

# Innovate for Business Growth

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# Welcoming and Opening Comments

Oli Wignall

Chair of Ideas and Innovation Strategy Group

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# Delivering Results through Innovation



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# Innovation for Business Growth

David Moss

Head of Digital Innovation

Siemens Research & Innovation Ecosystems UK

## Presentation Topics

- Introduction to Siemens
- Case Studies - Siemens Manufacturing
- “Living Labs” and the potential benefit. – “If you build it they will come(!)”.

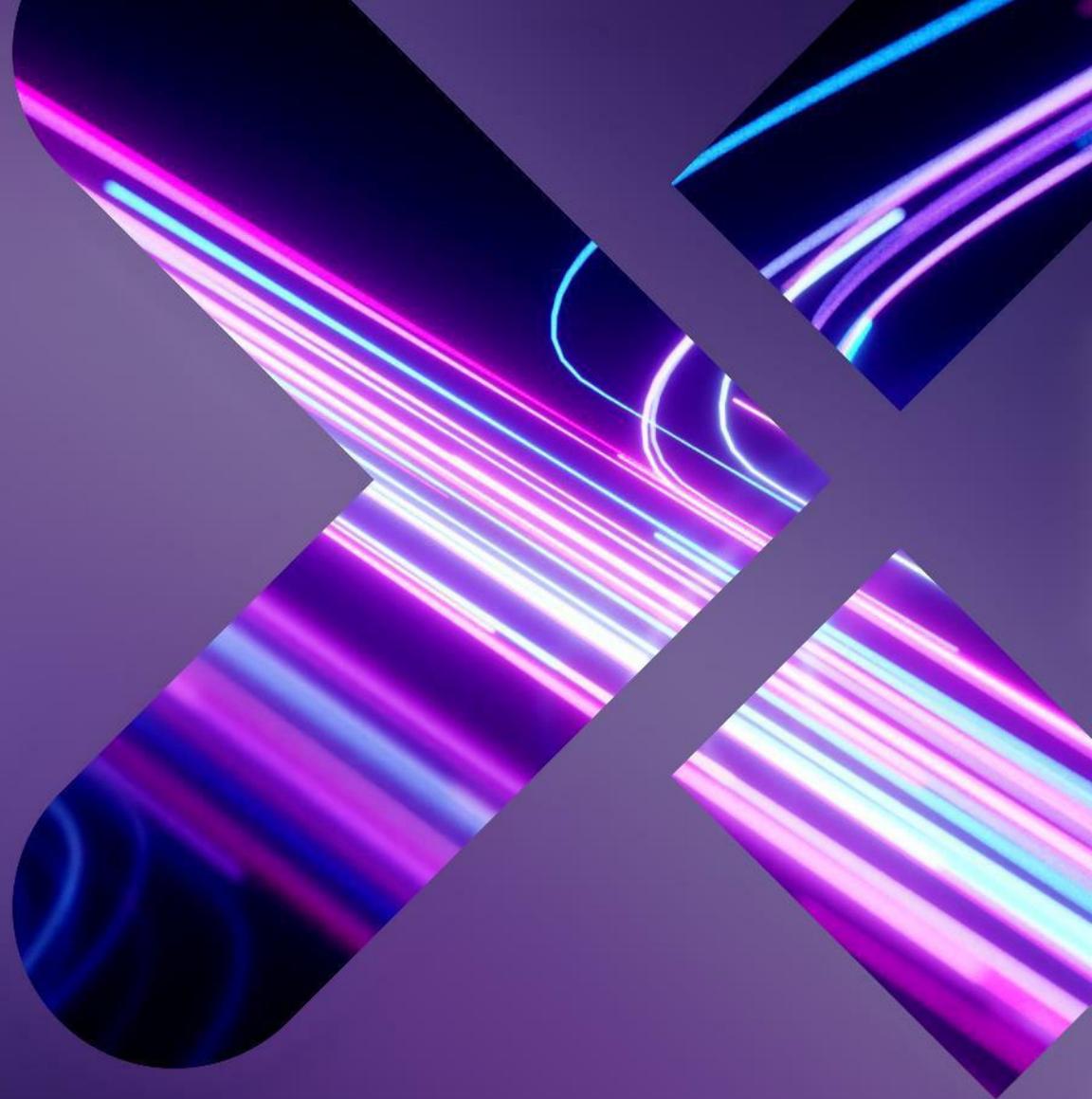
What this presentation isn't:

A solution to any or all of the challenges that Cumbria faces

What this presentation is:

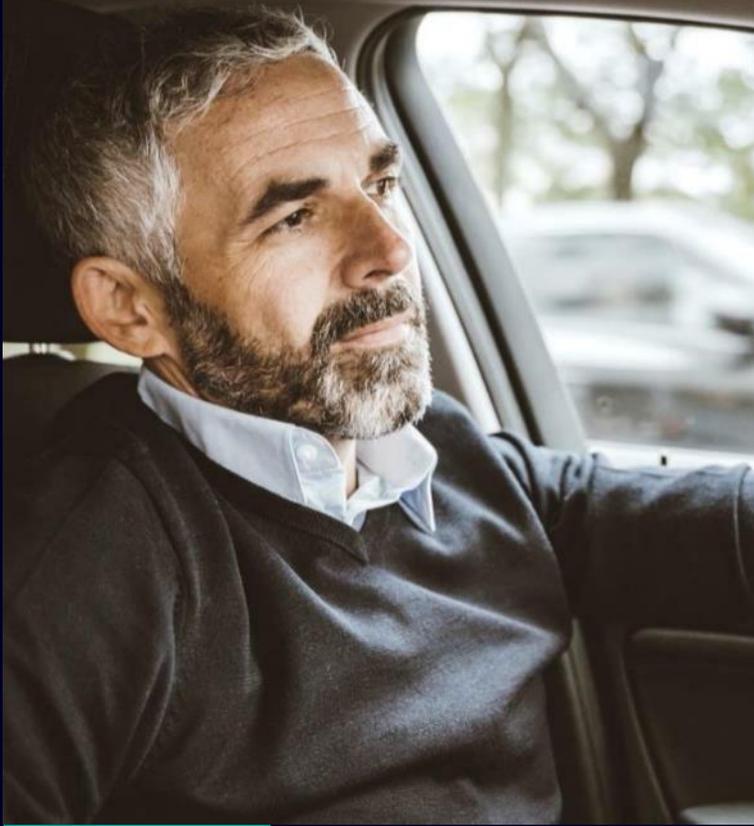
Some insight into our challenges and how we've overcome them (or not)

What does Siemens do?



