

“There isn’t any doubt about how important engineering is not only to the UK economy but to the progression of the human race across everything we do. With 5.7 million currently working for engineering companies and an estimated quarter of a million new jobs required every year to push the industry forward, the strong demand is hugely positive. Despite the shadow caused by Brexit, we’ve seen an increase in temporary vacancy demand highlighting that hiring managers are still serious about utilising Carbon60’s expertise to recruit.”

**Alex Downard, Operations Director**

# Engineering overview & outlook

Autumn 2017



# Engineering overview



Nearly **5.7 million** employees work in engineering enterprises in the UK. This makes up just over **19%** of UK employment in all registered companies. This has remained relatively consistent for the last 3 years.

**2.7 million** people are directly employed in the UK's **manufacturing** industries which are responsible for around **50%** of the UK's exports.

**Manufacturing** decreased by **0.5%** in quarter 2 2017 mainly due to a large fall in the manufacture of motor vehicles.

**80%** of engineering enterprises have less than 5 employees.

Until recently, UK labour productivity has grown by around **2%** per year. However, during the second quarter of 2016 the level of labour productivity

was only **0.1%** above the pre-recession peak 8 years ago.

For every person employed in engineering, another **1.74** jobs are supported elsewhere.

The proportion of young workers in engineering aged under 25 has been **decreasing** over the last 10 years.

Women make up **46%** of the UK workforce as a whole, however engineering continues to be male-dominated with women making up only **1 in 8** of those in engineering occupations and less than **1 in 10** of those in an engineering role within an engineering company.

The number of GCSE entrants in sciences has **grown** over the last 5 years.

**68%** of first degree engineering graduates are in full-time work 6 months after graduation.

Engineering graduate starting salaries are well above the graduate average (£22,000) at just over **£26,000** in 2014/15, and nearly **£27,000** for those entering an engineering occupation.

Postgraduate study adds a further premium.

Vacancies in manufacturing increased by over **2,000 (+4.2%)** versus previous year with **50,000** vacancies in total.



# Engineering outlook



**Automation** is of particular interest within engineering, with **two-thirds** of all UK manufacturing businesses committed to major automation projects within the next 2 years.

The need for engineering & technical skills will only grow in future. The 2014-2024 update to Working Futures predicts an annual growth in total employment of **0.5%**. It predicts an average demand for **265,000** jobs in engineering companies per year, of which around **186,000** will be in engineering roles.

Overcoming the ongoing challenge of attracting young people to **STEM** subjects is going in the right direction, a total of **41%** of total A-level entries were in STEM subjects (up from **39%** in 2015 and **40%** in 2016). For girls, the figure remains static at **35%** while **46%** of entries for boys were in STEM.

The recruitment of **teachers** however is an issue, as recruitment targets for teachers was not met in maths, physics, computing and design & technology. The government must urgently address the shortage of teachers in specialist subjects if there is going to be an increase in STEM subjects being taught.

## Production is coming home

In the past 3 years, just under **17%** of engineering companies have 're-shored' their production in-house, with the same proportion having switched to a UK supplier from a low-cost country.

- A further **6%** were planning to re-shore either in-house or to a UK supplier, in the next 3 years;
- All sizes of firms from all sectors were moving production and suppliers closer to home, with larger companies in the transport, electrical and optical equipment, and the machinery equipment sectors most likely to be reshoring.

A team from Vrije Universiteit in Belgium believe robots are a step closer to Terminator-like invincibility after "wounds" in parts healed themselves. The robots can also "heal" damage when exposed to heat, potentially paving the way for resilient, long-lasting and eco-friendly new machines.





Carbon60 is a specialist in providing flexible and cost effective engineering and technical recruitment solutions on an international scale. We work in partnership through a combination of recruitment, managed services and outsourced projects to help connect the best industry professionals and teams to dynamic businesses across aviation, construction, defence, engineering and technology.

## Contact us

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