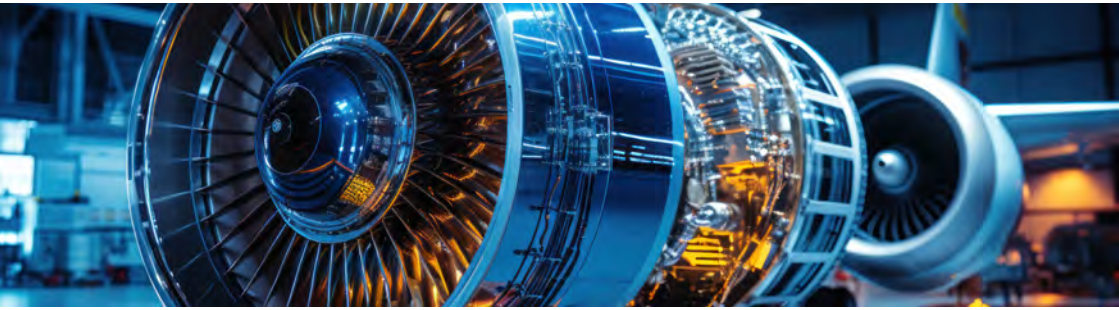
LABOUR MARKET INFORMATION

AUTOMOTIVE & AEROSPACE



TEES VALLEY

WHAT IS THE AUTOMOTIVE & AEROSPACE SECTOR?

The automotive and aerospace sector involves the design, production, and maintenance of vehicles and aircraft. The automotive industry focuses on creating cars, trucks, and buses, emphasising innovation, safety, and efficiency. It covers the full vehicle lifecycle, from development to sales and repair, with a growing focus on electric vehicles and autonomous driving.

The aerospace sector deals with the design and manufacturing of aircraft, spacecraft, and defence systems, including commercial planes, satellites, and military jets. It plays a crucial role in global transportation, defence, and space exploration, driving advancements in technology and engineering.

AUTOMOTIVE & AEROSPACE

DID YOU KNOW...

Tees Valley is home to several companies specialising in automotive and aviation components, such as **Nifco UK**, which manufactures plastic automotive parts for major car manufacturers?

Institutions like **Teesside University** contribute to the aerospace sector through research in **engineering, materials science, and digital innovation**, helping to maintain the region's competitiveness.

Approx...

8,000

people work in **aerospace and automotive** jobs including those in **manufacturing, engineering, maintenance and design**.

Close proximity to international transport hubs like **Teesside International Airport** makes the area attractive for **aerospace logistics and manufacturing**.

Expected to rise to...

12,000

jobs **by 2030** across Tees Valley. This includes a focus on sustainable **transportation, new vehicle designs and advanced materials.**

TEES VALLEY

Office for National Statistics

AUTOMOTIVE & AEROSPACE

TEES VALLEY

WHAT JOBS COULD YOU DO?

AEROSPACE ENGINEER

SATELLITE ENGINEER

ELECTRICAL ENGINEER

RESEARCH ENGINEER

AIRCRAFT MAINTENANCE TECHNICIAN

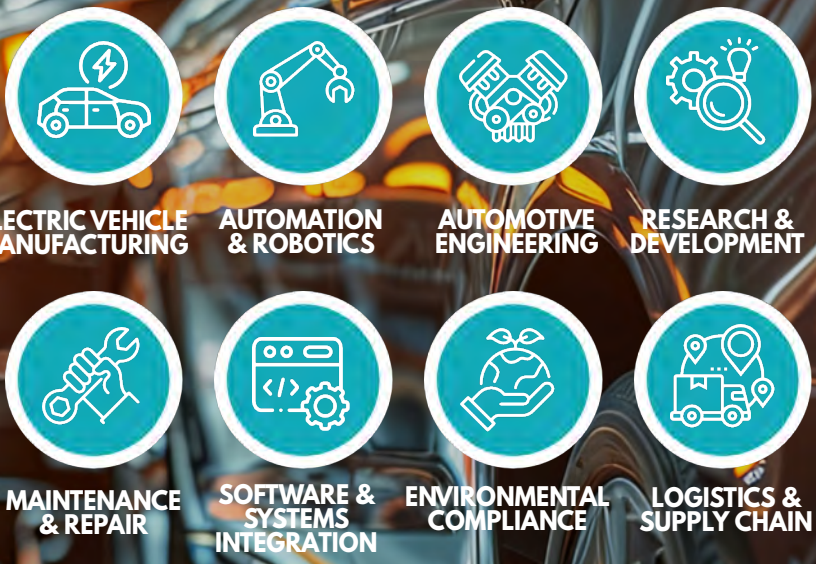
SUPPLY CHAIN MANAGER

DRONE PILOT

AIR TRAFFIC CONTROLLER

QUALITY ASSURANCE SPECIALIST

WHERE ARE THE JOBS MOST NEEDED?



