Department for **Innovation, Universities** & **Skills**

# Higher Education at Work

## High Skills: High Value

Unlocking talent

# Contents

# Foreword

High level skills – the skills associated with higher education – are good for the individuals who acquire them and good for the economy. They help individuals unlock their talent and aspire to change their life for the better. They help businesses and public services innovate and prosper. They help towns and cities thrive by creating jobs, helping businesses become more competitive and driving economic regeneration. High level skills add value for all of us.

**Key competitor countries have higher proportions of their adult workforce with high level skills, we need to do better to prosper**.

The Government wants to create a stronger and fairer Britain, equipped to meet the challenges of the future. Equipping more people with high level skills will help us do just that. The Prime Minister said last year, in a speech to the CBI, that "up against the competition of over two billion people in China and India – with five million graduates a year – Britain, a small country, cannot compete on low skills but only on high skills. Our imperative – and our opportunity – is to compete in high value added services and manufacturing; and because that requires the best trained workforce in the world, our challenge is to unlock all the talents of all of the people of our country."

The Government's innovation, enterprise and skills strategies together support this vision.

In this document, we set out our aims – that we need:

**more, and more employable, graduates; and**

**to raise the skills and capacity for innovation and enterprise of those already in the workforce.**

We have set ambitious targets in response to the analysis of our skill needs to 2020 by Lord Leitch. Meeting them will require a culture shift among higher education providers *and* employers. Employers need to be ambitious and demanding in the strategies they set for their businesses. Universities need to help organisations through knowledge exchange as well as by supplying skilled graduates and post-graduates and by providing high level skills learning for those already in the workforce.

There is a lot we can build on but the challenge is to achieve a dramatic increase in scale and pace if we are to provide the 'thinking workforce, working intelligently' that employers need.

We want all those involved in higher education – as stakeholders, learners and providers – to engage with this challenge and to help us develop a powerful consensus for change. This is an economic imperative.

**Bill Rammell MP**
**Minister of State for Lifelong Learning,**
**Further and Higher Education**

# 1. Executive summary

## The case for high level skills

Having more people with high level skills benefits the economy by meeting potential skill shortages and increasing productivity and the capacity of businesses to innovate. The next 10 years will be critical to securing advantage as emerging economies are also moving into more high skilled industries.

The economic impact of high level skills is felt at a local, as well as national, level. DIUS launched a new 'University Challenge' to bring the benefits of local higher education provision to bear across the country.

But this is not just about jobs and the economy. Supporting more people to experience higher education and gain high level skills has benefits to a society that go beyond economic prosperity.

This high level skills strategy complements the *Innovation White Paper* and the *Enterprise Strategy*. Together they help position Britain as a key knowledge economy at the forefront of 21st century innovation and enterprise.

## Where are we and where are we going?

In 1997, 22% of adults of working age had level 4 and above qualifications. It is now 31%. The Skills PSA sets milestones on the route to the ambition recommended by the Leitch report and accepted by government that we commit now to exceeding 40% of the population qualified to level 4 and above.

But many of our competitors are already well ahead. We know that, if we are to match the aims of other countries – for example, to achieve skill levels equivalent to the best OECD countries – then scraping over 40% by 2020 will not be enough. Others will have done better.

## Our aim – more, and more employable, graduates

The supply of graduates has been rising steadily. But employer demand for graduates remains high.

Employers tell us that, mostly, they get what they pay for. Most large employers (over 80%) thought that level 4 qualifications were a good proxy for skills, compared with 55% who thought that was true of level 2 qualifications.

Employers particularly value broad 'employability' skills, such as communication, motivation, independence, analysis, confidence and problem solving. This is one of the strongest messages from employers to government.

And students tell us that they share certain concerns with employers – particularly about employability and the quality and availability of information, advice and guidance (IAG).

We have a particular focus on graduates in science, technology, engineering and mathematics (STEM). Although the supply of STEM graduates has increased, it hasn't increased fast enough to meet employer demand.

## Going forward – more, and more employable, graduates

We are giving more people than ever before the chance to benefit from higher education by increasing the number of additional places by 60,000 by 2010/11.

We are opening up new progression routes. Department for Children, Schools and Families (DCSF). Working with DCSF, we are responding to young people's need for IAG earlier in their lives.

To ensure an increased supply of STEM graduates, we are taking action at each stage; from stimulating early interest at school through to the workplace.

We want to see all universities treating student employability as a core part of their mission. So we believe it is reasonable to expect universities to take responsibility for how their students are prepared for the world of work.

And we will work with employers, universities and DCSF to encourage more graduates to acquire the language skills and cultural awareness to thrive in a global marketplace.

## Our aim – to raise the skills and capacity for innovation and enterprise of those already in the workforce

Improving the progress of school leavers into higher education will be necessary, but not sufficient to meet the skills needs of the future. Around three-quarters of the 2020 workforce have already left compulsory education. So we need more people currently in the workforce to acquire high level skills.

There are obstacles to engaging employers and employees. Employers may be reluctant to train where they do not understand what a modern university can offer. Employees have to balance commitments to work and family. But research suggests there are almost two million people in the labour market potentially prepared to access higher education. Higher education providers must develop new ways of working if they are to meet the potential market from employers and employees.

Universities can also play a key role in solving local and regional problems. We want to see universities working with RDAs, SSCs and local employers to develop the higher level skills that a particular business needs in a particular sector in a particular place.

## Going forward – raising the skills and capacity for innovation and enterprise of those already in the workforce

We have established the new UK Commission for Employment and Skills (UKCES) as a single, employer-led board providing direct and independent advice to Ministers.

We will encourage employer demand by empowering SSCs; ensuring there is an effective brokerage service for higher level skills and ensuring SMEs have access to the management and leadership support they need. We will ask HEFCE to develop proposals to support expansion of accrediting employers' own training to higher levels.

We will encourage employees by improving the information, advice and guidance on offer through the new adult advancement and careers service. And we will ensure relevant and flexible learning is available.

We are supporting new ways of working. We have announced ambitious and ground breaking plans to deliver growth in a new form of higher education, co-funded with employers. HEFCE will test regional and sectoral approaches to employer co-funding, including a co-purchasing role for SSCs in the expansion in employer co-funded places. We believe there is a case for more funding to be employer demand led in the next spending review period.

Over time, we intend the framework of aspiration, incentives and support set by government and the Funding Council will underpin a system that is world class at providing high level skills.

# 2. The case for high level skills

2.1 Britain can only succeed in a rapidly changing world if we develop the skills of our people to the fullest possible extent, carry out world class research and scholarship, and apply both knowledge and skills to create an innovative and competitive economy. We must ensure that everyone's skills and talents are developed throughout their lives so that we have a world beating workforce. But they are also crucial to building a society where no-one is left behind and where ordinary people are given a greater stake in the community in the form of higher wages, higher aspirations and more stable and secure lives.

