

WHAT'S THE BIG IDEA? PUTTING PEOPLE AT THE HEART OF ENGINEERING EDUCATION

Institution of
**MECHANICAL
ENGINEERS**

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Head of Education & Skills

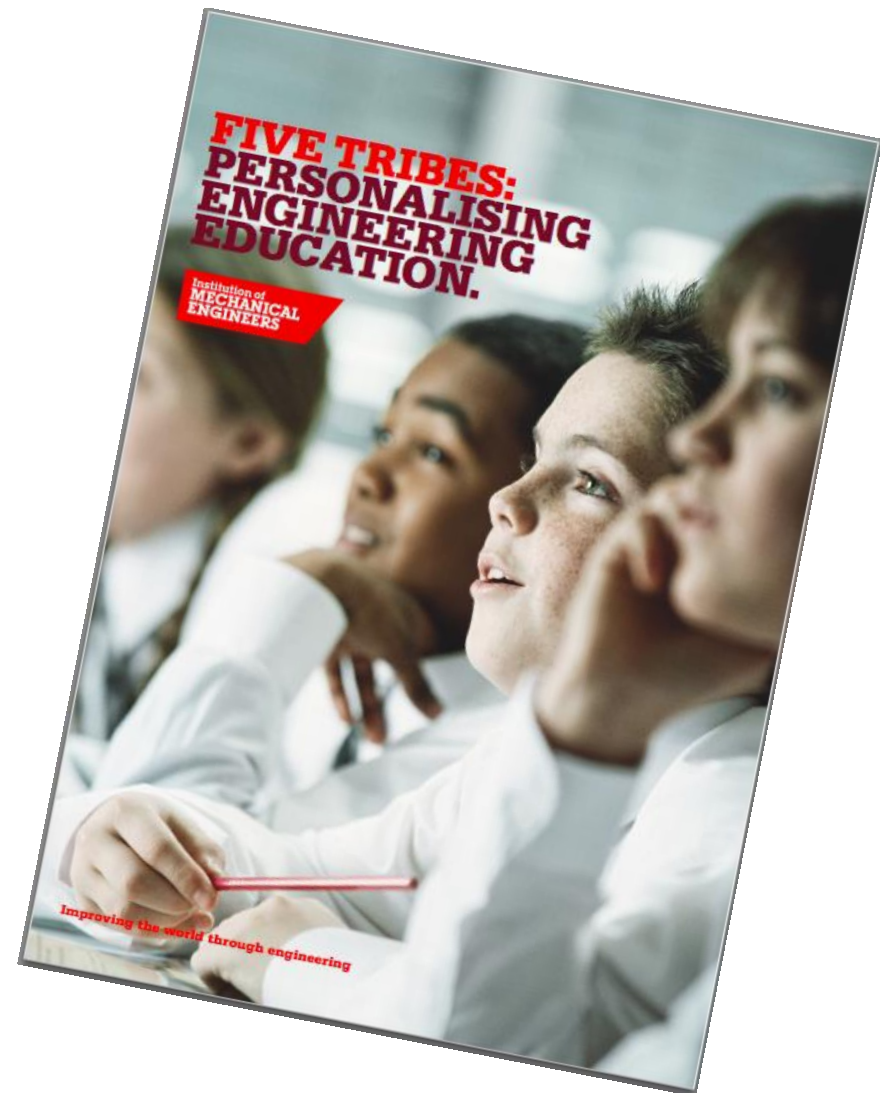
Engineering Professors' Council Recruitment and Admissions Forum
11 Nov 2015

www.imeche.org

Improving the world through engineering

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**SAYING: ‘I’M AN ENGINEER...
BE LIKE ME!’ MAY NOT BE
SUFFICIENT TO PERSUADE
THOSE WHO SIMPLY
ARE NOT ‘LIKE ME’ TO
BECOME ENGINEERS.**



IMPLICATIONS FOR ENGAGEMENT WITH YOUNG PEOPLE

1. Should consider the 71% who are not obvious enthusiasts.
2. Use of a wider range of technologies to illustrate engineering for girls
3. Develop learning experiences drawing on creative & entrepreneurial side of engineering
4. Better careers education would improve perceptions of engineering jobs and support all tribes



