

# Manufacturing Made Simple

## Innovate Local: East Midlands

**Dr Becky Bolton**

Knowledge Transfer Manager – Advanced Manufacturing

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13 May 2024



# Agenda

Innovation Support	15:00 – 15:15 Innovate UK Business Connect <i>Becky Bolton, KTM for Advanced Manufacturing</i>
Industry	15:15 – 15:25 DevTank <i>Tim Telford, CEO</i>
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Wrap-up & Questions	15:35 – 15:45 <i>All</i>



# Manufacturing Innovation



Innovate  
UK





**Innovate  
UK**

**Business  
Connect**

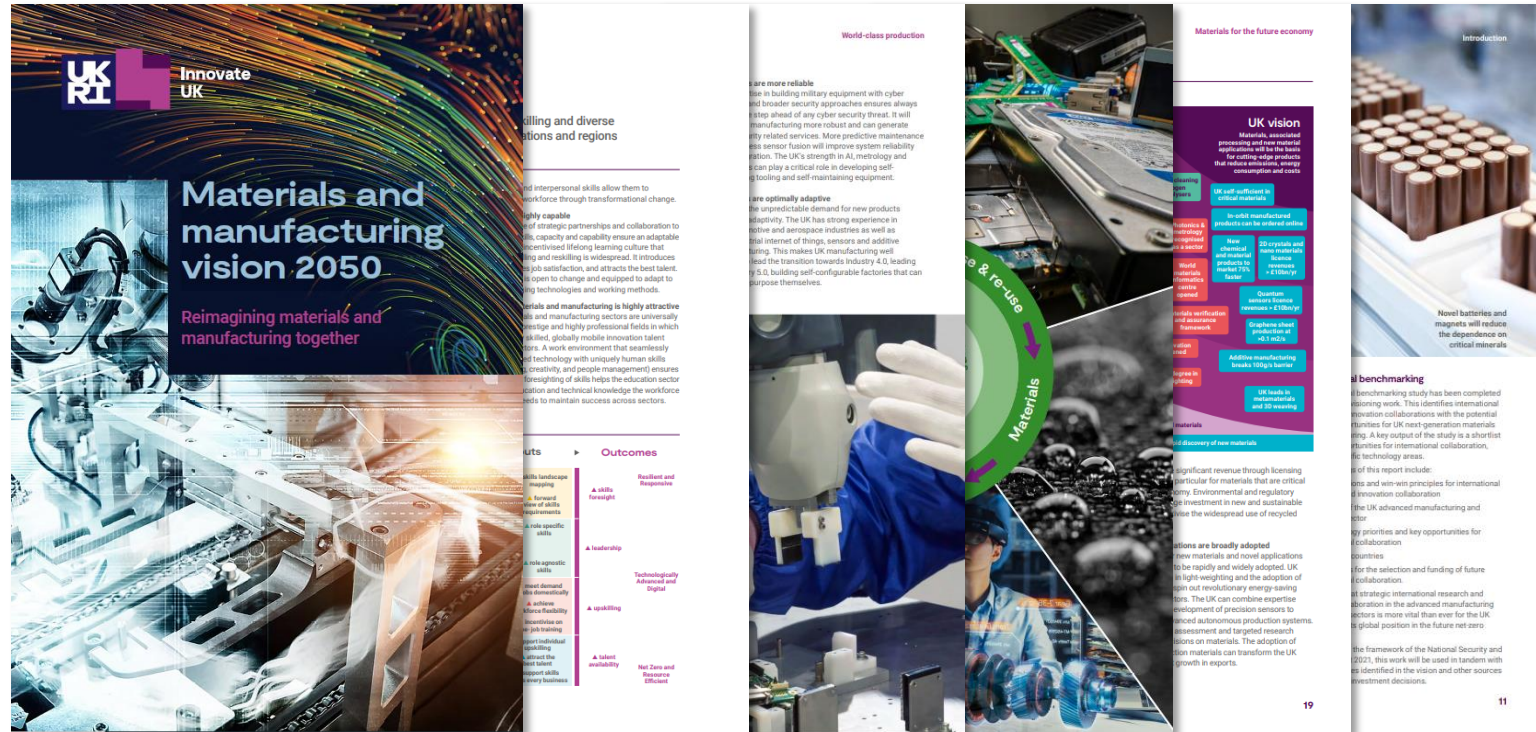
Innovate UK Business Connect is the new name for Innovate UK KTN. We exist to connect innovators with new partners and new opportunities beyond their existing thinking – accelerating ambitious ideas into real-world solutions.

### Cross-Sector Expertise Includes:

- Agrifood
- Biotechnology
- Chemistry
- Creative Industries
- Computing
- Design
- Digital
- Electronics
- Energy
- Geospatial
- Health
- Industrial Maths
- Infrastructure
- Manufacturing
- Materials
- Photonics
- Quantum
- Robotics & AI
- Security & Defence
- Sensors
- Space
- Transport
- Water
- (Net) Zero

# UK Materials and Manufacturing Vision 2050

## Now is the time to reimagine materials and manufacturing



# REforMM & SusBioMM

- Resource Efficiency for Materials & Manufacturing
  - £18.3M total project costs
  - 50 projects supported
  - £650k median turnover increase from Feasibility Studies
  - £1M median turnover increase from CR&D
- Sustainable Bio-based Materials & Manufacture
  - £18.7M total project costs
  - 60 projects supported
  - £370k median turnover increase from Feasibility Studies



# Made Smarter Innovation

- £300m cross-council challenge for the development and novel application of Industrial Digital Technologies delivered:
  - 800+ organisation engaged
  - £200M+ investment from industry
  - 459 new jobs created
  - 8051 people upskilled in IDTs
  - 365 new IDTs developed for manufacturers
  - 601 companies using new IDTs
- JOIN US AT SMART FACTORY EXPO 2025 TO CELEBRATE!



