerstone investment from government and banks has been raised.

2.33 The Government’s interest in the fund will be controlled by UK Finance for Growth (UKFG) which is being created to oversee all publicly backed SME Financial products worth £4 billion. The UKFG will improve the way in which government works with the private sector and provide a credible channel for private capital to invest in new, established and growing SMEs. Regional schemes will be positioned to be complementary, consistent and co-ordinated with the work of the UKFG, offering a clearer route to financial support for SMEs across the UK. In time, the UKFG will bring greater coherence, ease of access and economies of scale to publicly-backed funds.

2.34 The UK has also argued for similar action at EU level to create wider markets for venture and growth capital. In particular, the UK has advocated an enhanced the role of the EU’s investment arm – the European Investment Fund (EIF) – by enabling EIF to use its AAA rating to raise €3 billion through bond issues to invest in strategic sectors such as low carbon, life sciences, digital and advanced manufacturing.

2.35 In 2009 the European Investment Bank (EIB) signed or approved £9.4 billion worth of loans to the UK. BIS and HM Treasury are working together to ensure that businesses are aware of funding opportunities available from the EIB and to help them access that funding.

2.36 Despite the difficulties businesses have faced over the last year, data from Barclays Bank paints a positive picture of the resilience of enterprise during the recession. They estimate that business start-ups have held up well and that the business stock is at its highest level in over 20 years25.
2.37 We need to build on our existing efforts to encourage people to raise their ambition to start their own business and equip them to fulfil their aspirations. The Government announced in Budget further measures to develop our entrepreneurial culture and nurture talent, particularly from the graduate population. This included a £2 million expansion of the National Council for Graduate Entrepreneurs’s *Flying Start* Programmes. These encourage and support current students and recent graduates to set up their own businesses.

2.38 We have simplified business support, so businesses can more easily identify what is available and access it through Business Link. We now have a coherent portfolio of Solutions for Business products, replacing a complex array of over 3,000 schemes.

Infrastructure: driving growth by renewing the UK’s economic foundations

2.39 *New Industry, New Jobs* argued that the decisions that the UK takes over the next few years on renewing its infrastructure will shape Britain’s competitiveness and prosperity for decades ahead. Not only does Britain’s basic transport, energy, water, waste and communications infrastructure need constant renewal, the networks also need to adapt to decarbonisation and the shift to digital communications.

2.40 Over the last decade, both the public and private sectors in the UK have begun to tackle an historic backlog of infrastructure investment through an investment programme in transport, energy, utilities and modern communications systems.
In the years ahead, it will need a planning system that responds quickly to the need for large-scale infrastructure and a framework that uses a combination of direct investment, partnership with the private sector and effective and targeted use of economic regulation to ensure that the right infrastructure is built quickly and effectively.

2.41 Following the identification in *New Industry, New Jobs* of the need for a coherent approach, the Government created **Infrastructure UK** as a focal point for the UK’s infrastructure strategy and its long-term development and delivery. Infrastructure UK published a strategy for national infrastructure at the Budget 2010 that included proposals for developing effective long-term plans and priorities and improving delivery of infrastructure.

2.42 The Government has also established the **Infrastructure Planning Commission (IPC)** that will oversee planning decisions on major projects. The IPC is charged with reducing the average time for decisions on major planning decisions from typically more than two years to less than a year.

2.43 A key part of *New Industry, New Jobs* were new plans to secure the UK’s position as one of the world’s leading digital knowledge economies. The Digital Britain White Paper, published in June 2009, included plans for revolutionising Britain’s **digital information and communications infrastructure**. The UK already has one of the most competitive and well-developed communications infrastructures in Europe. So that a good basic level of broadband is available across the entire country, the Government is spending up to £200 million on a Universal Service Commitment, ensuring that virtually every home has access to 2 Mbps service. We are setting up Broadband Delivery UK to deliver this commitment.

2.44 Nearly half of UK households can now access 50 Mbps through Virgin Media’s network and BT is investing £1.5 billion to bring super-fast broadband to 40 per cent of homes by 2012. The Government will also invest up to £1 billion to incentivise the market to deliver super-fast broadband in the parts of Britain that would be unserved by the market alone. By 2017, 90 per cent of British households will be able to access super-fast broadband. Broadband Delivery UK will manage this Next Generation Fund, part-funded by a small 50 pence levy on all existing fixed-line customers.

2.45 The Government has now directed Ofcom to take steps to facilitate wider coverage of 3G and Next Generation mobile services, a rapid transition to Next Generation mobile broadband, and continuing strong competition in the mobile sector. The Digital Economy Bill, published in November 2009, proposes a new duty for Ofcom to review the UK’s communications infrastructure every two years and, alongside this, a duty to encourage investment in communications infrastructure.
The foundations of our competitiveness

2.46 The Government recognises the important role that transport infrastructure plays in facilitating international trade and supporting growth in key sectors such as low carbon and advanced manufacturing in new markets. Since publishing *New Industry, New Jobs*, the Government has facilitated new investment into our domestic and international transport links, including the new £1.5 billion London Gateway Port development, new proposals for a high-speed rail network and a £1.1 billion programme of new rail electrification. In addition, the Department for Transport is leading a new programme to improve and streamline processes to support better end-to-end journeys for passengers and freight users using the UK’s international transport links.

2.47 Infrastructure UK and other stakeholders have identified that there is a significant risk of a gap emerging in the provision of equity capital to large complex infrastructure projects within the next few years. The Government intends to create a Green Investment Bank to invest in the low carbon sector. It will start by investing up to £1 billion from the sale of infrastructure-related assets and seek to match this with at least £1 billion of private sector investment.

2.48 The Government is working with businesses, colleges and trainers to ensure that UK-based firms have the necessary skills and technological capabilities to compete for contracts in creating this new generation of British infrastructure. The Government is launching a consultation on the skills priorities and barriers to progress in power, transport, the built environment and manufacturing supply chains, with a view to publishing a full Low Carbon Skills Strategy in the autumn.

