



GLEAM presents

Funding and Support for Innovation in Manufacturing

Thursday 6th June | 08.30 - 12.00

The Bridge, University of Lincoln

Delivered by



BRIDGE



Agenda

- 09.00: **Welcome and Introduction to GLEAM and the Bridge**
Matthew Thornton, Commercial Manager, The Bridge, University of Lincoln
- 09.10: **Business Lincolnshire and Made Smarter Support for Manufacturers**
Harry Haslam and Trevor Durant, Business Lincolnshire & Chris Owens, Made Smarter
- 09.40: **Support for Manufacturers from the Banking Sector**
Garry Wilkinson, NatWest
- 10.00: Coffee and Networking
- 10.20: **The Future of R&D Tax Relief**
Julia Clarke, Wright Vigar
- 10.40: **National Grant Funding for Manufacturing**
Stephen Morris, Innovate UK Business Connect
- 11.00: **Regional Support for Innovative Manufacturing**
Ian Evley, Innovate UK Business Growth
- 11.20: Wrap Up and Optional Tours of the Bridge
- 12.00: Close and depart





Creating a Manufacturing Community



- The Greater Lincolnshire Engineering And Manufacturing (GLEAM) Network is an initiative founded by the University of Lincoln, Greater Lincolnshire Local Enterprise Partnership (GLLEP), and Business Lincolnshire and managed by the Bridge.
- GLEAM provides a knowledge-intensive business corridor locally at the heart of the manufacturing business in Greater Lincolnshire and is open to all manufacturing businesses in Greater Lincolnshire. Members are able to join free of charge and gain access to a range of benefits, including Affiliate Partner Membership with Make UK.

Make UK Affiliate Membership Benefit

- Join Make UK as an Affiliate Member
- Make UK Affiliate Membership is open to members of Make UK partner organisations. You'll receive industry information and insight, contribute to Make UK's policy positions and have access to events, guidance and support on issues affecting our sector.
- To register for Affiliate Membership just complete the form at:
<https://www.makeuk.org/affiliate-member-registration>



The Manufacturers' Organisation

Rewarding your work, your
people and your business.

MANUFACTURING AWARDS 2024

Business & Apprentice
Entries Now Open >>
makeuk.org/awards



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GL RDSC

Greater Lincolnshire
Regional Defence & Security Cluster
greaterlincolnshirerdsc.com

Join us for the upcoming Greater Lincolnshire Regional Defence & Security Cluster Strategic Hackathon 2024!

This strategic hackathon will be led by the University of Cambridge and the Institute for Manufacturing.

The workshop's focus is on leveraging low-cost technologies to identify specific solutions that enhance productivity, efficiency, customer experiences, and digital skills within companies.

Date: Tuesday 11th June 2024

Time: 10am-4pm

Venue: The Engine Shed (University Of Lincoln, Brayford Pool, Lincoln, LN6 7TS)

Register your free place
via GLRDSC@lincolnshire.gov.uk.

BRIDGING BUSINESS WITH INNOVATION

- Bridge operates from the University of Lincoln and has a dedicated team of R&D project specialists working alongside the University's academic community.
- We help businesses access technologies and methods at the forefront of research to create R&D solutions, and drive innovation.

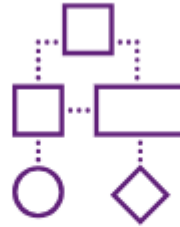


Bridge – Advanced Materials and Engineering R&D Centre



CONSULTATION AND 1-2-1 SUPPORT FOR BUSINESS DEVELOPMENT

Our process builds on an initial 1-2-1 consultation, roadmapping potential programmes from small-scale interventions to large-scale projects.



CREATION OF NEW PROCESS AND PRODUCT INNOVATION WITH OUR DEDICATED BRIDGE TEAM AND R&D PARTNERS

Bridge can address your advanced materials needs, assisting with new process creation and product innovation; providing access to world-class R&D at the interface of science and engineering through links to the University of Lincoln and a consortium of industry R&D partners.



MATERIALS RESEARCH AND INNOVATION

Bridge provides access to state-of-the-art instrumentation and laboratory workspaces. Our scientists and engineers are experienced in delivering cutting edge insight into materials

Bridge – Advanced Materials and Engineering R&D Centre



EXPERT USE OF INSTRUMENTATION AND MATERIALS ENGINEERING LABORATORIES

Our dedicated team of specialists includes a community of expert Instrument Scientists. We can share that knowledge and help upskill your team by creating bespoke training packages.



BUSINESS NETWORKING AND COLLABORATION

Our dedicated innovation centre provides a quality environment for business interaction facilitating exchange of expertise and business opportunities. We host a range of networking events and seminars and our facilities are available for business-led events.



TRAINING AND PROFESSIONAL DEVELOPMENT

Bridge houses a dedicated training facility for on-site and remote learning alongside laboratory settings for at-instrument or in-lab training. Bridge gives you direct access to academic- and industry-experienced consultants to educate, develop and mentor your staff and they can upskill at our regular specialist courses.



BRIDGE

Bridge to... Manufacturing Innovation

- With programmes designed to increase businesses' competitiveness, Bridge has delivered innovation to businesses and connected regional and international supply chains to cutting-edge materials science and engineering in the manufacturing and engineering sectors.
- Bridge has supported manufacturing businesses to access technologies at the forefront of research to deliver effective problem solving and to develop the workforce of tomorrow through accredited training.



- Visit our website for a virtual walkthrough of the Bridge at <https://www.thebridge-lincoln.org/>
- Follow us on:
 - <https://www.linkedin.com/company/thebridge-lincoln>
 - https://twitter.com/thebridge_linc
 - https://www.instagram.com/bridge_lincoln/
- E. mthornton@lincoln.ac.uk



FUNDED BY:



[thebridge-lincoln.org](https://www.thebridge-lincoln.org)



Save the Date!

GLEAM next event is on **10 July 2024** at the Hub at the Food Enterprise Zone, Holbeach on **“New Technologies for Food Manufacturing - From Farm to Fork”**.

The topic will cover new technologies (robotics, AI, machine learning etc...) and digital manufacturing for food manufacturing and should encompass the full value chain from farm to fork, with scope to include cross over technologies and best practice demonstrations to/from other industry sectors.

Business Lincolnshire and Made Smarter Support for Manufacturers

Harry Haslam & Trevor Durant,
Business Lincolnshire

Chris Owens
Made Smarter





Business Lincolnshire Growth Hub

Harry Haslam

Growth Hub Adviser for South Kesteven and Rutland

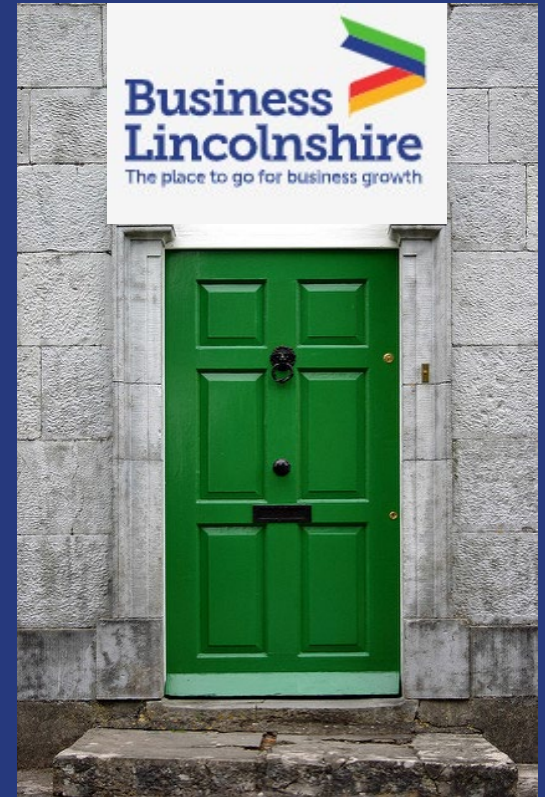
The Growth Hub

The Business Support arm of the GLLEP

One stop 'growth shop'

Growth Hub Service – 'Front Door'

Funded advisory support for Small and Medium sized enterprises through UK Government funding



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Service Overview

Website www.businesslincolnshire.com

Advice and Grant Finder

Business Growth Advisers and Specialist Advisers

Facilitate access to other local and national programmes

Workshops, briefings and flagship events

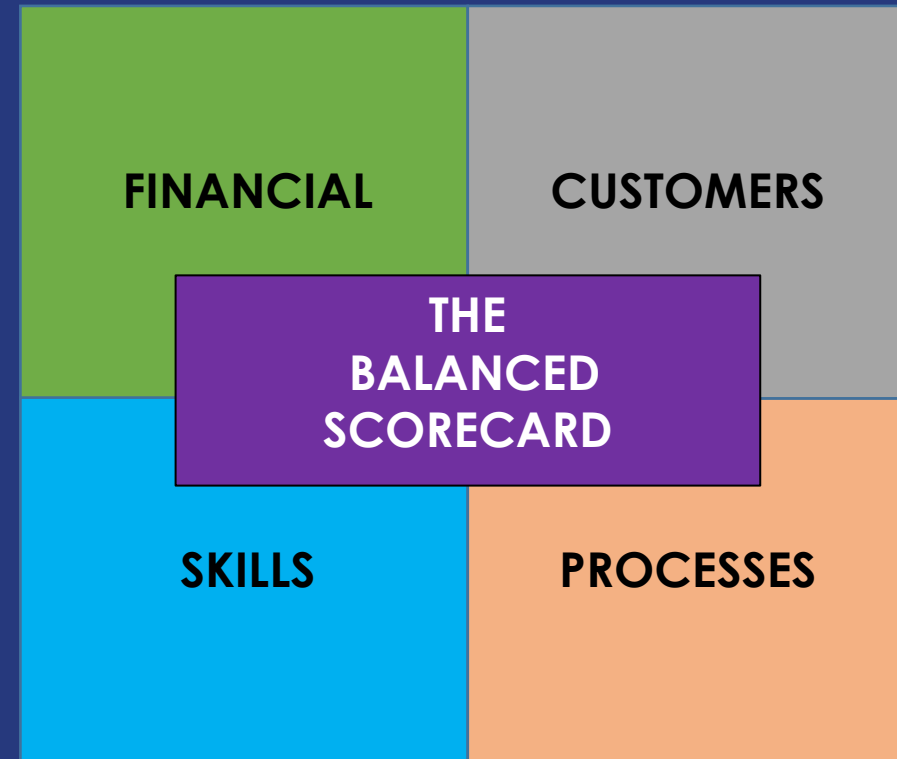


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The Process

Growth Hub Adviser Process:

Diagnostic – 1:1 / 1: Many
Research
Action Plan
Referrals to Specialist Support
Grant Support
Review
Account Management



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UK Government**

The Process

Fully Funded Specialist
Adviser support and
programmes

Accessible via your local
Growth
Hub
Adviser



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NEXT LEVEL PROGRAMME CONTENT & TIMING

1

LEADERSHIP WORKSHOPS

Programme begins with 2 x full day, in-person workshops for the business leader; the workshops will be roughly two weeks apart

2

121 COACHING

Next the business leader will receive 2 x 1.5 hour coaching sessions delivered on Zoom; followed by a 30- minute accountabilities check-in call

3

DISC ASSESSMENTS

DISC personality assessments will be made available for up to 5 members of your leadership team

4

GROWTH SPRINT

Approximately 3 months after the first workshop, up to 3 members of the senior team from each business will attend a full day in-person Growth Sprint

5

ZELLAR SOFTWARE LICENCE

Once enrolled on to the programme, each business will have free access to a 12 -month license for the Zellar carbon benchmarking platform

6

ALUMNI PROGRAMME

Participants will have access to live webinars on business strategy and leadership; opportunities to take part in peer groups and an annual in-person event



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Register your business to receive support :

Ask me for a registration form via email
harry.haslam@bizlincolnshire.com

Sign up for the Business Lincolnshire Bulletin
www.businesslincolnshire.com/register

Follow us on –
LinkedIn, Facebook, Twitter (X), Instagram



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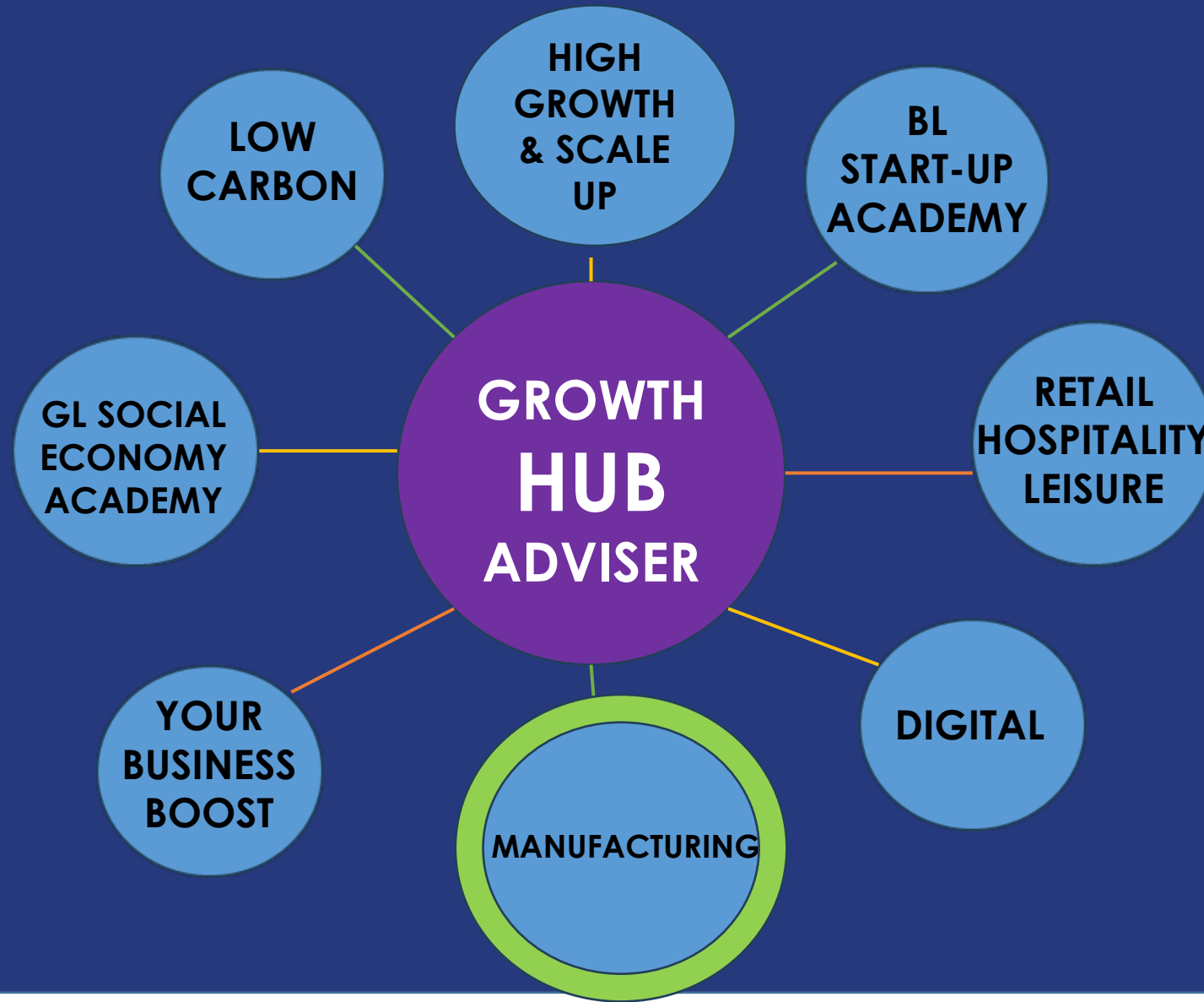
Business Lincolnshire Growth Hub