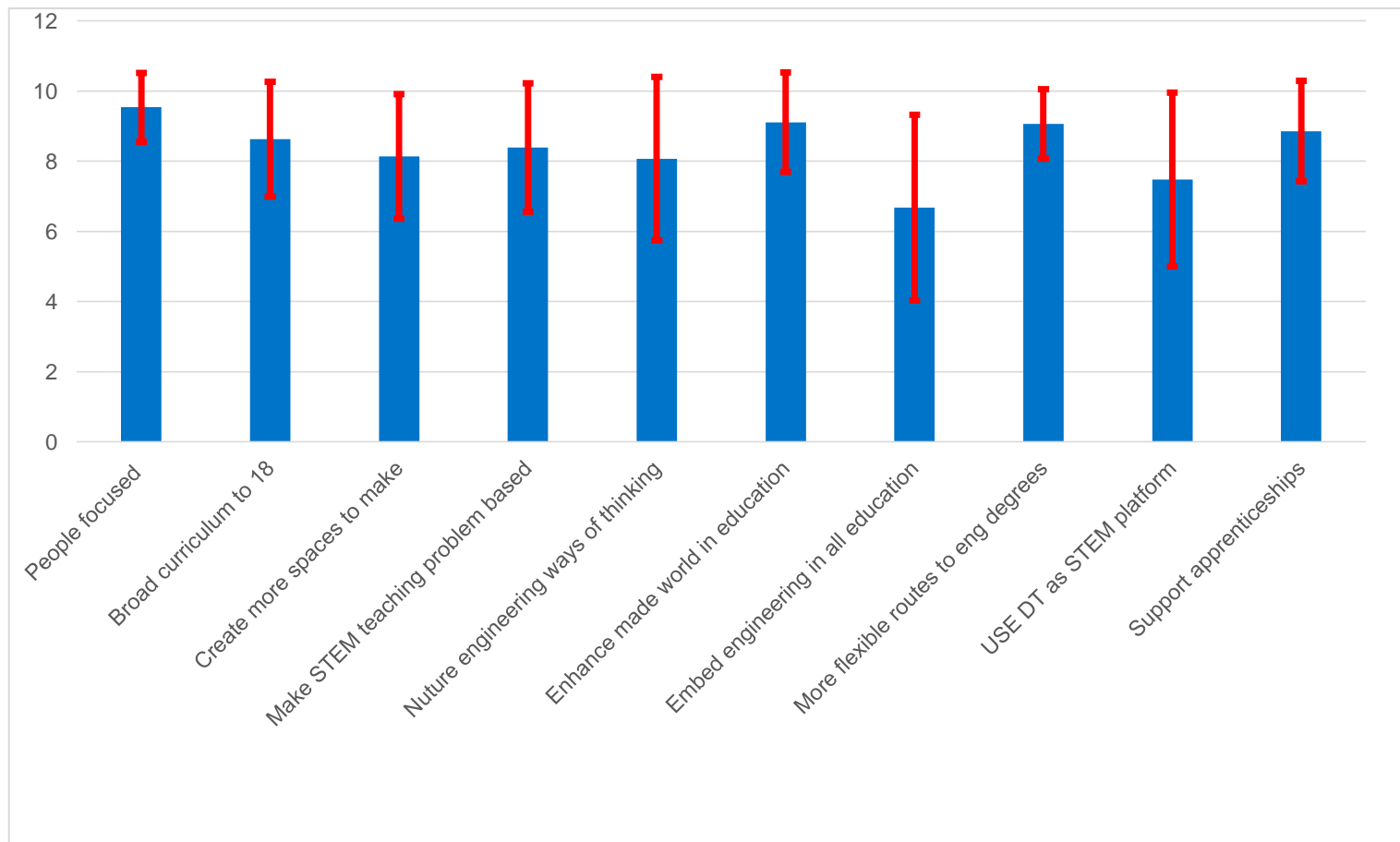
CHANGING THE DEFAULT: BIG IDEAS IN ENGINEERING EDUCATION

- Six essays produced by radical thinkers informing...
- Two day workshop in June 2015 at RAEng and IMechE
- Commissioned research from ICM with teachers, parents, pupils, engineers and employers
- Subsequent follow-up survey
- Report previewed in Dec 2015 and launched in Feb 2016



