

# TAPPING THE ENTHUSIASM OF YOUTH



Dr Scott Steedman

As engineering students across the country return to University after the summer break, the question of what to do after they graduate will be looming ever larger in their minds. Encouraging reports in the press last month of strong results from some of the UK's biggest manufacturing companies will be welcome news.

Young people are optimistic about their career prospects. The 2011 *Young Minds Monitor*, a survey by GE of over 850 engineering technology students, reported that over 90% thought they would go on to develop a career in engineering and were confident that they will find work in engineering when they graduate.

However, the evidence from EngineeringUK, which monitors graduate destinations year on year, is less positive. Its latest report, *EngineeringUK 2011*, shows that not only has the economic climate over the past few years meant that engineering graduates are finding it increasingly difficult to secure full time employment of any kind, but that a shrinking percentage of

those graduates who do find jobs take up employment in the sector. We are losing talent at a rate that we can ill afford, given the engineering challenges ahead.

It is vital for the long term health of the engineering profession that we build on the enthusiasm and interest we find among teenagers throughout the long process of career choice.

In their joint report, *Engineering the Future*, published in 2009, National Grid and The Royal Academy of Engineering highlighted the challenge we face as an "invisible industry". Being an engineer featured high on the list of possible jobs that young teenagers said they were interested in, but when challenged as to what they knew about it, they (and their parents) demonstrated a depressingly low understanding of what engineers actually do, and even that was beset by stereotypes.

In recent years, a number of excellent programmes have set out to raise awareness among the young of the value of engineering as a career and to society. The Big Bang Fair, targeting science, technology, engineering and mathematics (STEM), is an obvious example. Knowledge of what engineers do appears to be rising among the general public, although *The 2011 Engineering and Engineers Brand Monitor* from EngineeringUK suggests that this overarching conclusion masks important differences between age groups. Knowledge is rising fastest among the over 40s but actually falling among the under 16s. Worse, a falling proportion of adults would recommend youngsters to follow a career in engineering.

This is a worrying trend. With a reducing pool of enthusiastic young people and increasing fees imposing further pressure on numbers at university level, we cannot afford

to undermine the interest of any of the brightest young women and men aspiring to make a career in engineering.

Two major themes emerge from these surveys and reports.

Firstly, public attitudes to engineering are very important to students as they contemplate career paths. Role models and engineering heroes have an influence but the steady drip-drip of everyday experience is even more important. Surveys show us that students filter their views of engineering as a potential career through the wider lens of a society viewpoint. It is essential to promote the value of engineering as a career not only directly to students but also in a complementary way to society at large. Otherwise our siren call to students may be lost on the winds of public opinion.

Secondly, positive contacts with industry are vital to build a young person's early enthusiasm for engineering, from that first thought about a future job right through to the point where they make their initial career choice. Whether it's a talk, a site visit or a work placement, all their encounters with engineering must be truly engaging.

Unfortunately young people's early experiences with industry are often negative or uninspiring. Unsatisfying encounters with potential employers will have much more impact on career choice than any number of classroom talks, however exciting.

There is no easy answer to helping young people get more out of their limited exposure to engineering. Our strategy must be more coherent and our messaging more consistent. Alongside companies, professional bodies and other partners, the Academy is working to improve employers' engagement with young people throughout their education. Can we become a catalyst for the enthusiasm of youth?

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Editor-in-Chief

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