LOCAL EMPLOYERS INCLUDE...

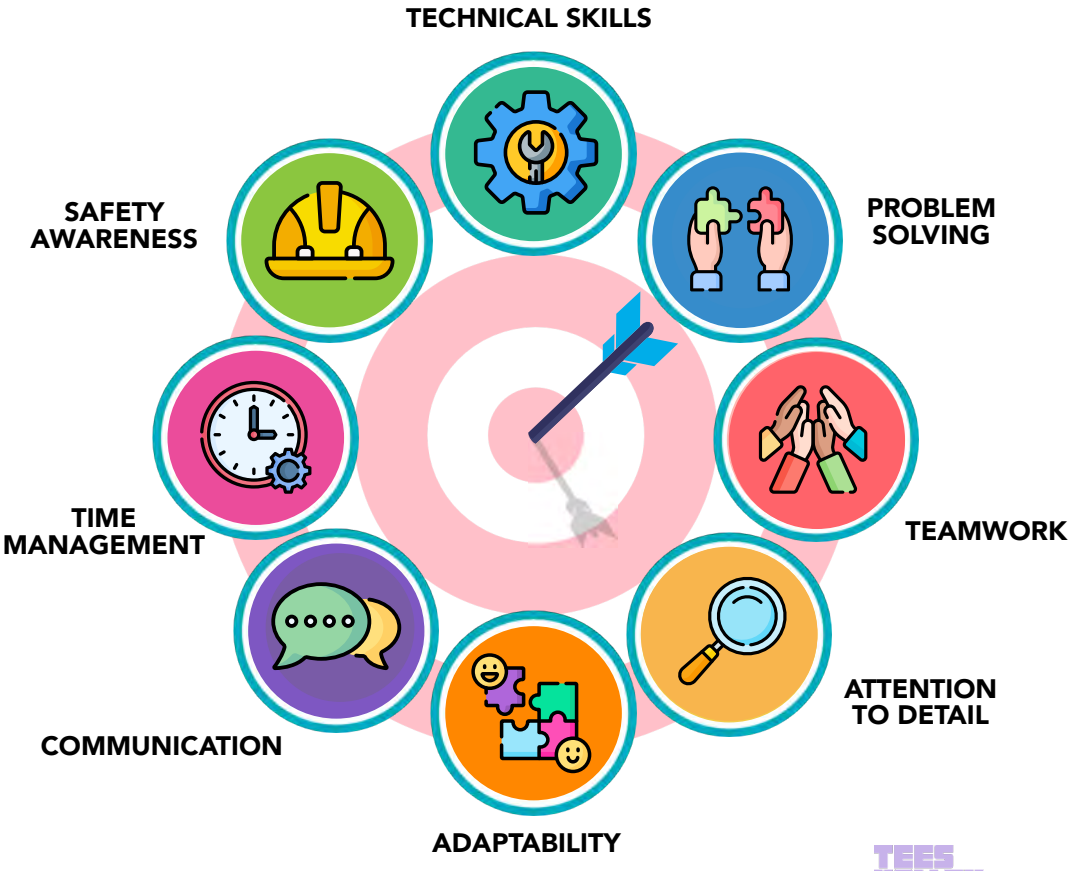
Teesside International Airport
A.V. DAWSON ROAD • RAIL • LAND • SEA
Willis
ROYAL NAVY
UK Civil Aviation Authority
elringklinger
Cummins
ARMY BE THE BEST
CATERPILLAR
DRAKEN
ROYAL AIR FORCE
BAE SYSTEMS
NIFCO
NISSAN

TEES VALLEY

AUTOMOTIVE & AEROSPACE

WHAT SKILLS CAN HELP YOU?

Automotive and aerospace roles require specialised skills, and adapting your existing skills to evolving technologies is key to success.



TEES VALLEY

AUTOMOTIVE & AEROSPACE

TEES VALLEY

SKILLS IN ACTION

TECHNICAL SKILLS

Using tools to build or repair engines in cars or aircraft.

PROBLEM SOLVING

Figuring out why a car's engine or airplane system isn't working and fixing it.

TEAMWORK

Working with engineers and other technicians to design safer cars or improve airplane performance.

ATTENTION TO DETAIL

Making sure every part is perfectly measured and installed, such as brake systems in cars or wings on a plane.

ADAPTABILITY

Learning how to work with new technology, such as electric vehicles or modern aircraft materials.

COMMUNICATION

Explaining a technical issue to your team so everyone understands and can help solve it.

