Key facts about the state of Engineering 2014
Britain is great at engineering

Engineering turnover has grown 2.2% over the past four years to £1.1 trillion in the year ending March 2012. Which is 24.5% of all UK turnover.

5.4 million people are employed across 565,320 engineering enterprises.

...but we need many more engineers

Engineering companies are projected to need 1.86 million people likely to need engineering skills from 2010-2020. That means we need to double the numbers of engineering related apprentices and graduates coming out of colleges and universities.
We need more young people studying STEM subjects

<table>
<thead>
<tr>
<th>Year</th>
<th>11 year olds:</th>
<th>GCSE†</th>
<th>A-LEVEL†</th>
<th>DEGREE</th>
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† Grades A* to C

The number of girls gaining physics GCSE at A*-C is now almost equal to the number of boys, and the achievement rate for girls (91.1%) is higher than for boys (90.5%).

However in 2013 only one fifth of A-Level students were girls.
In 2013, almost two-thirds (64%) of the general public could cite the engineering development of the last 50 years that has had the greatest impact on them - up from 38% in 2010.

4 in 10 11-16 year olds see a career in engineering as desirable.

One in six 11 to 16 year olds said they knew what people working in engineering do.

Great prospects

£26,019 Average graduate starting salary for engineering & technology

Around a fifth more than for all graduates

Two thirds who went into employment went to work for an employer whose primary activity was engineering and technology. Just 2-3% go into the financial services sector.
The engineering sector needs collaborative action:

The evidence and trends presented in this year’s Engineering UK report confirm that the long-term (2020) recommendations remain the same as last year:

- **We need a two-fold increase in the number of engineering graduates.** This is vital to meet the demand for future engineering graduates and to meet the shortfall in physics teachers and engineering lecturers who will play a vital role in inspiring future generations of talented engineers.

- **We need to double the numbers of young people studying GCSE physics as part of triple sciences and grow the numbers of students studying physics A level to match those of maths.** There should be a particular focus on increasing take-up and progression by girls.

- **We need a two-fold increase in the numbers of under-19s studying vocational level 3 qualifications.** In particular, we need to increase numbers studying the Advanced Apprenticeship frameworks in engineering and manufacturing technology, construction planning and the built environment, and information and communications technologies.

- **We need to provide careers inspiration for all 11- to 14-year-olds.** This should include opportunities to meet technical leaders from across a range of scientific, technological, engineering and business sectors and, where possible, experience the workplace. This inspiration must highlight the value placed on STEM skills and promote the diversity of engineering careers. When required, it should be backed up with consistent, face-to-face careers information advice and guidance that highlights the subjects needed and the variety of routes to those careers.

- **We need to support teachers and careers advisors** in delivering careers information that helps students understand the range of modern scientific, technological, and engineering career paths – including vocational/technician careers – and recognise the value employers place on STEM subjects. Students also need to have the opportunity to experience a 21st century engineering workplace for themselves.
The Engineering UK report was produced with the support of the members and fellows of the following Professional Engineering Institutions:

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EngineeringUK partners with business and industry, Government and the wider science and engineering community: producing and sharing evidence on the state of engineering, inspiring young people to choose a career in engineering and matching employers’ demand for skills. EngineeringUK leads two programmes: The Big Bang and Tomorrow’s Engineers.

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