Trevor Durant

Manufacturing Advisor



**Fully
Funded
Specialist
Adviser
Support –
accessible
via your
local
Growth
Hub
Adviser**



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Personal Background

- Manufacturing apprenticeship with Coca-Cola
- Experience in Soft Drinks, Brewing, Confectionery, Fresh Produce, Dairy, and Textiles
- Well-connected across many businesses
- BSc in Design & Innovation
- Worked at all levels up to Board Director
- Focus on: Productivity, Quality, Process Improvement
- Passionate about developing process improvement skills within manufacturing



**MOLSON
COORS** beverage
company



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Overview of the role

Outreach & Ambassador

- Offer GHA support with existing clients
- New / lapsed contacts in manufacturing
- Produce material for marketing services / website / blogs
- Content for relevant events e.g. Manufacturing Conference

Diagnostics & Action Plans

- Build on GHA diagnostic to better understand client position and priorities
- Creation of shared action plans
- Sign-post to further support: Made Smarter, Manufacturing Support Programme, Scale Up, GLEAM etc.
- Collate data and report

Provide & Build Manufacturing Skills

- **Specific in-business support**
- Deliver bespoke workshops:
 - Skills & recruiting
 - Industry 4.0
 - Quality
 - Productivity
 - Cost management
 - Etc.



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Case Study 1

- Business supplies foam components
- Going through a period of growth
- New members of the management team with a desire to improve systems
- Fully manual process from order collection through to invoice and ship
- Helped develop a rudimentary system for collecting orders, tracking progress and including approvals throughout the process

Company XX Foam Order Tracking									
Order date	W/O #	Customer	Site Name	Production Date	Due Date	Quantity	Planned	Dispa	
08/04/2024	MB24001	Bob Smith	Rose Cottages	07/04/2024	10/04/2024	1	x		
16/04/2024	MB24002	John Terry	Unit 6 Bay Hill	15/04/2024	18/04/2024	4	x		
21/04/2024	MB24003	Clive Woodward	Castle Howard	20/04/2024	23/04/2024	3	x		
16/04/2024	MB24004	John Smith	Unit 12, The stables	15/04/2024	18/04/2024	7			
21/04/2024	MB24005	Lucy Brahshaw	64 Acacia Road	18/04/2024	23/04/2024	2			
16/04/2024	MB24006	Steve Waite	The Forge, Huddersfield	14/04/2024	18/04/2024	8			
21/04/2024	MB24007	Alan Williams	19, Back End Road	15/04/2024	23/04/2024	6			
	MB24008								

Company XX Production Works Order

Works Order #

Production Date

Customer

Customer Ref

Site Address

Due Date

Quantity

Process	Date	Initials
Process W/O	<input type="text"/>	<input type="text"/>
Feather / Fibre Ordered	<input type="text"/>	<input type="text"/>
Pick / Cut Foam	<input type="text"/>	<input type="text"/>
Fabrication	<input type="text"/>	<input type="text"/>
Quality Check	<input type="text"/>	<input type="text"/>
Costed	<input type="text"/>	<input type="text"/>
Invoked	<input type="text"/>	<input type="text"/>
Dispatched	<input type="text"/>	<input type="text"/>

Production Notes

FOAM type xxx to be used due to customer requirements

Notes to Office

If any materials are not of the required quality, please raise the issue with your supervisor

Please do not work on any order which do not have clear instructions



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Case Study 2

- Business imports and manufactures floor mats
- Going through a rapid period of growth
- The business wants to explore how ISO9001 might help add more structure to their processes and improve quality
- Developed a status tracker which highlights all requirements of the standard so the business can self-evaluate and decide on next steps

ISO9001 Implementation Dashboard					Input
Cl.	Cl.2	Section	Sub-section	Requirement	Status
4	1	COTO	Understand Context	Identify external and internal issues that affect the organisation and QMS. Monitor	0
4	2	COTO	Understand needs	Clear understanding of needs and expectations of stakeholders inc. customers	0
4	3	COTO	Determine scope	Scope of the QMS clearly defined. Include products and services, clarify what isn't:	0
4	4	COTO	QMS and Processes	QMS is built in entirety	0
4	4	COTO	QMS and Processes	Processes are documented with clear SIPOC diagrams in place	0
4	4	COTO	QMS and Processes	Risks and Opportunities identified and addressed	0
4	4	COTO	QMS and Processes	Resource in place for processes to deliver their intended outputs and results monit	0
4	4	COTO	QMS and Processes	Responsibilities and authorities are assigned	0
4	4	COTO	QMS and Processes	Process operation is supported by documentation	0
5	1	Leadership	General	Senior Leaders take accountability for Quality	0
5	1	Leadership	General	Resources are made available to support the QMS	0
5	1	Leadership	General	The QMS delivers intended results and continual improvement of the QMS is promc	0
5	1	Leadership	Customer focus	The organisation is aware of and understand customer and statutory requirements	0
5	1	Leadership	Customer focus	Understands risks and opportunities relating to customer satisfaction	0
5	1	Leadership	Customer focus	Emphasis on enhancing customer satisfaction	0
5	2	Leadership	Policy	Quality policy should be relevant to your org and objectives. Documented and avai	0
5	3	Leadership	Org. Roles, Resp, & Auth.	Responsibilities and levels of auth. relating to QMS are understood, performance is:	0
6	1	Planning	Actions to address risks	Ref. 4.1 and 4.2 ensure QMS can prevent undesirable effects and support CI	0
6	2	Planning	Qual. Obj's & achievement	Have quality objectives in place relevant to function, measured, monitored, commu	0
6	3	Planning	Planning change	Change management is in place to control consequences	0
7	1	Support	Resources	Adequate resources planned and provided to support QMS - both internal and exter	0
7	1	Support	Resources	Workplace is fit for purpose, IT is suitable, processes suitable	0
7	1	Support	Measurement & traceabilit	Calibration of tools and equipment is in place, workplace is fit for purpose, IT is su	0
7	1	Support	Org. knowledge	The organisation has knowledge to achieve conformity and has good training to su	0
7	2	Support	Competence	Individuals are competent with records to show this	0
7	3	Support	Awareness	Individuals are aware of the QMS, policy and relevant objectives	0
7	4	Support	Communication	The organisation must determine what to communicate with regards to the QMS, w	0
7	5	Support	Documented Info & Control	The documents and control are place as required	0
8	1	Operations	Planning & control	Clear understanding of QMS is in place for all processes	0



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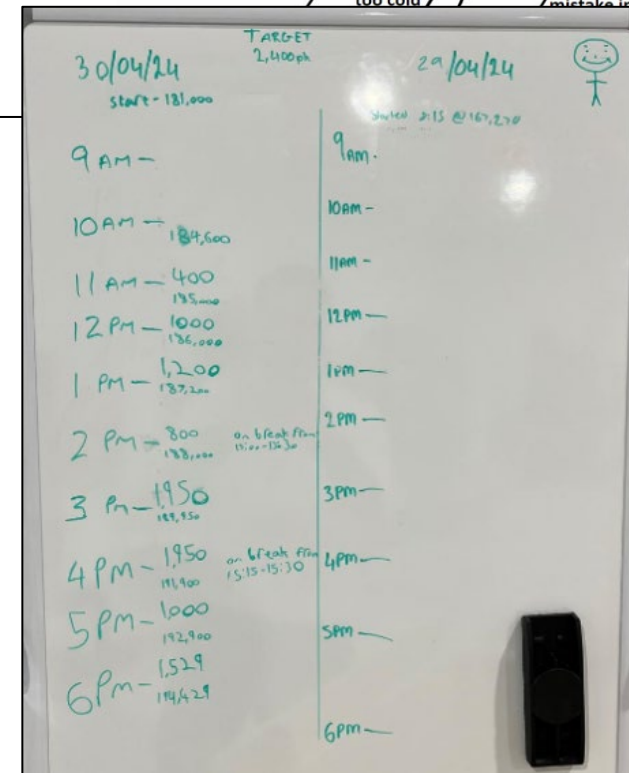
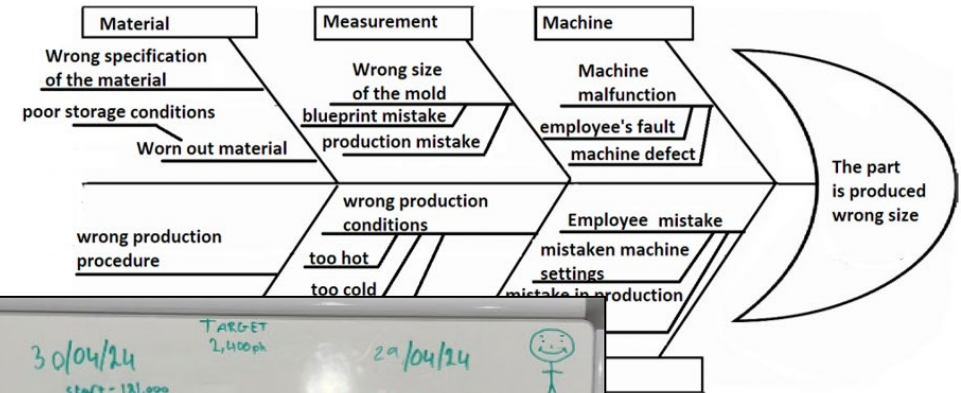
Case Study 3

- Manufacturing business which designs and manufactures specialist components
- The business is growing year on year
- Initially wanted to discuss grant funding for additional packing machines to increase capacity
- Spent time observing the process and looking for inefficiency: lack of production tracking & problem-solving
- Delivered workshop on problem-solving & helped implement short interval control



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DMAIC - Analyse Phase: Explore Causes



Summary

- Experienced in majority of requirements within a manufacturing business
- Able to provide bespoke support in lots of different business areas
- There is so much more value to be had by improving business processes before you look at grant funding
- Any issues, opportunities, ideas, etc. just drop me an email / call and we can discuss best approach



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Contact details

Trevor Durant

Manufacturing Adviser

Business Lincolnshire Growth Hub

M: 0794 002 6762

E: trevor.durant@bizlincolnshire.com

Scan the QR code to try out the Manufacturing Diagnostics Tool:



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Made Smarter East Midlands GLEAM Funding and Support for Innovation in Manufacturing

Get set for the future. **Now**

Dr Chris Owen

Made Smarter East Midlands Programme Director

**MADE
SMARTER**

Contents

- Programme details
- Eligibility
- Customer journey & programme elements
- Types of projects supported
- How to get involved

Made Smarter helps makers keep their competitive edge, with digital tools that help people make an everyday difference to their business.

The logo for 'MADE SMARTER' is displayed in a bold, yellow, sans-serif font. The word 'MADE' is positioned above 'SMARTER'. The text is set against a dark blue rectangular background. A thin yellow horizontal line is positioned to the left of the text, starting from the left edge of the blue box and extending to the right, ending just before the 'MADE' text.