2.2 The Innovation White Paper, *Innovation Nation*, published on 13 March, makes clear that the exchange of knowledge, including through a growing supply of graduates and postgraduates, and through the development of the skills of those already in the workplace, must underpin a future of high value business strategies based on innovation. We need more knowledge intensive, innovating organisations, and they in turn need more highly skilled, adaptable people. And the Enterprise Strategy, *Enterprise: Unlocking the UK's Talent*, published on 12 March, set out the need to encourage a culture in which everyone with entrepreneurial talent is inspired to take up the challenge of turning their ideas into wealth.

2.3 **There is significant evidence that an increase in high level skills is beneficial to the economy:**

Labour market projections suggest that 18 million jobs will become vacant between 2004 and 2020, and that half of them will be in the occupations most likely to employ graduates[1].

The UK Innovation Survey shows a positive relationship between the share of the workforce that are graduates and the likelihood that a business innovates. Enterprises that are 'innovation active' have roughly twice the number of graduate employees than enterprises which do not innovate.

It is estimated that differences in management practices accounted for 10–15% of the productivity gap between the US and the UK[2] – in the US 74% of managers are graduates compared with 49% in the UK[3].

[1] Based on analysis provided for the Leitch Interim Report, December 2005.
[2] Bloom, et al, 2005
[3] Keep and Westwood, 2003

A one percentage point increase in the proportion of the workforce with a degree, instead of A-level or equivalent qualifications, led to an increase in productivity of 0.5%[4].

Productivity is 30% higher if all the workforce has a degree than if none do[5].

2.4 T**he economic impact of high levels skills is felt at a local, as well as national, level.** DIUS launched a new 'University Challenge' to bring the benefits of local higher education provision to bear across the country. Higher education helps unlock the potential of towns and people by attracting, nurturing and retaining talent in a local area. It drives economic regeneration by creating a highly skilled workforce, stimulating entrepreneurship, creating jobs and helping local businesses to solve problems and become more competitive – a 10 percentage point increase in the proportion of the local workforce educated to degree level increases business productivity by 13%.

2.5 **And to compete in the increasingly competitive world of the future we will need a higher proportion of people with high level skills.** It is no coincidence that most of the world's developed countries, and many of its developing countries, are increasing the numbers of their people who reach higher education. They share our basic analysis; that in the world of the future there will be increasing demand for well-educated, imaginative and adaptable people to enable businesses and services to innovate and thrive. High level skills help form a sustainable knowledge economy in which ideas inform and improve practice. **This is an economic imperative.**

Technological and communications advances are bringing down barriers to the trade in high skill services. Meanwhile emerging economies are creating new markets. Since 1995, global exports of IT services have risen by over 600%[6].

The UK is selling more high value added services abroad. Between 1996 and 2000 the export of services rose 8%[7]. The UK also attracts a strong flow of highly skilled migrants. This represents good opportunities for UK GDP and productivity.

But the next 10 years will be critical to securing advantage as a provider of high level skills as emerging economies are also moving into more high skilled industries.

[4] S. Machin, A. Vignoles & F. Galindo-Rueda, *Sectoral and Area Analysis of the Economic Effects of Qualifications and Basic Skills,* DfES RR465, 2003.
[5] Haskel and Galindo-Rueda, 2005
[6] HMT analysis
[7] ONS Pink Book

2.6 **But this is not just about jobs and the economy. Supporting more people to experience higher education and gain high level skills has benefits to a society that go beyond economic prosperity.**

Education remains a route for an individual, whatever their background, to unlock their talent and change their life for the better by providing wider perspectives, fresh ideas and a better chance for self-fulfilment.

Graduates enjoy better health, lower levels of obesity, are more likely to vote, have a lower propensity to commit crime and are more likely to display tolerant attitudes.

Graduates are about 40% less likely to suffer from depression than non-graduates; three times as likely to be a member of a voluntary organisation than someone educated to Level 2 or below; and over 30% more likely to hold positive attitudes to race and gender equality compared to a similar individual educated to Level 2 or below.

2.7 This document focuses on the government strategy for encouraging and supporting more people to gain high level skills. It looks at why we need more people with high level skills and at the current state of demand and supply. It proposes some changes and consults *all* those involved about what the barriers are from their perspective and what can be done to remove them. It sets out clear aims –

*to produce more, and more employable, graduates*

*to raise the skills, and capacity, for innovation and enterprise, of those already in the workforce*

2.8 In DIUS, we are committed to understanding our customers and to developing policies that meet their needs. **This strategy will be explicitly driven by the demand from businesses, employers and students (whether young undergraduates or adults in the workforce).** The challenge for policy makers is to create the right framework and incentives at national and sub-national level to stimulate that demand and to support higher education providers so they can better meet it. And we will, of course, maintain our internationally high standards of Higher Education.

2.9 **This strategy complements the Innovation White Paper and the Enterprise Strategy.** As businesses and other employers shift up the value chain they increase their capacity to use and benefit from knowledge and high level skills. High level skills supply makes high value added strategies sustainable. **Together, they help to position Britain as a key knowledge economy at the forefront of 21st century innovation and enterprise.**

# 3. Where are we and where are we going?

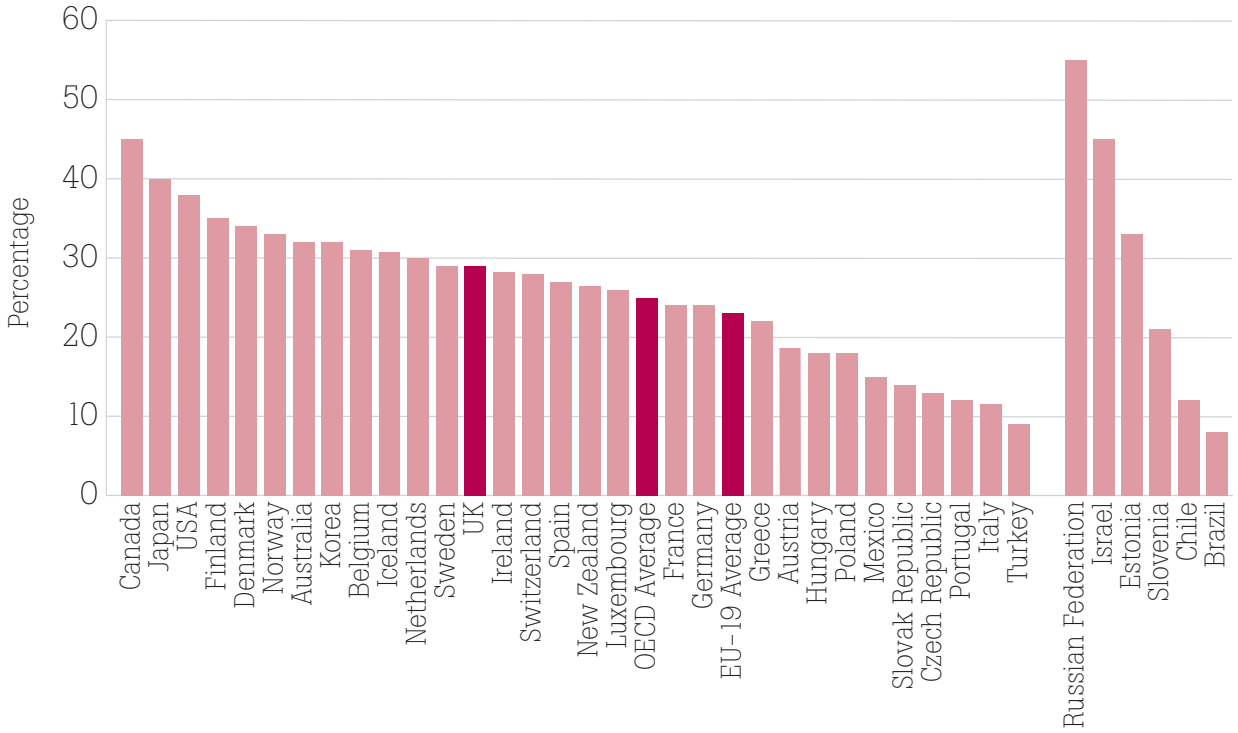
3.1 In 1997, 22% of adults of working age had level 4 and above qualifications. It is now 31%.

3.2 The recently-announced new Public Service Agreements (PSA), underpinned by delivery agreements and performance indicators, include commitments for achievement of, and access to, higher education (defined here as 'level 4 and above'). The Skills PSA Delivery Agreement (*Improve the skills of the population, on the way to ensuring a world-class skills base by 2020*) is underpinned by two key indicators:

- The proportion of working age adults qualified to level 4 and above should reach 34% by 2011 and 36% by 2014.
- Increase participation in Higher Education towards 50% of those aged 18 to 30, with growth of at least a percentage point every two years to the academic year 2010/11.

3.3 These are important milestones on the route to the ambition, recommended by the Leitch report and accepted by Government, that we must commit now to *exceeding* 40% of the population aged 19 to State Pension age qualified to Level 4 or above by 2020. We believe they are stretching, but achievable. At present we are at 31%, an increase on the 29% reported in Leitch for 2005. But the milestones express only part of our ambition. Japan, Canada, the Russian Federation, Israel and the US are at 40% or more already and others of our competitors are ahead of the UK as this chart shows.

**Attainment of tertiary education, population aged 25–64, 2005. Source: OECD**




**So we know that, if we are to match the aims of other countries – for example, to achieve skill levels equivalent to the best OECD countries – then scraping over 40% by 2020 will not be enough. Others will have done better.**

3.4 We also know that national data does not give a detailed picture of the variations in skill levels across the population. **We are publishing alongside this document an initial equality impact assessment** which addresses variations by gender, ethnicity and disability and also by age, social background and region. This can be found on the main consultation website www.dius.gov.uk/consultations/.

# 4. Our aim – more, and more employable, graduates

4.1 The **supply** of graduates has been steadily rising. In 1997 there were 258,000 graduates. In 2007, there were 319,000 graduates. 40% of young people go to university. Similarly, there has been a growth in science, technology, engineering and mathematics (STEM) first degree graduates – the number of first degree science graduates increased by over 20% between 1996/97 and 2006/07. And a growth in business schools and taught masters courses, often targeting mature employees, has been one of the most noticeable phenomena of the last two decades – taught masters degrees now account for half of all enrolments and have experienced growth of around 40% since 2000/01, including a 78% growth of non-UK domiciled students.

4.2 Yet business and employer **demand** remains high. This is most obviously demonstrated by the continuing high wage premium that UK graduates are able to command over non-graduates, amongst the highest in the OECD. The most recent survey of HE leavers entering employment indicates that average starting salaries for graduates are around £18,000 pa[8] and on average, graduates earn around 20–25% more than similar non-graduates[9]. Over their working lives, we believe that the average graduate earns, after tax and in today's valuation, comfortably over £100,000 more compared to what a similar individual would have earned if they just had A-levels. For a graduate in certain STEM subjects the figure is well over £150,000 on the same basis.

4.3 The demand for postgraduates is also rising in line with increased supply. The average gross additional lifetime earnings benefit for a postgraduate degree is approximately £70,000–£80,000 and £30,000–£40,000 for a postgraduate diploma compared to an undergraduate degree (before tax and in today's valuation).[10]

[8] *Destinations of Leavers from Higher Education,* HESA, 2007
[9] Analysis published in Graduate Market Trends, Summer 2005; S McIntosh, Further analysis of the returns to academic and vocational qualifications, LSE 2004.
[10] *Research Report: The economic benefits of a degree* UUK February 2007

## What employers and students are telling us

4.4 Employers tell us that, mostly, they get what they pay for. The *National Employer Skills Survey 2005* found that employers are generally happy with the quality of young people they recruit, but this is particularly so for graduates – 81% of employers recruiting graduates thought them very well or well prepared for work, compared with 60% of employers recruiting 16 year-old school leavers, and 69% of those recruiting 17 or 18 year-old school leavers.

4.5 And they feel reasonably confident that the qualifications these people have, represent the skills they need. A recent report[11] shows that most large employers (just over 80%) thought that **level 4 qualifications were a good proxy for skills**, compared with 55% who thought that was true of level 2 qualifications.

4.6 Employers particularly value broad 'employability' skills. This is one of the strongest messages from employers to government and is backed up by recent research[12] suggesting employers tend to look for graduates who exhibit skills and attributes such as communication, motivation, independence, analysis, confidence and problem solving. These cognitive skills are best learned young[13]. HE providers, therefore, have a crucial contribution to make and should ensure they are developing and expanding students' existing cognitive skills.

4.7 So the evidence suggests that what employers want from graduates is generally what they get. **But concerns remain** that:

- in some sectors there is a mismatch between the needs of business and the courses provided by higher education institutions;
- graduate employability needs to improve, particularly in terms of business awareness, where 48% of CBI members are dissatisfied;
- there are not enough graduates who combine high-level maths and science knowledge with the capacity to work effectively in industry.
- information, advice and guidance (IAG) available for young people making choices at 14, for potential university students and for undergraduates is not good enough. As a result, employers believe that young people sometimes damage their own careers because they lack information and advice about the economic consequences of their course choices.

[11] *Recruitment and Training among large national employers*, LSC, January 2008
[12] *Employer and university engagement in the use and development of graduate level skills,* DfES research report, RR835A, 2007
[13] *Five ways universities drive innovation,* NESTA, September 2007

4.8 DIUS has been leading a **student listening** programme. Student juries suggest that students have concerns about the extent to which their courses increase their employability.

4.9 Ministers have also been undertaking student listening visits, to meet students and understand their concerns. Issues raised include:

- some students would like to have more experience of the world of work;
- some students would like to have more variation in how they are assessed, developing a broader range of skills;
- students would like better information, advice and guidance on careers;
- there is a deeper issue on IAG too – some students report that they would have liked to have had more career specific advice during their time at school, and this may have impacted on their choice of course or university.