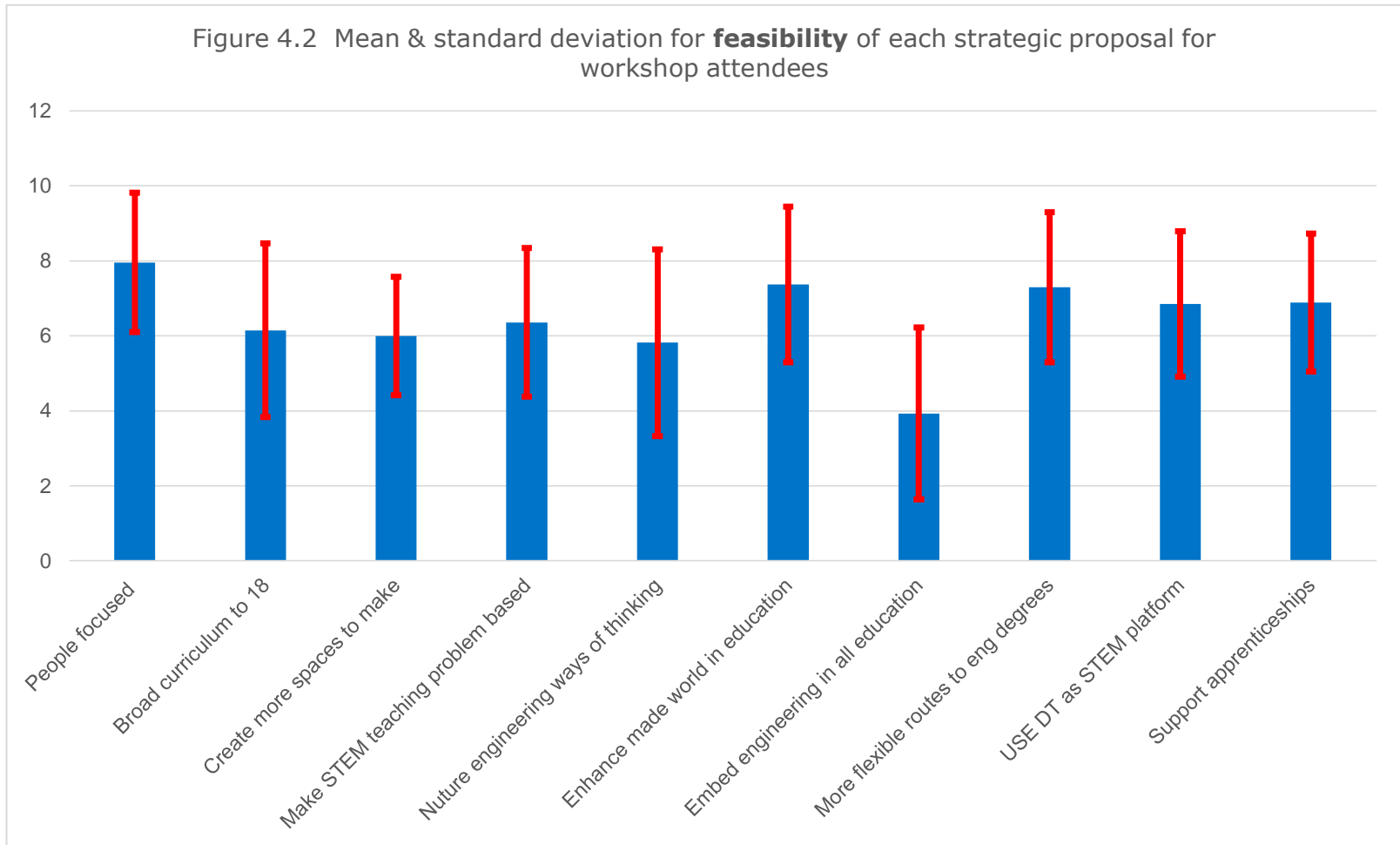
BIG IDEAS IN ENGINEERING EDUCATION

Figure 4.1 Mean & standard deviation for **desirability** of each strategic proposal for workshops attendees



