

Warrington Industrial Sectors: Advanced Engineering & Manufacturing

A national hub of engineering consultancies

Engineering activities and related technical consultancy /analysis is nationally significant in Warrington. This industry employs over 5,000 people locally; representing a high proportion of the local employee base (3.7%) compared to the national average of 1.8%.

This significant national hub of engineering and design consultancies provides expertise across a number of disciplines including: control systems & instrumentation and modelling & simulation. Global engineering consultancies in Warrington include AECOM, Atkins, MWH (Stantec), and CH2M. These businesses are not only underpinned by local projects but by national and international projects.

A diverse manufacturing base

Over 8,000 employees work within manufacturing activities and 44,000 within the Cheshire & Warrington Local Enterprise Partnership area as a whole. Warrington has a diverse base of advanced manufacturing operations including those serving challenging environments such as aerospace, automotive, oil & gas, nuclear, waste water and medical.

The presence of major headquartered companies such as United Utilities, Sellafield Ltd and Electricity North West creates local market opportunities. United Utilities, the UK's largest listed water company has an annual expenditure of £1bn, creating supply chain opportunities including pumps, motor control systems, systems integration and instrumentation.

Warrington's larger manufacturers include Plastic Omnium, a Tier 1 automotive supplier; Sonova (medical devices) and Stanley Engineered Fasteners (Black & Decker) who make fasteners for industries including automotive and aerospace.

Other manufacturers include French owned Erasteel who manufacture silver high speed steel wires; and German owned Schwer Fittings who make stainless steel pipe connection technologies and valves.

Indigenous companies include Hiden Group who develop and manufacture mass spectrometers and Cheshire Seals & Components who are at the forefront of sealing and machining technology for a wide range of industries.

The chemicals sector is also strong in Warrington as well as for the LEP area as a whole, the latter employing 3,500 people, a proportion that's over double the national average (0.7% compared to 0.3%). The importance of the chemicals industry means that manufacturers can access a number of raw materials locally. PQ Silicas has a significant manufacturing and R&D site in Warrington. The company makes performance chemicals and silica catalysts which are used in a variety of applications including for emissions controls, consumer products, packaging and engineering plastics

Perstop's caprolactone plant in Warrington is the largest of only 3 such plants in the world. Perstop's Capa™ product provides performance enhancing properties such as wear resistance, chemical resistance, UV-resistance, and low temperature flexibility.

Commercial R&D and Testing Services

Warrington has a diverse mix of contract research and testing companies providing a base of local expertise manufacturers can partner with. ESR Technology's European Space Tribology Laboratory and National Tribology Centre provide independent expert advice on lubrication, friction and wear to help enhance machine efficiency, reliability and performance. Others include:

- Wood plc's Materials Testing & Research Laboratories include an open-access High Temperature Facility for testing materials up to 1,000 degrees centigrade.
- Exova Fire, part of the Element Materials Technology group provides materials testing for industries including construction, marine and rail.
- Rawwater Engineering provide contract R&D and testing services for the oil and gas industry amongst others.

Support from Universities with strong engineering R&D expertise

Warrington is located within 30 minutes of Liverpool and Manchester, enabling close proximity to a number of universities that have particular strengths in engineering and materials sciences.

The University of Manchester's School of Electrical & Electronic Engineering is ranked 4th in UK in terms of its research quality (REF 2014) and supports many industries including automotive, aerospace and engineering. The School of Materials is the largest School of its kind in Europe, with 80% of their research rated as being internationally excellent or world leading in quality. The School is developing a Global Research and Technology Hub to commercialise graphene.

The University of Liverpool is a partner in The Virtual Engineering Centre (VEC) at STFC Daresbury, located within a 20 minute drive of Warrington. The VEC is a UK centre leading in the integration and exploitation of virtual engineering technologies such as advanced modelling and simulation and immersive visualisation for industrial and commercial applications.