4.10 **So employability skills matter equally to students and their future employers.** But fewer UK students received work experience through placements or internships compared to the EU average, and those who did spend less time on them. More UK graduates say they feel less prepared for their jobs after graduation and say that they receive more employer–supported training in order to carry out their roles[14].

4.11 Highly skilled **postgraduates** are a key output from higher education. They transfer knowledge, know–how and technological advances. They earn a higher median salary than those with a first degree or other undergraduate qualification (£28,000 compared with £22,000 and £20,000 respectively, three and a half years after graduating) and are more likely to be working in a graduate occupation[15]. A forthcoming study by the European Universities Association suggests that people qualified to Doctoral level are particularly valued for their capacity to deal with complex and multi–disciplinary work. Mobility between academia and business seems to improve their employability, in part because the networks that are generated and the experience of different roles in different places are highly valued by business.

[14] Findings from two recent European Commission Framework Projects, referenced in: (i) *The employment of UK graduates: comparisons with Europe and Japan,* Brennan et al, HEFCE, 2001, and (ii) *The Employment of UK graduates: comparisons with Europe,* Brennan & Tang, REFLEX report to HEFCE No. 1, 2008 forthcoming

[15] *Destinations of Leavers from Higher Education Longitudinal Survey,* HESA, 2007

4.12 Since the publication of the Dearing Report in 1997, many **universities** have built employability into and alongside the mainstream curriculum, supported by careers services. The HE Academy has produced two series of reports on research and good practice on employability. They show that employability and good learning in general are closely aligned. And they also suggest that getting employability right may require organisational change – the institution has to be concerned with promoting employability as well as good academic practice and needs to make that goal transparent to lecturers and students.

## A particular focus on graduates in science, technology, engineering and mathematics (STEM)

4.13 Although the **supply** of STEM graduates has increased, it hasn't increased as fast as for non-STEM graduates (over the period 2002/03 to 2006/07 STEM qualifiers grew by 11% compared to 15% for non-STEM) and employers tell us anecdotally that **demand** for STEM graduates outstrips this.

4.14 While many of the issues relating to STEM graduates are similar to those for graduates more generally, there are particular concerns about:

- up stream supply – after a period of relative decline, the number of STEM A-level entries has been rising since 2004. School and college A-level entries in the main STEM subjects (chemistry, physics, biology, mathematics and further mathematics) have increased from 152,099 in 2004 to 166,333 in 2007 (an increase of 9.4%);
- equity – independent schools account for a disproportionate number of A-level STEM students, particularly those getting the top grades; while students attending 11–16 maintained comprehensives, particularly those in more disadvantaged areas, have the least chance of doing well enough in science and maths at GCSE to enable them to progress to post-16 STEM study and so to university; and
- encouraging STEM graduates to work in the area of their training – for example, one third of engineering graduates work as engineers three and half years after graduating. Another third will work in other scientific occupations, and the final third will work in non-scientific jobs.

# 5. Going forward – more, and more employable, graduates

5.1 We are giving **more people than ever before the chance to benefit from higher education** by increasing the number of additional places by 60,000 by 2010/11.

5.2 We are **opening up new progression routes** – through the new 14–19 Diploma for those entering Higher Education from 2010. The Learning and Skills Council will be asked to extend its current work with UCAS to map all Apprenticeship frameworks to UCAS tariff points.

5.3 We are **improving information, advice and guidance (IAG) for young people** including through the development of new curriculum guidance, the provision of high quality teaching materials for use in the classroom, new arrangements for the continuing professional development of the careers workforce and new quality standards. The Unistats website (www.unistats.com) allows prospective university students to compare the labour market outcomes (among other factors) for different courses and institutions. We believe that comparative information of this kind is essential in **informing student choice and reflecting employer demand.**

5.4 **We are responding to young people's need for IAG earlier in their lives.** The Department for Children, Schools and Families (DCSF) and DIUS will work together to ensure the Children's Plan proposals on earlier IAG (through Key Stage 2 Pathfinders); experiential learning; and the development of classroom materials for careers education, will all include a higher education element encouraging more young people to aspire to enter university. The Secretary of State has asked Universities UK (UUK) and the National Student Forum to input directly into this work.

Both the National Student Forum and the National Council for Educational Excellence have identified IAG as one of the issues they will pursue. A critical component of good IAG is experiential learning and up to date insights about the world of work.

**Question 1: What incentives would encourage employers to be more involved in providing careers IAG both before and during university?**

5.5 Our new **University Challenge** is encouraging local partners to come together to bid for funds to support new university campuses or centres. There is evidence that people will think about going to university if it is local but not otherwise.

## A particular focus on STEM graduates

5.6 We are taking action at each stage – from stimulating early interest at school through to the workplace. The Government has set targets for increased A-level STEM entries and for year on year increases in the intake of STEM undergraduates. These targets are underpinned by DCSF led work to encourage more young people to study STEM subjects at school. This includes **widening access to triple science in the maintained sector** with an entitlement for any pupil achieving Level 6+ at the end of Key Stage 3 (KS3) to have the opportunity to study for triple science GCSE. The Secretary of State has asked two Vice Chancellors to provide a report to him on what role universities can play in strengthening the STEM offer in schools and colleges.

5.7 The Higher Education Funding Council for England (HEFCE) is already committed to spending £160 million over five years to increase the demand for and supply of students doing strategically important and vulnerable subjects, of which the large majority will be spent on STEM subjects. DCSF has appointed a **national STEM careers co-ordinator** who works with employers, higher education providers, learned societies and other STEM partners and stakeholders to drive a better coordinated effort to improve the flow of information to young people, and to ensure that messages are consistent and pitched in a way that will appeal to young people. The forthcoming DIUS **science and society strategy** will address issues of a diverse STEM workforce. And DIUS is also leading work with the Department for Business, Enterprise and Regulatory Reform (BERR) and the Cabinet Office to understand better **the labour market needs for STEM skills.**

Our ambition to unlock the talent of all young people is not just about supporting talented students from non-traditional backgrounds to go to university, but about encouraging them to aspire to the most competitive subjects and the courses that offer the best employment prospects – largely STEM subjects.

**Question 2a:** Given that subject choice at 14 and GCSE and A-level attainment are critical factors, **is there a case for specific incentives to prospective students to take STEM subjects?**

**Question 2b:** How could any incentives avoid simply reinforcing the decisions of people who would have chosen STEM subjects anyway?

**Question 2c:** More generally, **is there a case for providing incentives to universities or employers to encourage more young people to study STEM and to pursue careers in it?**

## Raising employability skills

5.8 In response to employer and student demand, we will **work with universities and business to develop and deliver employability skills, drawing on the work of the Student Forum,** and promote **work experience opportunities for undergraduates,** including internships, shadowing schemes and sandwich courses. **We want to encourage universities to adopt the approach, typical in America, of helping students to find part-time jobs on the campus itself as well as with local employers. We want to see all universities treating student employability as a core part of their mission.**

5.9 We will implement the Sainsbury recommendation to expand Knowledge Transfer Partnerships and introduce new shorter placements. And we will boost entrepreneurial skills by working with BERR and the National Council of Graduate Entrepreneurship (NCGE) to develop regionally based university enterprise networks.

