Welcome to the Additive Manufacturing Centre of Excellence

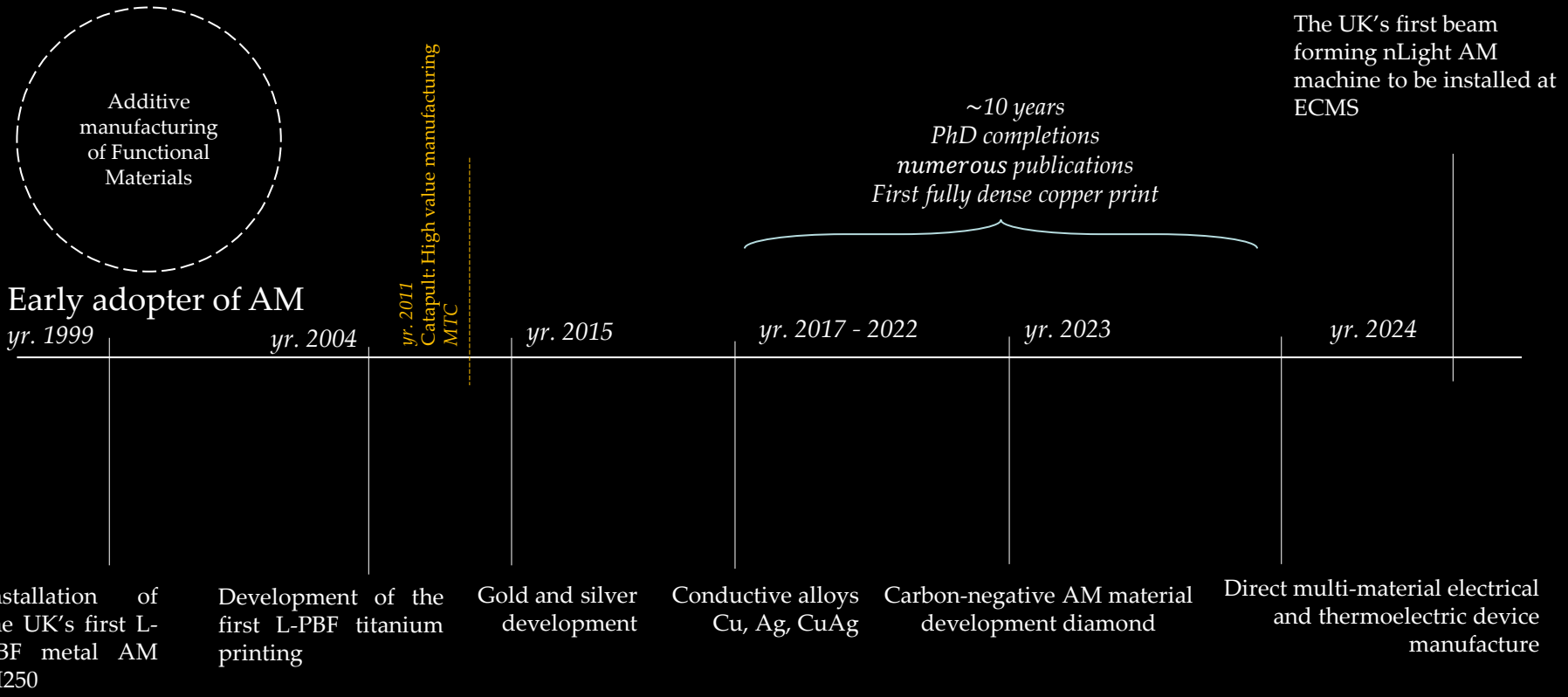
Prof Arun Arjunan

UNIVERSITY OF WOLVERHAMPTON
KNOWLEDGE ▪ INNOVATION ▪ ENTERPRISE

OUT OF DARKNESS COMETH LIGHT

GEMM

History


Additive manufacturing of Functional Materials
Early adopter of AM
yr. 1999
yr. 2004
yr. 2011
Catapult: High value manufacturing MTC
yr. 2015
~10 years
PhD completions
numerous publications
First fully dense copper print
yr. 2017 - 2022
yr. 2023
The UK's first beam forming nLight AM machine to be installed at ECMS
yr. 2024
Installation of the UK's first L-PBF metal AM M250
Development of the first L-PBF titanium printing
Gold and silver development
Conductive alloys Cu, Ag, CuAg
Carbon-negative AM material development diamond
Direct multi-material electrical and thermoelectric device manufacture