Access to international markets

2.49 Expansion into export markets is a key route to growth for British firms. The size and wealth of the European Single Market, the growing size and prosperity of the global middle class outside the OECD and the demand in high-growth markets for services, new infrastructure and capital goods represent significant opportunities for UK business. An additional £10 million was provided at Budget 2009 through the Strategic Investment Fund to strengthen the work of UKTI to help companies in key growth sectors compete for international business.
2.50 *New Industry, New Jobs* committed to **reviewing the support given to UK exporters** by the Export Credits Guarantee Department (ECGD). EGCD has launched a new letter of credit scheme with UK-based banks to insure UK exporters effectively against default by customers. In December 2009 we launched a public consultation to gather views on proposals to update ECGD’s policies to allow British exporters to compete on a level playing field with their overseas competitors. An interim response was published on 19 March, announcing changes to ECGD’s procedures in order to provide a more streamlined service to UK exporters. We also extended ECGD’s Fixed Rate Export Finance scheme to run until 31 March 2011 under its existing budget.

2.51 There are opportunities to provide a more coherent and efficient service to UK exporters. Government will put in place measures to achieve this, including co-locating ECGD and UKTI headquarters to provide a one-stop-shop for businesses seeking to export. A further 1,000 businesses will also be supported by UKTI’s regional network in 2010/11.
Progress against commitments in *New Industry, New Jobs*

- The Government published its active skills strategy and its Higher Education Framework, and UKCES has produced the first ever national *Skills Audit*. It has strengthened the employer voice and developed the frameworks for apprenticeships and qualifications.
- The Government launched an independent review of SME growth capital, which reported in November 2009.
- The Small Business Research Initiative was extended in June 2009 and the Research Councils introduced new grant application forms with impact statements.
- The Council for Science and Technology reported in June on infrastructure resilience and skills.
- Following consultation, the Government introduced a range of incremental reforms to ECGD.

Summary of next steps

- The Government will take forward a package of measures to respond to the *Skills Audit*, including a Joint Investment Programme and four new National Skills Academies. HEFCE will provide £10 million to help universities switch activity into expanding STEM places, and the Government is also funding universities to recruit for 20,000 undergraduates on courses starting in 2010/11.
- The Government will double the number of advanced and higher level apprenticeships for 19-30 year olds and will introduce a presumption that government departments and their arms-length bodies will include apprenticeship requirements in their procurements (where relevant and consistent with value for money principles and EU rules).
- The Government will strengthen the links between the skills and migration systems by ensuring that occupations which rely on migration are identified as priorities for the skills system.
- Following the Hauser review, the Government has asked the Technology Strategy Board to develop an implementation strategy to take forward its recommendations.
- The Government is introducing a package of measures for small businesses such as setting up a single new body – UK Finance for Growth – to oversee all Government schemes providing finance for SMEs, including the *Growth Capital Fund* that will provide growth capital of £2–10 million to established businesses.
- Infrastructure UK set out at Budget 2010 proposals for developing effective long-term plans and priorities and improving delivery of infrastructure.
- The Government will consult on its proposals to establish a Green Investment Bank, which will raise at least £2 billion to invest in the low carbon sector.
- A Next Generation Fund, part financed by a 50 pence levy on all existing fixed line customers, will be created to incentivise the market for superfast broadband.
Unlocking potential in sectors and markets

3.1 Britain has a diverse economy with strengths in many areas. This diversity, and the adaptability that allows the economy to adjust to change, are key to our economic strength. For this reason, most government policy is targeted at the frameworks of the economy and the kinds of sector-neutral interventions described in the previous section. This ensures that long-term market viability remains the fundamental test of any British firm or industry.

3.2 *New Industry, New Jobs* aimed to remove a negative check on thinking about the role of policy that is targeted at specific sectors or markets. It argued that while it is not possible for government, or anyone else, to predict exactly in what goods and services UK firms will exercise comparative advantage in the future, we can identify sectors and markets in which opportunities are apparent and in which UK-based firms have, or have the potential to have, competitive strengths. Where the development of this competitive potential is being blocked by market failures, or other obstacles, targeted intervention by government can and should be used to unlock long-term competitive or productive potential that would not be achieved by the market alone.

3.3 Because government resources are limited, and will become even more so in the years ahead, effective sectoral interventions require that the Government assess carefully the opportunities for UK-based firms in specific sectors, and the potential impact of government policy in unlocking that competitive potential. For some highly competitive sectors of the UK economy there may be little that government action can add to the basic dynamics of the market and the basic frameworks of competitiveness policy. For others, targeted strategies, especially at critical points of development, can have a beneficial impact.

3.4 *New Industry, New Jobs* identified a number of sectoral strategies, and the Government has subsequently extended this list. Many have been supported through the Strategic Investment Fund. The Regional Development Agencies (RDAs) are developing sector plans which dovetail at regional level with the national strategies and have also provided funding for projects, often co-investing with the Strategic Investment Fund. UK Trade and Investment (UKTI) is working internationally to promote our strengths in these sectors, and UKCES has identified the skills need for them.
Advanced Manufacturing

3.5 Demand for high-value goods and services associated with advanced manufacturing, especially those produced to high environmental standards, is likely to increase significantly. Due to our strong science base and well-connected air freight links, British manufacturing has secured an edge in research and development, design, and innovation that has made Britain the world’s sixth largest manufacturer and a leading exporter of high-tech goods.

3.6 Maintaining this strength requires constant investment in the skills and technological capabilities that underpin modern manufacturing. In July 2009, the Government announced a £150 million package of targeted investment that included £45 million funding to Rolls Royce, which will see four new advanced manufacturing facilities, three in aerospace and one civil nuclear, creating and sustaining around 800 jobs.

3.7 The Government has recently announced major new support to the UK automotive sector:

- an offer of £360 million in loan guarantees to Ford through the Automotive Assistance Programme to back a proposed £450 million loan which is being considered by the European Investment Bank. The funds will be used to support six new UK projects worth £1.55 billion and which will sustain around 2,800 jobs;
- a £270 million loan guarantee to General Motors Europe, also through the Automotive Assistance Programme, which will help secure the company’s operations in Britain and the rest of Europe;
- a £20.7 million grant to Nissan to support the construction of a new battery plant and manufacturing of a new electric vehicle in the North East, which will safeguard or create 550 jobs.

