

EMPOWER YOUR BUSINESS WITH ADVANCED TECHNOLOGIES



Collaborative University
Programme:

ADVANCED DESIGN ENGINEERING (ADE)

- » Available to eligible manufacturing firms in Wales
- » Practical help & support for Welsh SMEs

“The project is of significant importance to our future business and we are excited about providing a solution to one of the major integrity threats within our industry at the moment.”

Stuart Kenny, General Manager, Eddyfi Technologies



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David



Realise the potential of new technologies with ADE

MADE Cymru's Advanced Design Engineering (ADE) programme offers manufacturers in Wales the opportunity to collaborate with experts, accessing advanced manufacturing technologies, techniques, materials and skills that have the potential to directly benefit your company.

Companies that take part in ADE have the opportunity to access technologies and processes including:

- » METAL 3D ADDITIVE MANUFACTURING (EBM)
- » STEREOLITHOGRAPHY (SLA)
- » HD MULTI JET TECHNOLOGY
- » 3D SCANNING/REVERSE ENGINEERING
- » VACUUM CASTING
- » MATERIALS INVESTIGATION
- » DESIGN FOR ADVANCED MANUFACTURING METHODS
- » TOPOLOGY OPTIMISATION/GENERATIVE DESIGN APPLICATIONS.
- » OPTIMISATION FOR BATCH MANUFACTURING
- » STRUCTURAL/STRESS ANALYSIS (FEA)
- » COMPLETE END-TO-END PRODUCT DEVELOPMENT



Who is eligible for ADE?

- » SMEs in Wales with between 10 and 250 employees and with a turnover of < £50m.
- » SMEs in Wales part of larger groups holding less than 25% of the capital voting rights.

ADE PROJECT STRUCTURE

ADE can be broken down into 3 stages as outlined below.

STAGE 1 - PROJECT SCOPING



- » SME & ADE team undertake a collaborative needs analysis.
- » SME & ADE team collaborate in a scoping exercise to define a clear research project.
- » Timescale: approx. 2-4 weeks.
- » Recommendation to progress to Stage 2.



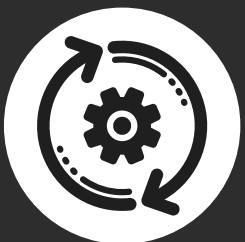
STAGE 2 - RESEARCH & DEVELOPMENT



- » SME and ADE team to collaborate in delivering the research project scoped in Stage 1.
- » SME will receive the outputs of the R&D undertaken e.g. physical prototype, proof of concept, feasibility.
- » Timescale: approx. 6-24 weeks.
- » Recommendation to progress to Stage 3.



STAGE 3 - IMPLEMENTATION



- » Taking the findings from Stage 2, the ADE team will collaborate with you to implement the new technology, process or product into a commercially viable solution.
- » Support will be available in many forms including accessing funding, sourcing and advising on technologies or introductions to partners who can help to bring advanced technologies into your manufacturing process.
- » Timescale: bespoke to project and company.
- » The SME will end up with a new or optimised process/service/product.

* Each Stage requires a signed collaboration agreement

** Where the recommendation is not to progress to Stage 2, the ADE team will support the SME in accessing other suitable sources of support.

ADE is part of MADE Cymru , a suite of programmes designed to navigate organisations through Industry 4.0 via collaborative R&D and upskilling.

Part/Fully Funded by the European Social Fund/European Regional Development Fund through the Welsh Government

Delivered by industry experts at University of Wales Trinity Saint David (UWTSD).

In addition to the collaborative R&D opportunities we have discussed in this leaflet, MADE Cymru also offer accredited learning opportunities via online, flexible teaching. From bite-sized modules to a full MSc. The full list of courses are detailed below but do contact us to discuss how we can tailor this to you and your workforce.

Full list of UWTSD certified courses offered by MADE Cymru:

- » **Continuous Improvement with Industry 4.0**
(Certificate 40 credits Level 5)
- » **Smart Manufacturing with Industry 4.0**
(Certificate 40 credits Level 7)
- » **Industry 4.0 Advanced Manufacturing** (MSc Level 7)
(option to study individual modules if desired)
- » **Business Improvement with Innovation Management**
(Certificate 40 credits Level 7)
- » **International Innovation Management** (MSc Level 7)



Get in contact, call **01792 481199**, email **MADE@uwtsd.ac.uk** or visit **www.madecymru.co.uk**