



Additive
manufacturing

Sustainable
manufacturing

Advanced
polymer
products

Innovation

Nano
manufacturing

Collaboration

Industry
focus

Project Summary

June 2022

NW**CAM**

North West Centre for Advanced Manufacturing

Ulster University



Ulster University is the largest university on the island of Ireland, with 4 campuses (Belfast, Coleraine, Jordanstown and Magee), and approximately 2,700 staff and 27,000 students. Findings from the 2021 Research Excellence Framework (REF) assessment confirmed Ulster's position as a top UK institution with world-leading research (4*) in all areas. In terms of engineering, 94% of Ulster's research was judged to be world-leading (4*) or internationally excellent (3*); and 100% of Ulster's impact case studies were judged as having outstanding or very considerable impacts in terms of reach and significance.

Ulster has been providing engineering-related education for over 50 years, and specialises in the application of engineering to solve real-world industry-related problems. Ulster's research facilities include the Nanotechnology and Integrated Bioengineering Centre (NIBEC) and the Northern Ireland Advanced Composites and Engineering Centre (NIACE). Research is focused on two major themes:

- Health and wellbeing technology
- Advanced future materials and manufacturing encompassing:
 - ECRE – Engineering Composites Research Centre
 - CERE – Centre for Engineering and Renewable Energy

Ulster has significant expertise in advanced composites and polymers, nanomaterial development, process development and control, process simulation, material modelling, sensors and data analytics, structural health monitoring, sustainable manufacturing, digital manufacturing, and textile weaving. This wide range of expertise enabled Ulster to collaborate with 7 industry partners on 11 projects aligned to the NWCAM themes of additive manufacturing, advanced polymer products, or sustainable manufacturing.

www.ulster.ac.uk
www.ulster.ac.uk/research/topic/engineering/afmm