TIME MANAGEMENT

Planning your tasks so you can meet deadlines, such as finishing a car repair or preparing an airplane for takeoff.

SAFETY AWARENESS

Following safety rules when working with dangerous equipment, such as car engines or aircraft fuel systems.

AUTOMOTIVE & AEROSPACE

WHAT QUALIFICATIONS CAN HELP YOUR CAREER?

GCSE SECONDARY SCHOOL

Mathematics: Essential for engineering calculations, design and problem-solving.

Physics: Key for understanding mechanics, aerodynamics and vehicle dynamics.

Design & Technology: Useful for developing practical skills in design, model and manufacturing.

Computer Science/IT: Important for working with vehicle systems, automation and simulations.

Engineering: Provides foundational knowledge in mechanical and electronic systems solutions.

FURTHER EDUCATION

A-LEVELS

Mathematics: Crucial for engineering calculations, modelling and technical analysis.

Physics: Builds understanding of forces, motion, and energy systems crucial for automotive and aerospace engineering.

Design & Technology: Focuses on practical skills in designing and testing mechanical systems.

Computer Science: Useful for understanding software and automation in vehicles and aircraft.

SCAN OR CLICK THE QR CODE TO EXPLORE THE DIFFERENT PATHWAYS

VOCATIONAL COURSES

Engineering: Covers mechanical, electrical, and aerospace engineering principles with practical applications.

Automotive Engineering: Focuses on vehicle systems, diagnostics and repair techniques.

Aerospace Engineering: Includes aircraft design, maintenance and avionics.

T-LEVELS

Engineering, Manufacturing, Processing & Control Specialises in mechanical and electrical engineering, including automotive and aerospace technologies.

Maintenance, Installation, & Repair for Manufacturing & Engineering: Focuses on maintaining and repairing automotive and aerospace systems.

Digital Production, Design & Development: Covers digital skills for working with simulations, modelling and automation in engineering.

APPRENTICESHIPS

Automotive Technician Apprentice: Gain hands-on experience in vehicle repair, diagnostics and maintenance.

Aerospace Engineering Apprentice: Work on aircraft design, maintenance and avionics systems.

Mechanical Engineering Apprentice: Learn about mechanical systems, manufacturing and engineering processes.

Avionics Technician Apprentice: Develop skills in aircraft electronics, navigation and communication systems.

Click or **Scan the QR code** to visit the IfATE Occupational Maps to explore the different Apprenticeships available

HIGHER EDUCATION

UNDERGRADUATE DEGREE

Automotive Engineering (BEng/BSc): Focuses on designing, testing, and manufacturing vehicles, including performance and safety aspects.

Aerospace Engineering (BEng/BSc): Specialises in aircraft design, propulsion systems and flight dynamics.

Mechanical Engineering (BEng/BSc): Provides a broad understanding of mechanical systems applicable to both automotive and aerospace industries.

Avionics Engineering (BEng): Concentrates on the electronic systems used in aircraft, including navigation and communication technologies.

POSTGRADUATE DEGREE

Masters in Automotive Engineering (MSc): Advanced study in vehicle design, performance and manufacturing technologies.

Masters in Aerospace Engineering (MSc): Focuses on advanced aerospace systems, aerodynamics and space technology.

Masters in Mechanical Engineering (MSc): Offers specialisation in areas like automotive design, aerospace technology or robotics.

Masters in Avionics (MSc): Advanced study in aircraft electronic systems and avionics technologies.

PROFESSIONAL QUALIFICATIONS

Chartered Engineer (CEng): Recognises high-level competence in engineering disciplines, including automotive and aerospace.

Institution of Mechanical Engineers (IMechE) Membership: Provides networking, professional development and accreditation.

Royal Aeronautical Society (RAeS) Membership: Professional body for aerospace engineers, offering resources and career support.

Automotive Technician Accreditation: Certification for automotive repair and maintenance professionals.

TEES VALLEY

MORE INFORMATION

Scan or click on the QR codes to become more informed about the different jobs and education and training options available to you.

TEES VALLEY JOBS

Explore graduate roles, apprenticeships, or volunteering opportunities.

SCAN ME

NATIONAL CAREERS SERVICE

Explore over 750 different careers. Find out what a job involves and if it's right for you.

SCAN ME

CAREERS IN AEROSPACE

Explore aerospace and aviation pathways and related areas, such as defence and space.

SCAN ME

TEES VALLEY KEY SECTORS

Explore what's happening across other sectors in the Tees Valley region.

SCAN ME

WHAT NEXT?

TEES VALLEY

Name:

Date:

I would like to be:

The reasons I chose this are:

Qualifications and training required:

Skills I have:

Skills I need to develop:

My next steps are:

Reviewing my progress: