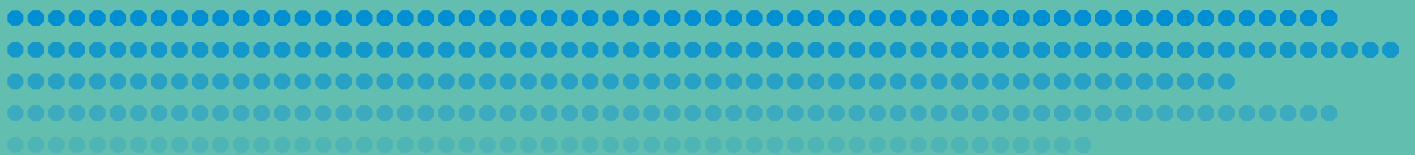


Make informed decisions about your career path by learning about key labour market sectors in Cornwall & the Isles of Scilly

THE ENGINEERING & MANUFACTURING

SECTOR IN CORNWALL & THE ISLES OF SCILLY



CIOS LEP



THE ENGINEERING
AND MANUFACTURING
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Introduction to the engineering and manufacturing sector

The engineering and manufacturing sector is made up of small and large businesses that often support many other of the sectors in Cornwall & the Isles of Scilly. These include for example agriculture, marine, construction and low carbon energy.

Employees with a range of specialisms are needed in this sector. This is due to the variety of businesses and the large numbers of areas where there are skill shortages.

The engineering and manufacturing sectors make up 11% of the Cornish economy and the median average salary is £31,196, with salaries for different occupations within the sector showing significant variation.

The qualifications required for roles in this sector differs between occupations, with specialist engineering roles requiring a degree or postgraduate level qualification. There are also roles that don't require a degree and many that have apprenticeships. Maths and English GCSEs are important in the sector.

There are increasing opportunities in this sector for people who have not previously considered working in engineering or manufacturing. While the sector has typically been male-dominated, companies are increasingly seeking to hire more diverse workers.



Apprenticeships are a key way to get into the sector and develop your skills. They are available from Level 2 to Level 7.

Current outlook

There are about 15,405 employees in this sector in Cornwall & the Isles of Scilly and of these 90% are full time, and 10% are part time. There are also self-employed individuals working in the sector not picked up by these figures. They may be consultants, subcontracted to larger projects or part of the supply chain.

Within the engineering and manufacturing sector, the largest proportion of staff work as production managers and engineering technicians, or in supporting roles such as chefs and catering assistants. Within Cornwall, the demand is highest for science, engineering and production technicians, production managers. An ongoing concern for the sector is the domestic skills shortage.

The Cornwall Manufacturers Group reported that 60% of engineering companies in Cornwall expect to have shortages of skilled labour over the next few years. The South West Institute of Technology is working with industry to provide excellent technical education and training in Cornwall and the wider South West, to become one of the world’s leading regions for digital, engineering and manufacturing technologies.

**AVERAGE
ADVERTISED
SALARY**

£31,196

**IN CORNWALL IN THE
ENGINEERING AND
MANUFACTURING
SECTOR**

Salaries in the engineering and manufacturing sector

Occupation Title	Median Salary (UK-wide)
Electronics engineers	£47,401
Engineering technicians	£35,257
Managers and proprietors in other services n.e.c.	£28,396
Mechanical engineers	£43,000
Production managers and directors in manufacturing	£42,710
Sales related occupations n.e.c.	£21,268
Science, engineering and production technicians n.e.c.	£26,436
Welding trades	£26,913

Proportion of jobs in the national engineering and manufacturing sector and demand over the last year in Cornwall