# Manufacturing Community – 25/26



Innovate  
UK

Business  
Connect

## MANUFACTURING COMMUNITY

CONNECTING UK MANUFACTURING. ACCELERATING INNOVATION.



INNOVATE. CONNECT.  
MANUFACTURE.

### WHAT WE DO



GROW THE  
NETWORK



SPOT  
INNOVATION  
NEEDS



SHOWCASE  
BREAKTHROUGHS



SIGNPOST  
OPPORTUNITIES

JOIN US:  
BE PART OF THE CONVERSATION



WEBINARS



WORKSHOPS



ASSOCIATION  
PARTNERSHIPS



SHOWCASES



1-TO-1  
SIGNPOSTING





## Menti

Innovate Local: East Mi...



Choose a slide to present

# Funding / Investment



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UK

# Innovation Loans

- The Innovate UK Innovation Loans Future Economy Programme offers loan funding to UK registered micro, small and medium-sized enterprises for innovative late-stage research and development projects with strong commercial potential that will significantly boost the UK economy.
- Loans can range from £100,000 to £2million and are offered on flexible, patient terms for businesses that are beyond the early stages of development but need funding to take their innovations to the next level, helping bridge the gap between research and commercial success.
- Round 21 open now: <https://apply-for-innovation-funding.service.gov.uk/competition/2188/overview/20c89a26-2479-4f80-b35a-b62ed3b9b3ce>



# Investor Partnerships

- The Investor Partnership Programme is a unique opportunity for high-growth, innovative UK companies to access the funding they need to thrive and succeed. This programme is designed to support micro, small, and medium-sized enterprises (SMEs) that are working on cutting-edge technology in the Innovate UK Future Economy

## Investor Support

Supporting the competition and connecting investors to the programme, increasing the pool of active and diverse investors

## Inspiring investors

Connecting investors with experts across IUK, and translating sector expertise to map the investment landscape for new technologies

## Funder meets Founder

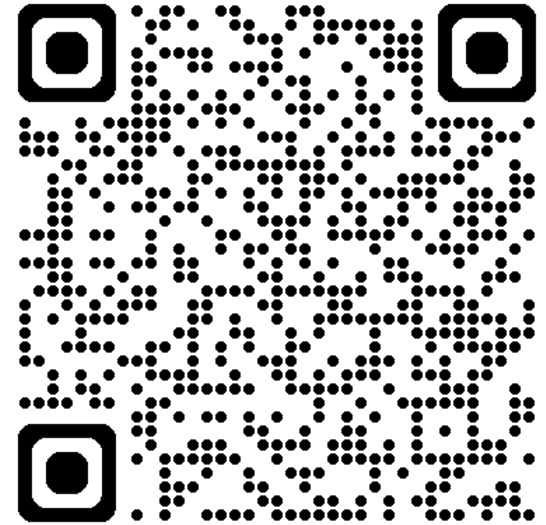
Connecting investors to SMEs seeking investment via events such as Office Hours, speed networking events and investor showcases

## Investor Directory

Available on the [UKRI website](#), a brochure containing the full list of investor partners and their contact details

# Grant Funding

- UKRI Funding Finder  
<https://www.ukri.org/opportunity/>
- Innovation Funding Service:  
<https://apply-for-innovation-funding.service.gov.uk/competition/search>
- Innovate UK Business Connect Opportunities Page  
<https://iuk-business-connect.org.uk/opportunities/>