**SIEMENS**

Examples from Siemens AG fr



We commute in cars designed with **Siemens software** ...

... built in factories running on **Siemens automation** ...



... and charged by a Siemens **smart grid**.

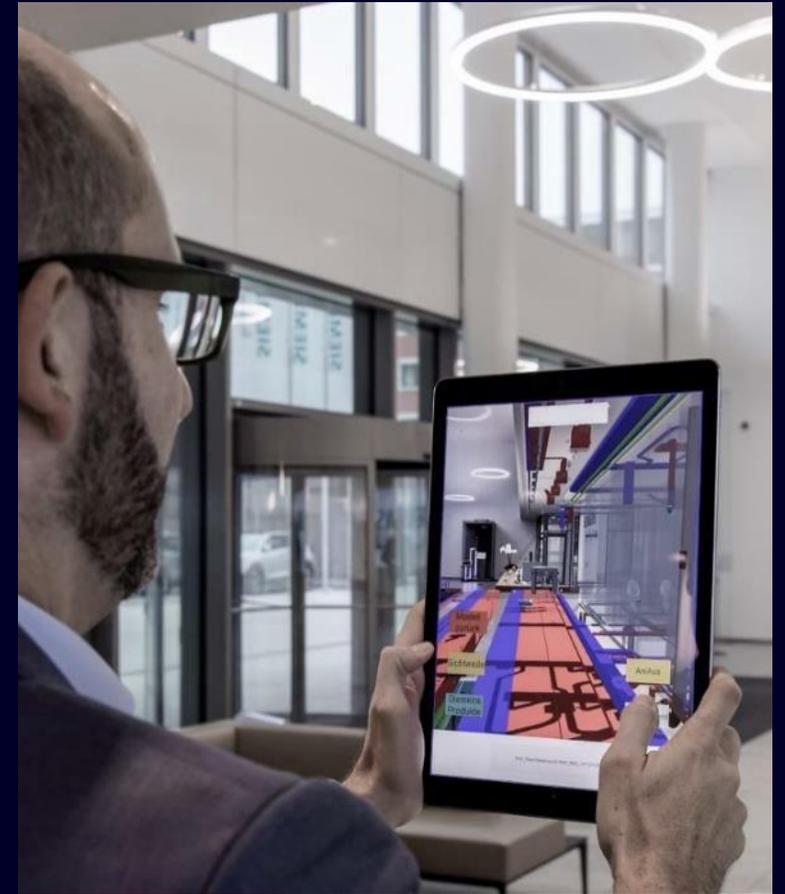
Examples from Siemens AG fr



We work in smart buildings that **promote** our **health** and **safety**

...

... that use energy with **maximum efficiency** ...



... and connect the **physical** and the **digital** workplace.

Examples from Siemens AG fr



We book our train tickets with **Siemens software** ...

... to travel on **trains made by Siemens** ...



... operated with Siemens **infrastructure technology.**

Examples from Siemens AG fr



We rely on **life-saving** drugs and treatments ...

... as well as **accurate** medical diagnoses, ...



... all of which are made possible by **Siemens solutions.**

# Siemens Technology

Keeping a 175 year-old company fit for the next 175 years.