We believe it is reasonable to expect universities to take responsibility for how their students are prepared for the world of work.

**Question 3:** What support and incentives would help universities offer **access to the workplace** for all their students?

**Question 4:** How can we help employers better articulate their needs for these broad based skills?

## Meeting business needs for graduates

### Meeting business needs for graduates

Most higher education institutions are engaged with business but some have taken on an explicit business–facing mission. One university has made employer engagement, employability and workforce development key priorities throughout the institution. Results include:

- a Graduate Consulting Unit which matches new talent to business needs and is becoming a key business consultancy provider within the area
- a partnership between the University's Business School and a world leading missile systems company to improve the skills of its workforce
- preparation of students for successful careers through employability and entrepreneurship training as well as matching graduate potential to employer needs.

5.10 Universities are continually developing their **course curricula.** According to a recent European Union survey almost three out of four teaching professionals in tertiary education agree that study and training programmes should encompass more generic competences, such as communication, teamwork and entrepreneurship in order to adapt better to labour market needs[16].

### Transforming teaching and learning

One university has placed employability and the realities of the world of work at the heart of their business studies course for undergraduates. Students work independently and in teams, leading projects with local businesses and being mentored by the university's academics. The students gain excellent practical skills and learn all about the world of work while undertaking assignments. Students are treated as employees and are assessed on attendance, professionalism and creativity. They build up a range of knowledge and skills by working on real projects for real businesses.

This new approach to teaching and learning is reinforced by a transformed working environment. Traditional classrooms have been replaced by £1.2 million 'business pods' – each pod has a creativity area, an internet zone and group working areas alongside a board room and coffee area to simulate an office environment.

[16] *Flash Eurobarometer,* March 2007

5.11 Pressures from global competition – in business and higher education – mean an increasing need for UK graduates to have language and cultural skills, developed during study periods abroad. Employers want employees who are able to adapt to different cultures in a global environment. **We will work with the CBI, universities and DCSF to promote the value of studying languages and undertaking periods of study and work experience abroad.**

DIUS has prepared an action plan to raise awareness of study abroad through improved communications with students, institutions and employers. We are also funding mobility activities such as summer schools in China and through the Prime Minister's initiative for international education.

**Question 5: What more can we do to provide more graduates with the language skills and cultural awareness to thrive in a global marketplace?**

5.12 British higher education institutions attract a high proportion of international students – second only to the USA in market share. Our reputation for a world class higher education system is essential in attracting and retaining talent from all over the world. We have recently stated our intention to increase the time overseas students can work after they graduate from one to two years – increasing the attractiveness of the UK as a destination and benefiting business and the wider economy **through the increased contribution of highly skilled overseas graduates.**

# 6. Our aim – to raise the skills, and capacity for innovation and enterprise, of those already in the workforce

6.1 **Improving the progress of school leavers into higher education will be necessary but not sufficient to meet the skills needs of the future.** Demographic changes mean that the numbers of school and college leavers will shortly start to fall. Latest projections suggest a drop of 16% in 18 year–olds in England between 2009 and 2020 – a fall from 684,700 to 578,300.

6.2 **Around three-quarters of the 2020 workforce have already left compulsory education.** In other words, if there is a national need for increasing numbers of people with high level skills, that need must largely be met by more people **currently in the workforce** acquiring such skills.

6.3 To do so will require significant increases both in **supply** of high level skills, and in **demand** for such skills. While the public purse can offer some support, it shouldn't fund the full costs of a significant upsurge in demand, alongside the extensive commitments Government has already made to grow higher education. The benefits of high level skills are shared between individuals, business and employers and society. The funding requirements need to be shared too.

6.4 **There are a number of existing models for employers to get involved with higher education providers to develop the skills of the workforce.**

6.5 Employers, Sector Skills Councils (SSCs) and relevant Professional and Regulatory Bodies are working alongside higher education in the development of **Foundation Degrees (FDs).** These are co-designed by employers to meet their specific workplace needs. There are now 2,500 different Foundation Degree courses (with 800 more in development) and more than 70,000 students have enrolled. The ambition is for 100,000 FD enrolments in 2010, and there are good reasons to go beyond that.

**Working together to develop Foundation Degrees**

One university has developed two innovative Foundation Degrees in close partnership with employers.

The first, in electrical power engineering, builds on current expertise within the university and local further education colleges. The three major utility companies leading this initiative have provided significant input to the development of the flexible, modular programme.

The second is in hearing aid audiology, developed in close collaboration with a major employer. Students undertake practical training and experience in the workplace, supported by employer mentors and online academic support from the university.

6.6 There is growing interest in the **accreditation of employers' own in-house training** by higher education institutions. This adds value to an employers' training through an HE award and offers employees a platform for progression to further learning opportunities. Much of the activity is currently small scale, but the concept is widespread in the sector.

**Accrediting employer training**

A global company with a regionally-based filtration and purification plant contacted the university with a view to seeking accreditation of their training packages delivered via e-learning. A university expert worked with a counterpart at the company to support them through the approval process. It was quickly established that the training was being delivered at HE Level 5 and was equivalent to approximately 20 credits. The assessment procedures were deemed to be equivalent to those used on a degree level programme. The company put together the documentation and attended a credit equivalence approval event, at which they were awarded the certificate valid for three years.

6.7 These are positive examples of university/business collaboration on skills. But they account for a tiny proportion of employers' training budgets. A recent survey estimated that in 2005 total annual employer training expenditure in England was £33.3 billion[17]. Much of this covered on-the-job training and the labour costs of those being trained, but we estimate that around £5 billion[18] worth was on training potentially on offer from higher education providers.

[17] *National Employers Skills Survey 2005,* LSC, 2006
[18] DfES/DIUS own estimate, 2006

6.8 The income that higher education in fact secures from employers for Continuing Professional Development (CPD)[19] was estimated in 2005–06 to be worth £335 million (or around 6% of this potential revenue pool). The private sector or employer in-house provision accounted for much of the rest. According to the same survey, 13 institutions accounted for half of the CPD revenue into all English higher education institutions. If every institution raised its CPD revenue to the average of these 13 institutions, it would increase the market by well over £1 billion.

**Supporting Professional Development**

One university is supporting a professional body to promote and develop its CPD portfolio. Together they have identified a number of CPD programmes that address their members' needs. The professional body promotes the programmes to its members across the UK and internationally and members select from a range of postgraduate modules those most relevant to their profession. They include modules on leading and managing change, the environment and the policy process, globalisation, international health, economics, health sciences and public service reform. The partnership allows the university to engage with a wide range of organisations including small and medium enterprises and helps employers retain valuable professional staff.

## What are the obstacles to more, better engagement?

6.9 This section describes some of the obstacles employers and higher education institutions currently face to building successful partnerships.

