

Materials and Manufacturing Vision 2050

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The Innovate UK Materials and Manufacturing Vision 2050 sets out some thought-provoking considerations. It is aimed at stimulating interest, focus and action to make the UK a leading, world-class destination for advanced low-carbon manufacturing.

With more than 170 recent references analysed and more than 120 stakeholders consulted, this is one of the most significant and inclusive studies of its kind. This document is a long-term view highlighting that:

- UK manufacturing faces urgent challenges such as climate, resilience and productivity,
- UK manufacturing offers incredibly exciting opportunities and is a great career option,
- UK has the talent and innovation infrastructure to realise its vision of being world-class.

In fact, it is an invitation to completely reimagine the role that materials and manufacturing should have within our economy and society in a strongly net-zero focused world. The UK sees a clear potential to become a world-class destination of choice for advanced low-carbon manufacturing.

The three strategic imperatives will be:

- **net zero and resource efficient**, understanding the environmental impact of every stage in the supply chain and manufacturing process and widely adopting sustainable practices,
- **resilient and responsive**, with the agility to mitigate risks arising from the changing global economy, interruptions to supply of critical minerals and materials, national and global disruptions, and climate change,
- **technologically advanced and digital**, to improve efficiency across supply chains, enable novel business models, support whole-system design and deliver highly customised products.

The vision is guided by these three strategic imperatives. They provide the key insights for 5 core and 5 enabling areas of focus for the UK:

The core areas:

- materials for the future economy
- smart design
- resilient supply chains
- world class production
- longer in use and reuse

The enabling areas:

- clean energy,
- proactive regulations and policy,
- future skills,
- networked relations,
- evolving value models.

Innovate UK is the UK's national innovation agency. It is part of the UK Research and Innovation.

Sources:

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