**MADE
SMARTER**

...and now available in the East Midlands

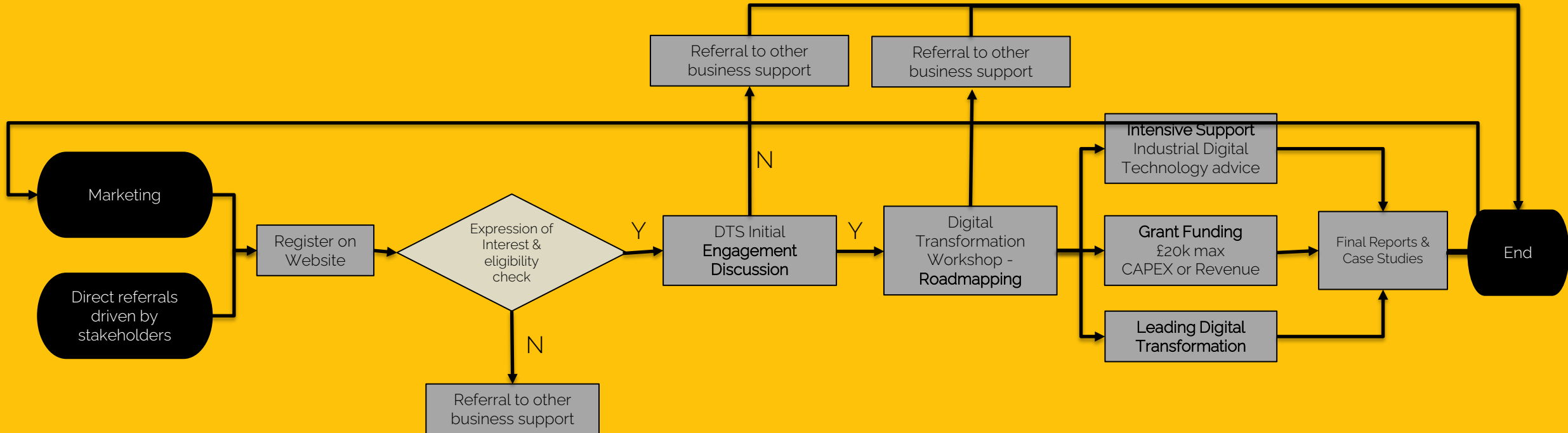
Key Programme Details

- £3m of HM Government Investment
- Programme launched 12th December 2022 – First EOIs managed
- Programme closes 31st March 2025
- Over 400 engagements with Manufacturing SMEs across the East Midlands region
- Over 130 Manufacturers undertaking free Digital Transformation Road Mapping
- 80 Manufacturers to receive free intensive technical advice and expertise
- Over 50 grants available for CAPEX or Revenue Projects
- 36 Places available for the "Leading Digital Transformation Programme"

Eligibility

- Must be a Micro, Small or Medium Enterprise
 - Micro & Small
 - Headcount 1-49
 - Turnover or Balance Sheet < €10m
 - Medium
 - Headcount 50-249
 - Turnover or Balance Sheet < €50m
- Must be a **Manufacturer** – A maker of a product
- For companies which have group structures please discuss with the Made Smarter East Midlands Programme Office
- Must be within Greater Lincolnshire, Leicestershire, Derbyshire and Nottinghamshire

Customer Journey



Made Smarter East Midlands – What's on offer

Digital road mapping	Grants	Impartial tech expertise	Leading Digital Transformation
<ul style="list-style-type: none">• 3-5 year digital transformation plan for your business• Specific to your challenges, issues and ambitions• Digital Readiness Level (DRL) benchmarking – National• Evaluation of options to solve your challenges• Logical sequence of what to do when• Identification of MS support we can offer to help get you on your journey	<ul style="list-style-type: none">• £20,000 max• CAPEX or revenue projects• 1 per business• 50% minimum company match• Claimed and paid in one single stage	<ul style="list-style-type: none">• 4 days of impartial technical advice• Additive Manufacturing (3D printing)• AR & VR• Big Data & Analytics• Cognitive Computing & AI (machine learning)• Data & Systems Integration• Industrial Cyber Security• Internet of Things• Mobile Devices & Wearables• Robotics Process Control & Automation	<ul style="list-style-type: none">• 3 Month programme• 7 Bite-sized workshops• Cohorts of 12 Manufacturing leaders – All leading digital transformation• Must have completed Road Mapping & Digital Readiness Level Assessment

Innovation & Made Smarter East Midlands

Examples of how digital technology is helping companies be innovative

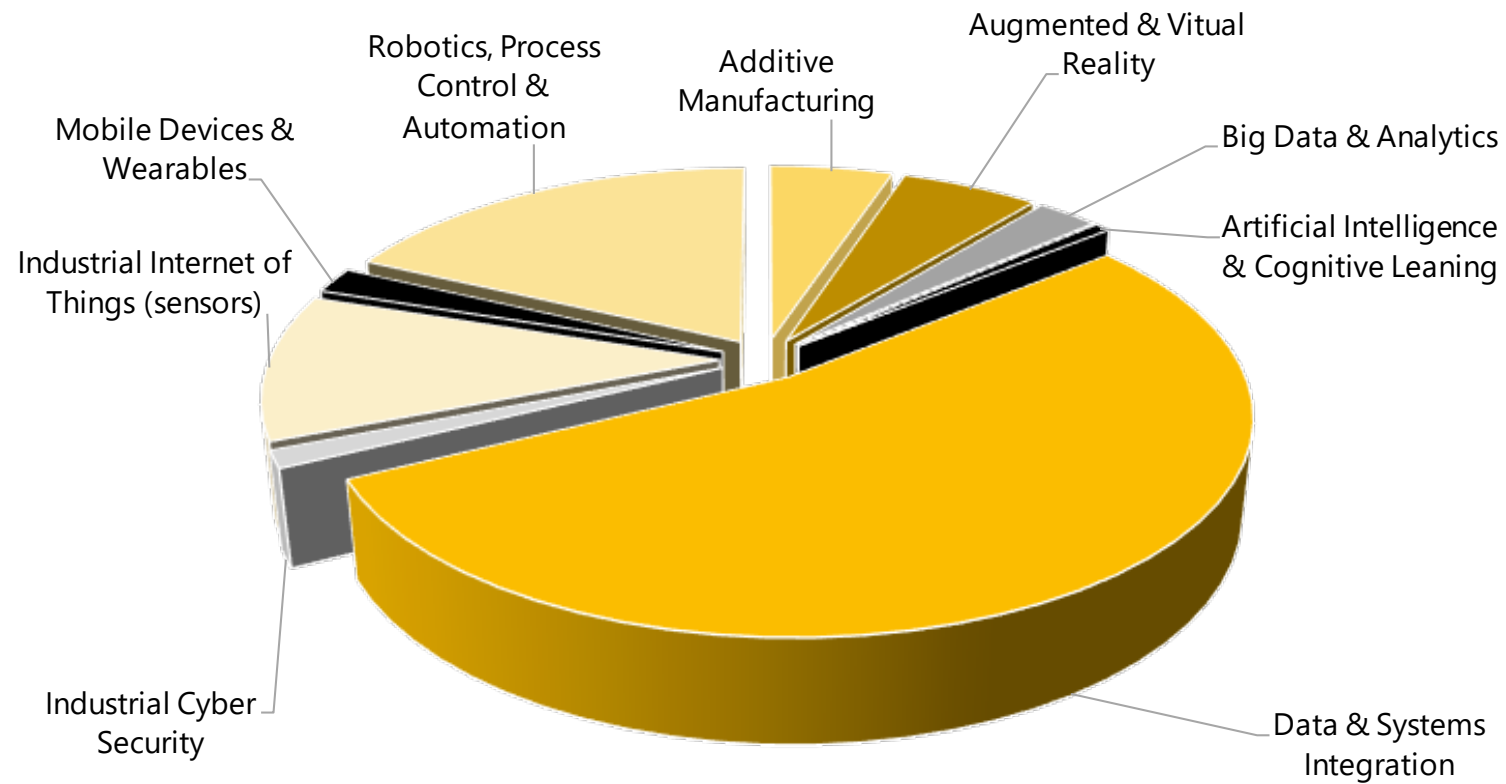
New to firm innovation

- In Process Verification (IPV) – 100% visual inspection
- Implementing robots and cobots
- Integrating/implementing systems – CRM, MRP, MES
- Implementing systems to automate workflow of internal processes
- Measuring and optimisation asset utilisation
- Measuring and reducing energy consumption
- Automating manufacturing operations - CNC
- Product identification and traceability – laser etching, bar coding

New to market innovation

- 3D Scanning of customer applications to design customer specific parts quickly
- Direct Laser Metal Sintering to create medical parts for near immediate fitment to the body.
- On-line customer configurators – Make-to-Order including production scheduling & inventory management for immediate order placement & cash.
- Scan-Design-Print-Ship
- Manufacturing process changes to enable the use of new materials, enhancing competitive positioning

Types of projects supported by Made Smarter



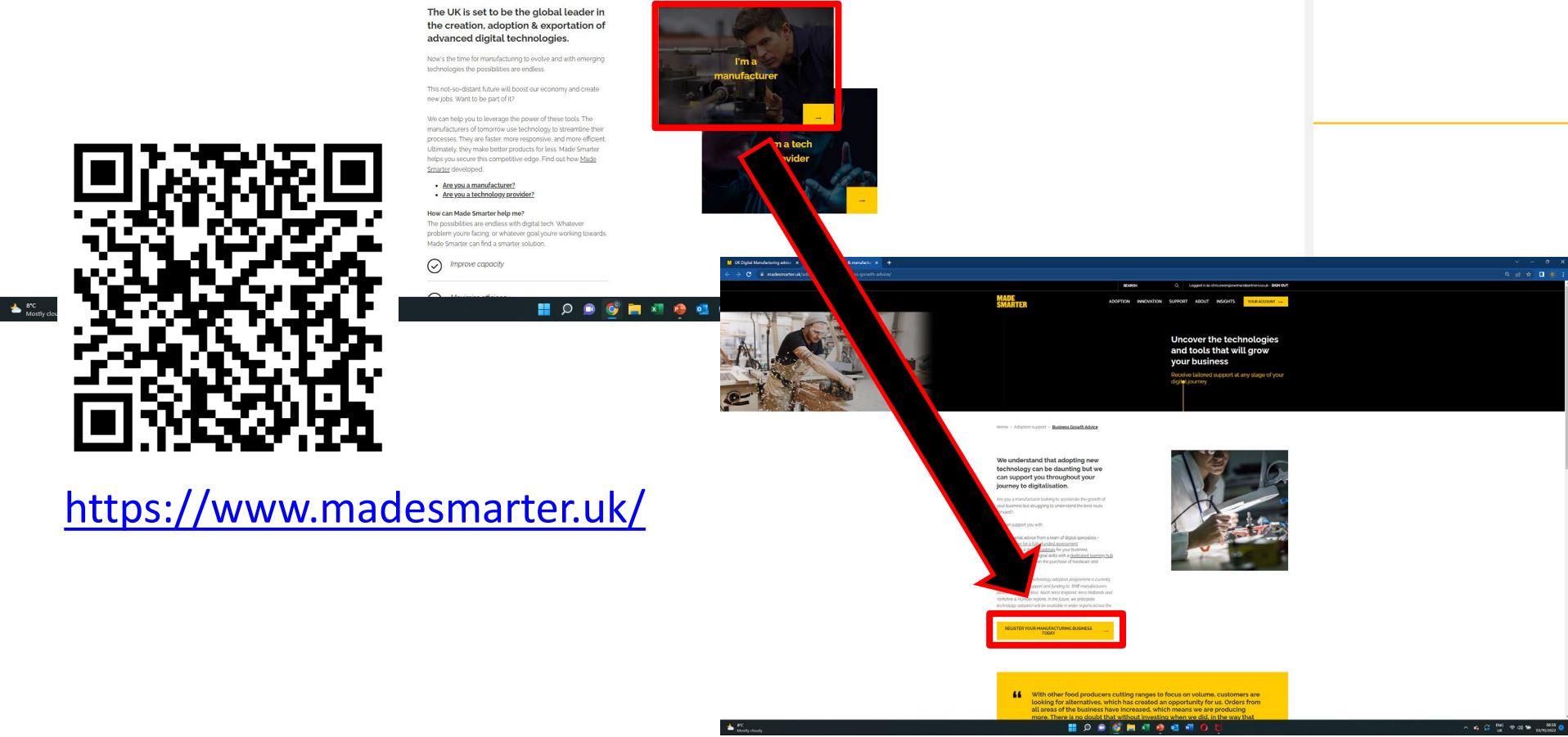
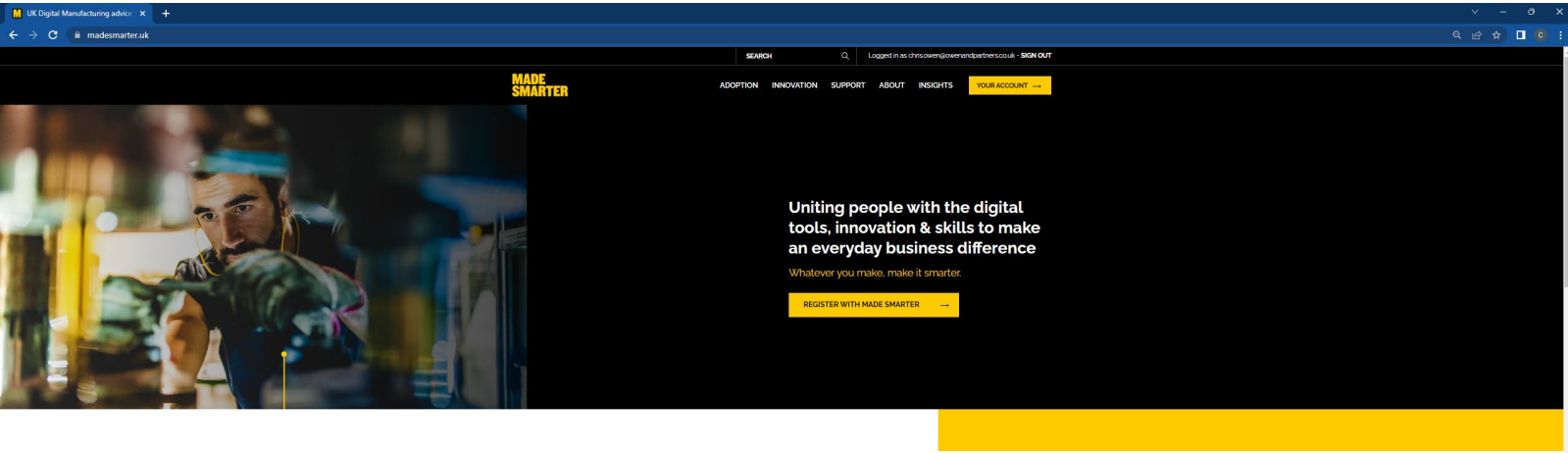
Become part of the
Made Smarter
Manufacturing
Community today.

Sign up and get the
support you need to
digitally transform
your business.