## Employers – reluctant to train?

6.10 There is a perception that British employers are reluctant to train their staff, particularly if it involves paying for training where the immediate business benefits are unclear. Many lack the time or desire to get involved with higher education providers to articulate what they want in terms that are meaningful to academia. And some may have views of higher education that are out of date, not understanding what a modern university does, or can offer.

6.11 Research[20] suggests that large firms are better engaged with the university sector, with 52% of firms with over 5,000 employees using university provision for some of their learning and development needs. But the picture is very different where small firms with fewer than 50 employees are concerned: 71% had used private provision, compared to 20% using FE and only 15% HE.

[19] HEBCIS Survey 2005–06

[20] *Fit for business*, Employment trends survey 2007, CBI 2007.

6.12 And investment in training varies by business **size** and **sector.** The public sector has generally high levels of training spend – investment in high level skills is increasingly driven by rising expectations of public sector users for transformed services where empowered staff are able to innovate and solve problems on the front line, such as nurse practitioners in the health service. Spend in the private sector varies greatly. Firms invest in skills to support their business model – investment in high level skills rises as they move up the value chain. Smaller firms are much less likely to invest in training (possibly because of disadvantages of scale) and much less likely to have training budgets. Levels of investment may be influenced in some cases by the presence of collective institutions – the construction sector (where there is a levy-grant system) spends £2,450 per employee compared to an average of £1,550 across all sectors. A new Film Industry Training Board is being set up at the request of the film sector.

## Employees – reluctant to train?

6.13 **Six million** people hold qualifications at level 3, but not at Level 4. Recent DIUS research[21] has looked at the attitudes towards higher education of adults in the labour market without Level 4 qualifications. This includes those with qualifications below Level 4 – a total of 12 million adults. It shows that 30% would consider going to university at some point in the future and that 6% were already seriously considering it. **This suggests there are nearly 4 million people considering, or willing to consider, higher education.** They felt that higher education would improve their employability and career prospects and aid personal development. Even among those who weren't considering going to university, the majority said they could be encouraged to do so – for example, if it was easier to study from home or work, if they were given encouragement by their employer, or if there was a suitable course close to their home. That equates to a further 6 million who might be persuaded to access higher education. **Higher education providers must become better at attracting these non traditional students.**

6.14 Research for learndirect found that lack of confidence, perceived cost, lack of time and not knowing where to begin were key barriers to learning. Balancing commitments to work and family is the most frequently cited barrier – and time pressures from work are a particular issue for those with qualifications at Level 3 and above. Good quality information is essential for individuals to make sound choices about training.

[21] *University is Not Just for Young People: Working Adults' Perceptions of and Orientation to Higher Education,* DIUS Research Report 08 06, 2008

6.15 Evidence from recent reports, including one by Madeleine King for the Council for Industry and Higher Education (CIHE) and research for DIUS by Dr Marilyn Wedgwood, former pro-vice chancellor of Manchester Metropolitan University, supports the view that a market from employers and their workforce for high level skills training and development potentially exists on a much larger scale than at present.

**But realising that potential will require new ways of working.**

6.16 For employers to see the value in using higher education institutions to train their staff, institutions must provide a different service than their traditional business model. Institutions currently do this with different levels of success. Issues include:

- **Flexibility** – A recent report about the interaction between higher education and employers[22] criticised higher education for being too passive; for inflexibility in the scheduling of courses; for a lack of childcare facilities; and for a business model which was felt to be arranged primarily for the convenience of full-time students based on campus;
- **Marginal costs** – Setting up a course imposes significant up-front risks and costs on an institution. Meeting employers' needs for workforce development requires skills and attitudes that have not always been widely found in higher education. Securing them requires investment up-front, with the risk of being unable to recoup the costs from the fees that employers are prepared to pay;
- **Cultural change** – In order to reap the benefits of providing relevant high level skills to employers, there must be high level strategic leadership to drive the cultural change necessary to create a new and financially viable business model;
- **Recognition of excellence** – Although some institutions have chosen to become 'business facing' universities, some fear there is less recognition of excellence in employer engagement than there is in more traditional business models. We need to capture the different ways quality can be measured.

[22] Op cit – footnote 12 (DfES, RR835A)

6.17 What would it mean to translate what we know about employers needs into a truly demand-led approach? An LSC survey[23] asked employers what they understood by **'demand-led'.** They said: "more focus on employer and employee needs; improved customer focus from training providers; and more accountability among employers for the quality of training (through the accreditation of training programmes designed in-house)." Universities rightly pride themselves on meeting demand from students. The challenge is for institutions to ask themselves whether they can currently deliver this for employers. And if not, what they would need to change so that they can.

## Universities becoming a key player in local/regional problem solving

6.18 Evidence suggests that universities can play a key role in supporting businesses to solve their problems in research or development. HE-employer partnerships have been increasing, supported by the Higher Education Innovation Fund. Employers and institutions will both recognise the scale and nature of change in this relationship over the last decade – demonstrating what can be achieved with the right support and incentives. But their role in solving skills gaps is less developed. In the future, we want to see universities working with Regional Development Agencies (RDAs), Sector Skills Councils (SSCs) and local employers to develop the high level skills that a particular business (or business community) needs in a particular sector in a particular place.

## Culture clash?

6.19 In many discussions with both higher education institutions and employers, it is clear that the cultures and norms in the different sectors are different. We need to develop an effective response to the CBI survey findings that "three-fifths of companies agreed that universities see business as an important customer, yet three-quarters disagree that academics understand business needs". Employers and universities need to develop a better, more mature, relationship with each other.

[23] Op cit – footnote 11, LSC, January 2008

# 7. Going forward – raising the skills and capacity for innovation and enterprise of those already in the workforce

7.1 The previous sections highlight the growing activity in employer engagement in developing high level skills. The challenge is to put in place the right incentives and structures to achieve a dramatic increase in scale. As John Denham said on 29 February "we need to understand how we can build more effective relationships between higher education and business. There is no question that the most successful economies in 15 years time will take our current best practice as the norm".

7.2 **We have established the new UK Commission for Employment and Skills (UKCES) as a single, employer-led board providing direct and independent advice to Ministers.** The Commission will develop an independent view of how successful and well integrated our employment and skills systems are in meeting the competitive challenges faced by business, and in supporting changing employment trends. The Commission will also fund and manage the performance and re-licensing of the Sector Skills Councils (SSCs), review employability skills and help determine the targets, policies and progress necessary to our ambition of world class skill levels by 2020.

## Encouraging employers

7.3 **We will empower SSCs to incentivise demand for high level skills in their sectors.** We will ask re-licensed SSCs for advice on the high level skills needs in their sectors on the basis of Sector Skills Agreements. The Secretary of State will then ask HEFCE to take account of this advice in the annual grant letter on higher education funding.