Demand for these occupations in Cornwall & the Isles of Scilly

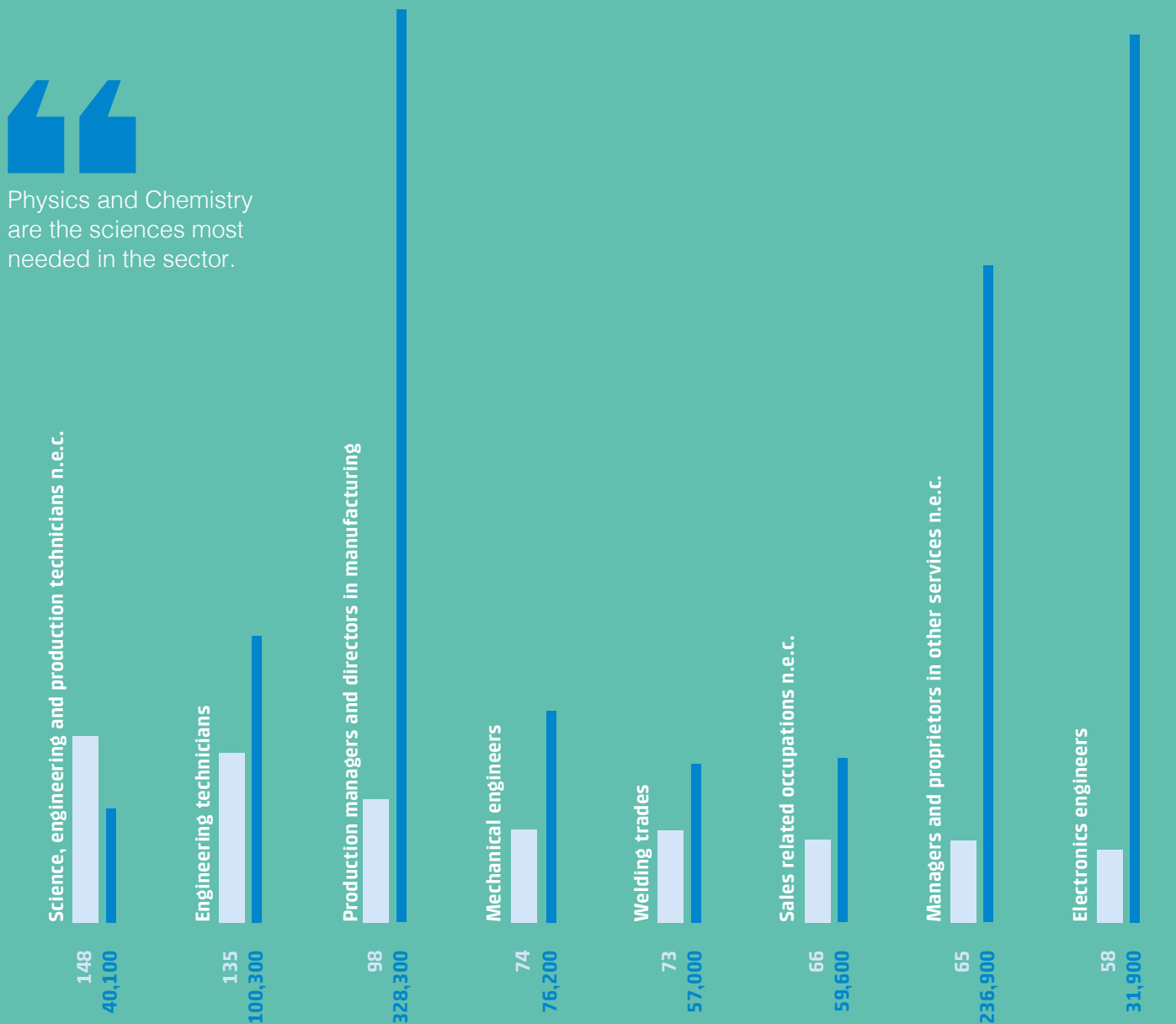
Number of Job Posting in 12 months¹

The current top occupations in this sector nationwide

Number in employment (UK-wide)



Physics and Chemistry are the sciences most needed in the sector.



Key employers in the engineering and manufacturing sector in Cornwall include:

- Watson Marlow
- Pall Corporation
- Teagle
- Feritech
- Eliquo Hydrok
- Bott
- Samworth Brothers

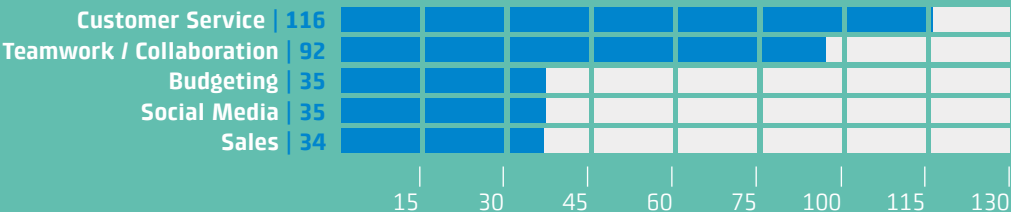
Skills



Employer demand for specialist skills in the engineering & manufacturing sector in Cornwall

Job adverts listing this skill

Specialist design software (Computer Aided Design) is often used in the industry



Employers also look for individuals who have the ability to be analytical and creative, and who can work under pressure and prioritise.