# R&D Capacity

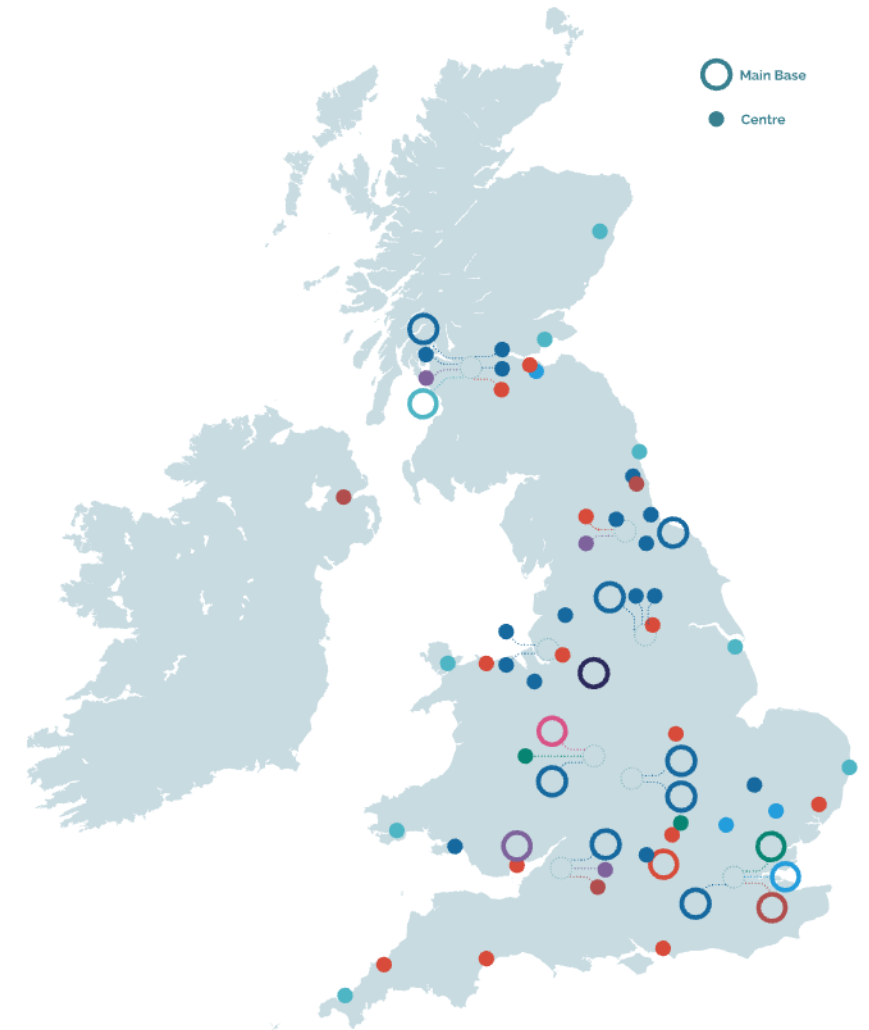


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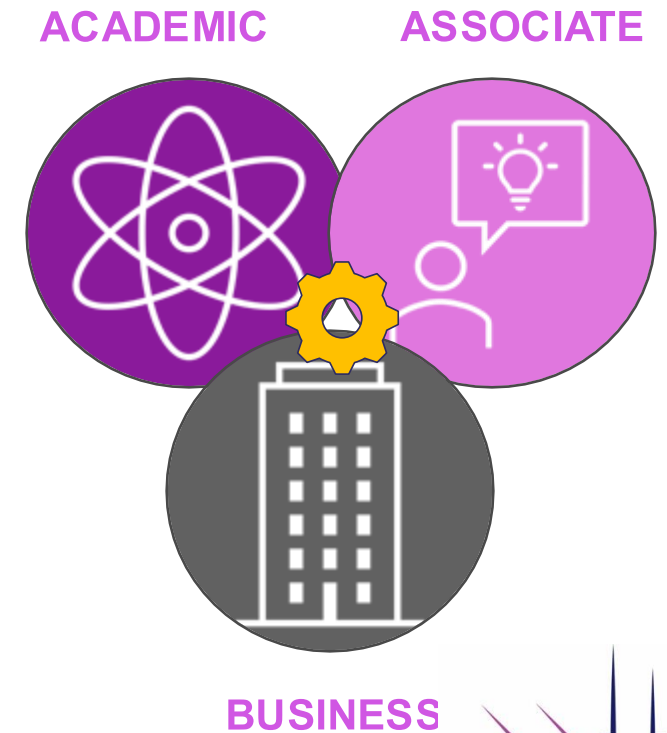
# Catapult Network

- The Innovate UK Catapult Network provides a unique combination of cutting-edge R&D facilities and world-class technical expertise to support UK business innovation.
- The Catapult Network is made up of nine world-leading technology and innovation centres with more than 65 national locations.
- High Value Manufacturing Catapult (HVMC)



# Knowledge Transfer Partnerships (KTP)

- **KTP is:**
- A **three-way partnership** that provides
  - ⑩ **expertise** to innovate
  - ⑩ **funding** to enable
  - ⑩ **resource** to deliver transformational positive change\*
- \*Change can be economic, societal or environmental



# Partners / Collaborators



Innovate  
UK



# Our Network



**46,229**  
Unique  
Organisations



**72%**  
Small

**15%**  
Medium

**13%**  
Large



**335,478**  
innovators



**Every university  
in the UK**



**Innovate  
UK**

**Business  
Connect**



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# Innovation Exchange (iX)

- The iX programme introduces organisations with pressing challenges which cannot be solved by available products or services, to innovators across all sectors who are working on solutions.
- Consulting with the lead organisation at every stage, Innovate UK Business Connect will define the innovation challenge, publish and promote the opportunity across our vast networks, evaluate the responses according to published criteria, host a pitch day of selected responders, and support the lead organisation to partner with any chosen companies.
- iX has proven highly successful in energy, defence, health and transport and is now being expanded into other sectors, such as infrastructure, security and agri-tech
- As a result of 107 iX challenges, there has been:
  - Over 2,500 application entries
  - 480 UK companies invited to pitch days
  - 102 trials undertaken, generating £17.2m value to challenge holders
  - 30 commercial contracts, valued at £2.3m



# Resource (Talent, Skills, Time)




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UK



# Innovate UK Talent & Skills Connect

- Innovate UK Talent & Skills Connect streamlines access to a portfolio of offerings, making it simpler for both partners and businesses to tap into the resources they need to succeed
- Innovate UK's Talent & Skills Community connects businesses with resources and partners to develop innovation-ready talent. It aims to simplify access to skills support and reduce system fragmentation

**Talent and Skills Connect partner catalogue**



View our collaboration catalogue for a list of partners, their offerings and potential collaboratio...