Get involved

How to make an expression of interest

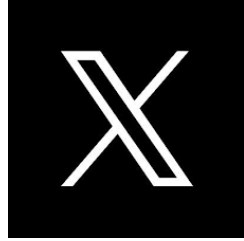


Get involved

Connect with us



company/made-smarter-east-midlands



@MadeSmarterEM



<https://www.facebook.com/MadeSmarterEM>

- News
- Events – e.g. Technology Transfer Workshops
- Case studies
- Advice
- Helpful links to all things digital



Get set for the future. **Now**

Q & A

Thank you for your attention

Join Made Smarter

Dr Chris Owen chris.owen@owenandpartners.co.uk
Programme Director

**MADE
SMARTER**

Support for Manufacturers from the Banking Sector

Garry Wilkinson, NatWest



Support for Manufacturers from the Banking Sector

Garry Wilkinson, Manufacturing Specialist - NatWest

6th June 2024



TOMORROW BEGINS TODAY

Scale and depth of our involvement



NatWest

Large and
Mid
Corporates



SMEs

50k customers	£17bn* of lending across the sector <small>* As at Dec 2023</small>	26% leading market share* <small>* Experian July 2023</small>
Specialist Manufacturing Relationship Managers	150+ Manufacturing Climate Accredited Managers (University of Edinburgh)	Dedicated Large Corporate Industrial's team
Partnership with key industry bodies, including Make UK and High Value Manufacturing Catapult (HVMC)	Sector-specific thought leadership articles through NatWest Business Insight Hub	Manufacturing Events throughout the UK

FINANCE: OPENING DOORS TO INVESTMENT IN MANUFACTURING



In partnership with



KEY FINDINGS

**IMPROVED ACCESS
TO FINANCE**
COULD ADD AN ADDITIONAL
£9.2BN
OF INVESTMENT
OVER THE NEXT 12 MONTHS



THE MARKET FOR
ASSET FINANCE
HAS GROWN BY
7%
IN THE LAST YEAR



MANUFACTURERS ARE THE
2ND BIGGEST
CLAIMERS OF
**R&D TAX
CREDITS**



WITHOUT ACCESS TO FINANCE,
70% OF MANUFACTURERS SAY
**SOME INVESTMENTS
WOULD NOT HAVE HAPPENED**



**MORE THAN
1/2** **REMAIN UNAWARE**
OF MANY PUBLIC SOURCES OF SUPPORT

NEARLY 7/10 BELIEVE THAT GOVERNMENT SHOULD FOCUS ON
CLOSING THE INFORMATION GAP
USING DIGITAL TECHNOLOGIES TO CENTRALISE SOURCES OF SUPPORT

27%
**OF MANUFACTURERS
USE FINANCE TO EXPAND
INTO NEW MARKETS**


MORE THAN 1/2 
**USE FINANCE TO INVEST
IN PLANT & MACHINERY**


**UNLOCKING ACCESS TO FINANCE
COULD LEAD TO AN ADDITIONAL
£9.2BN²⁰
IN INVESTMENT
BY MANUFACTURERS** 


31%
**OF MANUFACTURERS
ACCESS FINANCE FOR
INNOVATION**

ACCESS TO FINANCE

Limited access to finance (whether that limitation is real or perceived) is a challenge that has created obstacles to growth for many businesses for over a decade now, despite historically low interest rates. Over time, many businesses in the UK have built into their psyches an aversion to risk which places greater weight on the cost of finance, rather than the opportunities finance can create.

27% 
**UTILISED FINANCE TO
INCREASE INVESTMENT
IN ENERGY EFFICIENCY**

40% 
**USED FINANCE TO
SUPPORT INVESTMENT
IN ROBOTICS
AND AUTOMATION**

87% 
**OF MANUFACTURERS
WILL REQUIRE ACCESS TO FINANCE
TO MEET THEIR INVESTMENT
PLANS IN THE NEXT 2 YEARS**


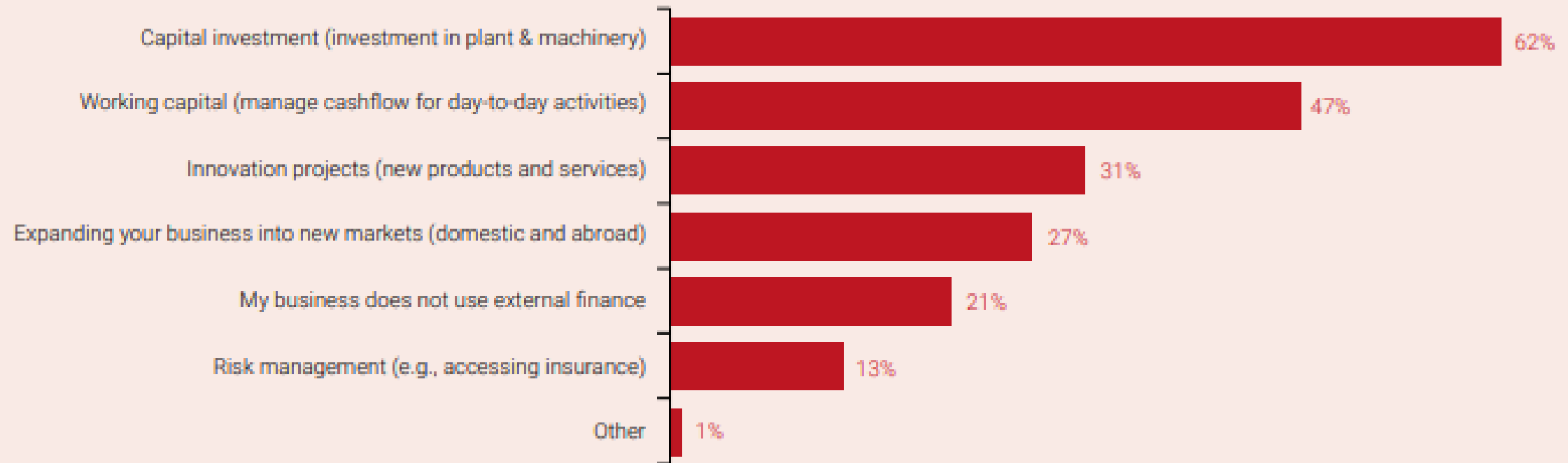
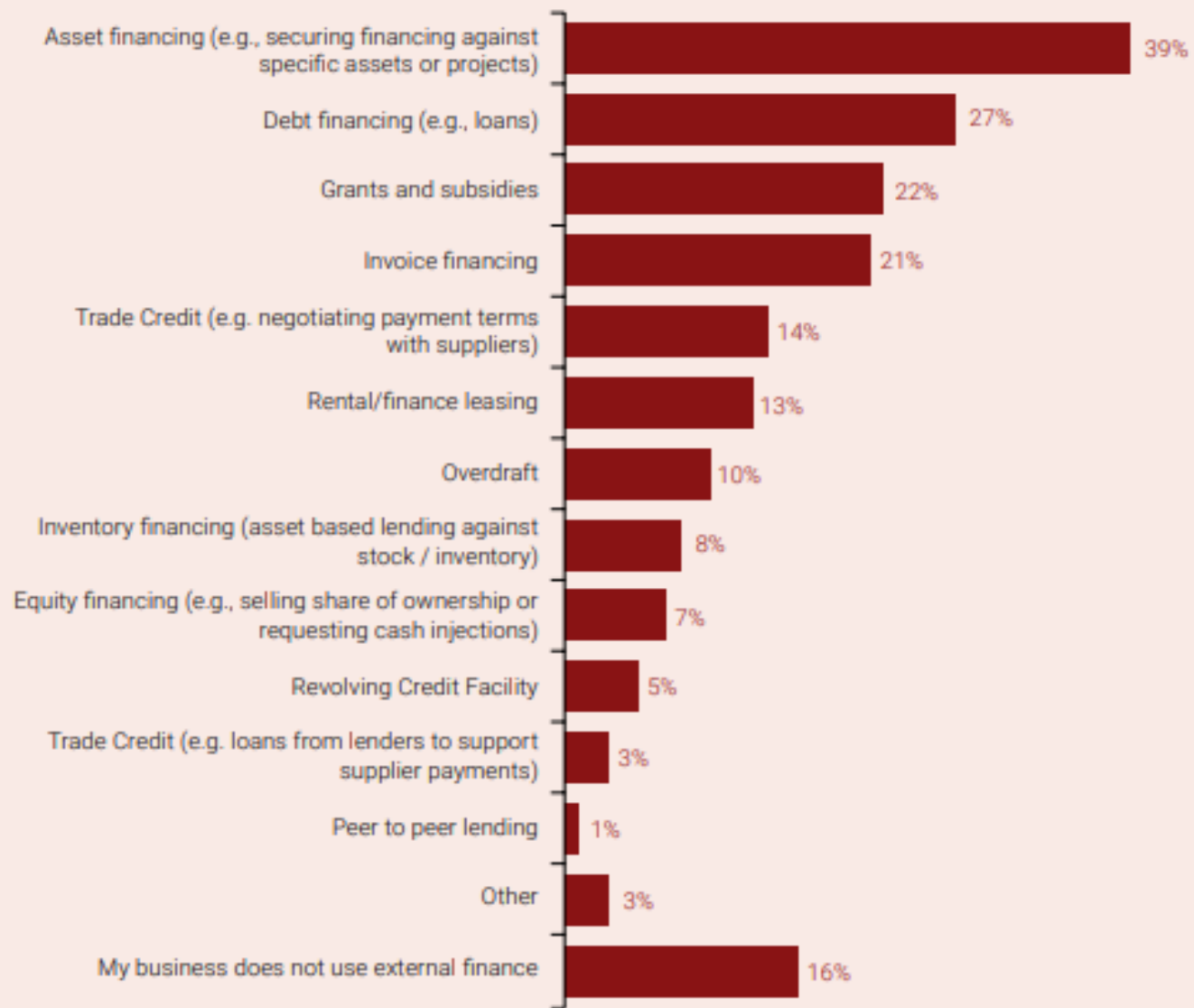
70% OF 
**MANUFACTURERS
SAY SOME OR MOST
INVESTMENTS
WOULD NOT HAVE TAKEN PLACE
WITHOUT ACCESS TO FINANCE**

Chart 1 and 2 – Manufacturers use finance to invest in capital, support day to day costs, increase innovation and access the most relevant forms of finance to meet these needs

% share of manufacturers citing what they access finance for, and what types of finance they use





Source: Make UK/NatWest Future Finance survey (2024)

Helping you build a future fit business

Energy efficiency & sustainability

Helping customers to **reduce their energy costs** which in turn can help them to become more **sustainable**.



How

- £1bn in additional lending to UK Manufacturing to support the Net Zero transition by 2030
- Carbon Planner Tool
- Digital Energy Tools
- Sustainable Finance

Supply chain resiliency & boosting global trade

Helping customers to **mitigate** against **supply chain volatility** whilst boosting manufacturers opportunity to **grow globally**



How

- Working capital solutions to support management of stock and debtors
- Trade loan extensions (Red Sea issues)
- Growing Globally Manufacturing webinar (Feb 28th)

Digitalisation & automation

Helping customers to drive **greater efficiencies, productivity** and **reductions of costs** across their business. In addition to tackling the **ongoing skills and labour challenge**.



How

- Lombard Asset Finance unlocking investment
- Mentor supporting with training and H&S procedures
- Robotics and Automation Insights Series
- Round tables with MTC/HVMC
- AI/Digitalisation webinar (Q3)

Energy help and support

Worried about rising energy costs?

Actions that could help with reducing costs



Identify energy savings



Explore Solar



Reduce costs with Voltage Optimisation



Switch to a sustainable tariff

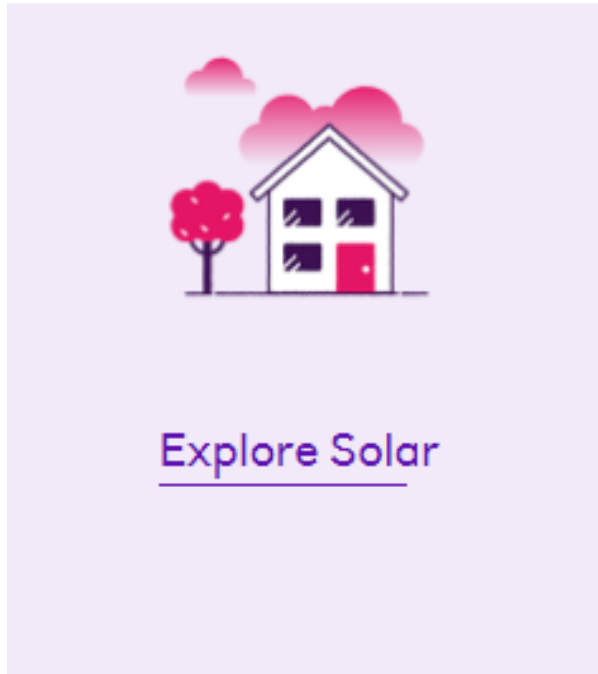


Fund your sustainable transition



Access additional resources

Energy Help & Support



- [Solar Panel Potential | NatWest \(d-cat.co.uk\)](https://www.natwest.co.uk/dcat/solar-panel-potential)

Could cutting your carbon, cut your costs?

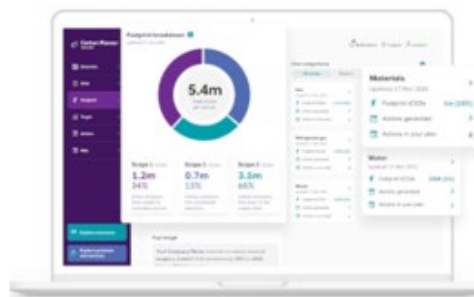
Discover a more sustainable future with NatWest Carbon Planner

Reducing emissions for your business is challenging. With limited resources and multiple priorities, it can be hard to decide where to focus your efforts.

Carbon Planner is free and could support you to become a more sustainable and climate conscious organisation, and help you to identify potential cost and carbon savings too. Use it to measure your carbon footprint by answering a few questions, get tailored actions and start building a plan to reduce your emissions.



Sign up to Carbon Planner



How it works

Give us a few details to help us work out your estimated carbon footprint.



Set targets to build an action plan to reduce your emissions. We'll suggest where to focus your efforts for the biggest impact.



Explore products and resources that could support you with actions which could reduce your carbon emissions, cut costs and help you to achieve your targets.



Use the insight gained from the tool to share your climate journey within your organisation.



Who's it for?

