Traditionally, the UK has an enviable record in the provision of higher education but performs comparatively poorly in providing intermediate skills. Of 30 countries surveyed by the Organisation for Economic Co-operation and Development (OECD) the UK sits 17th on low skills, 20th on intermediate skills and 11th on high skills. The result is unnecessarily low productivity and low wages for many, to the detriment of the economy in direct and social costs.

Apprenticeship is the most widely recognised aspect of the work-based route to skills development in Britain, particularly for people aged under 25. They are characterised by the apprentice being in employment with training delivered in the work place; the training normally results in NVQ technical certificates in specialist work areas and wider skills, often including literacy, numeracy and IT.

Apprenticeships are essential to our economy as a prime source of raising intermediate skills in craft, technician and associate professional occupations; they should have higher recognition among employers and with the public.

Therefore, the Institution urges the government to:

- Set (and inspect) minimum standards for the provision of impartial careers advice at schools and colleges to include the provision of information about the opportunities, demands and benefits of work-based training as well as those of further academic study – for all students;
- Encourage more companies to offer apprenticeships by positively promoting the simplification of employer engagement available through the National Apprenticeship Vacancy Matching Service;
- Better promote apprenticeships for the over 25’s as an essential method of re-skilling. Key to this will be the funding of this age group on par with the 16 to 19 age group;
- Raise the status of engineering apprenticeships, particularly Advanced Apprenticeships by promoting the link between Advanced Apprenticeship success and membership of and professional registration through professional bodies.

Improving the world through engineering
APPRENTICESHIPS

BRITAIN’S SKILL LEVELS

While in recent years the UK’s skills base has improved, so has that of other countries, often from a higher base. Consequently UK skills remains mediocre by international standards. The number of UK citizens achieving university degrees and PhDs is similar to that in comparable countries; however, a larger share of UK pupils leave school without an education that gives specific competence in a professional field.

The proportion of people with a Level 4 or higher qualification rose to 29% in 2005 from 21% in 1994; those with no qualifications fell to 13% in 2005 (22% in 1994). Apprenticeships in England grew from 75,000 in 1996/97 to about 250,000 2005/06. Participation of young people (18–30) in higher education now stands at a record level of over 40%.

The UK’s relative lack of intermediate and vocational skills appears to be an important impediment to our economic development. As the House of Lord Select Committee on Economic Affairs stated, “UK productivity could improve if the pool of skilled labour could be increased, and the cost to the economy and to society of failure to achieve this would be high.”

APPRENTICESHIPS – THE KEY ISSUES

Level

Apprenticeship has a long tradition in Britain and is a prime source of raising intermediate skills in craft, technician and associate professional occupations. By the early 1990s, however, numbers fell. Since then a number of changes have been made and from 2004 apprenticeships have been divided into a series of levels:

• Young Apprenticeships for 14–16 year olds;
• Pre-Apprenticeships at Level 1;
• Apprenticeships at Level 2;
• Advanced Apprenticeships at Level 3.

Since 2000, apprenticeships have increased by almost 20%; however, this growth needs further explanation. Apprenticeships (based on NVQ 2) are now the majority apprenticeship route while the number of Advanced Apprenticeship (based on NVQ 3) has fallen. Growth was largely achieved by converting other government-supported work-based learning programmes into level 2 Apprenticeships. Consequently the total number of people on all government-supported work-based learning programmes has changed little since 2000 (+7%).

It has been argued that more apprentices should work for a Level 3 qualification, as in many of our international competitors, as the Apprenticeship is insufficient preparation for the likely skill demands of labour markets in the future. The engineering apprenticeship balance is different; during 2006–7 there were around 16,000 Advanced Engineering Apprentices and 2,000 Engineering Apprentices in training.

“UK PRODUCTIVITY COULD IMPROVE IF THE POOL OF SKILLED LABOUR COULD BE INCREASED, AND THE COST TO THE ECONOMY AND TO SOCIETY OF FAILURE TO ACHIEVE THIS WOULD BE HIGH.”
Supply and demand
The lack of significant expansion in work place-based training suggests a lack of demand. There are various reasons for this:

- Employers find the number of different agencies to be liaised with confusing and time consuming;
- Many small and medium sized companies need business support rather than skill-intervention to help them build the capacity to take on apprentices;
- Costs; it is estimated, for example, that an average Advanced Apprenticeship in engineering costs an employer £50,000+ in training costs, salaries and supervision.