## Innovate UK Tools

Tools to help you on your journey



TOOL

### Innovation Canvas

The Innovation Canvas supports the development of an innovative product, service or process.

[Read more →](#)



TOOL

### IESAM

Funded by Innovate UK, discover training in Power Electronics, Machines and Drives (PEMD) in the North-East.

[Read more →](#)



TOOL

### BridgeAI Training

Building new capabilities in businesses through training and up-skilling in AI, providing access to scientific expertise.

[Read more →](#)



TOOL

### Further Education Innovation Fund

Establishing local innovation centres in 33 colleges, supporting businesses in the adoption of innovation.

[Read more →](#)



TOOL

### Workforce Foresighting

A structured process, realised by experts across the UK, to help deliver a future workforce which exploits innovative technologies.

[Read more →](#)

## Innovate UK Support

We can support you on your way



SUPPORT

### No Limits

No Limits inspires and connects people to new opportunities in innovation from partners across the UK.

[Read more →](#)



SUPPORT

### Electric Revolution Skills Hub

Funded by Innovate UK, the ERS Hub supports careers in electrification by facilitating training and skills development.

[Read more →](#)



SUPPORT

### Innovation Hub

The Innovation Hub brings together the most relevant government backed innovation support.

[Read more →](#)



SUPPORT

### Electrification Skills Network

Funded by Innovate UK, the Network supports the development of a skilled workforce for electrification.

[Read more →](#)



SUPPORT

### Business Growth

The Scaleup Programme Alumni Community brings together like-minded and ambitious individuals.

[Read more →](#)

# Workforce Foresighting Hub

- Aligned with national policy, the Workforce Foresighting Hub is initiated and funded by Innovate UK, built in collaboration with the Innovate UK Catapult Network.
- Workforce foresighting is a systemic approach to identifying the organisational capabilities and workforce skills necessary to enable industry to adopt and exploit innovative technologies

## Manufacturing the Future Workforce

This report publishes the findings of an international study demonstrating the benefit of “ensuring that we have the skills to take advantage of new technologies”. To do this, an approach would be needed to pre-empt and avoid a national workforce capability shortfall, driven by critical innovation.

## Future-proofing UK metalworking SMEs: integrating robotics and workforce development

The Manufacturing Technology Centre (MTC), in collaboration with the Workforce Foresighting Hub, an Innovate UK initiative, has released a new report, **The adoption of robot automation in metalworking SMEs**. This report presents the findings from the Workforce Foresighting cycle, focusing on developing an integrated process for adopting robot automation in metalworking SMEs. The study aims to identify the steps needed to start to prepare the workforce and enable robotics automation for future industrial growth.

# Innovate UK Growth Catalyst Pilot

- Innovate UK Growth Catalyst is an integrated package of funding and support, designed to help accelerate high-potential start-ups on their journey to becoming scale-ups and beyond. For this first pilot, we are targeting late-stage start-ups from seed to Series A.

Knowledge & Expertise 	Funding & finance 	Connections and insights 	Talent & skills 	Facilities 
<b>Business Growth</b> IGS 1:1 support <ul style="list-style-type: none"> <li>◦ Innovation &amp; commercial strategy</li> <li>◦ International markets &amp; collaboration strategy</li> <li>◦ Funding &amp; finance strategy</li> <li>◦ Preparing for scaling</li> </ul>	<b>Up to £2m project costs</b> through Investor Partnerships <ul style="list-style-type: none"> <li>◦ For MVP / prototype development and demonstration</li> </ul>	<b>Business Connect KTMs</b> <ul style="list-style-type: none"> <li>◦ Supply chain connections</li> <li>◦ Funding opportunity identification</li> <li>◦ Sector intelligence</li> <li>◦ Cross sector team engagement</li> <li>◦ iX challenge opportunities</li> </ul> <b>Business Growth initiatives</b> <ul style="list-style-type: none"> <li>◦ Enterprise Europe Network access</li> <li>◦ Global products...</li> </ul>	<b>Business Growth initiatives</b> <ul style="list-style-type: none"> <li>◦ Investment readiness</li> <li>◦ Peer-to-peer learning</li> </ul> <b>Business Connect</b> <ul style="list-style-type: none"> <li>◦ Design workshops</li> </ul>	<b>Business Growth + Catapults</b> <ul style="list-style-type: none"> <li>◦ Access to Catapults &amp; RTO infrastructure &amp; expertise for scaling process / manufacture</li> </ul>



Innovate  
UK

# Thank You

For more information, please get in contact:

**Dr Becky Bolton**

[Becky.Bolton@iukbc.org.uk](mailto:Becky.Bolton@iukbc.org.uk)



