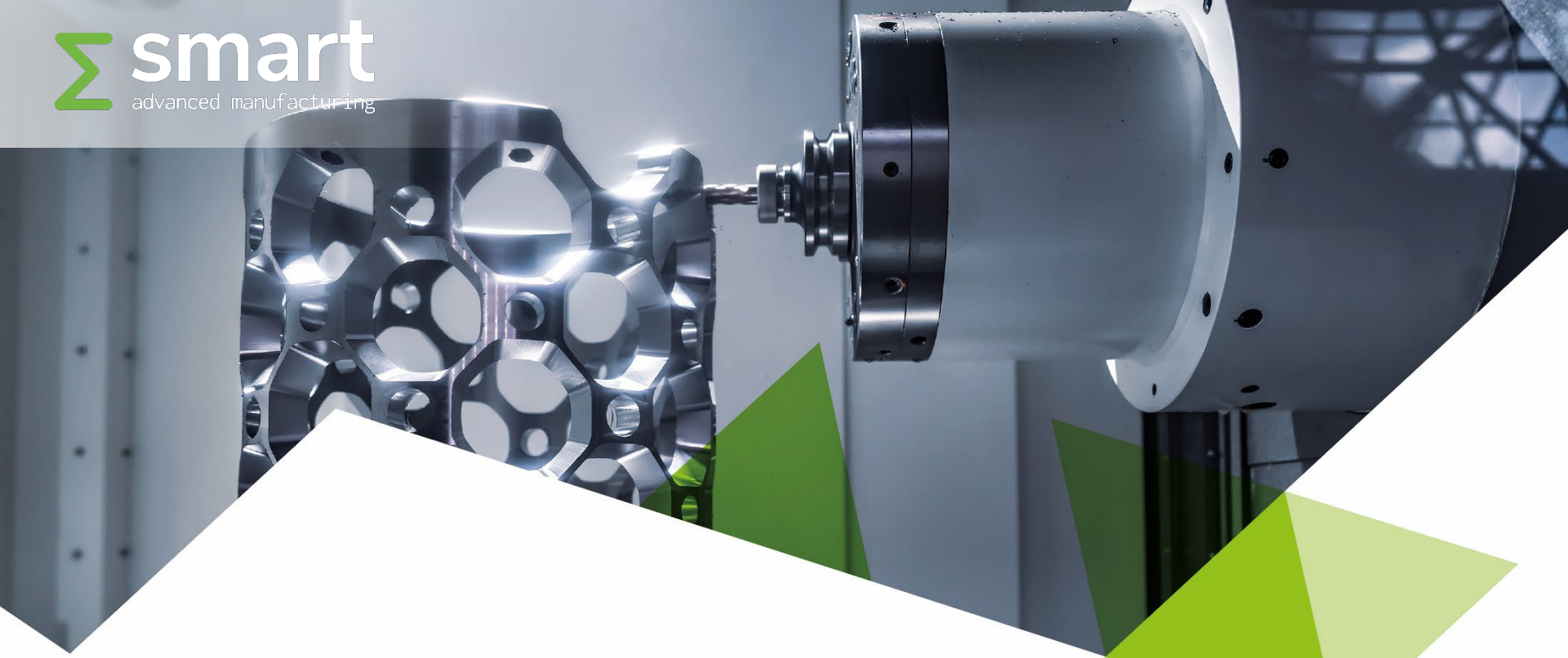
smart
advanced manufacturing



Smart manufacturing for health

SmartManuHealth


smart
advanced manufacturing

ORGANISATION PROFILE

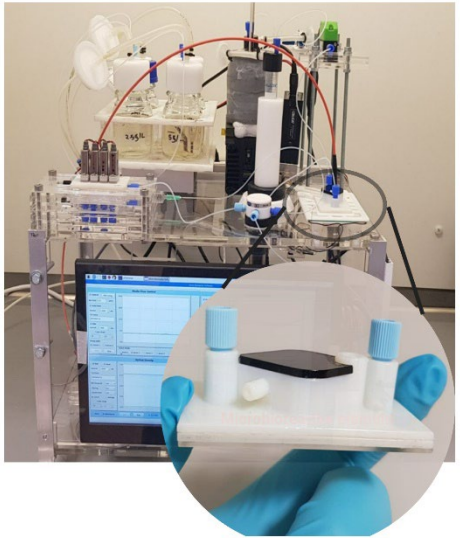
- University of Cumbria
- Working collaboratively with partners, locally, nationally and globally for skills and prosperity
- Employing more than 1,000 staff and with turnover of around £75M
- More than 15,500 students with planned growth to 20,000 by 2030
- Campuses in Carlisle, Workington, Ambleside, Barrow, Lancaster and London
- Strategic partnership with Imperial College for the Pears Cumbria Medical School
- Learning quarter in Barrow with Furness College and British Aerospace

