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### **ENGINEERING FAILS TO ENGAGE WORKFORCE OF TOMORROW**

- **Engineering sector must do more to win over ‘hearts and minds’ of children, if skill shortages are to be addressed**
- Poll finds only 1 in 10 children think engineering is ‘important’ – behind politicians and lawyers
- 40% of children believe engineering is ‘dirty’ or ‘smelly’
- More girls than boys are considering engineering as a potential career
- Children and parents plea for more information on what engineering jobs can offer
- Industry needs to up the ante to turn engineering doubters into career advocates

The challenging task of inspiring the next generation of UK engineers so that acknowledged skills shortages can be addressed, is further confirmed by the findings of an exclusive survey carried out for Siemens.

Responses from 500 11-14 year olds and 1,000 of their parents highlight the industry’s ongoing need to alter some current perceptions. It must also continue in its objective to reposition engineering in the minds of schoolchildren as an exciting and fulfilling modern career choice for a high technology age.

At a time when industry commentators say more needs to be done to dispel the myths about an engineering career so the current under resource of engineering talent can be reversed, the findings of this study reveal the target group – the schoolchildren of today – still carry big reservations. At its heart appears to be a plea from teenagers and their parents for a better and more informed picture about what an engineering career in 21<sup>st</sup> century Britain can entail in terms of opportunity and reward.

### *A lack of importance?*

The poll found that just one in ten children thought engineering was an 'important job', compared with doctors and nurses at 82% and teachers at 41%. Engineering was also placed behind politicians and lawyers when ranked in terms of job importance. Interestingly, with the numerous and varied careers available in the modern hi-tech advanced engineering arena, over 40% of children described engineering as either 'dirty' or 'smelly' and nearly one in five said it was 'boring'. However, 45% did also say they thought it would be 'interesting'.

Asked about whether they would consider a career in the world of engineering, over two thirds (66%) of children either said 'no' or 'don't know'. Asked why they wouldn't consider it, the top answers were that they 'didn't know enough about it' or thought it was 'boring'. One anecdotal answer said "it takes lots of training and university is too expensive". Girls, however, appeared to be less reticent, with a higher percentage of young females (34%) saying they would consider an engineering career when compared to boys at 31%.

With children often heavily influenced by their parents as regards career choices, the thoughts and observations of mum and dad were also sought.

### *More information please, say parents*

An overwhelming majority of 83% of parents said they would encourage their children into engineering, reasoning that they would 'earn good money' and that it was 'an important job'. However, of those that wouldn't encourage their kids down this career path the main reason given was a lack of knowledge about the sector and the opportunities it presents. Indeed, nearly 75% of parents said they didn't feel as if they had enough knowledge to give good advice on pursuing a career in engineering, when compared to other professions. A timely signal here perhaps that both parents and children should be the targets of information and messages of encouragement from the industry if progress is to be made.

To gather thoughts about where parents thought the UK's engineering strength lay, the construction and software industries were cited as prime examples, but a quarter of parents owned up to not knowing where the country excelled in terms of engineering. This point was further highlighted by the fact that nearly a half of

parents questioned (47%) felt unable to name three UK companies that an engineer could work for.

Somewhat at odds with the clean and high tech working conditions found in today's advanced manufacturing and engineering facilities, a quarter of parents acknowledged that engineers today typically work in a 'reasonably modern' environment – but the same number also said that it needed 'updating'.

Juergen Maier, managing director, Siemens Industry Sector UK, comments: "The findings of the poll make interesting reading. It highlights that all stakeholders must continue to rigorously promote the opportunities presented by a career in engineering if we are to fully engage with both children and parents. Our survey reveals we still have some way to go to persuade large numbers of children about the merits of engineering and the challenging, fulfilling and rewarding career it can deliver. As a nation we lag well behind countries like Germany in creating technicians and vocationally qualified people to meet our future needs."

He continues: "The work of important initiatives such as the World Skills event, taking place from 5<sup>th</sup> to 8<sup>th</sup> October in London, which offers practical and hands-on experience for children, the new Government-backed UTCs\*, and the recent upturn in the number of available apprenticeship schemes will, together, help turn the current engineering career doubters into real advocates. Encouraging our next generation of engineers from the schoolchildren of today will be critical if the country is to fill current skill shortages and put UK manufacturing back on the world-class map."

Andreas J Goss, Chief Executive, Siemens plc, appreciates the problem but is also optimistic about the future: "Siemens is investing heavily in skills in the UK. We recognise that if we don't inspire the next generation of apprentices, technicians and graduates, this will be a serious risk to our future business growth. However, I am confident that we will be successful in changing attitudes when I see the fantastic work at World Skills and other programmes that we support around the UK."

## **ENDS**

\*Siemens is a main employer partner at the Black Country University Technical College. It offers a vocational alternative to GCSE/A-level education for 14 to 19 year-olds with students

exposed to specialist engineering teaching and equipment that brings them much closer to the realities of the workplace, including a full working day. It opened its doors to its first 120 students in September 2011.

The survey was conducted among 500 children aged 11 – 14 years old and 1,000 parents online between 23/9/11 and 30/9/11.

#### **About Siemens in the UK**

Siemens was established in the United Kingdom 168 years ago and now employs around 16,000 people in the UK. Last year's revenues were £4.1 billion. As a leading global engineering and technology services company, Siemens provides innovative solutions to help tackle the world's major challenges, across the key sectors of infrastructure & cities, energy, industry and healthcare. Siemens has offices and factories throughout the UK, with its headquarters in Frimley, Surrey. The company's global headquarters is in Munich, Germany. For more information, visit [www.siemens.co.uk](http://www.siemens.co.uk)

#### **About World Skills**

WorldSkills International (WSI) has been active for over 60 years with the aim of improving the quality and awareness of skills training and excellence worldwide as well as promoting a high quality standard for vocational education training.

Local, regional and national skills competitions take place in the 54 member countries/regions which lead to the WorldSkills Competition (WSC) which is an international competition for skill, trade and technology vocations. The WSC takes place every two years for participants aged 22 and under in a different member country/region.

At this year's 41<sup>st</sup> WorldSkills Competition from October 5th to 8th in London, more than 1,000 of the best competitors from 50 countries/regions will meet and compete in 45 disciplines. In excess of 3,000 experts, delegates, VIPs, and journalists are expected at the event, along with over 150,000 visitors. Siemens is the product sponsor for Competition Skill 1 "Polymechanics/Automation" and Skill 19 "Industrial Control". The company will provide the participants with the required hardware and software for automation and drives technology.

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