3.8 The Government has also developed sectoral strategies to strengthen British capabilities in a range of new multifunctional technologies and materials that have huge global growth potential and support a wide range of sectors and applications:

- in advanced composites, the market in the wind turbine blade and aerospace industries alone in the UK will be an estimated £22 billion by 2020. A National Composites Centre in Bristol will provide independent, open-access facilities for the design and rapid manufacture of high quality products;
- the UK is at the forefront of developing plastic electronics, a rapidly expanding sector that is projected to create up to 20,000 jobs in the UK. The Strategic Investment Fund is contributing to a world-class research centre for plastic electronics in Co. Durham;
- the UK market for industrial biotechnology chemical sales is projected to grow to £12 billion in sales by 2025. The Strategic Investment Fund is helping build demonstrator facilities in the North East.
3.9 The global market for **space manufacturing, services and applications** is forecast to be worth at least £400 billion by 2030. To capitalise on this, the UK space industry has come together to set out an ambitious 20-year strategy to grow the UK’s share from 6 per cent to 10 per cent of this market – creating up to 100,000 new UK jobs by 2030\(^{36}\). In response, the Government has announced a substantive package of measures, including:

- a new £40 million International Space Innovation Centre at Harwell, backed by £12 million from the Strategic Investment Fund, that will establish centres of excellence to exploit data generated by Earth Observation satellites, use space data to understand and mitigate climate change, and enhance the security of space systems and services;  
- a UK Space Agency beginning in shadow form in April 2010, which will cover all aspects of the UK’s domestic and international space policy objectives;  
- an agreement to work closely with industry to set out the extent to which space services can deliver cost-effective next generation broadband and mobile internet services, reduce the environmental impact of communications infrastructures, and provide new Earth Observation services, both for the benefit of UK citizens and to promote UK’s capabilities in overseas markets.

**Digital and creative industries**

3.10 *Creative Britain – New Talents for the New Economy*\(^{37}\) and *Digital Britain*\(^{38}\) set the strategic direction for the Government’s work to support the creative and digital sectors. The digital economy accounted for around 10 per cent of UK Gross Value Added and employed more than 1.8 million people in 2007. The UK has the largest creative industries sector in the EU, with an estimated 157,400 businesses. Both are sectors in which the UK has comparative advantages and forecast to grow rapidly over the next decade\(^{39}\).

3.11 The creative industries are highly-fragmented and operate in a fast changing environment. While formal skills qualifications remain important, informal skills transfer is the best way the latest ideas and techniques can be rapidly shared. The Government is working with UK Film Council, Skillset, Film Agency for Wales, First Light Movies, music4good and the Regional Screen Agencies through Screen England to pilot *Give Back* programme to encourage young achievers in cultural fields to mentor and advise other young people. Participating organisations will attach an expectation of mentoring to their internships or grants. Mentors will contribute either through the organisation’s own youth development programmes or through established programmes such as Youth Community Action.

3.12 Seventy per cent of the value of the creative industries comes from content and advertising which includes businesses like digital media, video games and e-publishing\(^{40}\). However, despite their potential, these businesses often struggle to raise capital early on, because their intellectual property will not generate cash flow until many months after initial development work. The Government will introduce a tax relief for the UK’s video games industry, following
consultation on design and subject to state aid approval from the European Commission. To help ensure a strong supply of specialist professionals in this sector and support developers to get funding, Government has used the Strategic Investment Fund to help set up centres of excellence in Dundee and Manchester to support the prototyping of games. These will be hubs around which ideas can be developed and shared. Together these measures will help this rapidly developing market.

3.13 The Semantic Web is an emerging development which will help users see the relationships between different sets of information held on the internet. This will transform the way we use the web and the value of information held on it. The critical role for government is to address the barriers to rapid adoption of Semantic Web techniques and to translate the UK's strength in research to the market place by creating demand. One way this can be achieved is by using Semantic Web techniques in the management of government data to pull this technology through to the market place through procurement. The Government is also setting up an Institute of Web Science to place the UK at the forefront of the Semantic Web and other emerging internet technology.

Life Sciences

3.14 Building on its science and research base, Britain has already established itself as a world-leader in cutting-edge areas of life sciences such as regenerative medicine. Stem-cell research offers enormous potential to deliver new treatments for diseases such as Parkinson's, diabetes and heart disease. Moreover, significant UK growth over the next decade in this area could lead to sales of £5 billion and the creation of 15,000 jobs in research and high-value manufacturing.

3.15 We have more than doubled public funding for stem-cell research since 2005 to nearly £64 million in 2008/09 and are also accelerating its commercialisation into new therapies with a £21.5 million RegenMed programme. Since the 2005 UK Stem Cell Initiative, there have been rapid scientific and technological advances and increasing international competition, so we will undertake a strategic review to examine what is needed to ensure the UK continues to be a world-leader in this field.

3.16 In partnership with the Wellcome Trust, Government is funding the UK Biobank project which will, by the summer, have collected health and lifestyle information on 500,000 individuals aged between 49 and 60. This investment will help the life sciences industry to develop products to improve the prevention, diagnosis and treatment of a wide range of diseases such as cancer, heart disease, diabetes, and many other debilitating conditions.

3.17 The Office for Life Sciences has developed a comprehensive package of actions to strengthen the business environment for life sciences in the UK. These include a new UK Life Sciences Super Cluster, to be piloted with support from the Strategic Investment Fund, to bring industry together with the UK's leading clinical and academic researchers to work on early stage drug and medical technology development. We are also making it more straightforward
to conduct clinical trials in the NHS, rolling out learning from the NIHR’s highly promising Exemplar Programme\textsuperscript{44} in the North West.

3.18 The creation of a Patent Box will apply a much reduced 10 per cent rate of corporation tax to income from patents. GSK responded to the creation of the Patent Box by announcing £500 million of new investment in the UK, creating up to 1,000 jobs. The Government will consult with business over the summer on the design of the Patent Box.

Low Carbon

3.19 The UK is already the sixth largest low carbon environmental goods and services sector in the world, worth £112 billion (including the supply chain) in turnover in 2008/09 and providing nearly 910,000 jobs, which is expected to grow to over one million by 2015\textsuperscript{45}. The \textit{Low Carbon Industrial Strategy} identified a number of opportunities for the UK, in particular, offshore wind, marine, nuclear and ultra-low emission vehicles. Our active approach is providing Britain with world-class research and testing facilities, new infrastructure and manufacturing facilities and is helping develop the UK supply chain and skills levels.