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Innovate UK



Innovate UK



@weareinnovateuk



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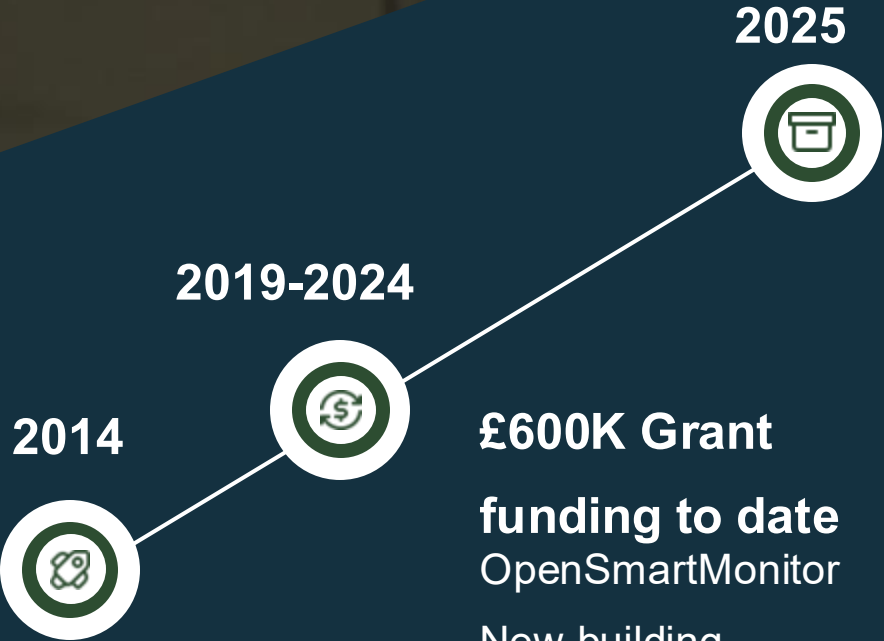




A Journey Through Innovation & Growth

Tim Telford - CEO

# Our Growth Journey....



**Founded**  
HILTOP Designed  
Customers in USA & UK

**£600K Grant**  
**funding to date**  
OpenSmartMonitor  
New building  
Team Expansion  
Multiple Awards



**£700K**  
**Revenue**

**3**

**Blue Chips**

**50**

**SMEs**

**500+**

**Sensors**





# Trusted By Leading Brands

**Megger**<sup>®</sup>



SMART  
MANUFACTURING  
DATA HUB





# OpenSmartMonitor

Plug-and-play monitoring for businesses

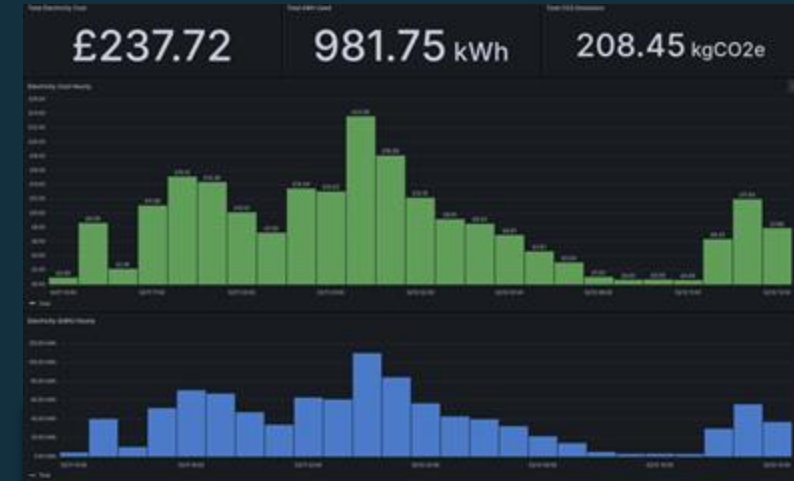
- Steel/Metal Works
- Bakery / Food & Drink
- Woodwork Industry
- Composite Manufacturing
- General Manufacturing
- Warehousing
- Offices
- Schools & Hospitals



It Starts With A Sensor.



Productivity. Efficiency. Well-being. Sustainability.



Monitor - Utilities, Machinery, and Well-being  
Insights - Cost, Emissions, Efficiency, and Productivity



# Plug & Play

Rapid to deploy

**30%**

Anticipated customer savings

# Open Source

Reducing e-waste, vendor agnostic

**20%**

Productivity improvement



# HILTOP

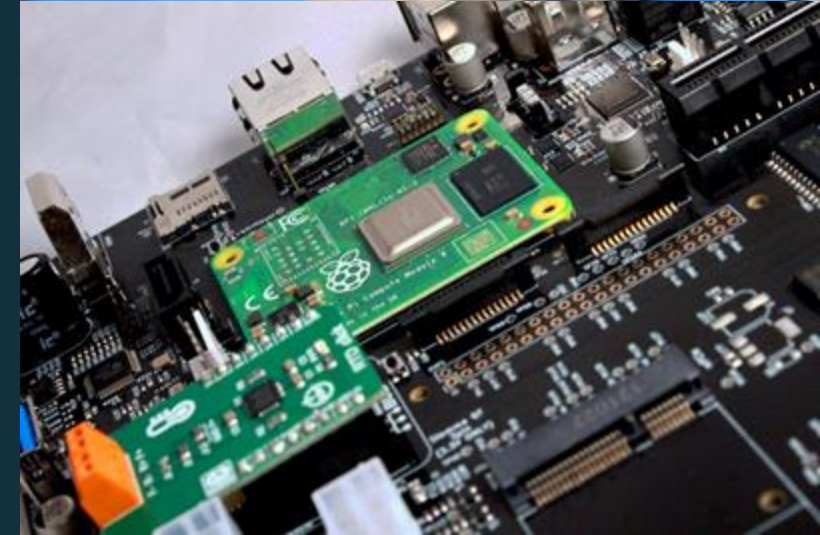
Production and end of line product testing solutions

