



ENGINEERING, DESIGN AND ADVANCED MANUFACTURING

Glasgow has a global reputation as a centre for engineering excellence. This reputation stems from its role as one of the world's first industrial and heavy engineering centres that earned the city the title of "workshop of the world".

This reputation continues into the 21st century with Glasgow and the city region being home to a wide variety of global and indigenous engineering, design and manufacturing companies with specialisations across a range of sectors including aerospace, defence and marine, energy, advanced manufacturing, intelligence transport systems, and electronics. These include Jacobs Engineering, BAE Systems, which produces the Type 45, the world's most advanced air defence destroyer, Weir Group, SSE, Coherent Scotland and Thales Optronics. Indeed, over 700 companies are involved in enabling technologies and shipbuilding and marine and they employ over 21,000 people across Glasgow and the surrounding area (Source: IDBR, Sept 2010).

Glasgow's seven colleges and five universities generate a pipeline of well-qualified and highly skilled innovative engineers and designers with industry-relevant knowledge. The University of Strathclyde is one of UK's largest engineering schools and the largest in Scotland, producing nearly 50% of Scotland's engineering undergraduates in electronics, mechanics and software.

In the same year that Glasgow will attract world attention by hosting the Commonwealth Games, 2014 will see the opening of the University of Strathclyde's purpose-built Technology and Innovation Centre within the new International Technology and Renewable Energy Zone. The Technology and Innovation Centre will revolutionise the way researchers in academia and industry collaborate to find solutions to technology challenges in sectors that will have an impact not only to the Scottish economy, but also in a global context.

The University's global reputation was recently demonstrated with the prestigious Fraunhofer Gesellschaft selecting the Technology and Innovation Centre as the location for its UK headquarters and the Fraunhofer Centre for Applied Photonics. With the highly regarded Institute of Photonics based at the University and Glasgow playing a leading role in the design and manufacture of high-value lasers, Glasgow was an easy choice. The University also hosts the UK's Advanced Forming Research Centre – a leading partner in the TSB's Catapult Centre for High Value Manufacturing and the Power Networks Demonstration Centre.

Engineering is also a key enabler in the city's ambitions as a low-carbon-industry hub. As Glasgow provided much of the engineering skills base that helped to exploit oil and gas in the North Sea, it has the potential to do the same, and more, in the move to a low-carbon-energy future.