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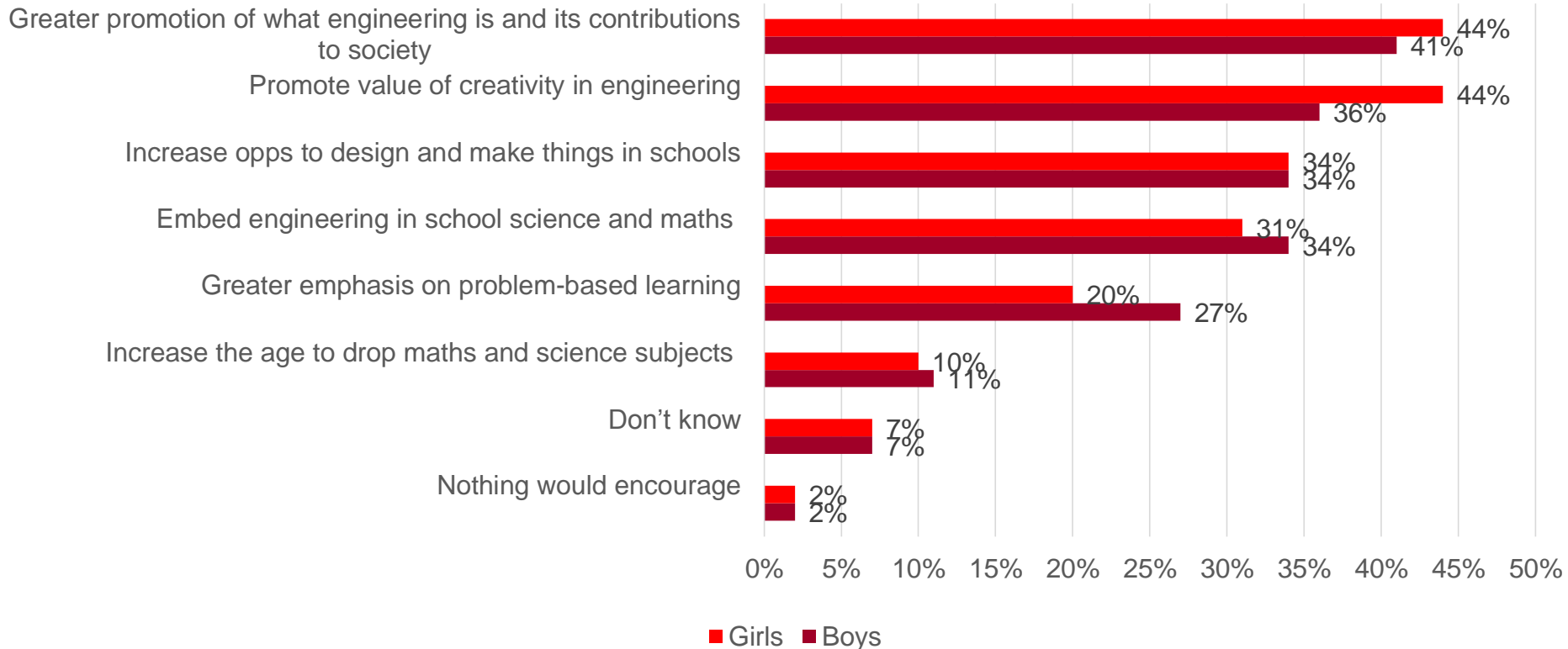
Figure 4.2 Mean & standard deviation for **feasibility** of each strategic proposal for workshop attendees



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|---|--|
| Professor Louise Archer | King's College London |
| Professor Helen V Atkinson CBE FREng | Royal Academy of Engineering |
| Dr David Barlex | dandtfordandt |
| Martin Boon | ICM Unlimited |
| Dawn Bonfield | Women's Engineering Society |
| Dr Michael Cook | BuroHappold Engineering Ltd |
| Jo Cox | Redmoor Academy |
| Jane Divito | Royal Academy of Engineering |
| Professor Neil A Downie | Air Products Plc |
| Ian Duffy | BP plc |
| Professor Kel Fidler FREng | Royal Academy of Engineering |
| Peter Finegold | Institution of Mechanical Engineers |
| Dr Daniel Glaser | Science Gallery London |
| Dr David Good | University of Cambridge |
| Professor Peter Goodhew FREng | University of Liverpool |
| Dr Paul Greening | UCL |
| Clive Grinyer | Barclays |
| Dr Janet Hanson | University of Winchester |
| Professor Eileen Harkin-Jones OBE FREng | University of Ulster |
| Jo Hutchinson | iCeGS University of Derby |
| Ian Jones | Jinja Publishing Ltd |
| Dr Veronika Kapsali | MMT Textiles |
| Professor Maria Knutsson Wedel | Chalmers University of Technology |
| Jose Lopes | Jaguar Land Rover Ltd |
| Professor Bill Lucas | Centre for Real-World Learning at the University of Winchester |
| Dr Ioannis Miaoulis | Museum of Science, Boston |
| Professor Robin Millar OBE | University of York |
| Professor Mark Miodownik FREng | University College London |
| Andy Mitchell | The D&T Association |
| Dr Rhys Morgan | Royal Academy of Engineering |
| Rachel Pearson | Institution of Mechanical Engineers |
| Professor John D Perkins CBE FREng | University of Manchester |
| Matthew Reece | The Marlborough School |
| Daniel Sandford Smith | Gatsby Charitable Foundation |
| Alom Shaha | Camden School for Girls |
| Stephen Tetlow MBE | Institution of Mechanical Engineers |
| Jim Wade | The JCB Academy |
| Faith Wainwright | Arup |
| Mark Wakefield | IBM UK |
| Prof Timothy Wei | University of Nebraska Lincoln |
| Dr Shelagh Wynn | New Model in Technology and Engineering |