- PCB / Motherboard
- EV Chargers
- Automotive
- Space

Full traceability across production lines

Track quality issues

Modular and User-friendly platform



**ingun**<sup>®</sup>  
Partner for Future Technology

**CODA-PIN**<sup>®</sup>  
OFFICIAL PARTNER

**HILTOP**



# Support & Funding

- Grants - IUK / ERDF
- Workshops - ENSCITE
- Mentoring - D2N2
- Marketing (Business Network Magazine)
- Accountancy and Business
- Recruitment - Local Universities & Training Providers
- Conferences and Exhibitions
- Networking - EMC, EMMN, Marketing Derby
- Business Consultancy - ASCEND

Keeping us in touch with funding opportunities in Derbyshire and the UK.

east  
midlands  
chamber®

Derbyshire | Leicestershire | Nottinghamshire

## PROMOTION FOR CHARLIE

Eden PR has prompted Charlie Peters to the position of senior social and digital account executive following a positive year of growth.

An experienced content creator and podcaster, Charlie has taken on more responsibility for strategy, paid social media campaigns and podcast delivery.

Since joining the Nottingham-based PR, social media and marketing agency in 2023, he has demonstrated a strong command of skills across the social and digital sectors, with a passion for podcast production, video and graphic design. He has overseen social media schedules for clients on all major platforms.

Emily Winsor-Russell, director and head of new business at Eden, said: "We're so proud of Charlie's development since he joined us and it has been a pleasure to see his craft flourish as each month goes by."

## MARTIN MAKES SMART SWITCH TO DEVTANK



in Martin Rigley (pictured) as its chief commercial officer.

Martin has been working with the team throughout 2024 as business development manager, and has been a driving force for its Smart Manufacturing Data Hub (SMDH) Lighthouse Project.

Chief executive Tim Telford said: "Martin has been a long-time friend of Devtank and our team, working alongside him and his previous business Lindhurst Engineering.

"His requirements as a business-owner led us to collaborate into designing and manufacturing our sensor products, monitoring his electricity cost and usage, as well as environmental health.

"His passion for this technology paired with his mountain of industry knowledge and skills makes him the perfect person for this role at Devtank."

DevTank - which is at the forefront of developing test and measurement tools and smart monitoring devices - has brought



# Grants

We have been successful in being awarded grant funding and partnering on major UK funded projects

- Project INSPIRE (PragmatIC) 
- V2X Project (Indra Renewable) 
- De-Carbonise Project (Derby University)
- Lighthouse Project (Made Smarter / SMDH)
- Ascend Funding
- D2N2 - Employment Funding (Martin Rigley)
- Enscite - Workshops (Sunil Vara)
- KEI - Employment Funding (Harry Geyer - Software Dev)
- Horizon Europe - EU Trade Funding (INTEC Event Leipzig)

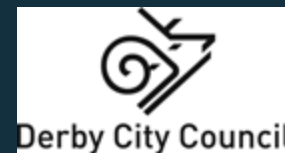


**MADE  
SMARTER**  
INNOVATION

**SMART  
MANUFACTURING  
DATA HUB**



**European Union**  
European Regional  
Development Fund



# Apprenticeships

A key part of our growth has been supporting apprentices within the company

- 2019 - Derby University (Cameron Browne - Ops Manager)  
Business Awards Apprentice of the Year 2022  
The Manufacturer Top100 Alumni 2023
- 2022 - Baltic Apprenticeships (Marcus Holder - Software Dev)  
ESSD Apprentice of the Year Finalist 2023
- 2022 - EMA Training (Anthony Yeomans - Marketing Champion)  
The Manufacturer Top100 Alumni 2022
- 2023 - Derby College (Dan Sayles - Electronics Technician Apprentice)



# *Business Awards*

The annual business awards displays the achievements and innovations made within the region.

## East Midlands Chamber

- 2022 - Excellence in Innovation
- 3x Finalist - Environmental Impact
- 2x Finalist - Improvement Through Technology

## OpenUK

- 2021 OpenUK - Hardware
- 2023 OpenUK - Sustainability

## Make UK

- 2024/2023 Finalist - Energy & Sustainability

## ESSD Business Awards

- Manufacturer of the Year finalist x2





*What next...*

# Fund raising: £450K to Rapidly Scale

**30%**

Product development

**15%**

Sales & Marketing

**45%**

Hiring Key Staff

S/W, H/W, Sales & Marketing

**10%**

New Premises





**opensmartmonitor.co.uk**  
**devtank.co.uk**



**Thank you for  
listening!**  
**Tim Telford**

[tim.telford@devtank.co.uk](mailto:tim.telford@devtank.co.uk)

[sales@devtank.co.uk](mailto:sales@devtank.co.uk)

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# Innovate Local East Midlands May 2025

**Steve Morris MBA**

Director,

Start-Ups & SMEs

Programmes, Supply Chain & Partnerships

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# SME SUPPORT – ALL VERTICALS