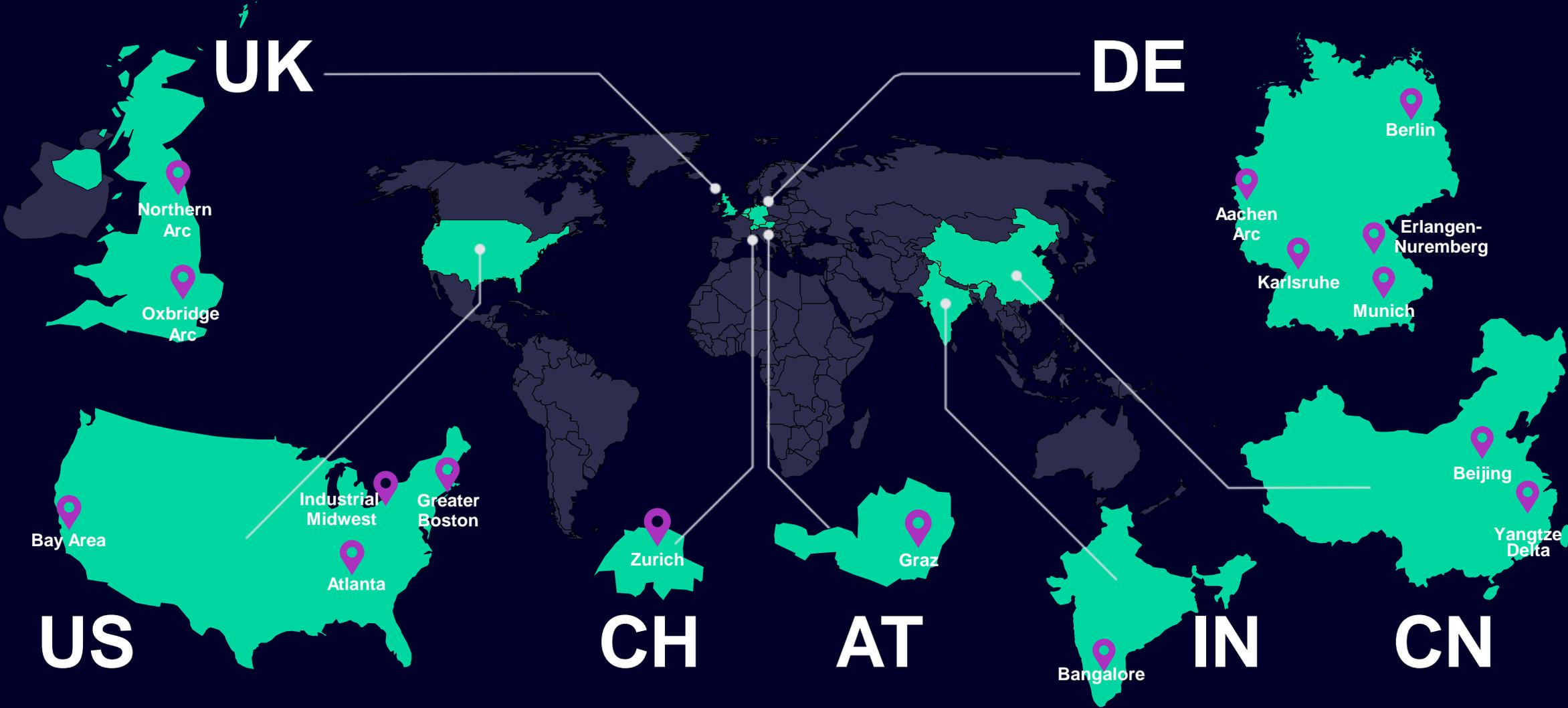


**SIEMENS**



# 16 world-class Siemens Research and Innovation Ecosystems

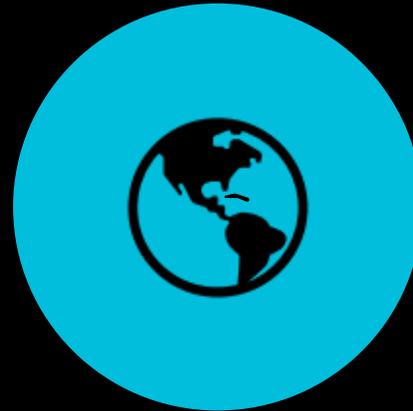
Globally connected and locally anchored



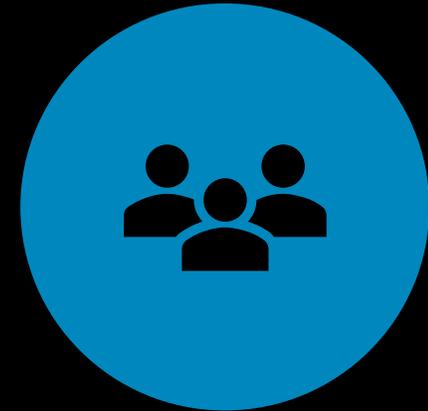
# Innovation Case Studies & some recurring themes



GLOBAL COMPETITION  
(WITH OURSELVES)



LOCATION



RECRUITMENT



# Siemens Congleton (Electric Drives and Power Electronics)

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### The Challenge

- The first Siemens factory in the UK
- Global intra-country competition within Siemens – 2013
- Threat of closure
- 400 staff producing 50,000 units per annum (1990s)

### The Solution

- Embrace the challenge
- A move towards adopting digitalisation practices
- Doing it better than anybody else
- Driving innovation within Siemens – seen as the exemplar

### The Outcome

- Seen as world-leading and always innovating
- Senior staff were promoted throughout the national structure
- Our first carbon-neutral factory globally
- 1 million units per annum with the same amount of staff

An aerial photograph of a mountainous landscape. In the foreground, a dense forest of green trees covers a valley. In the middle ground, a large, long, low-profile industrial building with a grey roof is visible, partially obscured by the trees. The background features rolling hills and mountains under a hazy, overcast sky. The overall color palette is muted, with greens, greys, and earthy tones.

# Siemens Llanberis – Medical Diagnostics

## The Challenge

- Location!
- Global intra-country competition within Siemens
- Recruitment
- No natural hubs to recruit from
- The “local” university closed its Chemistry dept

## The Solution

- A move towards adopting digitalisation practices
- Doing it better than anybody else
- Working with regional stakeholders e.g. Welsh Gov’t
- Sell the excellence
- Sell the location!

## The Outcome

- New investment
- Job security
- Seen as a prestigious role – people want to work for Siemens Healthineers
- Relocation of some staff from California to Llanberis!



# Siemens Goole (Trains)

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### The Challenge

- Our newest factory
- Location!
- Skills
- Extremely ambitious plans

### The Solution

- Work with key partners and stakeholders
- Diversity & Inclusion from Day 1
- Recruit locally (not exclusively)

### The Outcome

- Rejuvenating a typically-deprived area
- 700 jobs created in the local economy, 250 in initial construction, 1,700 in the supply chain
- Creating an advanced R&D network
- The first orders are in!



# **Siemens Energy (Ulverston) – Subsea electrification**

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### The Challenge

- Location!
- Skills
- Salaries

### The Solution

- Family feel / Excellent work/life balance
- Local candidates are given priority
- Embrace and promote the location for external candidates
- Advertising in mountain-biking magazines!
- Super-flexible working hours
- Work closely with local schools

### The Outcome

- Always innovating
- A positive place to work
- Lots of recruitment through referrals
- Staff do return