3.20 For example, our actions to support carbon capture and storage (CCS) demonstration would see us at the forefront of a technology that could develop into a multi-billion global market through its deployment as part of a global effort to mitigate climate change. It has been estimated that CCS could be worth up to £6.5 billion a year to the UK by 2030, sustaining between 70,000 and 100,000 jobs\textsuperscript{46}. We recently announced funding support for front-end engineering and design studies, which will enable the bidders to further their designs for the demonstration projects.

3.21 Government is continuing to build on all this important work and has instigated a review of global low carbon business opportunities led by BIS, DECC and UKTI. This review will match our strengths and competitive advantages to emerging opportunities in overseas markets both in the short-term and against a 2050 horizon.

Offshore wind power

3.22 According to the Carbon Trust the offshore wind power sector has the potential to employ up to 70,000 workers in the UK by 2020, and bring annual economic benefits and investments to Britain of up to £8 billion\textsuperscript{47}. Owing in part to the action the Government has taken, the UK is now the world’s biggest market for offshore wind.

3.23 To build the offshore wind sector, investors need clarity around the regulatory environment. The proposed increase in the Renewables Obligation support for offshore wind will represent an injection of up to £3 billion. The Crown Estate recently announced the result of its Round 3 leasing competition to develop up to an additional 32GW of offshore wind power, providing clear signals and a massive expansion of the market.
3.24 Sixty per cent of the economic value generated from offshore wind will be through the manufacture of turbines. Because these technologies are new, testing components and reliability will be key for potential manufacturers. The Strategic Investment Fund has provided £30 million for offshore test sites and to extend the blade test facility at the New and Renewables Energy Centre in the North East. This will be the largest facility of its kind in the world testing blades of up to 100m in length. Recognising this commitment to British leadership, major companies such as Mitsubishi and ClipperWind have announced investments in the UK.

3.25 A key issue is access to port sites suitable for the requirements of the sector. The Government is providing up to £60 million for the development of port sites, to meet the needs of offshore wind turbine manufacturers looking to locate new facilities in the UK.

**Marine power**

3.26 The natural advantages of Britain’s long coastline, rivers and estuaries, together with transferable expertise from the oil and gas sectors, provide scope for marine energy to contribute significantly to our renewable energy mix, and for Britain to be a world leader in marine power.

3.27 However, the cost of technological innovation in this sector, especially for small firms, can be prohibitive, with investments having long timeframes and a high-risk profile. The sector needs access to early-stage testing of devices and later-stage testing in real marine conditions.

3.28 Through investments by Government, Britain now has a marine energy testing, development and demonstrating facilities unmatched anywhere in the world. The Strategic Investment Fund is providing £10 million for early onshore testing at the New and Renewable Energy Centre in the North East. The Government is also providing £8 million to expand the European Marine Energy Centre in Orkney where later-stage testing facilities in actual conditions will be available.

3.29 The UK’s first offshore facility to demonstrate the operation of arrays of wave energy generation devices – Wave Hub – is due to be completed in August 2010. This pioneering facility is being made possible by £9.5 million from the Strategic Investment Fund.

**Nuclear Supply Chain**

3.30 Nuclear power will be an increasingly important source of electricity generation in Britain and globally. According to the World Nuclear Association there are 436 nuclear reactors currently in operation, 53 under construction and a further 469 proposed. This provides significant commercial opportunities for UK businesses.

3.31 Raising awareness among UK firms of the scale of opportunities in this sector and helping them meet the required standards and component specifications
is now vital. It is also important to ensure that the UK has the necessary specialist skills for handling these advanced technologies.

3.32 The Strategic Investment Fund has helped fund the **Nuclear Advanced Manufacturing Research Centre** in South Yorkshire which will enable manufacturing firms to swiftly develop the capability and accreditation to compete in the sector. Rolls Royce, Areva, Westinghouse and Sheffield Forgemasters are all founder members of the Centre. The Government has also allocated £4 million from the Strategic Investment Fund to expand the Manufacturing Advisory Service to provide advice on opportunities in low carbon markets, particularly in the nuclear sector.

3.33 We have provided a **package of measures to strengthen the UK’s civil nuclear supply chain** which has included a conditional £80 million loan to support Sheffield Forgemasters to build a major new manufacturing facility for ultra heavy forgings for civil nuclear power and other markets. This makes it the second company in the world with necessary nuclear accreditation to make the critical components required for the global civil nuclear industry. This investment will create more flexibility to meet demand, and provide huge export growth potential for the UK. We will also co-fund up to 1,000 apprenticeships each year in the nuclear energy sector, subject to employers coming forward with sufficient number of places.

**Low carbon vehicles**

3.34 The UK has a clear commitment to ensuring that Britain is at the forefront of ultra-low carbon vehicle development, demonstration manufacture and use. To deliver this, the Office for Low Emission Vehicles (OLEV) was set up to coordinate policy across government. OLEV has been welcomed by industry and is a model now being copied in other countries.

3.35 Over £450 million has already been committed through the Strategic Investment Fund and other channels to fund programmes including the world’s largest demonstration of its kind for low carbon vehicles, installing 11,000 charging points in the next three years and supporting consumers in purchasing this next generation of vehicles.

**Future sector strategies**

3.36 The Government is currently developing a number of further sectoral strategies, set out below.

**Low Carbon Construction**

3.37 The construction industry plays a crucial part in tackling climate change. It is said that buildings are responsible for between 40 and 50 per cent of UK energy consumption. From 2016, all new homes will be built to ensure they have net zero carbon emissions over the year and the Government’s ambition is for all new non-domestic buildings to be zero carbon from 2019. The public sector will take the lead and achieve this one year earlier in 2018. There are valuable
business opportunities for UK-based firms both in new build and in retro-fitting existing buildings: delivering the carbon reduction target for the existing housing stock could require 65,000 full-time jobs49.

3.38 The Low Carbon Construction Innovation and Growth Team (IGT) was given the task of recommending how industry might play a full role in delivering the UK’s carbon reduction targets. Its emerging findings, published in March 2010, have highlighted a real need for government and industry to work together to ensure that UK derives maximum economic benefit from the shift to a low carbon built environment. The IGT’s intention is to produce an industry-led delivery plan to which all in industry are willing and able to commit. This will involve recommendations to both Government and industry.