Aerospace



Defence & Security



Construction



Space



Automotive



Infrastructure



Food & Drink



Healthcare



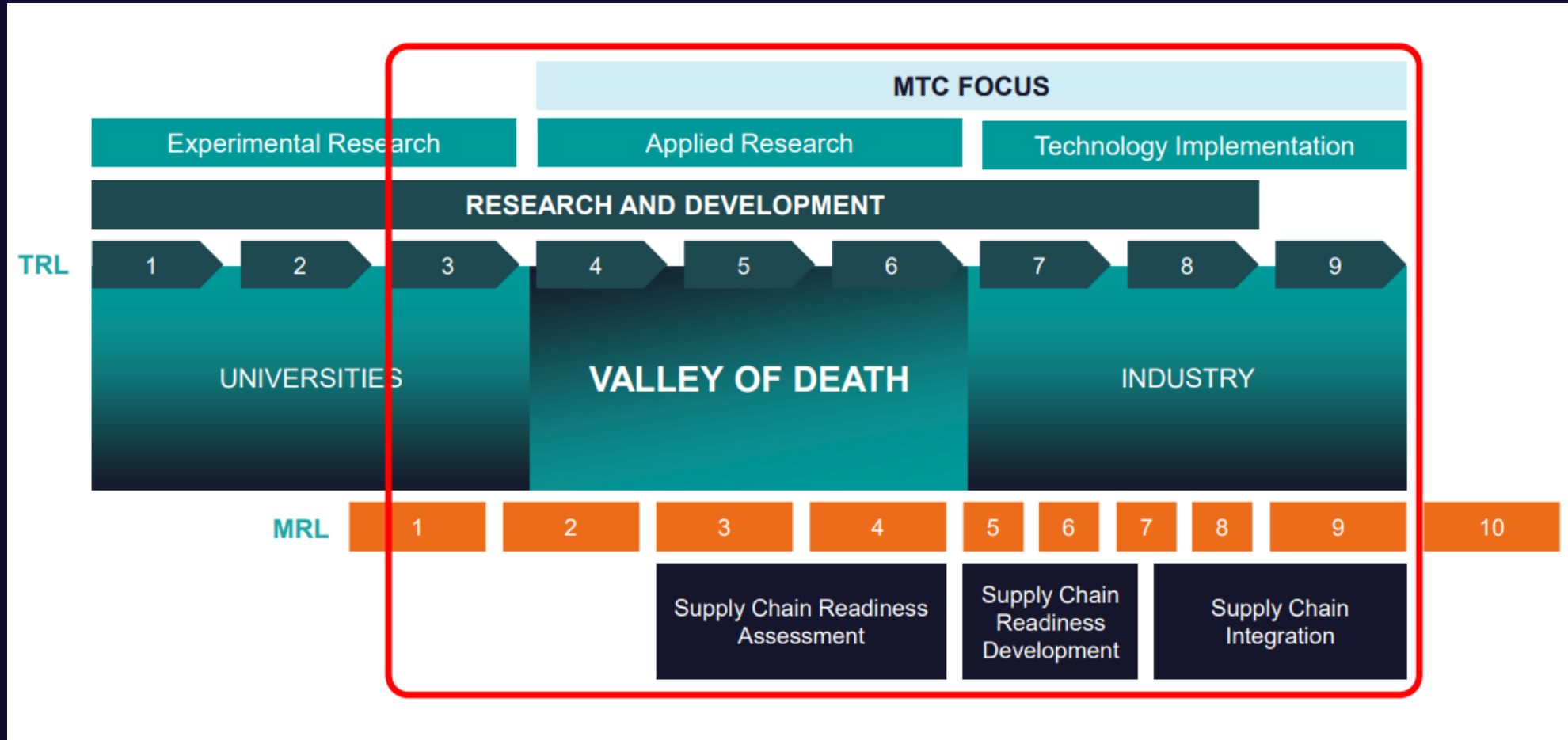
Power & Energy



Electronics



# MTC FOCUS: TRL MRL SCR



# WHAT ARE WE FAMOUS FOR?



## Smart Manufacturing

- Robotics
- Automation
- Digitisation
- AI
- DE/SE



## Sustainable Manufacturing

- Net Zero
- Circular Economy
- Energy Transition
- Energy Demand



## Innovation

- Product
- Application
- Technology
- Supply Chain



## Skills/Workforce Development

- Apprenticeships
- Skills Training
- Leadership Development

# MTC SCALE UP CAPABILITIES

## Scale Up



### Design for X

Component and product Design  
Physics Modelling  
Design for Additive  
Automated Design



### PROCESS DEVELOPMENT & QUALITY

Technology down-selection  
Additive Manufacturing  
Lasers  
Automation and Robotics  
Electronics Manufacturing



### EQUIPMENT DESIGN

Special Purpose Machines  
Robotic Workstations  
End Effectors and fixtures



### FACTORY DESIGN

Scenario Mapping  
Layout Optioneering  
DES  
Virtual Build Event  
Visualisation



### SKILLS & WORKFORCE DEVELOPMENT

Future Skills Fore-sighting  
National Apprentice Standards Creation  
Upskilling and Reskilling  
Training and Apprenticeship Delivery



### SUPPLY CHAIN DEVELOPMENT

Assessment and oversight of supply chain  
Targeted Supplier Development Programme

# FUNDING LANDSCAPE

## Grant Funding

- Innovate UK
- Combined Authorities
- Trade Associations / Agencies
- Horizon EU