# Summary

1

Embrace the location – be proud

2

Work with key stakeholders

3

Don't be afraid to innovate

4

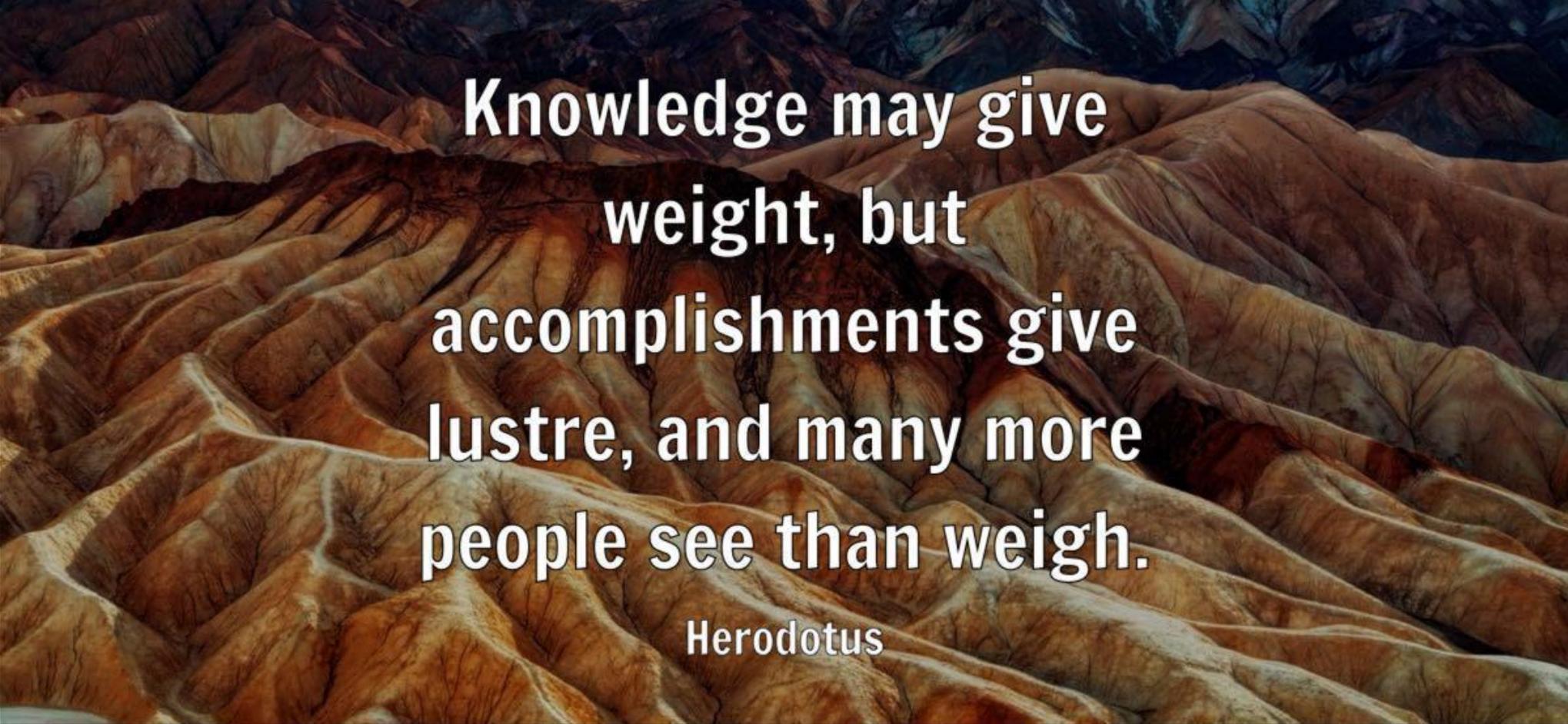
Push the boundaries

# Living Labs



Innovation as an enabler

Nothing says 21<sup>st</sup> Century Innovation like a quote from a dead Greek philosopher



Knowledge may give  
weight, but  
accomplishments give  
lustre, and many more  
people see than weigh.

Herodotus

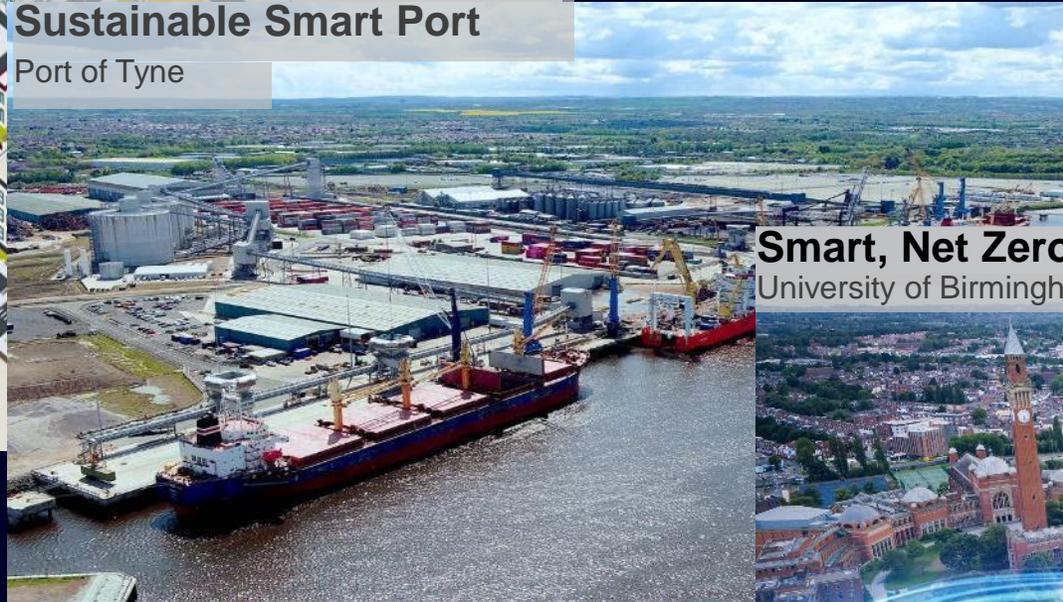
# Growth of UK Living Labs

Establishing Innovation Ecosystems for Siemens, Universities, Customers and Start-ups



## Sustainable Smart Port

Port of Tyne



## Smart, Net Zero Campus

University of Birmingham



# An individual perspective

## Creating a Connected Campus demonstrator





Government  
Office for Science



## The Internet of Things: making the most of the Second Digital Revolution

A report by the UK Government Chief Scientific Adviser

## Foreword



It is clear that we live in a world of permanent technological revolution. Countries like the UK will only succeed if we show a relentless drive for leadership and innovation.

At the CeBIT trade fair in March 2014, I restated my ambition to make the UK the most digital nation in the G8. Part of achieving that goal is making the very best of today's digital technology. But it also means being *ahead of the curve for tomorrow's*.

That is why I asked Sir Mark Walport, the Government's Chief Scientific Adviser, to write this review.

The Internet of Things is a transformative development. Technologies that could allow literally billions of everyday objects to communicate with each other over the Internet have enormous potential to change all of our lives.

These technologies are a way of boosting productivity, of keeping us healthier, making transport more efficient, reducing energy needs and making our homes more comfortable.