PROPOSAL INTRODUCTION (I)

Vision: Use of smart 2D and 3D manufacturing approaches for diagnostic and therapeutic applications

Motivation: Need to develop climate neutral digital technological solutions to innovate and stay at the forefront of fabrication

Content: Development of a high-volume and low-cost manufacturing platform with assembly and ML-assisted data platform using biobased raw materials for the manufacture of functional systems that are more sustainable



PROPOSAL INTRODUCTION (II)

Expected outcome:

- Surface tailoring for integration of biological functions
- Incorporation of electronic functions for intelligence
- In-situ monitoring and ML-data platform for predictive monitoring
- Validation of product and platform against cost, environmental impact and functional characteristics

Impacts:

- Advance sustainable manufacturing through eco-friendly production
- Eco-friendly manufacturing that minimises industrial pollution and waste
- Substitution of raw materials with bio-based materials
- Integrating AI and data analytics into manufacturing

Schedule: 24 months.

PARTNERS

Partner search

- 2D and 3D manufacturing tools
- In-situ monitoring tools and robotic systems
- ML and data analytics platform
- End user diagnostics and therapeutic companies

CONTACT INFO

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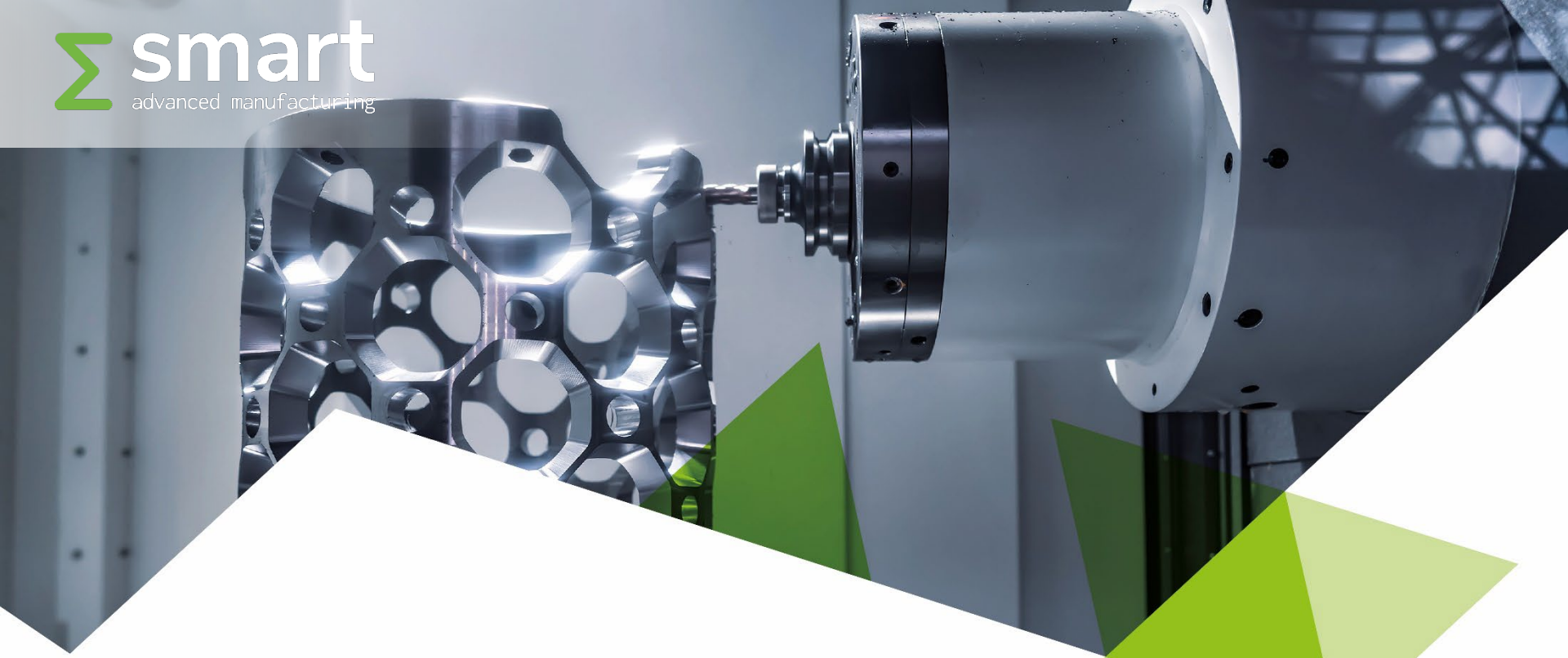

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