## Loan Funding

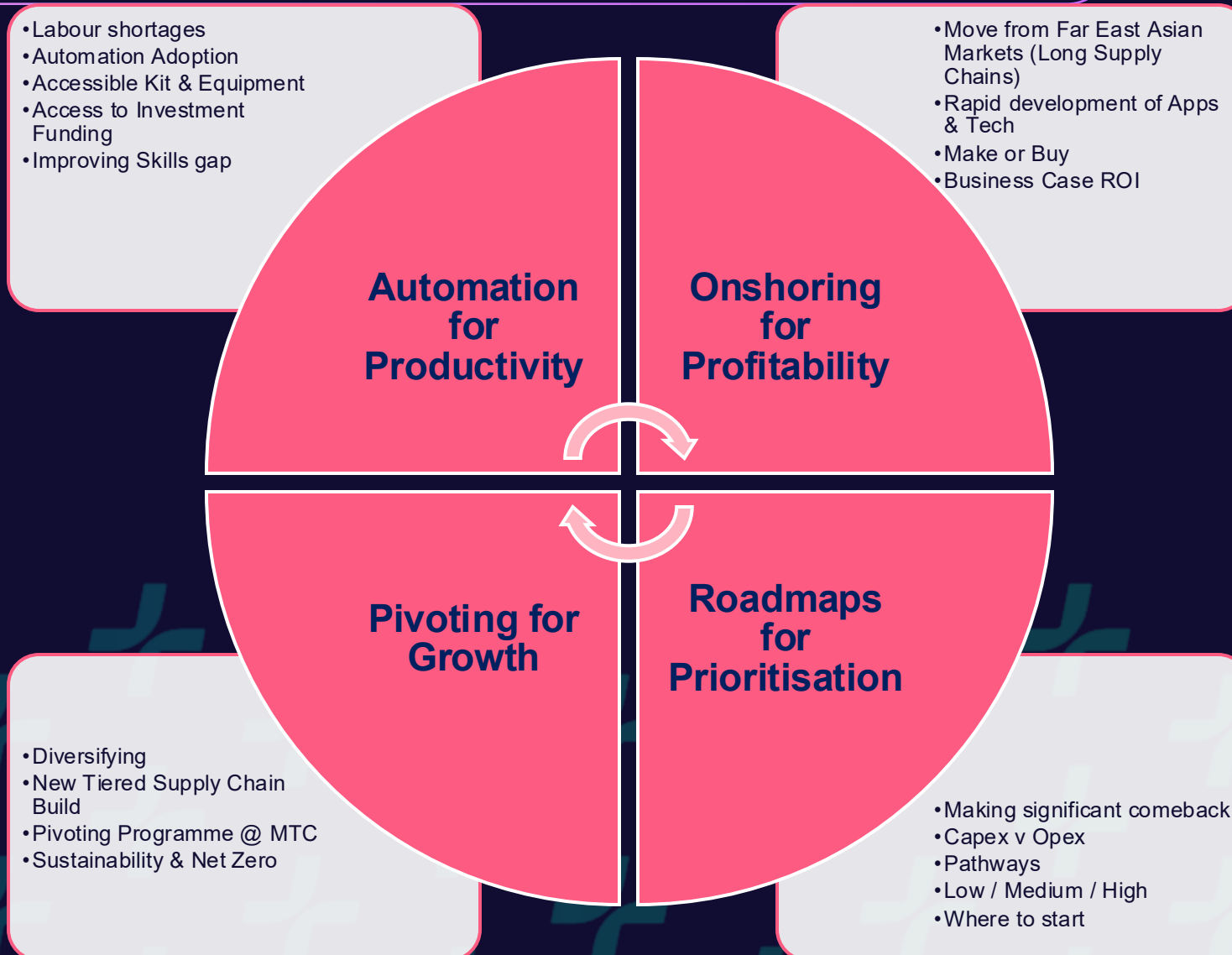
- Banking & Finance sector
- CGFI
- Asset Finance

## Equity Funding

- BGF
- Angel Investors
- Equity Partners
- Innovate UK



# 4 KEY THEMES



# Thank you

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# Q&A + Key Messages

**Becky Bolton**

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**Tim Telford**

[Tim.Telford@devtank.co.uk](mailto:Tim.Telford@devtank.co.uk)

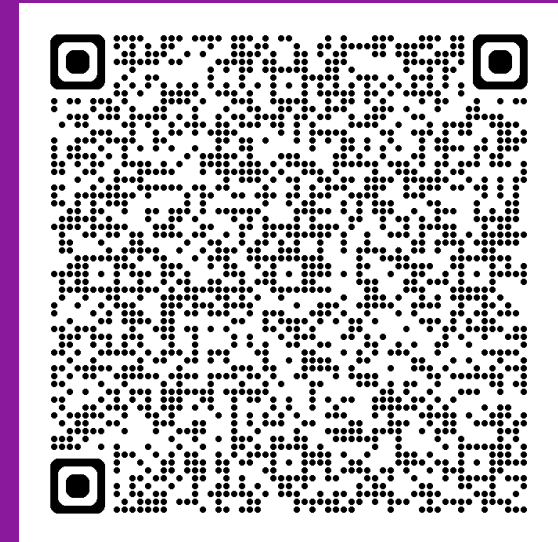
**Steve Morris**

[Steve.Morris@the-mtc.org](mailto:Steve.Morris@the-mtc.org)



**We want to hear from you.**

Share your thoughts on digital and AI  
for manufacturing with our follow-up  
survey.



**MADE  
SMARTER**  
INNOVATION



Delivered by Innovate UK,  
EPSRC and ESRC