



Welcome to the National Composites Centre

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The High Value Manufacturing Catapult



HVMC is the biggest of the UK's 10 Catapult Networks

7 centres	27 technologies	3500 people
£700m assets	1/3 government 2/3 industry funded	c.2000 projects per year

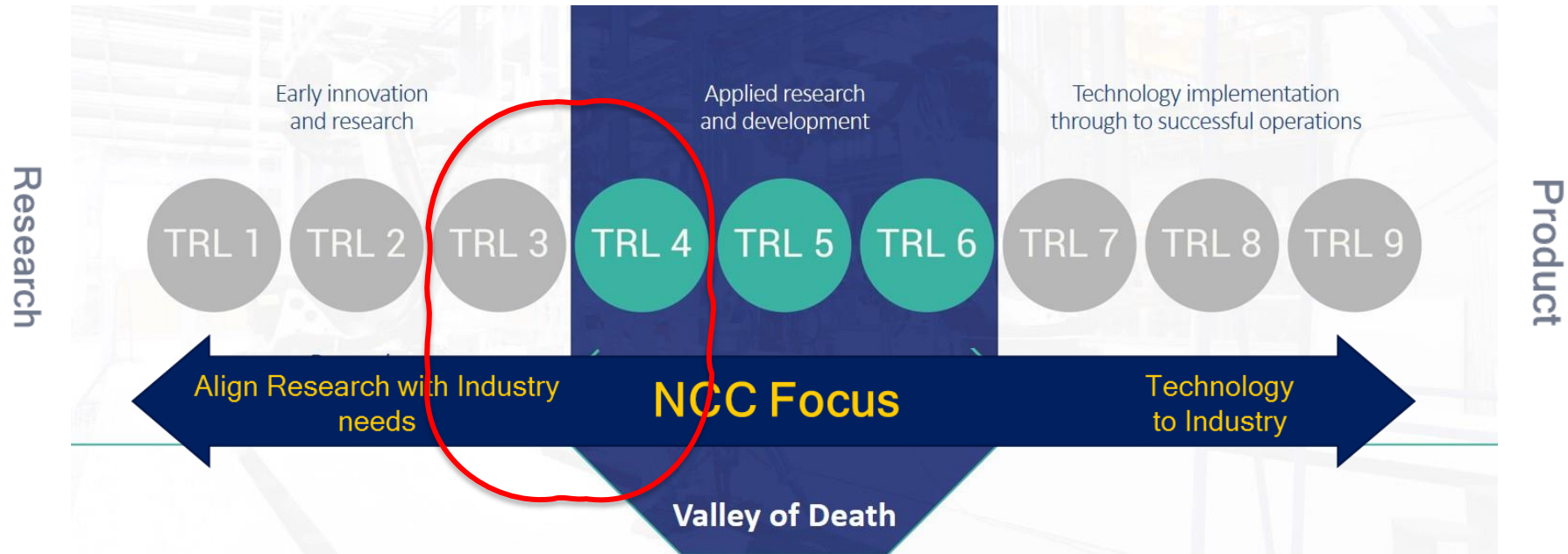
All key industry sectors covered

UK Catapult Network

- Cell and Gene Therapy
- Compound Semiconductor Applications
- Digital
- Energy Systems
- Future Cities
- **High Value Manufacturing**
- Medicines Discovery
- Offshore Renewable Energy
- Satellite Applications
- Transport Systems



Catapult mission: Bridging the Valley of Death

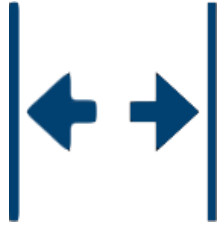


It is estimated that **80% of innovations fail** in this so-called Valley of Death.
The NCC, a member of the UK's High Value Manufacturing catapult, fits in the transitional space.