Employer demand for IT skills in the engineering & manufacturing sector in Cornwall

Job adverts listing this skill

186

Microsoft Excel



115

Microsoft Office



60

Enterprise Resource Planning (ERP)



44

Microsoft Word



43

SAP



42

AutoCAD



40

Microsoft Powerpoint



31

SQL



28

Computer Aided Draughting/Design (CAD)



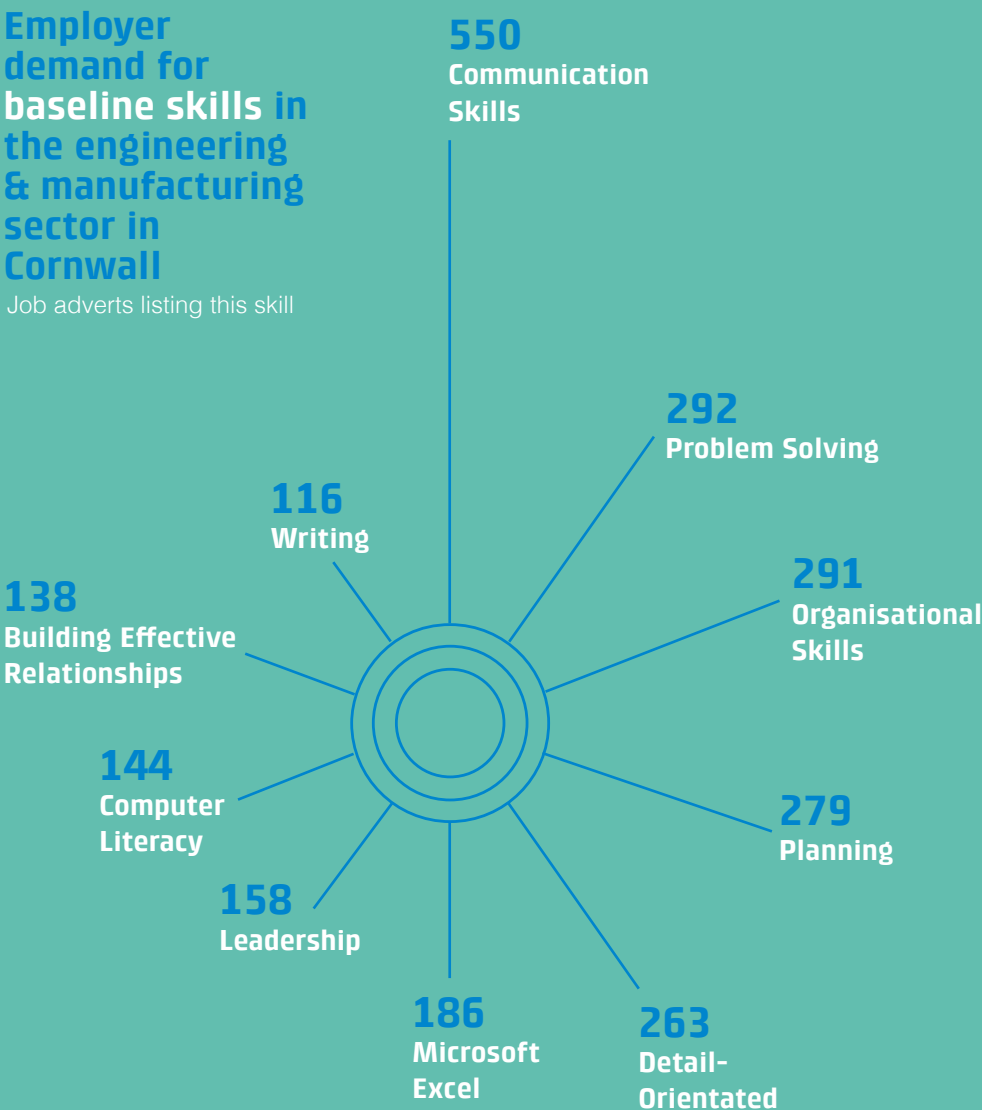
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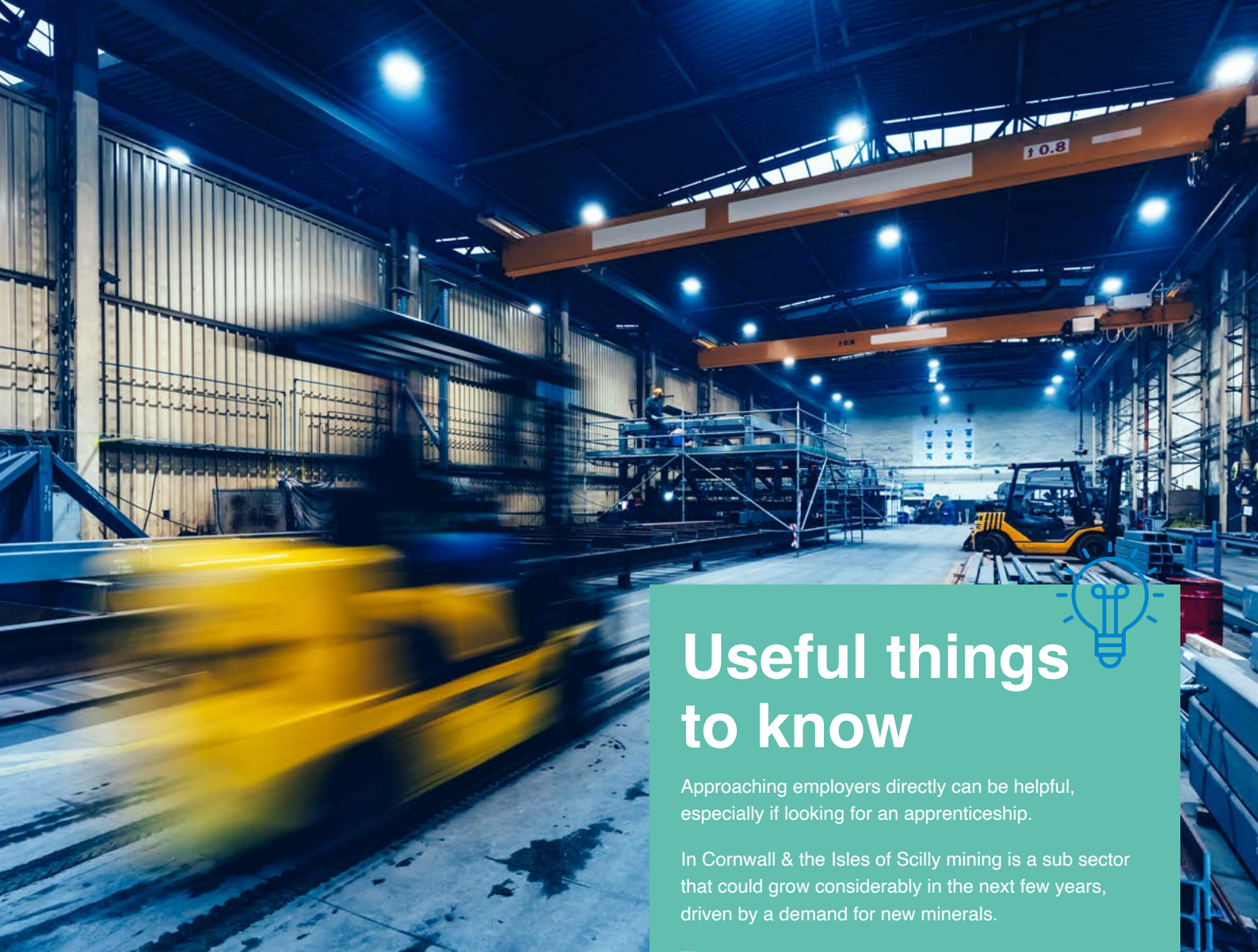
Microsoft C#



