



The UK's [manufacturing industry](#) is deeply rooted in the nation's history, yet recent times have witnessed the emergence of a skills crisis that is threatening the future of the industry. Between 2008 and 2018, nearly 500,000 manufacturing jobs were lost(1), while estimates suggest that 1.8 million new engineers are needed by 2025 in order to meet the country's future needs(2).

Inspiration vs. Ignorance: The Dilemma Facing Manufacturing

On one hand, the [manufacturing industry](#) is an inspiring place. The rapid emergence of new technologies, methods, and equipment offers huge potential and exciting prospects for anyone embarking on a manufacturing career. Opportunities for progression are abundant and average salaries high and, with a growing demand for skilled engineers, job security is strong.

However, a lack of understanding about the sector continues to hold back young people, with one survey revealing that nearly one-half of 11 to 19-year-olds express limited knowledge about what engineers actually do (3). In part, negative perceptions of manufacturing are peddled by the media, who focus excessively on the poorly portrayed image of the industry, negative news stories and the skills shortage rather than promoting the potential for young people to enjoy rewarding lifelong careers.

It is unsurprising that many young people believe manufacturing to be a failed initiative.

Attracting The Next Generation Of Engineers

It is clear that doing nothing is not going to resolve the problem of the skills shortage. So, what actions would help to build confidence in the UK's manufacturing sector and inspire the next generation to seek training and employment within it?

Showcase The Sector's Achievements

How do we build the tallest building in the world, construct a plane that will travel to unimaginable heights, or devise new ways to save Earth from the worst elements of climate change? These are questions that get young people thinking and urge them to consider how to make the impossible possible.

Engaging with the next generation is crucial. Young people need to understand exactly what engineering has achieved and how much more could be accomplished. As with many aspects of academic learning, bringing the subject to life adds meaning and relevance, so engineering isn't unfathomable or unreachable, but a realistic prospect which youngsters can pursue.

Raise The Profile Of Engineering In Schools

The lack of understanding amongst young people (and many adults) of engineering has had an acute impact upon take up of GCSE Engineering courses across the UK. In 2019, entries for GCSE Engineering plummeted by 31 per cent (4), with a clear gender disparity too.

Engineering needs to be embedded across the curriculum from an early age, instead of being postponed until secondary school, if children's imaginations and ambitions are to be captured. Teacher knowledge is, of course, a significant barrier, particularly at primary school. However, the growth of STEM education programmes has proven popular, although it may be too soon to measure the long-term benefits.

The excellent work of the National Manufacturing Skills Taskforce is a great start and the widening of promotion of Enginuity and their two Minecraft games (Aerospace and Home Energy), which are mapped to the 12–14-year-old curriculum and have avatars that talk about the engineering jobs, available would be a major step. They are freely available for schools to use, that is one example where we could collectively promote via our school links without a monetary ask of Government for example.

Draw Off The Experience Of Industry Experts

Fresh minds from manufacturing can be powerful in promoting engineering as an exciting and modern industry. Harnessing the voice of expert role models will be invaluable in redefining perceptions of the sector and dispelling negative connotations, instead promoting engineering as an industry in which everyone can become involved, irrespective of their cultural background or gender.

The Festival of British Engineering & Manufacturing run by M-CNC last year was a model platform for promoting the future of the sector. Leading employers and engineering specialists demonstrated the latest technologies to local young people and delivered hands-on experiments for them to try, giving them a sense of how innovative and exciting engineering can be.

This type of event is crucial to raise awareness and now Make UK have launched their own National Manufacturing Open Day on the 7th July where businesses across the UK are being asked to open their doors, both physically and virtually, so schools and communities can learn just what a bright, vibrant and exciting sector we have to offer!