Business and professional services

3.39 The UK is a world-leader in the provision of business and professional services. This is true both in traditional sectors such as legal and accountancy and new sectors such international carbon markets. The Government has recently published an interim report on the competitiveness of business and professional services which will form the basis of a full strategy later in 201050. A key element of this strategy will be fully exploiting the EU Services Directive, which came into force on 28 December 2009. This will make it easier to export a range of services throughout the EU. This liberalisation is potentially worth up to £6 billion each year to the UK economy, and could create up to 80,000 new UK jobs.

Defence and security

3.40 Defence is an integral part of the UK’s advanced manufacturing base, driving growth and jobs of the future. Around 155,000 people are directly employed in the defence sector, and 145,000 people indirectly. The UK topped the list of defence exporters in 2007 with an unprecedented £10 billion of new business, achieving a 33 per cent global market share. In new markets such as Unmanned Aerial Vehicles, the UK is a clear potential market leader. These technologies can potentially provide valuable spillovers into other areas.

3.41 The global security market is currently worth around $180 billion and estimated to reach $300 billion in the next ten years51. There are opportunities for the UK to secure a significant share of this growing market. The fast-growing UK security sector is one of the most diverse and technically advanced in the world, with exceptional strengths in counter-terrorism, crime and policing, border control, transport security, and the security of large-scale events like the Olympics. It comprises around 8,200 companies, including many SMEs, and employs around 139,000 people.

3.42 The Government is working with industry to identify the emerging areas in defence and security where the UK can develop new strengths. As part of this, the Ministry of Defence has established the Centre for Defence Enterprise at Harwell as a first point of contact for companies, especially SMEs, with technology ideas and prototypes, who get a fast response using an online
proposal and assessment process. And using the Strategic Investment Fund, UKTI and the Home Office hosted a showcase event in March for the UK security sector, with almost 400 UK exhibitors and senior attendees from 50 countries. A marketing strategy to assist the promotion of the UK security sector in overseas markets is being launched on 25 March 2010.

Higher and Further Education

3.43 Higher education contributes over £5 billion in export earnings to the UK economy and further education over £1 billion more. Our internationally recognised qualifications and the established reputation of our universities make us well-placed to benefit from rapidly increasing demand from countries with close UK links: for example, demand for higher education places in India is projected to rise from 9.6 million in 2000 to 60.9 million in 2025. There are also increasing opportunities for offshore delivery of high quality education through the development of institutional partnerships and collaborations.

3.44 To capture these opportunities, we are developing a comprehensive international strategy for higher and further education, based on closer coordination between partner organisations involved to support providers from first enquiry in the UK, through to offshore engagement. As the first stage, we will:

- establish a Joint International Education One-Stop-Shop based in UKTI to identify and develop international educational opportunities for the UK. It will be jointly managed by UKTI, representatives from the education sector, the British Council and other agencies to provide a range of support, advice and sign-posting for providers in the UK;

- establish dedicated UKTI education advisers in key offshore markets who will focus on identifying education opportunities and matching these with providers. They will work closely with the British Council to ensure seamless support for providers venturing offshore;

- create an enhanced UKTI Education Team which will provide expert advice and ensure sector interests are factored into decision-making across Government policy.

NHS Global

3.45 Although its innovations and knowledge lead the world in many fields, the NHS has not traditionally made the most of its full potential in generating revenue from overseas. NHS Global is being created to help NHS organisations realise their international potential, and invest the profits back into front-line domestic services.

3.46 NHS Global will work to remove barriers, provide technical and commercial support to the NHS, and manage bilateral relationships at a strategic level. Areas of potential for NHS Global involvement include the NHS Institute’s Productive Series, and NHS Blood and Transplant’s Tissue Manufacturing services.
Progress against commitments in *New Industry, New Jobs*

- Our strategy for advanced manufacturing in July 2010 provided funding for centres to exploit opportunities in advanced composites, plastic electronics and industrial biotechnology.

- As part of the *Life Sciences Blueprint*, we set out plans for an Innovation Pass to give patients access to innovative medicines, a Life Sciences Super Cluster to boost collaboration and leadership in translational research, and a Patent Box to incentivise investment in innovation in life sciences and other innovative industries.

- The Government’s *Low Carbon Industrial Strategy* has provided funding for testing facilities on wind and wave energy and supported investment by Mitsubishi and Clipper Wind and Sheffield Forgemasters in offshore wind and civil nuclear respectively.

- The Strategic Investment Fund, worth nearly £1 billion, is supporting industrial projects that build on and develop the UK’s sectoral strengths. £10 million was set aside to strengthen the work of UKTI to help companies in key growth sectors compete for international business.

**Summary of next steps**

- The Government is undertaking a review of the global low carbon business opportunities for the UK, matching strengths and competitive advantages to emerging opportunities in overseas markets, both in the short term and against a 2050 horizon.

- The Government will continue to support the offshore wind manufacturing sector by providing up to £60 million for the development of port sites.

- Following its emerging findings published in March, the Low Carbon Construction Innovation and Growth Team will publish its final report later in the year.

- The Government will review what is needed to ensure the UK remains a leader in regenerative medicine.

- The Government is working with industry to identify the emerging areas in defence and security where the UK can develop new strengths. It will publish the key recommendations from this study.

- In the digital and creative economy, the Government will promote the use of Semantic Web techniques in the management of government data and set up the Institute of Web Science. It will also introduce a new tax relief for the video games industry, subject to consultation and state aid approval.

- The Government will produce a workplan to exploit growing overseas opportunities in higher and further education, including as a first step establishing an International Education One-Stop-Shop based in UKTI.
Chapter 4

Changing the way we see government and the market

4.1 Almost everything that government does has an impact, direct or indirect, on the shape and conditions of the economy and the market. The Government sets and enforces the legal frameworks of the markets through legislation and regulation. It shapes the capabilities of firms and individuals in the market by its investments in infrastructure and skills. But it is also a massive customer in the market, procuring more than £220 billion worth of goods and services every year.