7.4 **We will ensure there is an effective brokerage service for higher level skills.** The commitments in the Train to Gain Plan for Growth will ensure that Train to Gain provides an advice and referral service which truly meets employers' high level skills. We will:

- enhance the skills and knowledge of brokers in relation to HE and in particular ensure that they understand the modern HE sector and the services it now offers to employers;
- make higher education institutions aware of the opportunities available;
- offer a comprehensive diagnostic service which identifies skill needs at all levels; and
- **HEFCE will fund a national 'clearing house' service for Train to Gain brokers** that provides a single and reliable point of access connecting them with a named co-ordinator in each HEI.

7.5 **We will ensure Small and Medium Enterprises (SMEs) have access to the management and leadership support they need.** There are indications that effective management and leadership support grows the demand among SMEs for high level skills because of its direct impact on the bottom line. We want to encourage more higher education institutions to develop and offer high level programmes for management and leadership as part of the new Management and Leadership funding for SMEs under the Train to Gain Plan for Growth. HEFCE will be involved in piloting and implementing the new Management and Leadership offer.

7.6 **We will ask HEFCE to develop proposals to support expansion of accrediting employers' own training to higher levels.** We are learning from the early experience of Foundation Degree Forward's (***fdf's***) Employer-Based Training Accreditation scheme and accreditation of in-house provision is specifically included in a number of the employer engagement projects HEFCE is funding or expects to fund. We want to explore how this approach can be applied to SMEs as well as large companies.

**Question 6a: What further incentives are needed to stimulate and meet employer demand for high level skills?**

**Question 6b:** How can we best build on the contributions of FE colleges and providers and their links (in particular) to networks of small and medium sized enterprises?

**Question 6c: How well does the framework for high level skills support employer engagement?**

## Encouraging employees

7.7 The Trade Unions Congress (TUC) and DIUS together are seeking to offer better information and guidance to the 5 million people in the workforce who have Level 3 qualifications but not Level 4, via the **Unionlearn** programme. The new **adult advancement and careers service,** will offer people at every stage of their career quick access to advice and support on skills as well as a range of other issues, such as childcare, housing, and benefits. Aspects of the service will be available from Autumn 2008, with the full service operating from 2010/11.

7.8 We are **promoting the availability of two year honours degrees.** These are an important component of the HEFCE flexible pathways programme, for which the target is to have at least one thousand enrolled students during 2008/09. HEFCE is examining the early results from pilots of two-year compressed degrees. The experience has been encouraging and HEFCE are looking to increase their spread and take up. They can be an attractive option – particularly for learners with strong study skills, including mature full-time learners studying in mid-career. Changes to student finance regulations were announced in 2007 to facilitate the distance learning at the end of the first academic year that these courses require. **We will consider setting further targets for the growth of two-year programmes in future grant letters, and the Funding Council will use the pilots to identify what can be done to promote wider take-up.**

7.9 For the first time, **we now have a clear timetable and prospect for nation-wide credit arrangements to be in use in higher education.** By 2009/10, HE institutions should have credit-rated their main provision and be publishing details in the descriptions of the programmes they offer. This more consistent and transparent approach to the use of credit will encourage learners and aid progression.

We think there should be more scope to stimulate demand from employees, directly and with the support of Trade Unions.

**Question 7a: How can we best work with businesses and employers, Trade Unions and employees to encourage demand for high level skills?**

**Question 7b: How can we encourage rapid implementation of an effective framework for credit accumulation and transfer?**

7.10 **We will encourage more effective working between professional bodies, SSCs and higher education.** We have reported on the outcomes of a mapping study of the roles and responsibilities of those bodies. The research has produced examples of good practice where all three types of organisation are working well together. **We will build on these examples and encourage more, and more effective, joint working.**

## Supporting new ways of working

7.11 In the 2008 Grant Letter to HEFCE, the Secretary of State made clear that it is a priority to accelerate progress towards a new relationship between employers and higher education. **We announced ambitious and ground breaking plans to deliver growth in a new form of higher education, co-funded with employers.** Funding will rise to at least £50 million in 2010–11. It will allow us to deliver 5,000 entrants in 2008-09; rising to at least 10,000 entrants the following year and at least 20,000 entrants in 2010–11. This will enable the financial risks to an institution of investing up-front in structural changes to be shared, if the basic business case looks sound.

7.12 To support that, we have asked HEFCE to **develop a new model for funding higher education** that is co-financed with employers, achieves sustained growth in employer based student places, and introduces the principle of employer demand-led funding. This model will run alongside the existing funding model. It will incentivise higher education providers to respond quickly to employer demand and to offer accessible provision tailored to individual businesses. **And we believe there is a case for more funding to be employer demand-led in the next spending review period.**

7.13 The approach for the next three years is deliberately experimental in order to encourage the innovative capacity in higher education providers. It is an approach that draws on insights showing that innovation in services often happens through the interactions between customers and providers. As such **we are encouraging HEFCE to test and invest in a range of approaches.**

**Question 8: Do we have the right incentives to encourage higher education providers to be more responsive to business and employer demand?** The spending review settlement has allowed HEFCE to invest in transformational change in a number of institutions. This investment will help shift culture and build capacity for future, faster growth in delivering flexible provision.

7.14 Being excellent at engaging with employers can take many forms. **We need to be able to capture measures of performance about the different ways in which quality can be measured in the system.** Through the 2008 Grant Letter, we have asked HEFCE to work closely with DIUS to develop thinking on illustrating performance across the range of areas – pure research, allowing businesses to innovate, high quality teaching, upskilling of workforces and widening participation.

## Universities as local/regional problem solvers

7.15 HEFCE will test regional and sectoral approaches to employer co-funding. We will review the lessons emerging from the employer-provider consortia supported by ***fdf*** in major sectors like ICT/telecommunications, utilities, railways and biopharma and health technology. **And we will test out a co-purchasing role for SSCs in the expansion in employer co-funded places.** SSCs can offer a strategic approach to organising demand on the employer side of the co-funding equation.

7.16 We believe there are a number of ways this could work. For example, SSCs could work with HE Subject Centres to develop new approaches to delivery and to developing the HE workforce. Regional consortia of universities and businesses would develop approaches to practice-led teaching and learning with an emphasis on develop short courses, modular delivery and accreditation of bespoke programmes for employees across sectors. SSCs could then market the courses to their employers and the learning would be co-funded by HEFCE. Another approach would be to ask SSCs to identify employer customers able to make a collective contribution to the costs of the high level skills training that they need. HEFCE would then match this (up to the limit of its normal co-funding contribution). We are interested in testing initiatives to raise skills levels in supply chains and in building on existing university links to local business clusters, working jointly with relevant SSCs. **We expect the market to grow substantially after 2011.**

7.17 In March, DIUS launched its new **University Challenge,** which encourages local partners to come together and develop a case for a higher education centre or university campus. HEFCE is currently consulting on the criteria to be used in assessing cases, which includes business engagement, including developing the skills of the local workforce. And we announced in *Innovation Nation* plans to increase the availability of innovation vouchers in the regions so that SMEs can buy engagement with knowledge based institutions.