While any UK business could use the tool, you'll get the most from it if:

- you're able to access it on a desktop computer
- you're interested in taking action to reduce your carbon emissions



Thank you

Manufacturing Insights



Finance for Manufacturing
Report



Energy Help & Support



NatWest

garry.wilkinson@natwest.com / 07789 946166

TOMORROW BEGINS TODAY

Refreshments and Networking

Back at 10.20



The Future of R&D Tax Relief

Julia Clarke, Wright Vigar



The Future of R&D Tax Relief

The rules they are a-changin’

A history lesson

2000

- R&D tax relief for SMEs introduced
- Enhanced deduction (75%)
- Payable credit for loss-makers

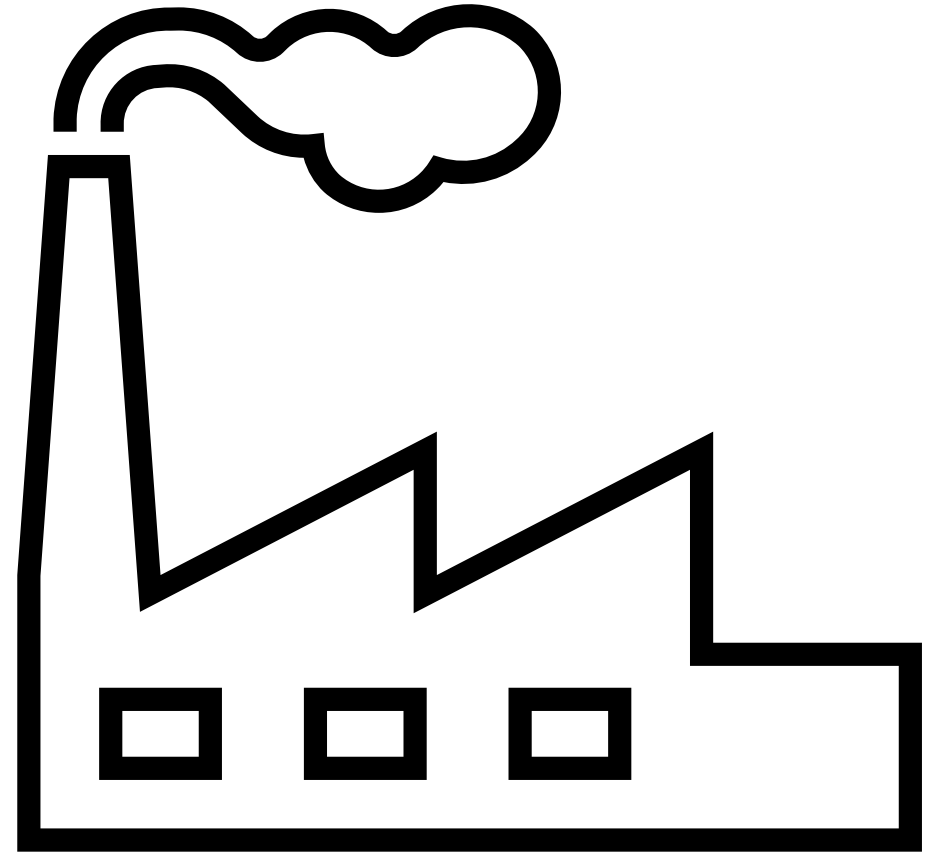
2002

- Large company scheme introduced
- Enhanced deduction (30%)
- No payable tax credit option

Introduction of RDEC

2013

- RDEC “above the line credit” scheme introduced
- Large companies could use RDEC or large company scheme for three years
- 31/3/16 large company scheme abolished



How RDEC works

- Multiply qualifying expenditure by the RDEC rate (20%)
- This is taxable income
- Credit can be deducted from tax liability
- Where company is loss making, credit can be surrendered for a repayable credit



April 2024 – New Merged Scheme

- APs beginning on or after 1/4/24
- SME scheme no longer available
- HMRC – best features or both SME and RDEC schemes
- Works like RDEC



2023	2024
SME scheme	Merged RDEC scheme – all sizes of company
Knowledge Intensive SME scheme	Enhanced R&D intensive support
RDEC for large companies and SMEs who cannot claim under SME scheme	

Comparing relief

	SME from 1/4/2023	RDEC from 1/4/2023	Merged scheme APs starting on or after 1/4/24
Profitable company	16.34% - 21.5%	15% - 16.2%	15% - 16.2%
Loss making company	18.6%	15%	16.2%
R&D intensive	27%	-	27% SME only
Repayable credit cap	£20,000 plus 3 x PAYE and NIC	Expenditure on R&D workers' PAYE and NIC	£20,000 plus 3 x PAYE and NIC

Qualifying expenditure

SME scheme	RDEC	Merged scheme
Staffing costs Salary, Class 1 NIC, pension contributions	Staffing costs	Staffing costs
Externally provided workers (65%)	Externally provided workers (65%)	UK externally provided workers (65%)
Consumable items	Consumable items	Consumable items
Software	Software	Software
Sub-contacted R&D (65%)	Only to qualifying bodies (e.g. Universities, charities) or individuals	UK Sub-contracted R&D (65%)
Subsidised expenditure not qualifying	Subsidised expenditure qualifying	Subsidised expenditure qualifying

Changes from 1/4/2023

- SME scheme:
 - Profit makers - 86% expenditure enhancement (was 130%)
 - Loss makers - 86% uplift with 10% repayable credit on surrenderable losses (was 130% uplift and 14.5% credit)
- Knowledge intensive SMEs 86% uplift with 14.5% repayable credit on surrenderable losses
- RDEC scheme:
 - 20% tax credit giving 15%-16.2% benefit (was 13% tax credit giving 10.53% benefit)



Knowledge intensive SME

- Announced at Spring budget 2023
- Applies to R&D expenditure from 1/4/23
- Company is knowledge intensive if:
 - R&D expenditure > 40% of total expenditure



Expansion of relief – APs beginning on or after 1/4/2023

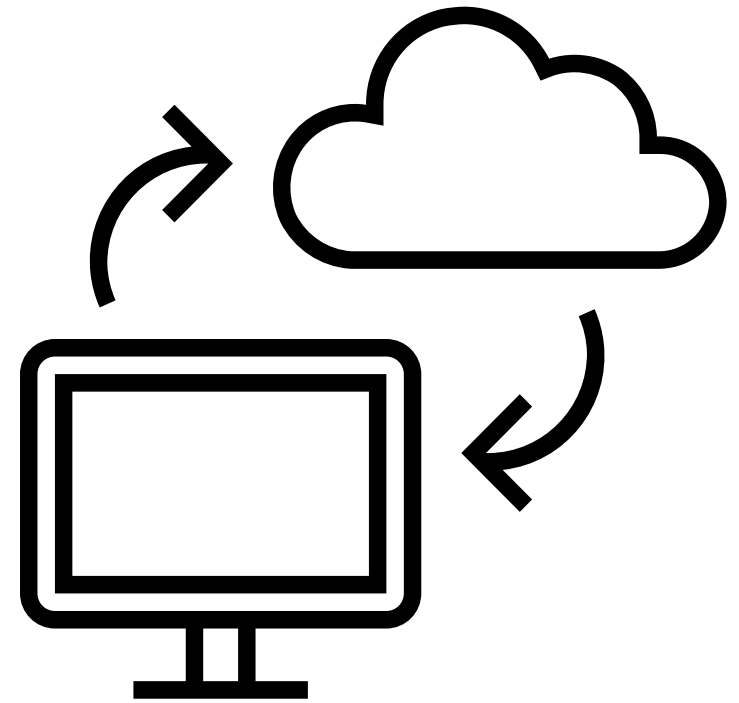
From 1/4/23 Definition of R&D specifies that mathematical advances are treated as science

Potential to claim for Datasets

- Licences to access and use digital data
- Not purchases of data as deemed to be capital expenditure

Potential to claim for Cloud computing

- Data storage
- Hardware facilities
- Operating systems
- Software platforms
- Only to the extent used in qualifying R&D



Administrative changes 1/4/23

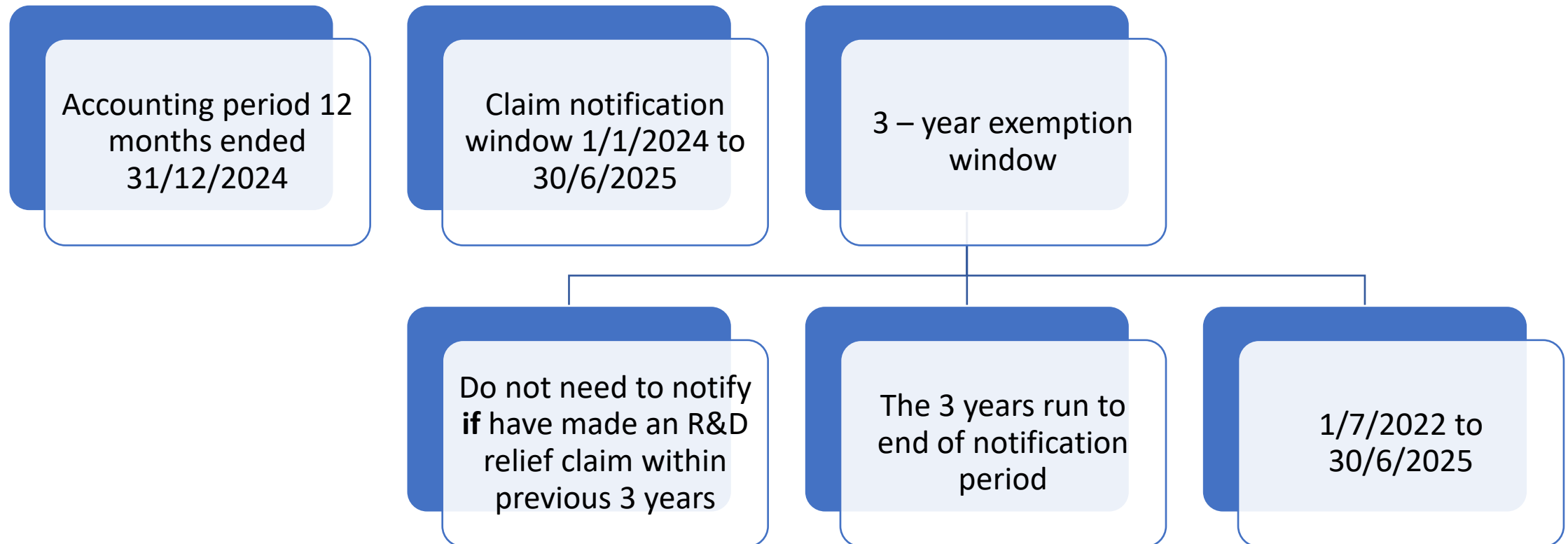
Online advance notification of claim

Made by a
representative of
the company or an
agent

At any time from
start of AP to 6
months after end
of AP

Exemption from
notifying if have
made claim in 3-
year window

Example



Additional information form

Claims filed from 8/8/2023

Must be filed before CT600 claiming relief

For long period of account will need two

Filed by company representative or agent

Additional information form requirements

Senior officer responsible for claim – name and contact details

Any agent who has assisted with the claim – name and contact details

Amount of qualifying expenditure by category

Number of projects to which this relates

Number of projects detailed

- 1 -3 projects – describe all
- 4 or more projects – describe lower of:
 - 10 projects and
 - Projects accounting for at least 50% of qualifying expenditure

Project description questions

What is the main field of **science or technology**

What was the baseline level of science or technology that the company planned to advance

What advance in scientific or technological knowledge did the company aim to achieve

What scientific or technological uncertainties the company faced

How did your company seek to overcome these uncertainties

Amount of qualifying expenditure applying to each project

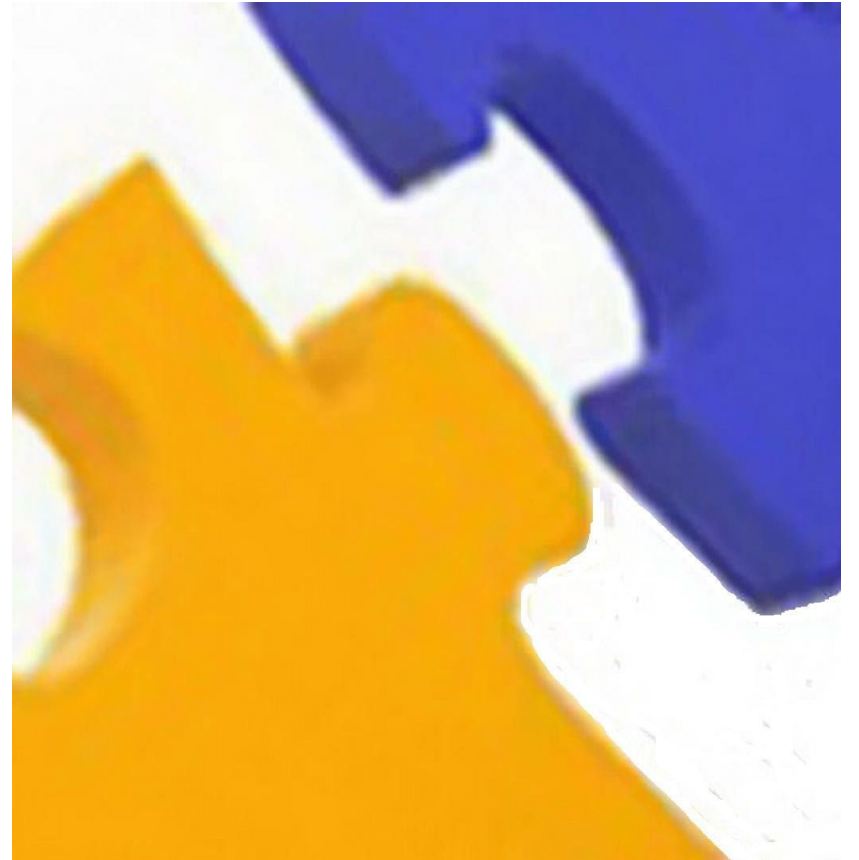


2024

The merged scheme

Merged Scheme - features

- RDEC – above the line credit
- Rate is 20%
- Can claim sub-contracted expenditure
- Subsidised expenditure
- Overseas expenditure restricted
- Cap on tax credit reclaims follows more generous SME scheme



Subcontracted expenditure

Previously

- SME's could claim under RDEC for R&D that had been subcontracted to them
- The large company would not have been able to make any claim

Under new merged scheme

- Only the company doing the sub-contracting can make a claim
- That company needs to be able to show that they intended or contemplated that R&D would be necessary to fulfill the contract