4.2 New Industry, New Jobs argued that government needs a wider and more sophisticated understanding of supply chains in the UK, so that policy makers learn both how to create jobs and business opportunities – and how not to destroy them – when they legislate, regulate or procure. The need for a strategic and developmental role for government is consistent with open trade and free competition, without rejecting the ultimate role of the market in testing and proving what is long-term viable.

4.3 But the impact of government action is not always properly understood by policy makers. The interactions between public policies in infrastructure, planning, public procurement, innovation, education, skills, migration, consumer welfare, social welfare and trade all influence the environment in which business operates. Where government policy is not consistent or sends mixed signals, it is more difficult for firms and individuals to make investment decisions or choices about their own futures.

4.4 This not only leaves the economy vulnerable to the unintended economic consequences of policy choices, but it limits the ability of government to use its role and influence in the market to produce beneficial outcomes. This is not simply about making policy more business friendly. It is about understanding the way in which government action can expand or limit economic opportunities, innovation and growth. All government action impacts markets, and we need to capitalise on the full extent of this market shaping role.

4.5 An example where government impacts markets is the country’s infrastructure. Modern, resilient infrastructure is critical to the UK’s economic growth and competitiveness. Looking ahead, as the UK transitions to a low carbon digital economy, the challenge to modernise and adapt the UK’s infrastructure will only intensify. The demand for investment in economic infrastructure in the UK is expected to be in the range of £40-50 billion each year until 2030, and possibly beyond. While the majority of funding will need to come from the private sector, there is an important role for government to facilitate the necessary investment.
4.6 To help enable this investment, Infrastructure UK will provide clearer signals to investors by setting out a strategic overview of government activity on infrastructure.

4.7 Significant investment in new infrastructure also presents new economic opportunities for UK-based businesses involved in the design, delivery, operation and maintenance of infrastructure. Through better understanding of the supply chains that supply UK infrastructure, their capability, the business environment they operate in and the impact of government interventions upon them, government can support business to compete for the opportunities presented as the UK’s infrastructure is developed.

Aligning the parts and levels of government

4.8 *New Industry, New Jobs* advocated a range of actions designed to encourage policy makers and Ministers to ensure policy reflects how the economy operates.

4.9 The *Department for Business, Innovation and Skills (BIS)* was created in 2009 through the merger of the Department for Innovation, Universities and Skills and the Department for Business, Enterprise and Regulatory Reform. This brings together in a single department some of the most important policy levers for addressing the UK’s competitive capabilities, with a single remit to invest in future growth. The new department has been welcomed by both business and Parliament.

4.10 The success of cross-departmental strategy development for individual sectors, piloted with the Digital Britain review and the Office for Life Sciences, has been applied more widely, resulting in the creation of the Office for Low Emission Vehicles, the Office for Renewable Energy Deployment and Infrastructure UK, all of which have clear cross-departmental remits for delivering in key industrial policy areas.

4.11 The relationship between central, local and regional government has also been refocused around the framework set out in *New Industry, New Jobs.* *Partnerships for Growth* set out how the Government expects business-led RDAs, Local Authorities and other public sector agencies to combine their resources to create clear new regional and local strategies for driving economic growth. While central government will retain responsibility for cross-cutting national strategy and decisions with national effects, regional and local government will lead on implementing priorities on the ground. Regions are encouraged to focus on their particular strengths, not to try and replicate the full range of national capabilities on a regional level.

4.12 In this process RDAs are expected to play an important role in matching regional and local priorities to national priorities, prioritising investments and ensuring coordination across local boundaries. Whether the aim is attracting investment or designing strategic investments, regions will be expected to
collaborate, not compete. Changes to the investment appraisal mechanisms will create new incentives for cross-regional collaboration.

4.13 **Low Carbon Economic Areas** are a good example of this approach, bringing together local, regional and national policy levers in a strategic and co-ordinated manner to drive forward the development of specific low carbon industry sectors. We have now created eight to give a clear signal to the market about an area's strengths and commitment, most recently in Yorkshire and Humber on carbon capture and storage and London on energy efficient buildings.

4.14 To better align investment in growth, Regional Ministers are being given an enhanced role. Each RDA will also establish a **regional growth fund to promote high-value investment** in support of regional and national growth and industrial policy.

4.15 Within the national framework provided by **Partnerships for Growth** and single regional strategies, we are also encouraging local authorities to focus on support for growth through Local Strategic Partnerships. At sub-regional levels, Multi-Area Agreements, Economic Prosperity Boards and city-region pilots in Manchester and Leeds are powerful mechanisms for delivering our agenda on growth. Building on this, the Birmingham city-region has now been granted powers to set the adults skills strategy across its area. And from April, all county councils and unitary district councils will be required to prepare an assessment of local economic conditions.

4.16 As part of the Total Place initiative, we will invite local areas to work with BIS and the RDAs to examine the needs of the business community and the barriers to business growth at a local level, within the framework of regional priorities set out in regional strategies. This will be based on the Total Place principles of starting with the user – in this case, business – and jointly designing and testing new approaches. Given that markets and supply chains cross local authority boundaries, the Government expects that some pilots will involve groups of local authorities working together with their RDAs and appropriate national agencies.

**Leading culture change**

4.17 Changing the way government thinks about the impact of its decisions on the market and the shape of supply chain opportunities for UK-based firms means challenging established habits and ways of working. Although policy makers have responded positively and effectively to this challenge, it is important to embed cultural change for the future.

4.18 The Government will appoint a senior business figure to act as a catalyst in developing and refining the strategic government programme across government. He or she will provide a business perspective, champion the approach and provide challenge to departments and officials, working with the Government Economic Service champion of this analysis.
In four Whitehall pilots, the Government has assessed how the policy making process needs to change in rail, waste, housing and digital communications to incorporate a greater understanding of the potential supply chain benefits for UK-based firms. These pilots have tested an approach that involves analysing supply chains and engaging earlier and more intensively with businesses to ensure that business opportunities for UK-based firms created by changes in government policy are not lost.

This requires that policy makers consider not only the main policy objective – delivering new rail investment, building enough new homes, improving waste management or ensuring broadband is available for all – but also the implications for UK-based firms of new procurement or changes to market frameworks, while not compromising the UK’s openness to international competition. The pilots demonstrate that where these issues are systematically considered in advance, it is possible to adopt tailored policy options that better enable companies in UK supply chains to compete for new opportunities.

