

DEVELOPING THE FUTURE WORKFORCE: CREATING A NATIONAL EDUCATION AND TRAINING PROVISION



DESIGN, ACCREDITATION & DELIVERY OF AM CURRICULA

The MTC leveraged the expertise of its National Centre for Additive Manufacturing, and collaborated with industry members to create the education and training infrastructure needed to address the UK skills challenge related to the adoption of this emerging technology

This area is new to me, I found it all of interest and very beneficial. The whole session worked well, meaning I enjoyed honing my knowledge. I really look forward to delivering it to industry and upskilling others

Engineering Lecturer, Weston College

THE CHALLENGE

Additive Manufacturing is a disruptive technology providing huge potential for UK industry.

Realising this potential requires new skills in design, materials and manufacture, of which the UK has a limited talent pool.

Without access to national training programmes and apprenticeships, the growth of this talent pool is severely constrained, with only learning on the job for early adopters as an option.

The UK has no pipeline of new talent and limited options for cross-skilling or up-skilling of the existing workforce, thus creating barriers to adoption and increasing costs.

MTC'S SOLUTION

- Following the 'Skills Value Chain', the MTC conducted comprehensive foresighting of the competencies that an organisation needs to manufacture using additive. These competencies were used to create national curricula of short courses and an accredited apprenticeship programme, ratified by OEMs and industry
- Instructionally designed training material was then created, leveraging blended learning methodologies that could be effectively delivered mid-pandemic
- The MTC invited further education providers to the National Centre and delivered 'train-the-trainer' programmes, enabling the UK provision at scale

THE OUTCOME

- Creation of job specific technical curricula for engineers and technicians that address the UK skills gap in additive manufacture
- Creation of 45 first-to-market training courses that are process and sector agnostic, delivered from a free to access online platform
- Creation of a L3 Advanced Apprenticeship programme covering industrial application of AM
- Training providers across the UK upskilled to deliver AM including the 12 Institutes of Technology
- 76 AM training events delivered out of the MTC



+2K

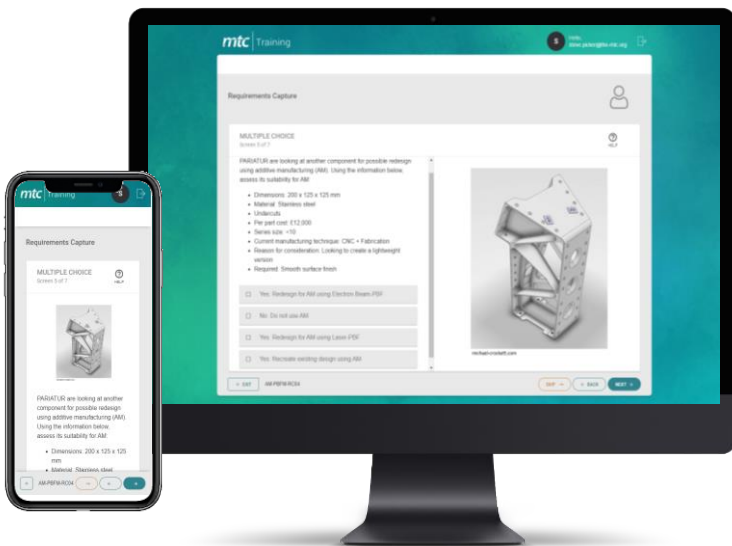
EMPLOYEES SUCCESSFULLY COMPLETED ONLINE COURSES

+9K

EMPLOYEES ENROLLED ON AM COURSES ONLINE

+1K

EMPLOYEES ATTENDED TAUGHT COURSES AT THE MTC



BENEFITS TO THE CLIENT

FOR TRAINING PROVIDERS:

- De-risked the adoption of future facing programmes
- Increased their capability and programme portfolio, aligning it to a growing future-proof demand

FOR INDUSTRY

- Ability to measure their skills gap and tailor each employee's learning via access to a free Online Training Needs Analysis tool
- Ability to cross-skill and upskill existing workforce via their local training provision and online hub
- Access to a new pipeline of AM talent, fully funded by the apprentice levy
- Removed the skills barrier for adoption of AM