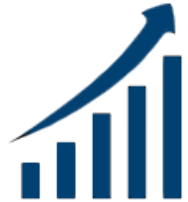




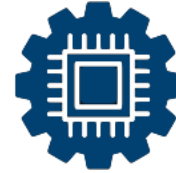
The National Composites Centre in numbers



2011
officially opened



£200m
invested in
capabilities



£36.7m
of the £200m
invested in 10
new capabilities



10
tailor-made,
world-leading
technologies



21,500m²
facility at NCC HQ



350
composites
engineers



150
engineers
at ACCIS



2
locations, NCC HQ
and NCC Filton



46+8
members + major
sectors supported



60+
university
partners



725
organisations
engaged



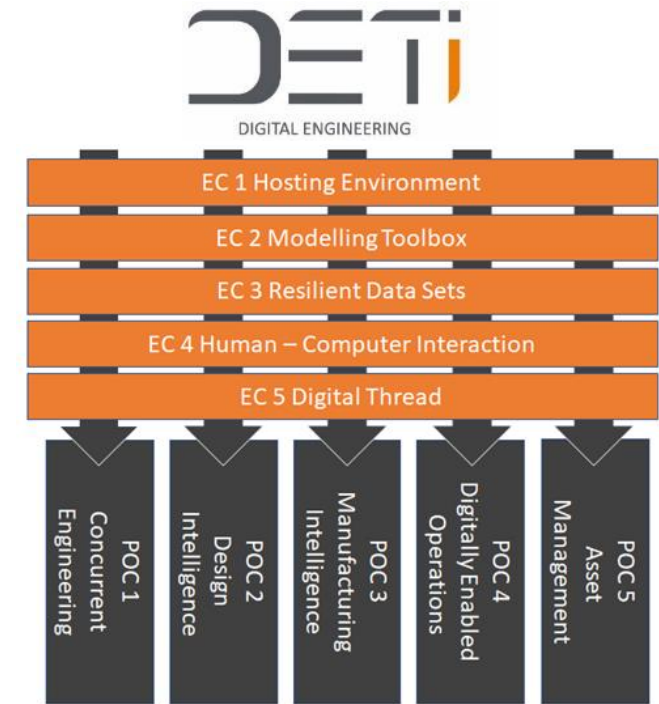
46%
of those are
SMEs





NCC: Emerging as a leader in Digital Engineering

- Digital Engineering Technology and Innovation
 - 5 Enabling Capabilities, 4 Industrial Use Cases
 - Skills Programme
 - Concurrent Engineering Approach (vs Made Smarter)
 - Made Smarter Innovation Hubs
 - First results already showing great promise
- 5G Encode
 - UK's first industrial 5G test bed installed
 - AR/VR to support design, manufacturing and training
 - Monitoring and tracking of time sensitive assets
 - Wireless real-time in-process monitoring and analytics