Elite Centre for Manufacturing Skills

- £11m grant from local growth fund (LEP) ending May 2025
- Upskilling UK's high value manufacturing sector with any industry or sector, nationally.
- Address skills gap in the manufacturing sector

ECMS

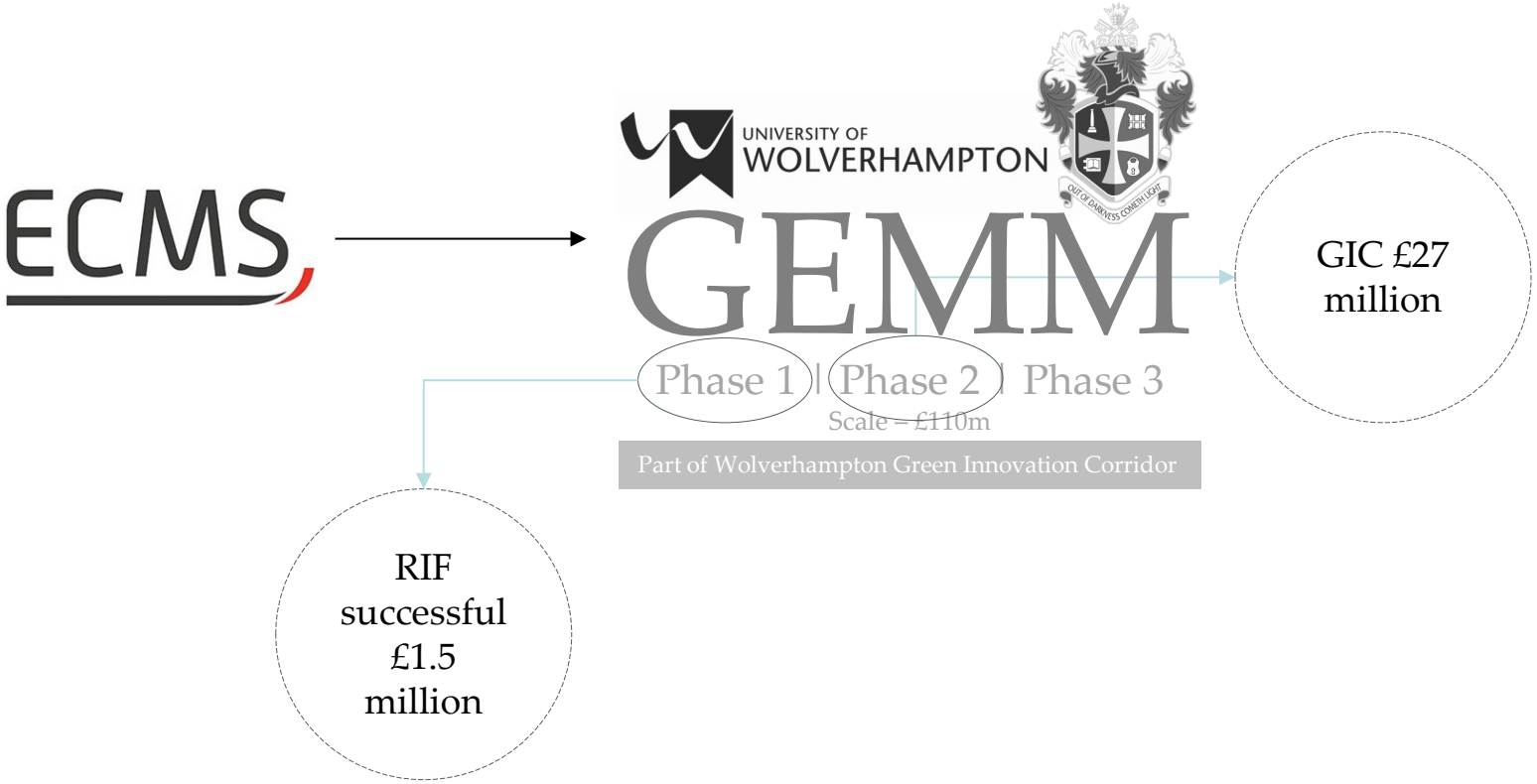
Black Country LEP

Building Growth with

MIDLANDS ENGINE

HM Government

ECMS to GEMM Transition



1. A strategic platform leveraging business-led research to create **Wolverhampton as the** global net zero leader in electric materials and manufacturing.

2. To act as a **blueprint for levelling up** through innovation, with the capacity and capability to pilot an approach that can be replicated across the U.K.