Sub-contracted R&D Deciding factors

- Intellectual property ownership
- Financial risk in undertaking the work
- Autonomy in undertaking the project
- Decision making process



Subsidised expenditure

- Previously - SMEs could only claim subsidised expenditure under the RDEC scheme
- Any SME project that received state aid was disqualified from receiving any R&D relief
- Under new scheme – no restrictions



Restriction on work carried out overseas

- Accounting periods beginning on or after 1/4/2024
- Payments for sub-contracted R&D must either be:
 - For work carried out in the UK **OR**
 - Work carried out outside the UK where the following circumstances apply:
 - Conditions necessary for the R&D are not available in the UK
 - Those conditions are present in the location where the R&D is undertaken
 - It would be wholly unreasonable for the company to replicate the conditions in the UK



Overseas restriction - externally provided workers

- Earnings of externally provided worker must be subject to PAYE and NIC
 - Either by the company or
 - By the staff provider
- The same limited exceptions apply for EPWs carrying out work overseas:
 - Conditions necessary for the R&D are not available in the UK
 - Those conditions are present in the location where the R&D is undertaken
 - It would be wholly unreasonable for the company to replicate the conditions in the UK





Conditions that will not make overseas R&D qualify

- Cost of the R&D activity
- Availability of workers

Cap on tax credit claims

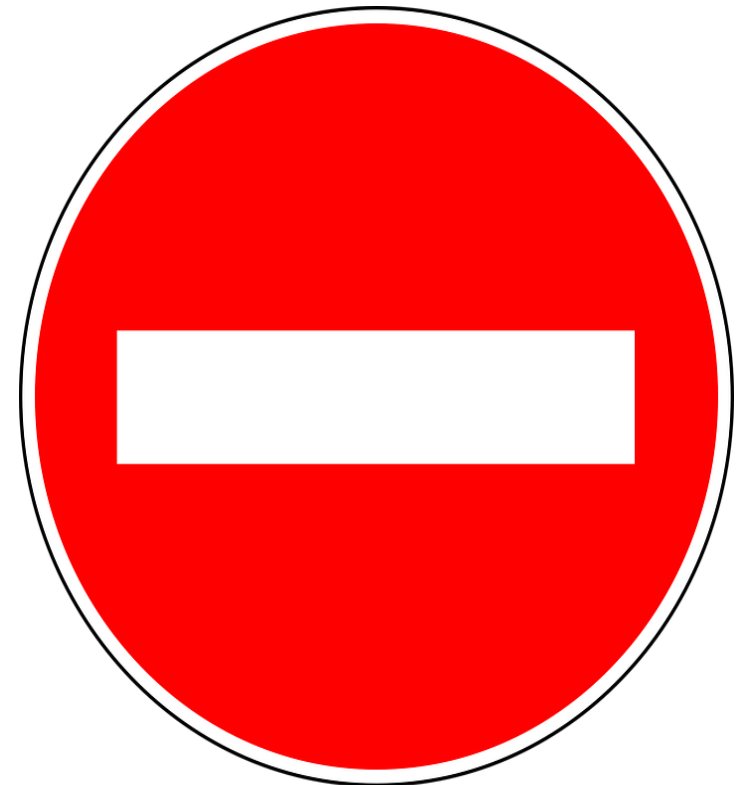
- Repayable credit is first calculated on surrenderable losses
- But limited to:
 - £20,000 plus
 - 300% of PAYE and NIC

Under merged scheme

- Excess over the cap is carried forward and treated as RDEC due for next period

Under enhanced R&D intensive support

- Any claim for tax credit in excess of cap is invalid



Exemption from tax credit cap

Need to meet two conditions – A and B

A

- Company is creating or preparing to create relevant IP
- The activities are carried out wholly or mainly by employees

B

- Sum of qualifying expenditure on related subcontract and related EPWs is less than 15% of qualifying R&D spend for the period



Introducing ERIS



- Enhanced R&D Intensive Support
- Accounting periods beginning on or after 1/4/24
- Need to be an SME
- Need to be loss making **before** the additional deduction
- Meet the intensity condition

Definition of an SME

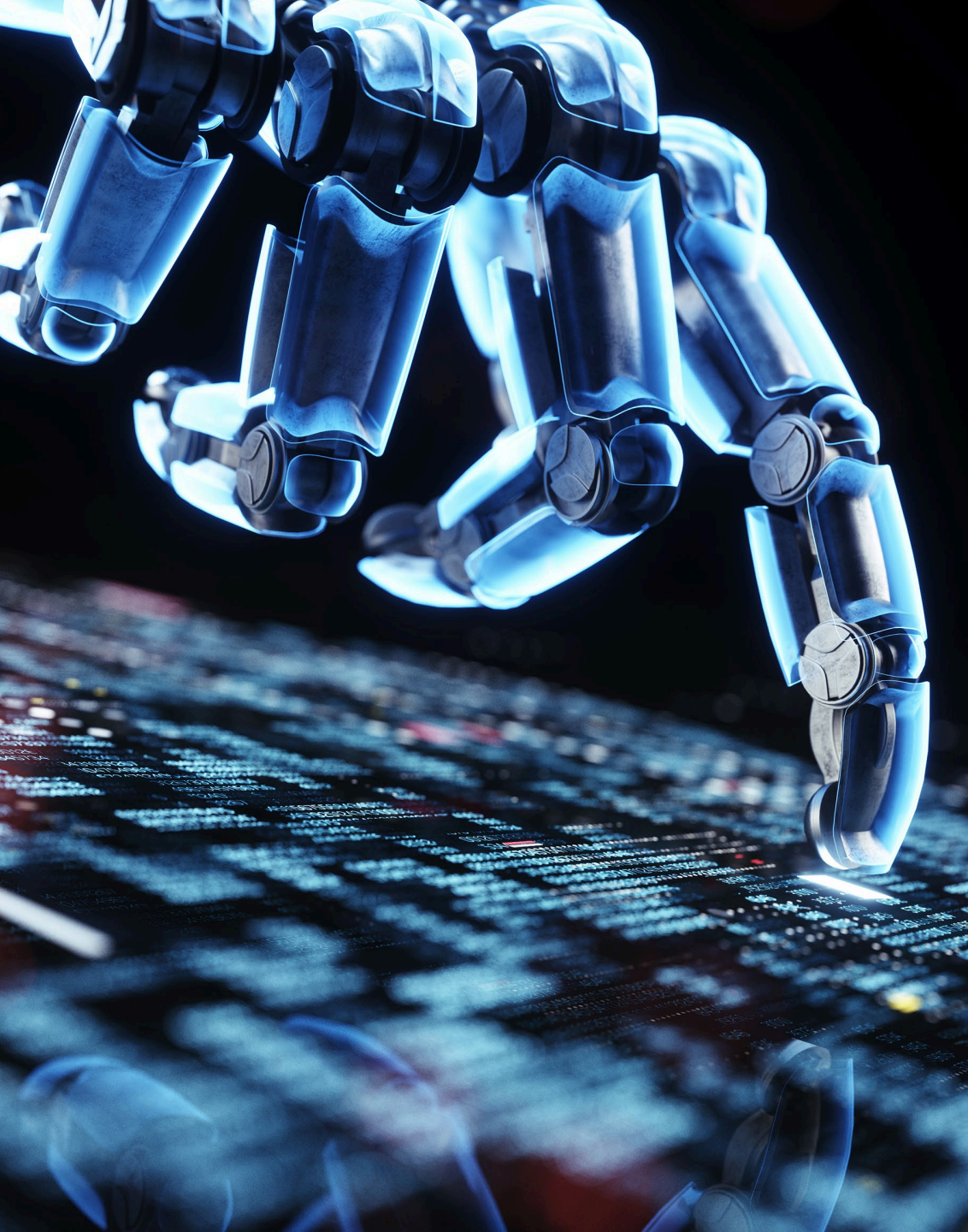
Less than 500 employees



And either:

Annual turnover <
€100 million or

Balance sheet
total < €86 million



Intensity condition

- Relevant R&D expenditure at least 30% of total relevant expenditure (was 40%)
- Include connected companies – worldwide
- Relevant R&D expenditure is expenditure on which R&D relief **could** be claimed
- Total relevant expenditure is expenditure brought into account under GAAP for the period
- P&L expenditure excluding disallowable amortisation of an intangible asset and recharges from connected companies

Relief under ERS

- Enhanced deduction - 86% of qualifying costs deducted in tax calculation
- Loss-making SMEs can claim payable tax credit of 14.5% of surrendered loss
- Need to be loss-making before enhanced deduction





How to approach making a claim

- Establish that the company has undertaken an R&D project
- Consider whether you need to submit a claim notification form and the deadline
- Consider what scheme can you claim under
 - Accounting periods beginning before 1/4/24
 - SME scheme
 - SME knowledge intensive from 1/4/2023
 - RDEC
 - Accounting periods beginning on or after 1/4/24
 - Merged RDEC
 - SME knowledge intensive



Good Luck!

Let us know if we can help

Any questions?

Julia.Clarke@wrightvigar.co.uk



National Grant Funding for Manufacturing

Stephen Morris, Innovate UK
Business Connect



Innovate UK Business Connect: Connecting for Positive Change

Dr Stephen Morris

Knowledge Transfer Manager – Smart Materials and Technical Textiles

stephen.morris@iuk.ktn-uk.org

6th June 2024



**Innovate
UK**

UK Research and Innovation

We work with the government to invest over £7 billion a year in research and innovation by partnering with academia and industry to make the impossible, possible.

Through the UK's nine leading academic and industrial funding councils, we create **knowledge with impact**.

- 7 Research Councils
- 1 Research England
- 1 Innovate UK



**UK Research
and Innovation**

Innovate UK

- The UK's innovation agency.
- Support business-led innovation in all sectors, technologies and UK regions.
- Help UK businesses grow through continuous development and commercialisation of products, processes and services.

We Inspire | We Involve | We Invest



**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

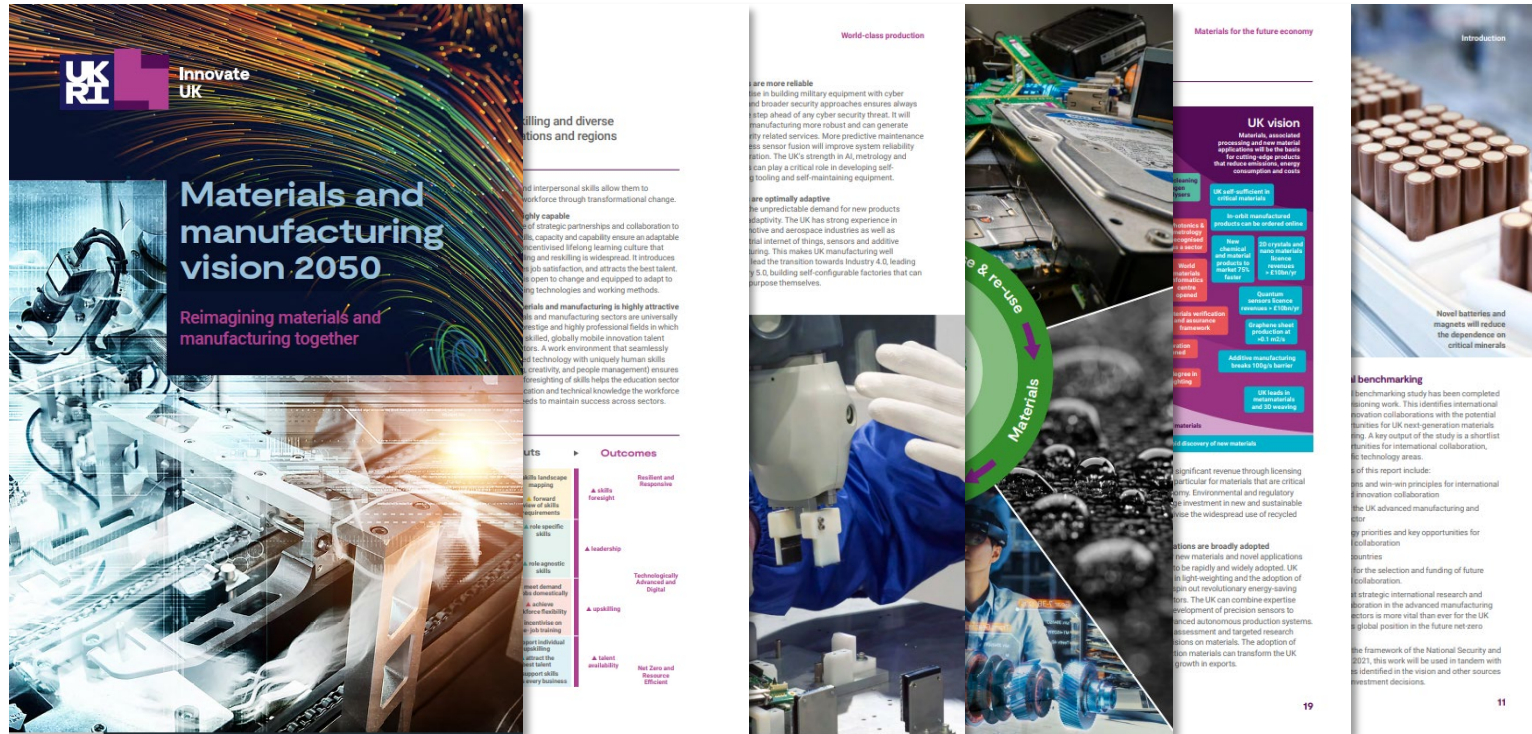
A photograph of an offshore wind farm with several white wind turbines stretching across a blue sea under a clear sky. The perspective is from a low angle, looking down the line of turbines.

Innovate UK Business Connect and you

- Signpost companies to identify and address funding
- Provide deep expertise to make Connections & Networks
- Drive powerful connections with businesses
- Assist companies in forming partnerships/collaborations/projects
- Advise companies in their submission
- Light touch reviews
- Guidance documents, e.g. Good Application Guide
- Highlight key features of a good proposal
- Provide recommendations, e.g. proposals that excites and inspires
- Invite you to collaboration mechanisms & events

UK Materials and Manufacturing Vision 2050

Now is the time to reimagine materials and manufacturing



Scan to download
the report



Learn more about this significant report here
www.ukri.org/reimagine-manufacturing

Reimagining Materials and Manufacturing

Sustainable bio-based Materials and Manufacturing (SusBioMM)

The sustainable bio-based materials and manufacture programme seeks to address the challenge of developing innovations in sustainable and scalable biomanufacturing processes.