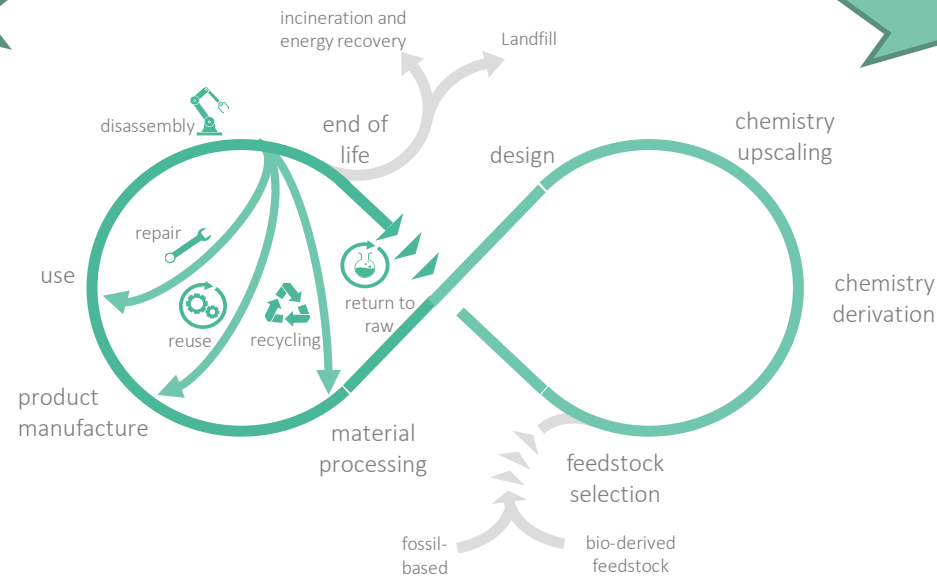
NCC: Route to Sustainable Composites

Develop “better” products using Composites

- Increased Performance
- Cost effective
- Improved design
- Efficient Manufacture

Improve Sustainable Composite Materials

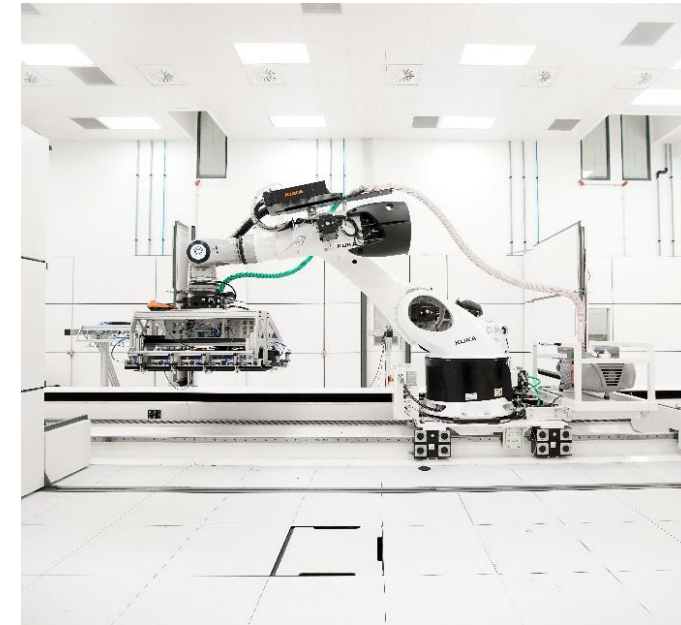
- Performance driven bio-derived alternatives
- Materials developed for EOL
- Reduced toxicity
- Design for sustainability
- Materials sustainability data

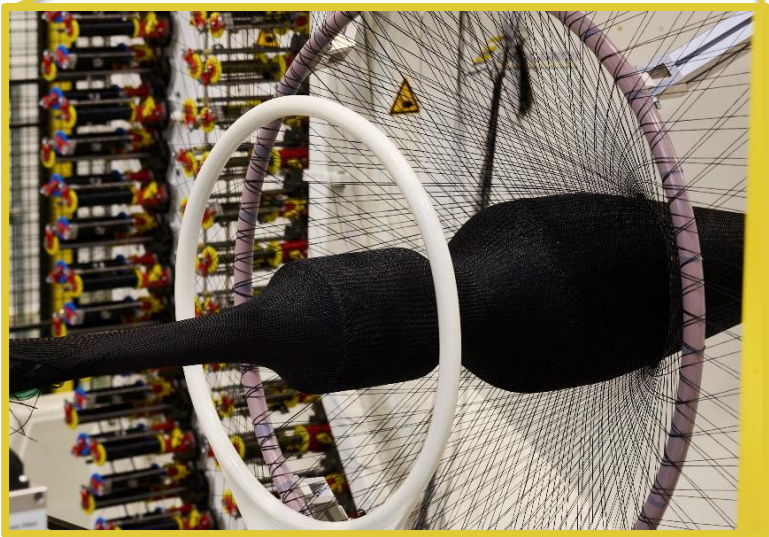


Remove and reduce EOL cost and environmental burden

- Develop circular options at End of use phase
- Business models & Markets EOL focused
- Legislation informed by data
- Leading best practice