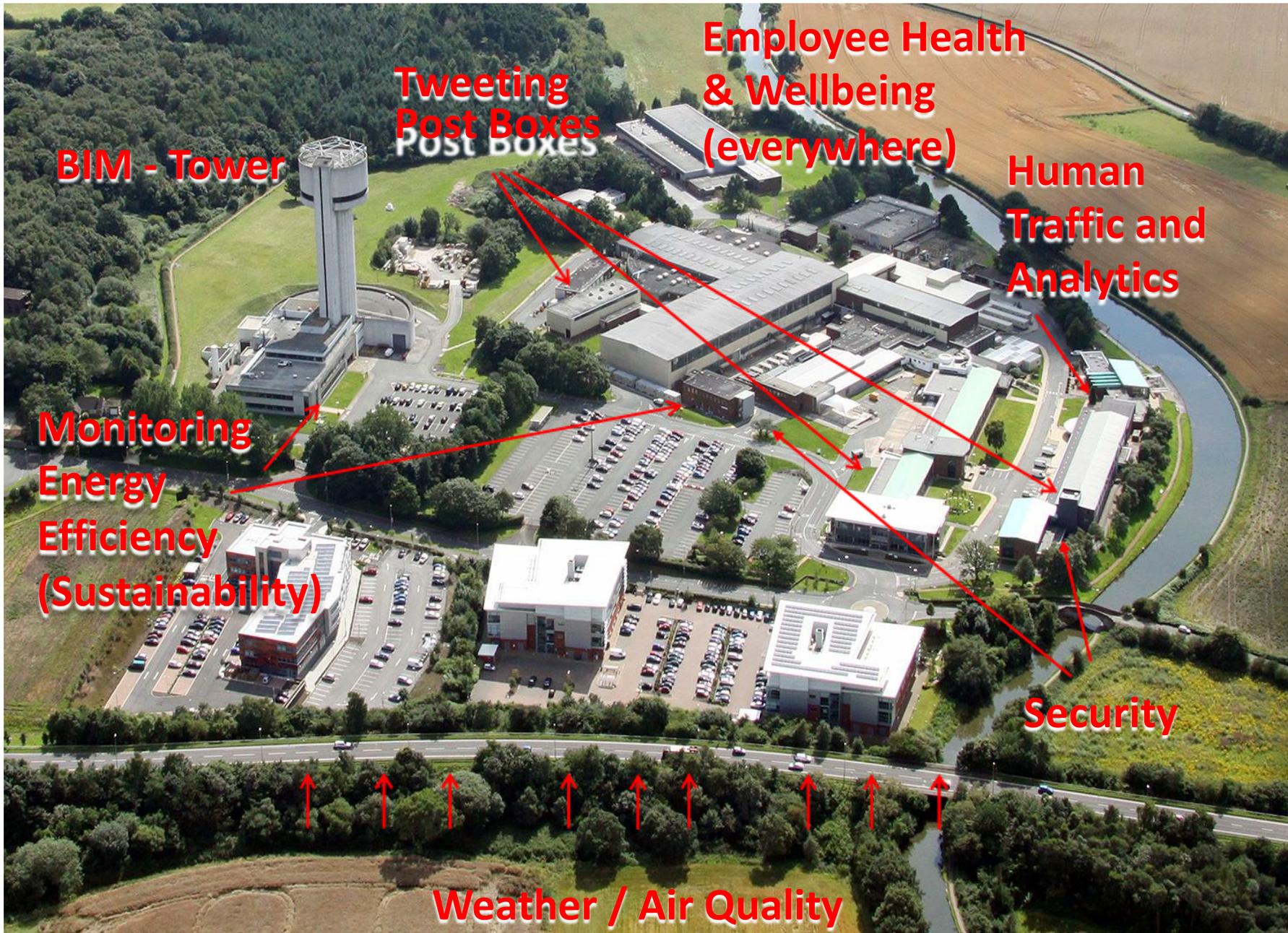
Electricity meters that talk to the grid to get you the best deals. Health monitors that keep an eye on your heart rate. Cars that avoid congestion further up the motorway.

As this review rightly makes clear, this is not the time to get carried away with potential. Delivering on this opportunity will require a lot more hard work, creativity and leadership. The UK government, working with business, the research community and the public, stands ready to provide it.

We are on the brink of a new industrial revolution. I want the UK to lead it.