Officials working on these pilots report that this approach has transformed their understanding of the real impacts of policy choices. Companies involved in them have welcomed better engagement with government and the improved understanding of the issues business faces. To build on this progress, the Government will target this approach on specific policy areas, and high impact procurement and regulation. As policy makers increasingly use supply chain analysis and business engagement, government will continually evolve the approach as it builds on lessons learned.

The Government will also look to issue guidance on when these approaches to supply chain analysis and business engagement will be used. It will look to produce guidance on supply chain analysis for possible inclusion in Supplementary Green Book Guidance on Policy Appraisal.

To complement this, the Office for Government Commerce (OGC) will include pointers on supply chain analysis and business engagement in their guidance for Starting Gate reviews, the National School for Government will integrate supply chain analysis and effective business engagement into a range of training courses and materials on policy making, and Defra, DECC and BIS will integrate the approach into their policy making frameworks. For example, Defra will consider whether the approach that was successfully tested through the pilot on waste management could be applied to delivery of the Government’s food strategy, Food 2030 – the food and drink industry contributed over £80 billion to the economy in 2007 and employs more than 3.6 million people.

The Regulatory Policy Committee has also been asked to consider increasing its scrutiny of supply chain analysis in impact assessments and Infrastructure UK will explicitly consider supply chain impacts and potential new business opportunities in the development of the National Infrastructure Framework announced at the Budget.
A more strategic approach to procurement

4.25 Procurement is an essential part of a more strategic approach to the role of government in markets. We know from experience on the 2012 Olympics that procurement targeted at creating and capturing economic opportunities can deliver significant fiscal boosts, create thousands of jobs and support UK-based businesses. For example, £5 billion of work on the Olympic Park has been won by over 1,000 companies throughout the UK, 70 per cent of which are SMEs.

4.26 However, public procurement is complex and fragmented across a range of bodies at all levels of government, each with a high degree of autonomy. The challenge of ensuring that as much as possible of every pound spent drives economic growth is thus a complex one.

4.27 To help ensure that pre-procurement market engagement is institutionalised in government procurement, departments will adopt a set of Procurement for Growth principles. These will embody the Government’s intention to be a demanding customer seeking innovative solutions. Also, BIS and OGC will work together with departments to target areas of procurement with significant impact to ensure supply chain analysis and business engagement are integrated in planning and pre-procurement activities.

4.28 In January 2010, the Government published a Policy through Procurement Action Plan, which explicitly prioritised three key objectives to be delivered through procurement related to growth and efficiency, against which departments and agencies would be measured: lowering the barriers to the participation of SMEs; supporting skills training, providing apprenticeship opportunities and tackling youth unemployment; and resource efficiency focusing on carbon reduction.

4.29 There is now a presumption that departments and their arms length bodies will build these priorities into procurement, where relevant and consistent with value for money principles and EU rules. As well as action taken during the formal procurement process, the Government recognises much can be achieved through working with suppliers voluntarily. In Budget 2010, it announced an informal consultation on a voluntary charter between government and suppliers, placing commitments on both sides aimed at further promoting the Policy through Procurement priorities.

4.30 Government will expose more public procurement to supplier competition by requiring departments to use the Glover Portal (a single point where public procurement opportunities can be accessed) for all contracts above £20,000, when it is available at the end of 2010.

4.31 The Department for Health is publishing a Procurement Guide for Health Services and Commercial Skills for the NHS, an updated strategy for strengthening commercial capability. Both emphasise the importance of effective dialogue with providers, particularly at the pre-procurement stage, which will inform commissioning decisions, service specifications and indicative costings, as well as sending clear signals to the market.
Progress against commitments in *New Industry, New Jobs*

- In *Partnerships for Growth: A National Framework for Regional and Local Economic Development*, the Government showed how regional and local levels can all play their part in delivering the *New Industry, New Jobs* strategy. The Government set out its priorities at each of these levels. City-regions pilots have been announced in Manchester and Leeds.

- Building on the cross-departmental approach of the Digital Britain review and the Office for Life Sciences, the Government set up the Office for Low Emission Vehicles to deliver its strategy to be the world leader in ultra-low carbon vehicles.

- The Government has launched and reported on four pilot projects to ensure consideration of business opportunities and encouragement of UK supply chains is integrated in policy making. These pilots covered rail, digital infrastructure, waste management and housing.

**Summary of next steps**

- The Government will appoint a senior business figure to act as a catalyst in developing and refining the strategic government programme, providing a business perspective, championing the approach and providing challenge.

- Building on its four pilots, the Government will look to target its approach of supply chain analysis and business engagement on specific policy areas, and high impact procurement and regulation. To underpin this work, it will produce guidance on supply chain analysis for possible inclusion in *Supplementary Green Book Guidance on Policy Appraisal*, and the National School for Government will integrate supply chain analysis and effective business engagement into a range of training courses and materials on policy making.

- The Government will continue to harness the full potential of its purchasing power by targeting its procurement activity as much as possible at creating and capturing economic opportunities. There will be a presumption that departments and their arms length bodies will reflect the priorities in the policy through *Procurement of Action Plan*, where relevant and consistent with value for money and EU rules. It will consult on a voluntary charter between government and suppliers to promote policy through procurement principles, focused on skills, SMEs and the transition to a low carbon economy. Government will expose more public procurement to supplier competition by requiring departments to use the Glover Portal.

- Each RDA will establish Regional Growth Funds to promote high-value investment in support of regional and national growth and industrial policy.

- The Government will invite local areas to work with BIS and RDAs to examine the needs of the business community and the barriers to business growth at a local level. It will also encourage local authorities to focus on support for growth through Local Strategic Partnerships, and at sub-regional levels, through Multi-Area Agreements.
Chapter 5

The future development of industrial strategy

5.1 *New Industry, New Jobs* established an industrial policy agenda for government across three broad pillars:

- investing in the basic capabilities UK firms and workers draw on when they compete in markets, including skills, innovation, infrastructure and access to financial support for enterprise;
- targeted interventions in markets and sectors where there are strong opportunities for growth and employment and where government action can make a positive difference;
- a more strategic approach from government, with a more sophisticated understanding of supply chains in the UK, so that policy makers can better take into account the impact of their decisions on business opportunities in this country.