3. Uniting Wolverhampton's business, scientific, and government sectors to foster **investable priorities** in electric materials and manufacturing.

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GEMM

Phase 1 | Phase 2 | Phase 3

Scale – £110m

GEMM Phase 1: Implementation (Springfield ECMS)

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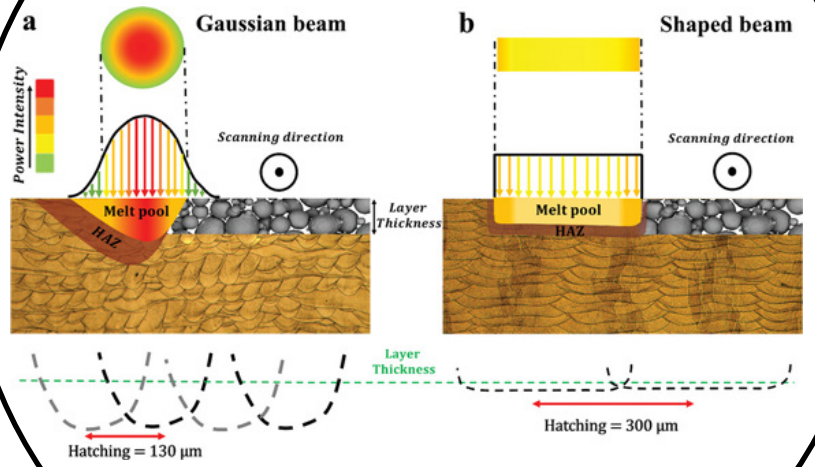
RIF funding £650k

First in the UK



£1.5 million

£500k

£350k

GEMM Phase 1: Implementation (Springfield ECMS)

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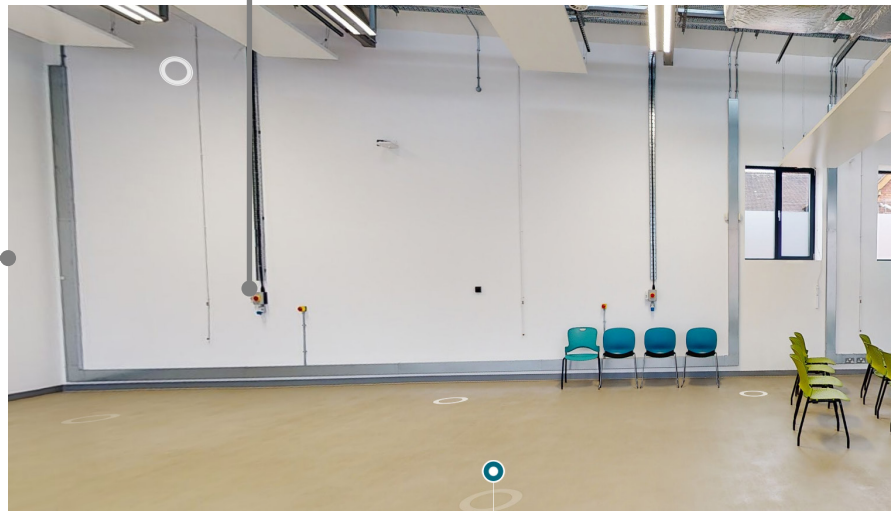

Welcome

Metamaterials for Health Challenge Sandpit