Resource Efficiency for Materials and Manufacturing (REforMM)

The programme aims for the UK to be a leader in resource efficiency with organisations understanding the environmental, social and economic impact of the full lifecycle and thriving from adoption of resource efficient solutions which are fundamental to UK and global Net Zero ambitions.



Resource Efficiency for Materials and Manufacturing Sprints (REforMM)



Materials for the future economy

New material applications for cutting-edge products that reduce emissions, energy consumption and costs



Smart design

Effective design methods, design for resource efficiency, and design for maximum through-life value



Resilient supply chains

Sustainable feedstocks, supply chain visibility, and co-location of waste and emission streams



World-class production

Flexible production capacity, minimal material waste, high-quality products, high productivity, and full adaptivity



Longer in use and reuse

Minimising materials use and waste, practising complete traceability, and using new remanufacturing services

Sustainable Bio-based Materials and Manufacture Programme



Bio-based feedstocks

Increasing the use of bio-based feedstocks



Sustainable biotechnology

Developing alternative bio-based chemical replacements



Innovative bio-based products

Enhancing sustainability profile of biotechnology processes



Feedstock recycling

Innovative use and re-use of renewable feedstocks



Biomanufacturing

Biotechnology based manufacturing processes for sustainable and circular products

Made Smarter Innovation

- £300m cross-council challenge for the development and novel application of Industrial Digital Technologies to deliver:
 - Up to 30% productivity improvement
 - £2.3bn Gross Value Add
 - Up to 4,000 jobs
 - 4.5% reduction in CO₂ (eq)
 - 25% reduction in waste



Made Smarter Innovation



Global

- Taiwan programme launched
- Work ongoing to globalise strands of programme

£60m Collaborative R&D 4 rounds of investment

- Fast Start (£20M)
- Digital Supply Chain (£20M)
- Sustainable Smart Factory
- Robotics & Automation



£30M Research Programme

- 5 Multidisciplinary centres launched –looking at digital innovations
- Over 100 Industrial collaborators
- Interact–ESRC lead programme looking at human insights

Digital Accelerators

- Tech Start-up/SME focussed
- First Made Smarter Technology Accelerator programme completed
- Second Sustainability in Manufacturing Accelerator starting

£30m Innovation Hubs

- Digital Supply Chain Hub lead by Digital Catapult
- Smart Manufacturing Data Hub – SME focused



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Driving the Electric Revolution

- UKRI's Driving the Electric Revolution Challenge (DER), delivered by Innovate UK, represents an investment of up to £80 million over 5 years for business-led innovation projects that enable UK supply chain and manufacturing capability growth in Power Electronics, Machines & Drives (PEMD).
- Driving the Electric Revolution is enabling electrification across multiple sectors. It aims to ensure the UK leads the world in the design, development and manufacturing of Power Electronics, Machines and Drives across multiple sectors with projects that will facilitate future improvements in supply chain capability, productivity, capacity, quality, & efficiency, support the UK's continued push towards net-zero carbon, and catalyse the green economic recovery in transport, energy & industrial sectors.

For more information, contact: Sven.Knowles@iuk.ktn-uk.org

Analysis for Innovators

- Innovate UK Analysis for Innovators programme is in its 8th year, having funded 13 Rounds. The programme helps solve companies challenges with existing products, services or processes, matching them with one (or more) of nine leading measurement organisations such as TUV SUD National Engineering Laboratory, the Science Technology Facilities Council and the National Gears Metrology Lab.
- Companies apply with a Challenge and Innovate UK Business Connect helps them meet the partners best suited to solve the challenge. Once the right solution provider is identified there is then the opportunity to apply for grant funding and SME's often get the chance to apply for 100% funding for short projects.
- The programme has delivered over £650M in value to more than 260 companies completing over 450 projects so far.

For more information, contact: A4I@iuk.ktn-uk.org

Innovate UK Business Connect Innovation Exchange (iX) Background

- 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



Innovate
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Knowledge
Transfer
Partnerships

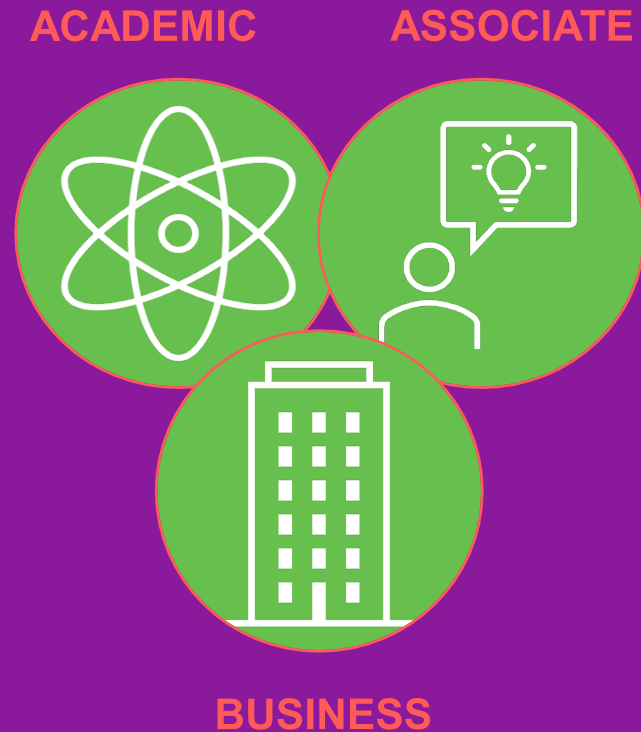
Introducing Knowledge Transfer Partnerships (KTP)

KTP is:

A **three-way partnership** that provides:

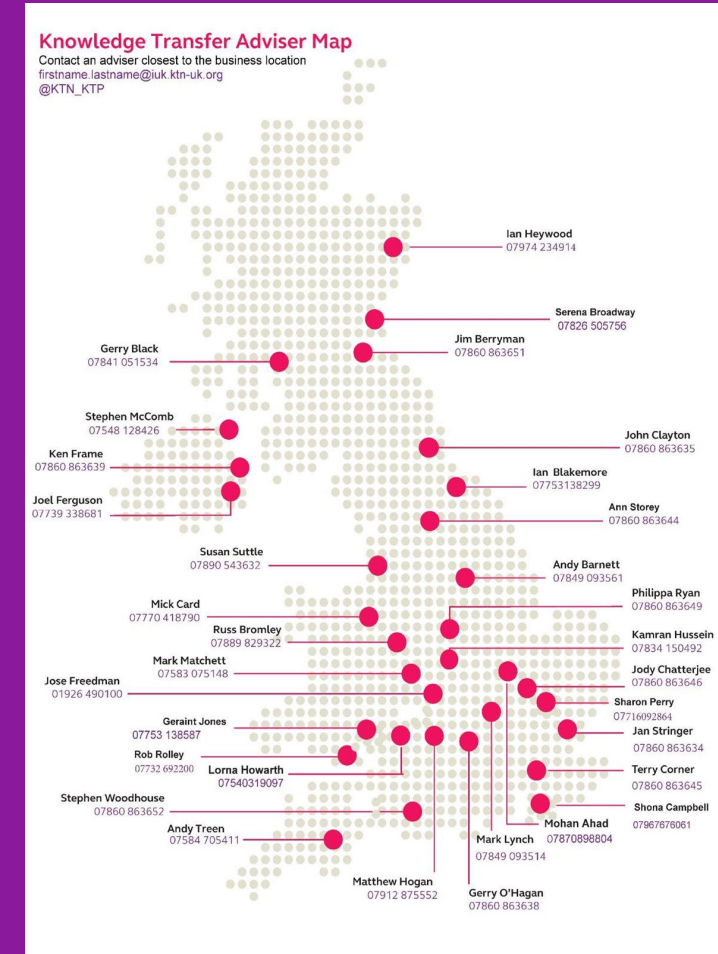
- **expertise** to innovate
- **funding** to enable
- **resource** to deliver transformational positive change

As a scheme we have been around since 1975



Knowledge Transfer Adviser (KTA) Support

- Locally based Support and Advice throughout the project lifecycle
- Mentoring for KTP Associate
- Support and monitor the project
- Interface with other Innovate UK Business Connect resources/networks/sector specialists
- Support more than 100 KBs active or interested in participating in KTPs



Events

Made Smarter Innovation Showcase

5 – 6 June 2024

[Smart Factory Expo](#)

NEC, Birmingham 

Over the past four years, the Made Smarter Innovation Challenge has dedicated over £120 million in funding into more than 60 ground-breaking projects. This investment has generated an additional £130 million+ from industry partners, fostering a collaborative ecosystem of innovation.

The Made Smarter Innovation Showcase at Smart Factory Expo this year will be a testament to these achievements

Join us at the forefront of manufacturing and meet the innovators!

Events

AI Summit

12 – 13 June 2024

Tobacco Dock, London 

The AI Summit London brings together the most forward-thinking technologists and business professionals in the UK, Europe, and beyond to explore the real-world applications of AI.

Opportunities for AI in Manufacturing: Smart sustainable factories and supply chains

14:50 Day 1

Find out more:

[Link](#)

Further events

Innovate UK Business Connect:

[Events - Innovate UK Business Connect \(ktn-uk.org\)](https://ktn-uk.org)



Innovate UK Business Connect
newsletter



Made Smarter Innovation
newsletter

Further funding opportunities

Innovate UK:

[Innovation competitions - Innovation Funding Service \(apply-for-innovation-funding.service.gov.uk\)](https://apply-for-innovation-funding.service.gov.uk)

The Innovation Hub

[Home | the innovation hub \(ukri.org\)](https://ukri.org)

Horizon Europe

Anshumaan Krishnan Ayyangar

Horizon Europe UK National Contact Point for Industry (Cluster 4)

Anshumaan.Ayyangar@IUK.UKRI.org

Louise Mothersole

Horizon Europe UK National Contact Point for Mobility (Cluster 5)

Louise.Mothersole@IUK.UKRI.org



HORIZON EUROPE

THE NEXT EU RESEARCH & INNOVATION
PROGRAMME (2021 – 2027)

The Framework Programme

€95.5bn funding agreed for 2021-2027



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Budget figures exclude UK and other Associate Country contributions

UK National Contact Points (NCPs)

Team of national advisors, appointed by the Government to support UK organisations to successfully participate in Horizon Europe by:

- Raising Awareness of the programme
- Helping you find the right Topic
- Identifying the best ways to find partners
- Navigating the EU funding & tender opportunities portal
- Developing the proposal
- Answering any other Horizon Europe related questions



<https://www.gov.uk/business-finance-support/horizon-europe-funding>



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Thank You

For more information, please get in contact:

Dr Stephen Morris

stephen.morris@iuk.ktn-uk.org

[Made Smarter Innovation Network](#)

[Reimagining Materials & Manufacturing](#)



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@weareinnovateuk

Regional Support for Innovative Manufacturing

Ian Evley, Innovate UK Business
Growth





Innovate UK Business Growth

Support to help businesses grow and scale

The Bridge, University of Lincoln : 06.06.2024



**Innovate
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**Business
Growth**



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Growth

Support for Innovative Manufacturing

Ian Evley
Innovation and Growth Specialist



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Innovate UK – Driving Business Growth

Vision: UK to be a global hub for innovation by 2035.

Built on five strategic themes:

- Future Economy
- Growth at Scale
- Global Opportunities
- Innovation Ecosystem
- Government Levers

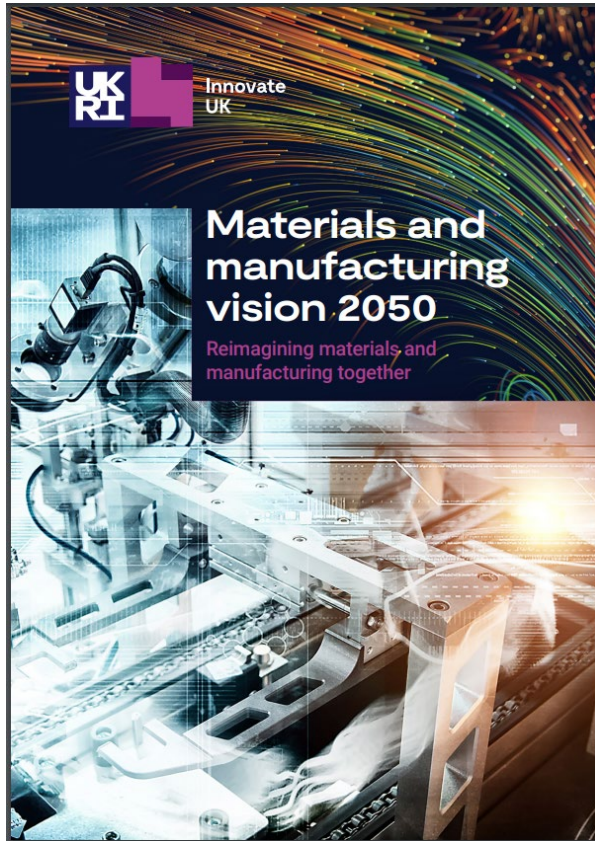
We work to:

INSPIRE innovative businesses to create value through innovation

INVOLVE talented organisations and people to create a vibrant and successful innovation ecosystem

INVEST in innovation to make a clearly tangible positive impact on the UK's economy and society

Vision 2050



Focus areas

The **core** areas are:

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

The **enabling** areas are:

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

The UK can develop world-leading and innovative sectors, and become an increasingly attractive place to manufacture goods

Materials and manufacturing accounts for 61% of all business expenditure on UK R&D and in 2019 attracted 22% of all inward foreign direct investment in the UK economy



**Innovate
UK**

Business
Growth

Materials and manufacturing vision 2050

The UK has clear potential to become a world-class destination of choice for advanced low-carbon manufacturing.