5.2 The intrinsic timeframe of the *New Industry, New Jobs* agenda is the medium and the long term. Where we have invested in research and development capabilities, or changed frameworks for skills provision, or established new sources of venture and growth capital, we would expect the results to become clear only over time.

5.3 Over the past year we have made significant progress in building the foundations for a more active government, but we need to embed a systematic and forward-looking approach that can look beyond immediate issues. By being clear about our overall framework and the criteria we use, we can provide greater certainty for business, which in turn will facilitate investment.

Developing the right analysis and evidence

5.4 *New Industry, New Jobs* argues that there is a critical role for government action in shaping the competitive capabilities of our firms and people. This requires both a culture change in government and a very clear strategic outlook based on rigorous analysis and evidence.

5.5 Limited resource means government has to prioritise what it does and how. To do this properly, we need a set of criteria against which to judge and appraise where we can intervene most effectively. They will be informed by evidence on where the greatest opportunities are, where government can have most impact by addressing market failure and where the greatest benefit from government action is likely to be obtained. This requires a sophisticated understanding of
trends and changes in domestic and global markets and of Britain’s existing and potential comparative advantages and natural strengths.

5.6 The criteria for determining the viability and value of an action may vary by type of intervention, but we need to be explicit about how we are making our choices. We will set out in greater detail later this year our criteria for sectors, cross-economy interventions and government impact.

5.7 We will continue to draw on a wide range of sources including official statistics, both from the UK and for international comparisons, as well as research from business, academics, Regional Development Agencies and other parts of government. It is important to ensure that government priorities are informed by experts and industry views. Industry can provide excellent challenge to government thinking and, if done properly, can help business align with government to deliver. Our analysis, priorities and solutions can all benefit from rigorous examination.

5.8 The creation of cross-departmental bodies such as the Office for Low Emission Vehicles and the Office for Life Sciences create a natural focal point for engagement with industry. Some have been led by a single minister and this has been effective in driving the agenda forward and aligning priorities across departments. For others, ministerial committees have provided oversight.

5.9 Government will also consider how an independent body might help it identify the priorities within its industrial strategy, including on sectors or markets. At a high level, models to build on could include the Industrial Development Advisory Board or something similar to the Business Council for Britain. For sectoral opportunities, similar work could be commissioned from an Innovation and Growth Team.

5.10 Although the mechanisms to deliver specific strategies will vary according to theme, there is a need to ensure consistency and to review and report overall progress. There also should be a strong institutional framework, with independent challenge, to drive delivery. The Government could periodically produce a statement of its strategy, based around clear priorities for action derived from the available evidence, which would give a strong sense of direction to provide the certainty to markets that underpin private sector investment. Its priorities need to be set for a sufficient period of time to allow impact to be made. Government should also report regularly on progress.

Developing the supporting legislation

5.11 The current legislative framework in this area is the Industrial Development Act 1982 and this is now outdated. For example, it does not adequately reflect emerging investment needs, such as for digital infrastructure, and its conditions on government loans require parliamentary assent for a £10 million grant but not a €1 billion loan guarantee. We will consult more fully on the scope for reforming the Act but a modern version could include:
further revision of the Section 8 powers, in particular the treatment of foreign currency guarantees, the financial limit of such guarantees and the resolution process for projects over £10 million;

- revised powers in Section 13 to enable a wider range of basic services to be provided.

5.12 We could also use the prospect of necessary legislative reform to embed and systematise our approach to industrial strategy. This will be tested more fully through the consultation process, but options could include:

- consolidation of financial assistance powers, which would give greater clarity to parliament and business about where state aid was being provided and ensure greater consistency in approach;

- providing a statutory basis to business support simplification. This could put a legislative cap on the creation of new schemes;

- establishing in statute a regular publication on industrial strategy and priorities that could be used to set the direction for other bodies to take account of or have regard to in their own funding decisions.

5.13 The approach set out in New Industry, New Jobs is long-term by its nature. It is about setting long-term frameworks for public and private investment; investing in long-term competitive potential at its earliest and most vulnerable stages; developing a deeper culture in government of thinking about the long-term economic and impacts of the decisions government makes. New Industry, New Jobs challenged government to think differently about those things. While the measures taken since the publication of New Industry, New Job, and set out here, will deliver significant benefits, the greatest gains will come from embedding this new approach to industrial strategy across all parts of government. The next challenge for New Industry, New Jobs is doing this successfully.
13. Ernst & Young, European Investment Monitor, www.eyeim.com
19. National Pupil Database
28. BIS calculations based on ONS Trade Data ‘pink book’ and FCO long-run economic forecasts. This chart is not a forecast but shows how the distribution of UK exports could evolve assuming that exports grow roughly in proportion to countries’ projected growth rates. There are a number of caveats with this approach. For example, it will be strongly influenced by developments in trade policies.
30. UNCTAD, 2008, Handbook of Statistics
32. More information on the package of announcements can be found on http://interactive.bis.gov.uk/advancedmanufacturing/
36. Space IGS 2010 www.spaceigs.co.uk
39. E-Skills UK estimates that employment in the IT and telecoms professional occupations could rise by an annual average of 1.2 per cent, leading to a net increase of 128,000 jobs by 2018. According to NESTA, the UK’s creative industries will grow by more than four per cent each year over the next five years. NESTA (2009) Demanding Growth: Why the UK needs a recovery plan based on growth and innovation. www.nesta.org.uk
42. The UK Stem Cell Initiative 2009 http://www.dh.gov.uk/ab/UKSCI/DH_098510
43. www.bis.gov.uk/als
44. National Institute for Health Research; http://www.ukcrn.org.uk/index/industry/nwexemplar.html
46. AEA Technology (2009) Future value of carbon abatement technologies to the UK industry. URN09/738
52. Brandenburg, Carr, Donauer, Berthold (2008), Analysing the Future Market – Target Countries for German HEIs, Working Paper No. 107, CHE Centre for Higher Education Development, Germany
53. In some sectors, such as electricity and gas markets, there is also an important role played by the independent regulators.
59. For example, we will soon be publishing papers commissioned from academics on the lessons that might be learnt from past government interventions in sectors that were used as the basis for the NINJ conference in October 2009.