Rt. Hon David Cameron MP

# What Does A Connected Campus Look Like?

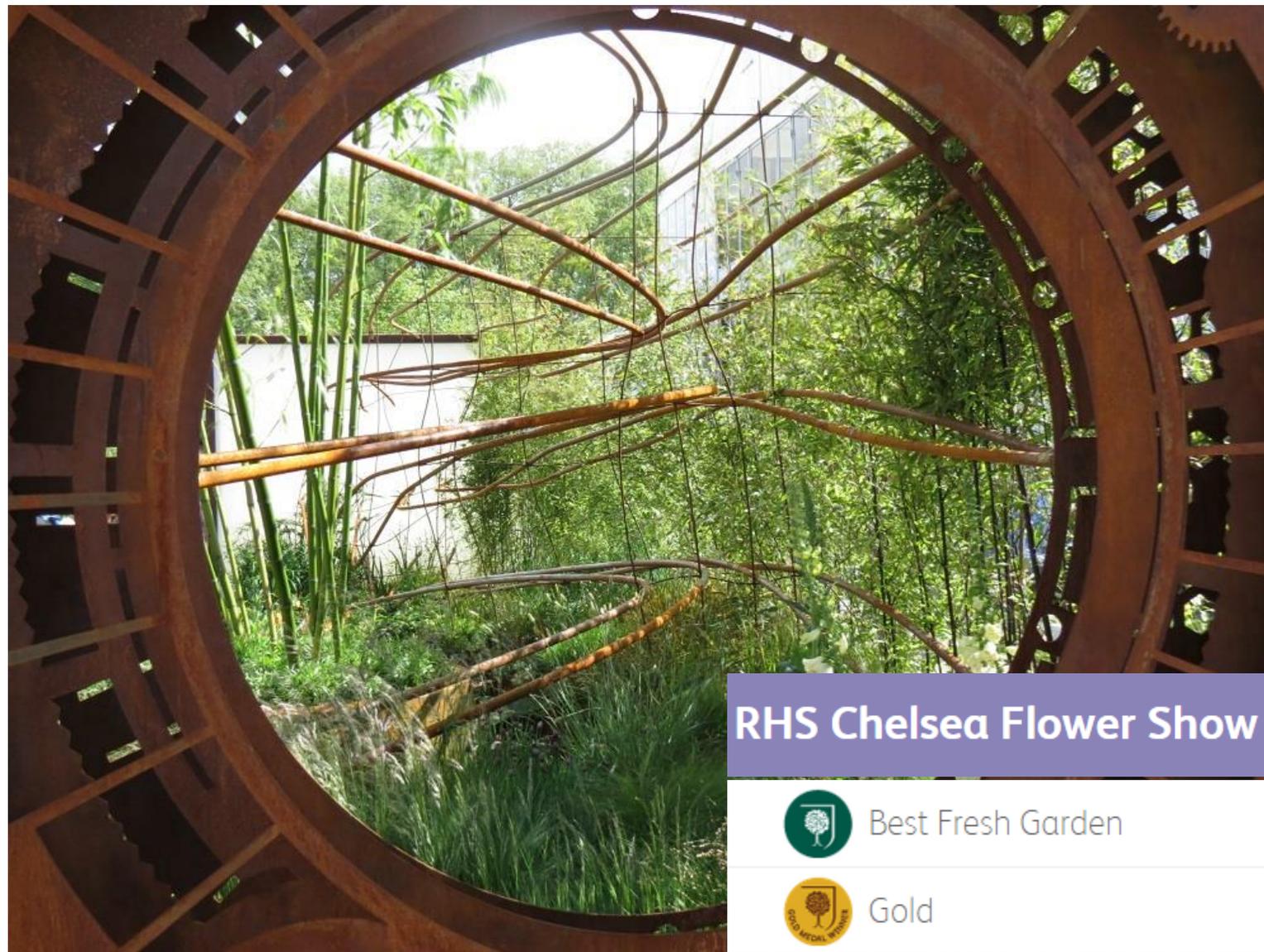


# Our Award Winning Dark Matter Garden



Hartree Centre

Science & Technology Facilities Council



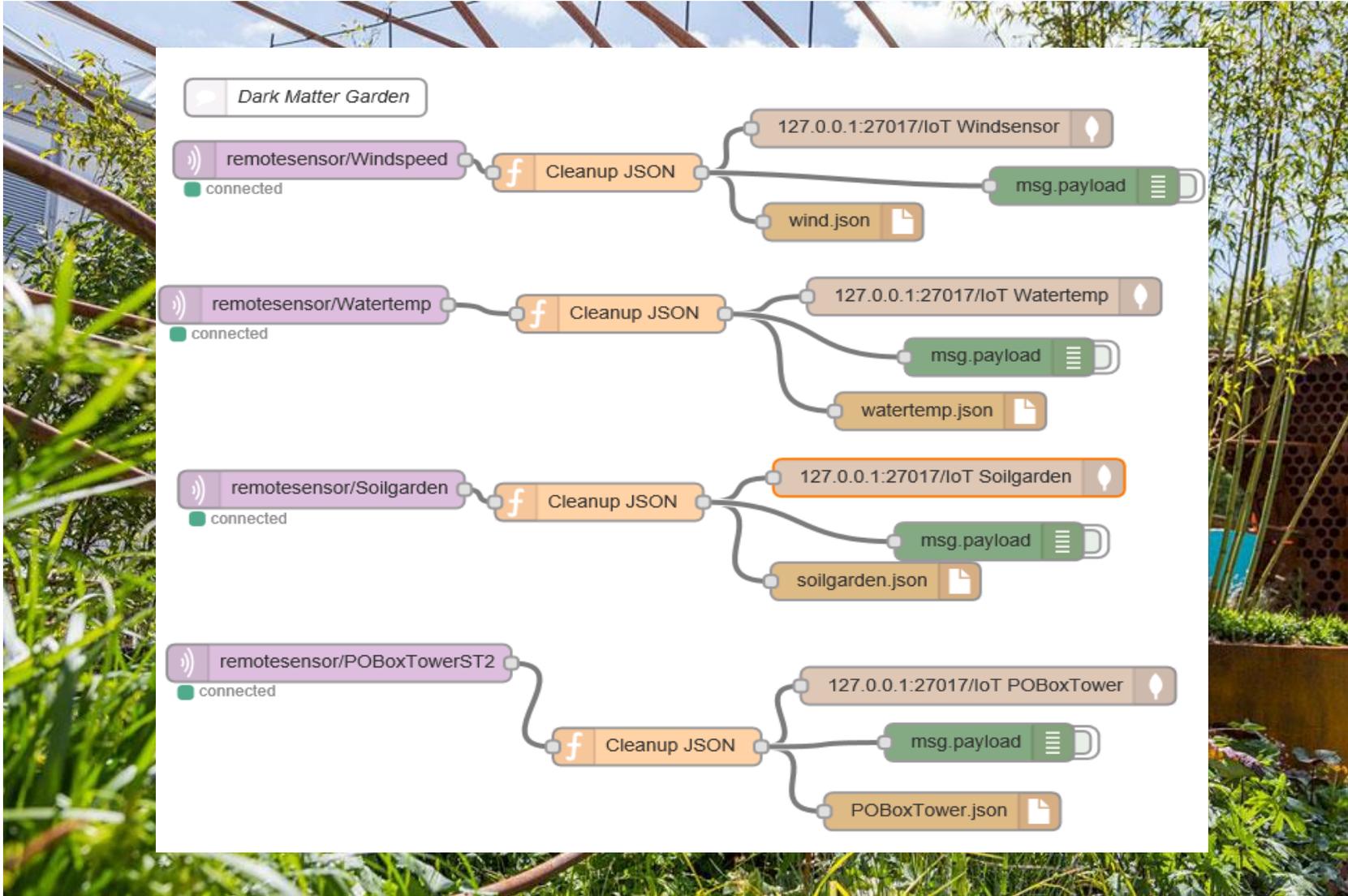
RHS Chelsea Flower Show



Best Fresh Garden



Gold



# Hartree Centre

### Weather

Temp **70.08**  
max 71.74  
min 53.02

Rain **42%**  
Humidity **0.72**

Wind **0.78**  
Bearing 42

Partly cloudy throughout the day.

### Building Management

Tech Hub: 16.0 / 18.8

Office A Block: 63.7 / 60.1

Front: 23.3

Back: 19.0

### Logistics

Home: 3 people tracked  
27 mins (avg)  
345 Miles

Work: 12 Tower Traffic

### System Health

Good Signal



6/6 sending data

### Under the hood

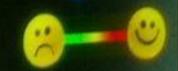
```
2010-08-24 10:00:00 [INFO] [1]
```

### Social Media

Sentiment Analysis

Tower: 34

A Block: 21



# Connected Campus



## Security

**From:** McCabe, Jimmy (STFC,DL,CSD)  
**Sent:** 02 October 2015 12:37  
**To:** Security (DL)  
**Cc:** [Livesey-Booth, Carol \(STFC,DL,CSD\)](#); [Henshall, Suzanne \(STFC,DL,CSD\)](#); Davies, Gareth (STFC,DL,CSD); Hill, Andrew (STFC,DL,TECH); Williams, Jon (STFC,DL,CSD)  
**Subject:** Post box Mail Monitoring, B Block Reception

**Dear All,**

***Some of you may have noticed a piece of equipment stuck to the side of the post box in the reception area that has a wire going into the letter box.***

***Security have quite rightly reported it to me as part of their postal bomb awareness training because it looks rather suspicious.***

I wasn't aware of this but I have been told by Jon Williams that it's a software device that is being tested to record how many letters are being put into the mail box.