The 3 strategic imperatives will be:

- net zero and resource efficient
- resilient and responsive
- technologically advanced and digital

Key messages

UK manufacturing faces urgent challenges such as climate, resilience and productivity

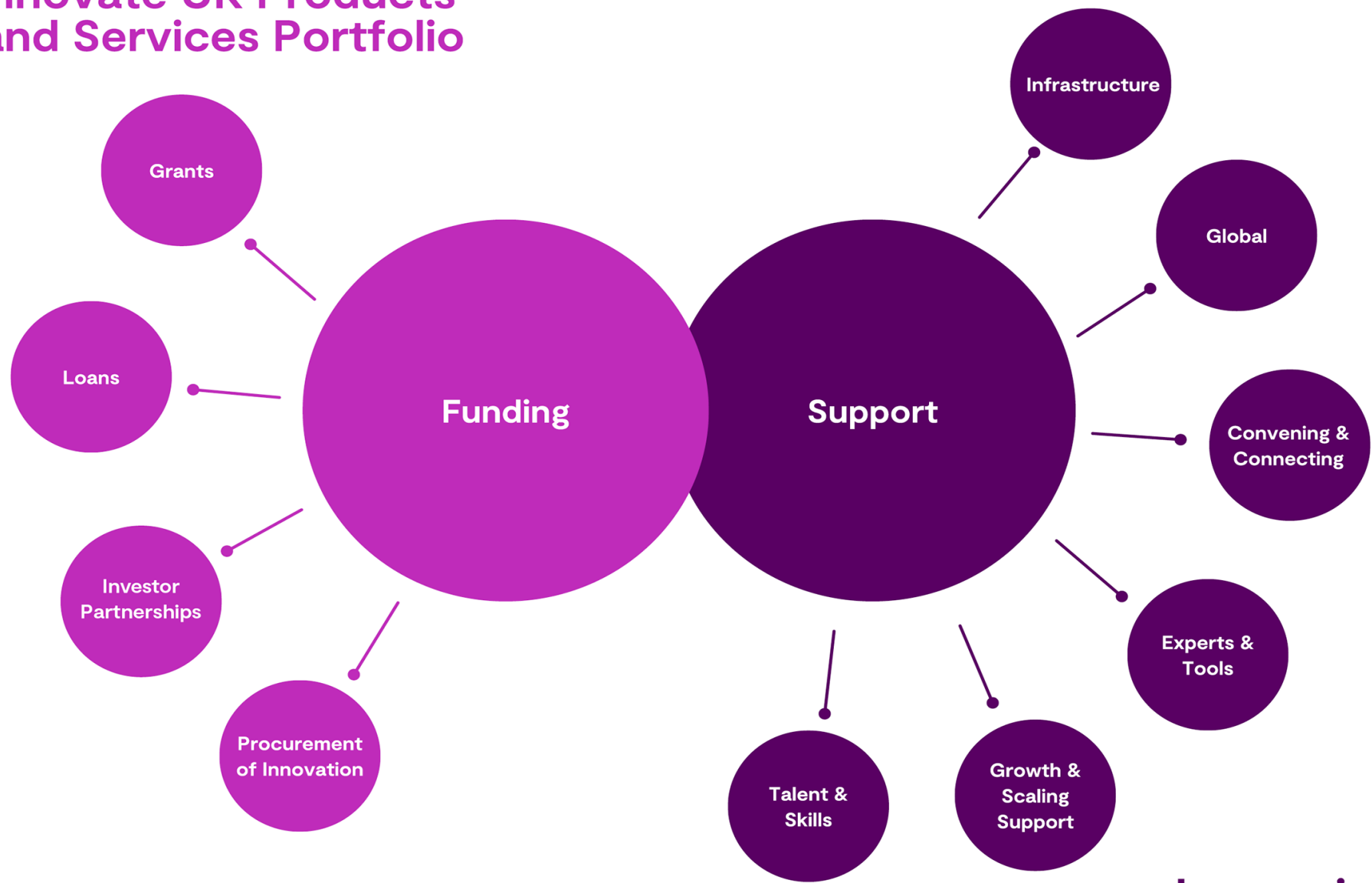
UK manufacturing offers incredibly exciting opportunities and is a great career option

UK has the talent and innovation infrastructure to realise its vision of being world-class

UK materials and manufacturing will be mission critical for our economy and society. Share your thoughts and get involved. Visit us at:

www.ukri.org/reimagine-manufacturing

Innovate UK Products and Services Portfolio





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Business
Growth

Innovate UK Business Growth

**Innovate UK's publicly-funded
business support service.**

1-2-1 tailored wrap around support.
Available to ambitious, high potential
small to medium sized innovation-
driven companies, including Innovate
UK grant winners.



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Our target clients

- Innovation-focused SMEs <250 employees
- Established and UK registered
- Growing or with Growth Potential
- From seed to scaling stage (50% CAGR)
- Management committed to business growth



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Innovate UK Business Growth

Tailored support that grows and scales ambitious innovation-focused businesses

400 innovation and growth specialists embedded in all UK regional ecosystems. We intervene at early, growth and scaling stages, with our core advisory service and enhanced Scaleup Programme, taking targeted action for:

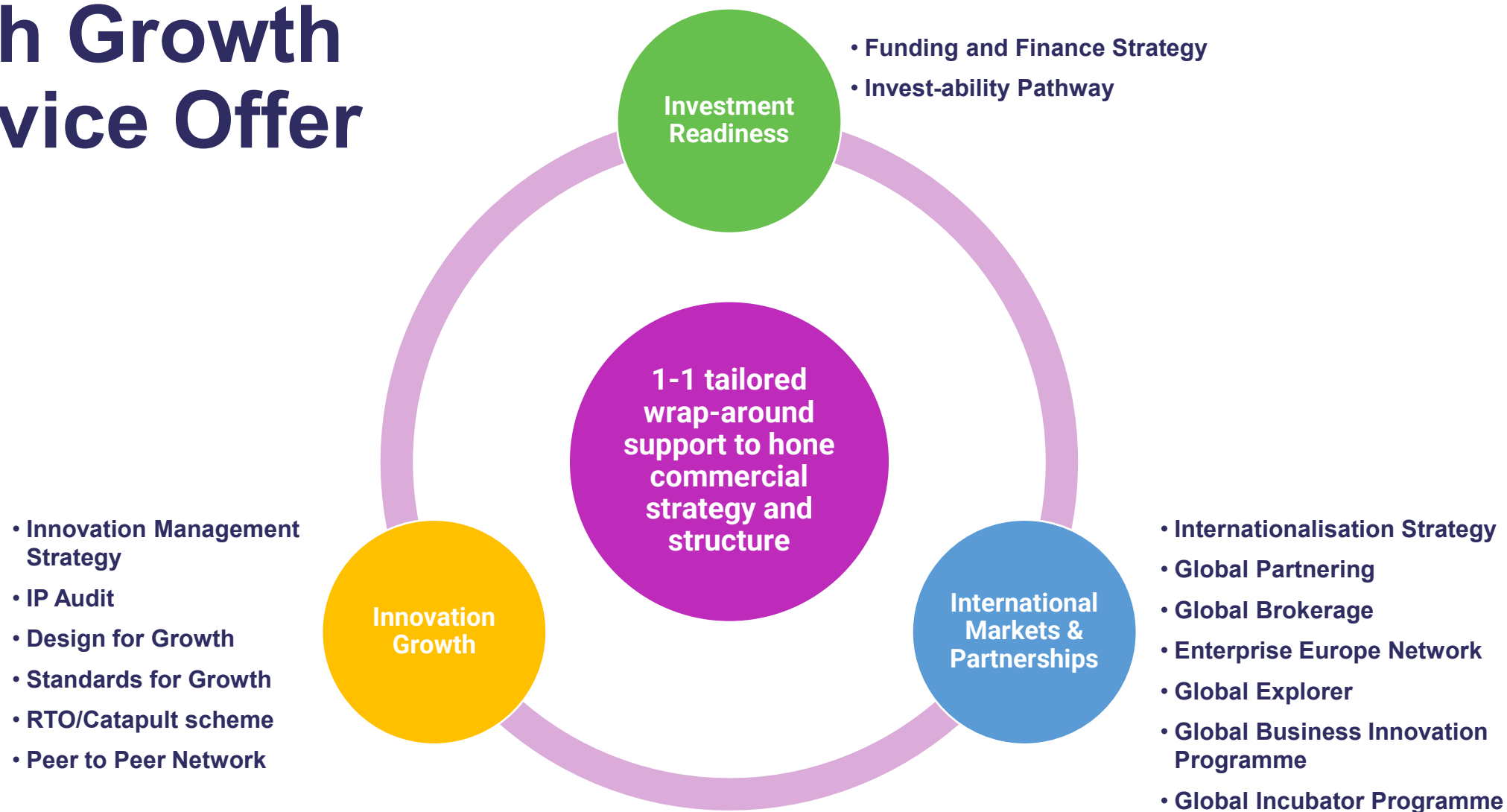
Honing
commercial
strategy &
structure

Innovation management, inc. IP & infrastructure access

Finance & funding strategy, inc. investment readiness

Expanding into international markets, inc. via EEN

High Growth Service Offer



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Innovation by Design

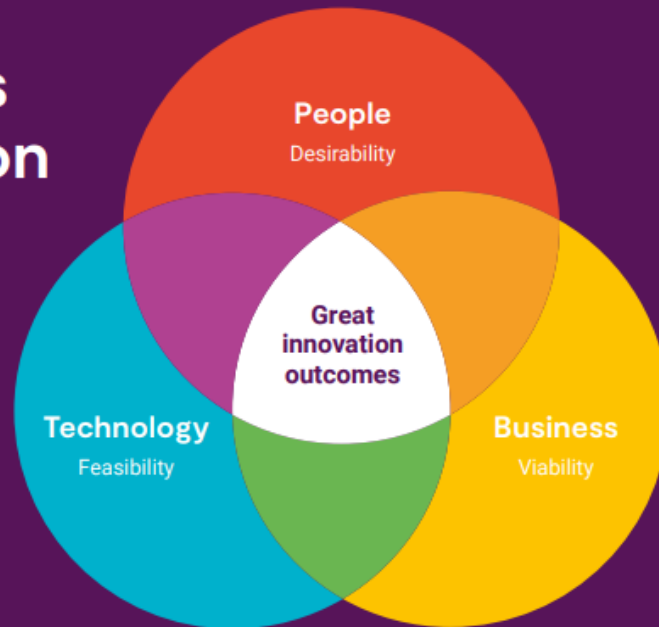
Three lenses for innovation

Great design means putting the needs, wishes and behaviours of people at the heart of the innovation process so that new ideas are truly desirable as well as being technically feasible and financially viable.

Desirability
What do people desire?

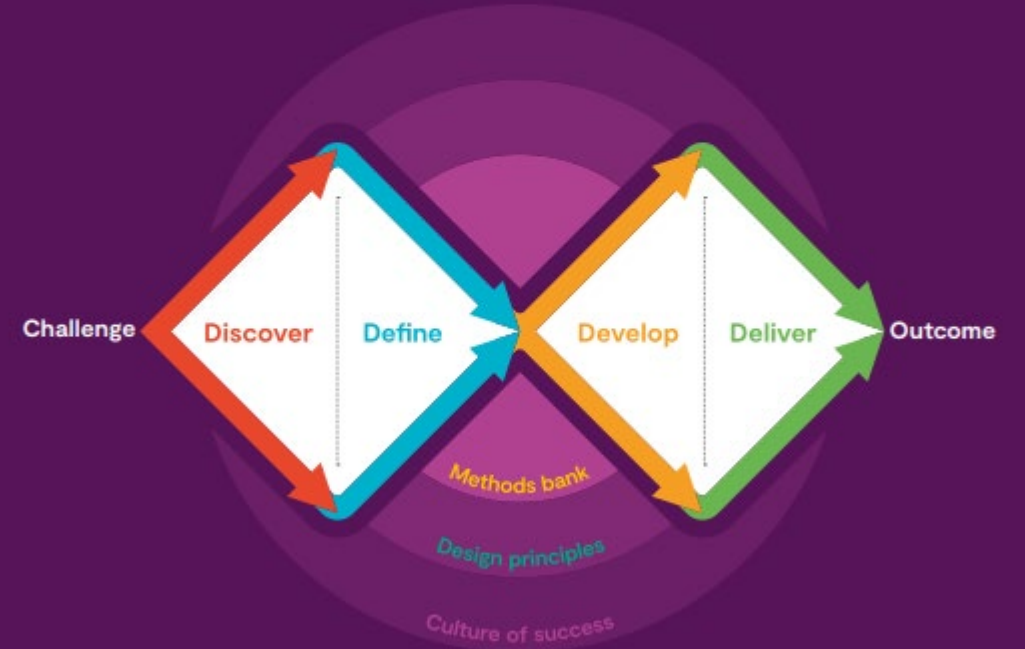
Feasibility
What is technically feasible?

Viability
What is financially viable?



Design in innovation strategy 2020-2024

A Framework for innovation: the Double-Diamond



The two diamonds represent a process for exploring an issue more widely or deeply (divergent thinking) and then taking focused action (convergent thinking).



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Growth

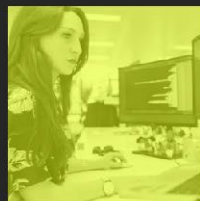


Navigating the System: Innovation Hub

the
innovation
hub.



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<https://ukinnovationhub.ukri.org>

Turn your ideas into reality

All **public funding and support for innovation** in one place, summarised and easy to find, to save you time and effort.





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THANK YOU

Ian Evley
Innovation and Growth Specialist

ian.evley@innovateukedge.ukri.org

07741 658528



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Wrap Up & Tour





Save the Date!

GLEAM next event is on 10 July 2024 at the Hub at the Food Enterprise Zone, Holbeach on “New Technologies for Food Manufacturing - From Farm to Fork”.

The topic will cover new technologies (robotics, AI, machine learning etc...) and digital manufacturing for food manufacturing and should encompass the full value chain from farm to fork, with scope to include cross over technologies and best practice demonstrations to/from other industry sectors.



BRIDGE

Tour of the Bridge