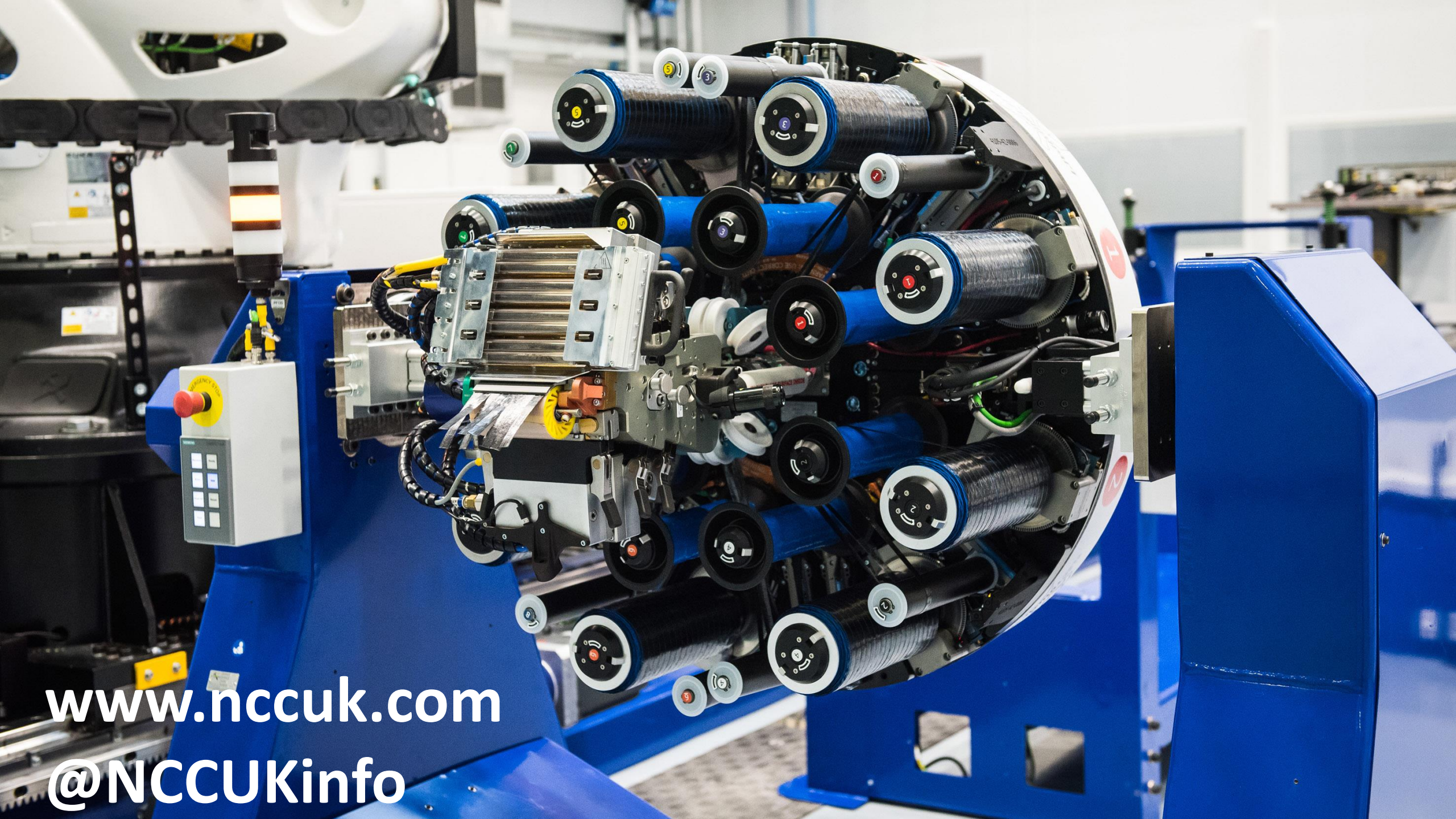








youtu.be/qnHkcDhYacE



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