Please do not tamper with the device, if there are any problems contact David Moss.

Thanks for bringing this to my attention.

Jim

[Jim McCabe](#)  
Security & Logistics Manager  
[Science and Technology Facilities Council](#)



Make great use of  
your existing assets

# Thank you!

David Moss  
Head of Digital Innovation  
Siemens Research & Innovation Ecosystems UK

# Achieving Productivity Performance

Simon Lee, Supply Chain Director  
BAE Systems Submarines

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# Question and Answer Session



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# Comfort Break

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# Cumbria's Innovation Landscape

Jo Lappin

Chief Executive, Cumbria LEP

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# Cumbria's 'Trilemma'

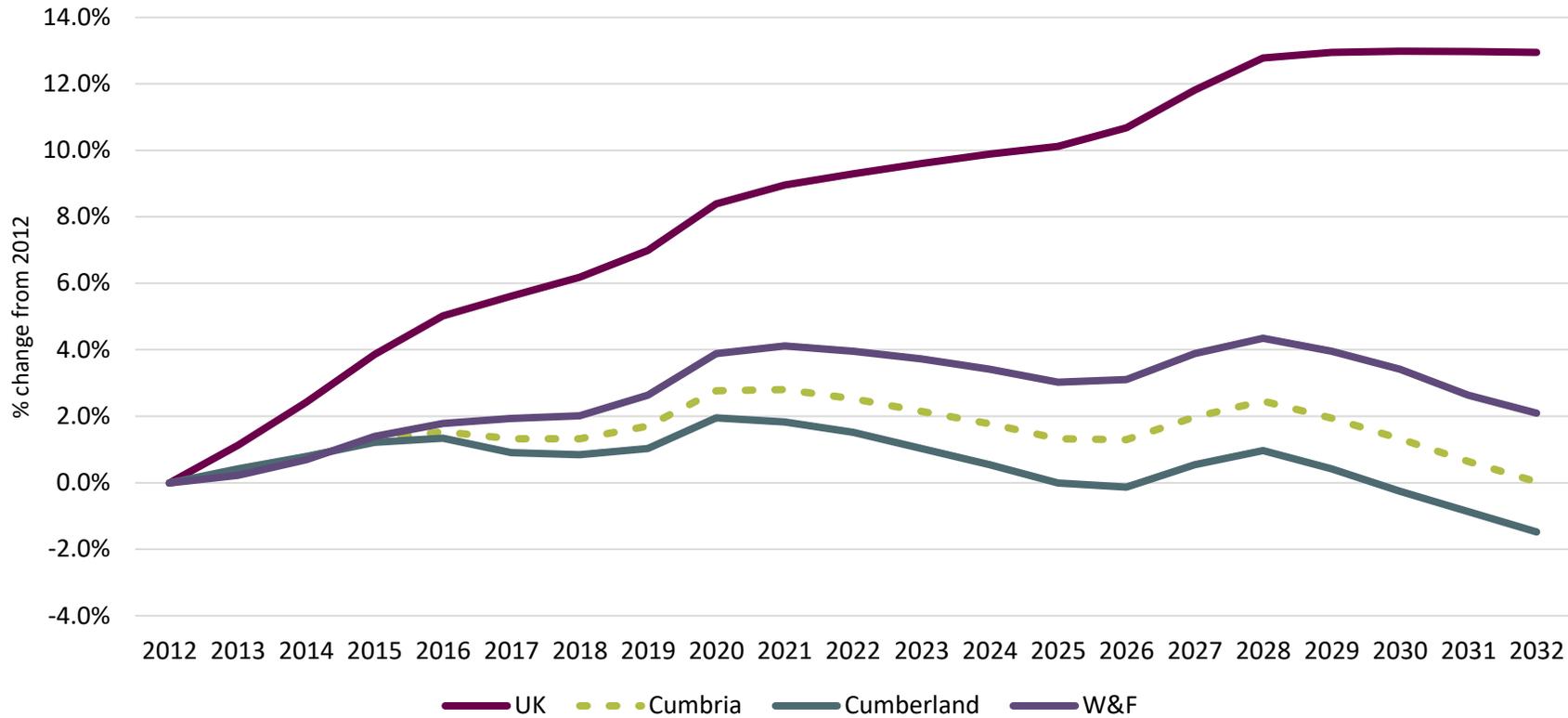
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# Working Age Population