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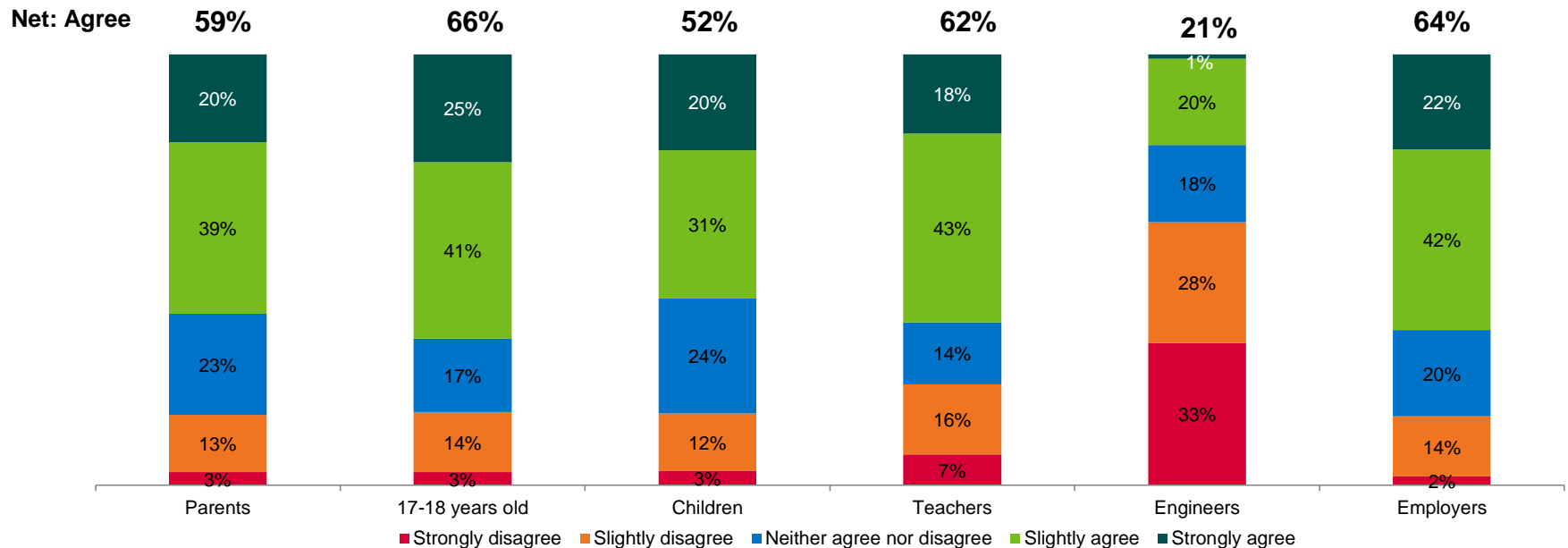
Most powerful factors for encouraging boys/ girls to consider pursuing technical training and engineering career paths (N=1487)



BIG IDEAS IN ENGINEERING EDUCATION

Views on whether engineering is viewed as a high status/important profession in society today

- Under a quarter (21%) of engineers agree that engineering is seen as a high status/important profession in society today. This figure is much higher amongst all other groups and is highest amongst 17-18 year olds (66%) and employers (64%)



Q19. Would you agree or disagree that engineering is seen as a high status/important profession in society today? Base: Parents (1007); Teachers (125); Engineers (76); 17-18 year olds (100) ; Employers (178)

THANK YOU

For more information please contact:

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