7.18 Regional Development Agencies provide the strategic framework for economic growth and regeneration in their regions. They have a particular role – with national and sub-national skills bodies – in identifying and prioritising the supply and demand for skills in a region. We want to see all regions developing a sophisticated understanding of demand for high level skills and its relationship to business strategies. We very much welcome the research undertaken by the East Midlands Universities Association that attempts to unpick regional business demand – HEFCE will fund equivalent work in other regions.

**Longer term, we want to develop a model for regional and sectoral bodies to play a much greater role in solving local skills problems and linking higher education institutions and businesses.**

**Question 9:** What should be the key features of such a model?

**Question 10:** How can we encourage RDAs and SSCs to work together to solve local and sectoral skills needs?

## Culture gap?

7.19 We believe that all the policy proposals outlined above will encourage a better understanding between employers and higher education institutions. However, regular interchange between staff in business and higher education will break down barriers further. There are schemes now that encourage academic interchange with business (for example through Higher Education Innovation Fund (HEIF) or Industry Fellowships) but demand is low. We will ask HEFCE to look at incentivising interchange with business in their future plans for investing in institutional change. And we will ensure that the new shorter term placements through Knowledge Transfer Partnerships (KTPs) are open to academic staff.

7.20 We believe that this is an area where university governing bodies might consider benchmarking their performance against other institutions and we want to consult with the Committee of University Chairs on how best to achieve this. We want to explore with the CBI and UUK what methods could be used to incentivise staff interchange.

**Question 11a: What further incentives are needed in universities – e.g. through internal appraisals or promotion processes – to increase demand from academic staff for business secondments?**

**Question 11b:** And how can we encourage movement in the other direction so that business people are increasingly contributing directly to course content, design and teaching?

## STEM in particular

7.21 We noted earlier that employers continue to be concerned about the supply and quality of graduates in STEM subjects. But we believe there is more scope for employers themselves to skill up their workforce in the specialist high level skills which their business needs. We have the opportunities through the expansion of Foundation Degrees and the new funding available for employer co-funded provision to support this type of workforce development. We will ask HEFCE to consider how STEM programmes might be further developed through FDs and co-funded places. Given the growth in good training and teaching materials, and the capacity for these to be used online, it should be more realistic than it has ever been for someone – including those who have not already got a university education – to retrain in midlife, if the right support and encouragement is there.

**Question 12:** How can we do more to increase the level of STEM skills in the existing workforce?

## Skills gaps

7.22 Migrants help to fill gaps in the labour market, including key services. Many British businesses that have faced labour shortages have benefited from being able to recruit widely for skilled labour. The new points based system will ensure the UK continues to attract migrants with the skills the economy needs - complementing the increases in home grown graduates and our policies to upskill the existing workforce.

# 8. The consultation on high level skills

8.1 If we want our higher education system to be world class at providing high level skills, then we need all our partners to join us in developing and delivering a powerful consensus for change. We need to make real a vision for the future where businesses are willing to pay for provision because they can see a direct connection between what students are learning and increased productivity. We need HE providers to win new markets as businesses and employers become convinced of the value of high level skills. We are at the beginning of that journey.

8.2 Over time, we intend that the framework of aspiration, incentives and support set by government and the Funding Council will underpin this change. It is imperative that we unlock home grown talent and, in doing so, support economic growth through innovation. This document begins the consultation with the wider higher education system about how we can become excellent at developing the high level skills of all those that can benefit.

8.3 The specific questions we want to explore and debate through this consultation are listed below.

**Section 5 Going forward – more, and more employable, graduates**

**Question 1: What incentives would encourage employers to be more involved in providing careers information, advice and guidance both before, and during university?**

**Question 2a: Given that subject choice at 14 and GCSE and A-level attainment are critical factors, is there a case for specific incentives to prospective students to take Science, Technology, Engineering and Mathematics (STEM) subjects?**

**Question 2b: How could any incentives avoid simply reinforcing the decisions of people who would have chosen STEM subjects anyway?**

**Question 2c: More generally, is there a case for providing incentives to universities or employers to encourage more young people to study STEM and pursue careers in it?**

**Question 3: What support and incentives would help universities offer access to the workplace for all their students?**

**Question 4: How can we help employers better articulate their needs for broad based employability skills?**

**Question 5: What more can we do to provide more graduates with the language skills and cultural awareness to thrive in a global marketplace?**

**Section 7. Going forward – raising the skills and capacity for innovation and enterprise of those already in the workforce**

**Question 6a: What further incentives are needed to stimulate and meet employer demand for high level skills?**

**Question 6b: How can we best build on the contributions of further education colleges and providers and their links (in particular) to networks of small and medium sized enterprises?**

**Question 6c: How well does the framework for high level skills support employer engagement?**

**Question 7a: How can we best work with businesses and employers, Trade Unions and employees to encourage demand for high level skills?**

**Question 7b: How can we encourage rapid implementation of an effective framework for credit accumulation and transfer?**

**Question 8: Do we have the right incentives to encourage higher education providers to be more responsive to business and employer demand?**

**Question 9: What should be the key features of a model for regional and sectoral bodies to play a much greater role in solving local skills problems and linking higher education institutions and businesses?**

**Question 10: How can we encourage Regional Development Agencies and Sector Skills Councils to work together to solve local and sectoral skills needs?**

**Question 11a: What further incentives are needed in universities – e.g. through internal appraisals, promotion processes – to increase demand from academic staff for business secondments?**

**Question 11b: And how can we encourage movement in the other direction so that business people are increasingly contributing directly to course content, design and teaching?**

**Question 12: How can we do more to increase the level of STEM skills in the existing workforce?**

8.4 These questions are intended to prompt debate. They are not intended to limit or constrain the consultation. So if you feel there are other equally important issues which should be addressed, please feel free to. We very much value your input.

8.5 The consultation period runs from 14 April 2008 to 7 July 2008.

8.6 If you wish to respond electronically please use the online or offline response facility on the Department for Innovation, Universities and Skills' consultation website www.dius.gov.uk/consultations/ . The online response facility will be available shortly after the launch date.

8.7 You can also respond to this consultation by email or in writing as follows.

By email to: highlevelskills.consultation@dius.gsi.gov.uk

By post to:
High Level Skills Consultation,
Department for Innovation,
Universities and Skills,
Higher Education Group,
N4, Moorfoot,
Sheffield, S1 4PQ.

8.8 If you have a query relating to the consultation process or policy content of the consultation, you can contact the DIUS switchboard on 0207 215 5555 (option 2) or email highlevelskills.consultation@dius.gsi.gov.uk

8.9 The results will be made public later this year on the DIUS website: www.dius.gov.uk . Individual respondents will not be identified in this but please note the Freedom of Information statement on the response form.

# Notes

Department for **Innovation, Universities** & **Skills**

Additional copies of the consultation document can be downloaded from **www.dius.gov.uk/consultations/** or by telephoning **0114 259 3835** and quote reference **HLSS 4/08**