Conversely the supply of apprentices is high. The number of prospective apprentices is thought to far exceed the number of available places, a situation that the government has formally recognized.

Examples of demand cited include that of a company offering 80 apprenticeships in one year and receiving about 15,000 applications.

Completion Rates
Apprenticeship completion rates were, until recently, very low although the Learning and Skills Council dramatically increased completion rates in the space of a single year. Overall completion rates were 50% for all apprenticeship and 44% for Advanced Apprenticeship in 2005–06, compared to just 37% and 34% in 2004–05 respectively. These averages mask large variations by sector with engineering performing well: engineering completion rates for 2006–07 were above average at 69% for Advanced Apprenticeships and 65% for Apprentices.

Age profile
Sector Skills Councils, such as the Sector Skills Council for Science, Engineering and Manufacturing Technologies (Semta), are rightly working to increase the number of young apprentices. As the global economy changes and working lives lengthen, however, adults will increasingly need to update their skills in the workforce: unless they do so the UK cannot achieve Leitch’s aim of world class skills by 2020. This is true for the engineering sector and would enable companies to re-skill by developing existing staff who are excellent apprenticeship candidates. Adult apprenticeships could also be used to attract staff from other sectors and to adapt their skills.

Importantly, funding for apprentices aged over 25 years is limited to the same rate as for 19+ year olds, a significantly lower level than for those aged 16 to 19.

Successful Advanced Apprentices can apply for professional recognition as Engineering Technicians through institutions such as IMechE. This is usually done in close collaboration with employers and so provides formal recognition of their achievements, raises the status of their programmes and puts them on the path to further learning and professional achievement.

Benefits
Skill levels, demonstrated through formal qualifications, show a strong association with earnings and employment with lower skills resulting in substantially lower earnings and employment levels. Compared to the level of vocational qualification on which they are based, wage returns to apprenticeships are significantly higher.

Young men who have a recently completed Advanced Apprenticeship receive wages on average 18% higher than those whose highest qualification is at Level 2, while for young men with an Apprenticeship the figure is 16%. Similarly, young women with a recently acquired Advanced Apprenticeship have an average wage return of 14% while those with an Apprenticeship receive no significant wage return. The high wage returns to apprenticeship means that the investment by apprentice, employer and government is likely to yield substantial economic benefits to all parties and to be motivating to potential apprentices.

Improving the skills of young people also provides the UK with other benefits. Health, effective parenting and the ability to benefit from lifelong learning opportunities have all been shown to improve when individuals acquire workplace skills along with a reduction in the likelihood of engaging in criminal activity. All of these have economic and social costs.

Preparation for Apprenticeships
Young people looking to make decisions about their future are often do not receive sufficient help or guidance. Few apprentices learn about apprenticeships while at school and schools rarely inform young people about available opportunities. Evidence from other countries suggests that, if young people in school are well-informed about apprenticeship and the qualities and standards required for entry, they are more motivated to achieve while at school. The opportunity for reflection and understanding of oneself offered by guidance interviews is also valuable in promoting the social skills and the attitudes to work that many young people need to develop.

Where advice on apprenticeships is offered by schools and careers advisors evidence suggests that young people who are capable of completing a level 3 qualification are often encouraged to study A levels. Studies show that only 19% of Advance Apprentices were advised to apply for their programme while still at school.

The Government appears committed to taking action on this through, for example, the introduction of the national clearing system included in the Apprenticeship Bill. This will help young people access information about apprentice opportunities; importantly, though, good use of this must be made by schools and careers advisors at formative stages – it should not become a source of last minute opportunities for those who do not intend to follow the A level route.
RECOMMENDATIONS

The Institution of Mechanical Engineers urges the Government to:

• **Set (and inspect) minimum standards for the provision of impartial careers advice at schools and colleges** to include the provision of information about the opportunities, demands and benefits of work-based training as well as those of further academic study – for all students;

• **Encourage more companies to offer apprenticeships** by positively promoting the simplification of employer engagement available through the National Apprenticeship Vacancy Matching Service;

• **Better promote apprenticeships for the over 25’s** as an essential method of re-skilling. Key to this will be the funding of this age group on par with the 16 to 19 age group;

• **Raise the status of engineering apprenticeships**, particularly Advanced Apprenticeships by promoting the link between Advanced Apprenticeship success and membership of and professional registration through professional bodies.

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