Employer demand for baseline skills in the engineering & manufacturing sector in Cornwall

Job adverts listing this skill





Useful things to know

Approaching employers directly can be helpful, especially if looking for an apprenticeship.

In Cornwall & the Isles of Scilly mining is a sub sector that could grow considerably in the next few years, driven by a demand for new minerals.

The four main categories of engineering are chemical, civil, electrical and mechanical. Aerospace and software engineering are also part of the wider sector.

Future outlook

A recent study¹ carried out for forthcoming Manufacturing & Engineering Week event has shown that 78% of UK industrial companies are finding it either harder or much more complex than usual to find the employees they need. An ageing workforce means experienced workers are retiring faster than new workers entering the industry, and prior to Brexit 11% of the UK's manufacturing workforce came from the EU. According to a government study, 186,000 skilled engineers are needed annually until 2024 to plug the skills gap, and almost 20% of the current workforce is due to retire by 2026 according to the ECITB.²

The drive to Net Zero by 2050 is forcing engineers and manufacturers to assess the emissions created by their businesses and their supply chain, and consider the source and recyclability of their materials, among other changes. This creates opportunities for new roles, not only in the design and development of products, but also in the ongoing assessment of results.

¹ <https://www.themanufacturer.com/articles/me-week-skills-survey-shows-that-uk-manufacturing-needs-to-work-harder-to-attract-new-talent/>

² <https://www.emsnow.com/closing-the-skills-gap-in-manufacturing-and-engineering-in-the-u-k/>

³ <https://www.imeche.org/news/news-article/automation-and-robotics-'the-most-important-skills-for-manufacturing-engineers-in-next-10-years>

Automation

The Institute of Mechanical Engineering (IMechE) and Institution of Engineering and Technology recently commissioned a survey on the profile of future manufacturing engineers. The headline results revealed that skills in automation, robotics and mechatronics are thought to be the most important for manufacturing engineers (84%) in the next 10 years. These skills were followed by artificial intelligence (69%) and sustainable, lean, resource-efficient manufacturing (66%).³

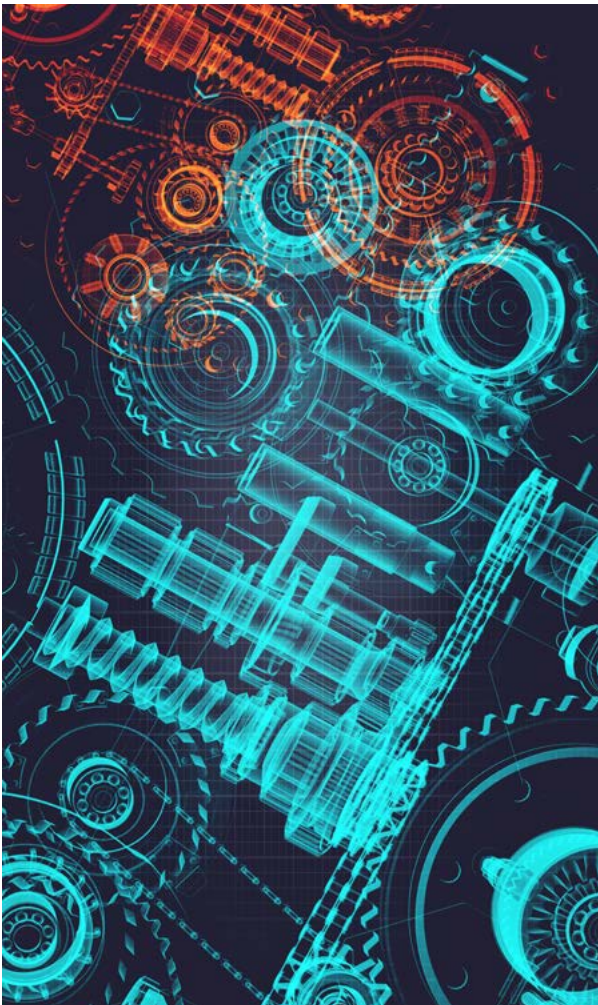
Automation and robotics are already common in manufacturing processes, but change will be rapid in the coming decade, partly driven by the necessity of responding to the climate emergency. Robotics engineering itself is a fast-growing sub-sector. The survey above also found that, given the rapid pace of change in technology, engineers will have to upskill/retrain multiple times throughout their careers.

In the list of most in demand occupations, mechanical engineers, production managers and engineering technicians are all at low risks of automation. These roles and others are likely to change considerably in the future.



Routes into engineering and manufacturing:

1. Direct employment into a job in the engineering and manufacturing sector and receive training on the job. The [Find a job service](https://www.gov.uk/find-a-job) (<https://www.gov.uk/find-a-job>) can help you with your search for jobs and send alerts when new jobs become available.
2. Apply for an apprenticeship or traineeship with an employer. The [Find an apprenticeship service](https://www.gov.uk/apply-apprenticeship) (<https://www.gov.uk/apply-apprenticeship>) can help you with your search, send alerts when new apprenticeships become available and has advice on how to apply.
3. Undertake a relevant College course, or new T-Level qualifications are available for 16-18 year olds.
4. Graduates can enter the workforce after attaining a relevant degree.
5. Work experience can be a great way to find out what it's like working in the engineering and manufacturing sector and gain valuable skills for your CV.



For further support:

Home - EngineeringUK | Inspiring tomorrow's engineers.

(<https://www.engineeringuk.com>)

Cornwall Manufacturers Group - Business Development in Cornwall

(<http://cmgroup.org.uk>)

Contact the Cornwall & Isles of Scilly People Hub, they can help if you are:

- unemployed and wondering what options are open to you
- out of work and looking to retrain or develop new skills
- recently redundant and want to get back into work or training

Call - 0333 0150699 (Monday–Friday, 9am–4pm)

Visit – www.peoplehub.info

Email – hello@peoplehub.info

The National Careers Service provides free careers advice and guidance to individuals from the age of 14. Visit 'Get the Jump' for 14-19 year olds and the National Careers Service website for adults.

Get the Jump: explore your education and training choices |

National Careers Service (<https://nationalcareers.service.gov.uk/explore-your-education-and-training-choices>)

Careers advice - job profiles, information and resources |

National Careers Service (<https://nationalcareers.service.gov.uk>)