**Working age population growth (% chg from 2012 base)**  
*(adjusted to take into account rising State Retirement Age)*

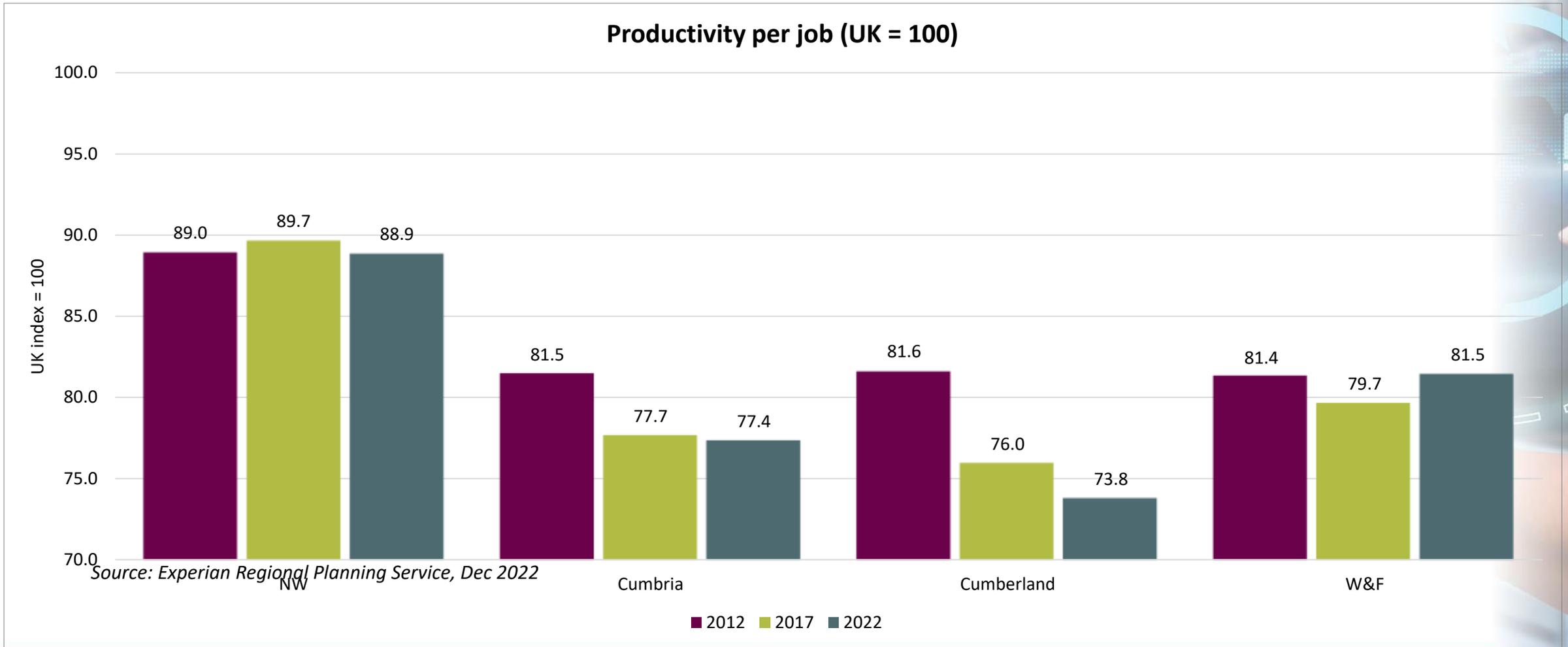


Source: Experian Regional Planning Service, Dec 2022

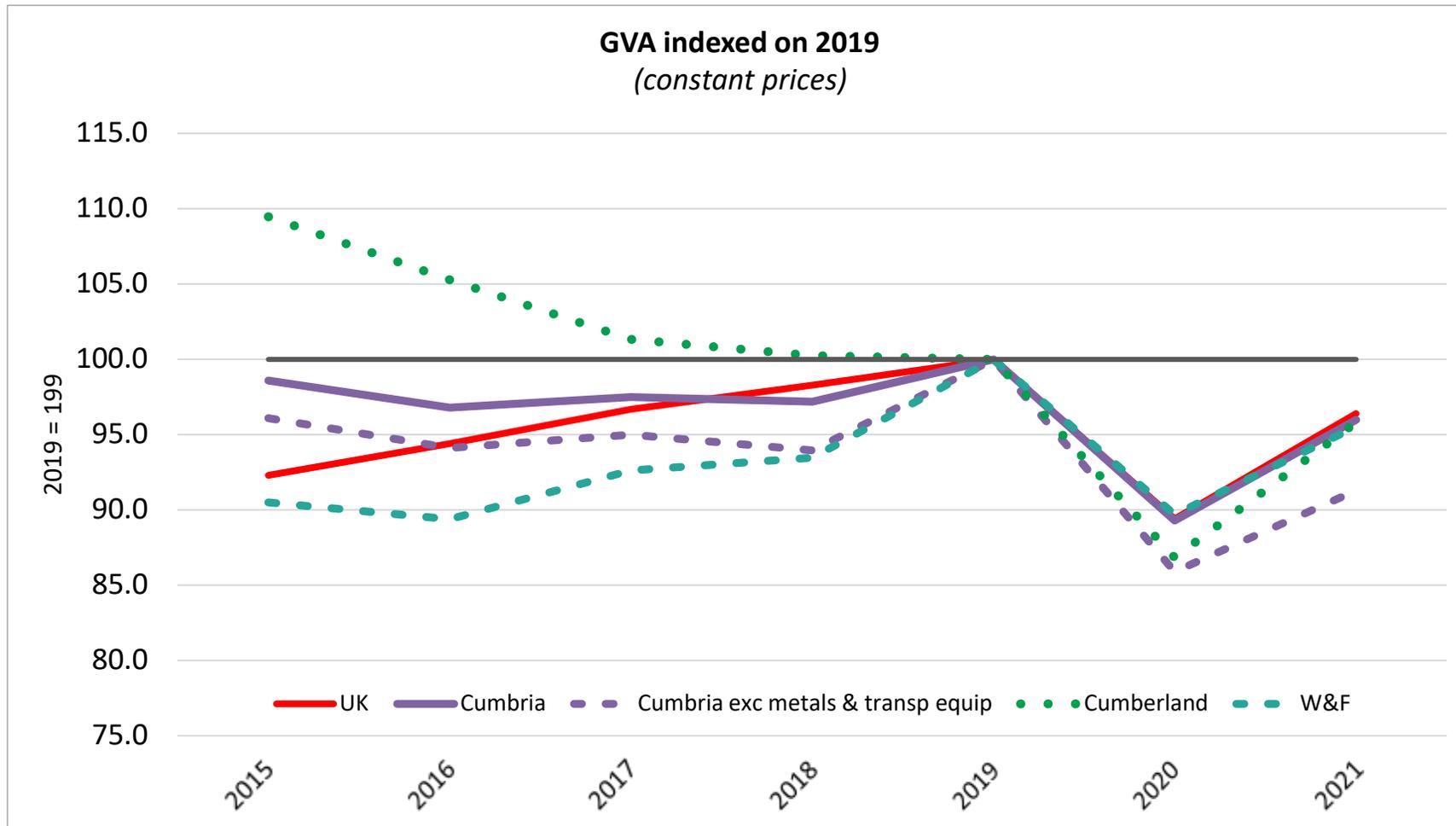
Data adjusted to take into account rising State Retirement Age

- Cumbria's number one growth challenge
- Between 2012 and 2022 the working age population in Cumbria grew by 7,300 (+2.5%) v 9.3% growth for the UK (Cumberland +1.5%, W&F +4.0%).
- Between 2022 and 2032 the working age population is projected to fall by 7,300 (-2.4%) v 3.3% growth for the UK (Cumberland -3.0%, W&F -1.8%).

# Productivity



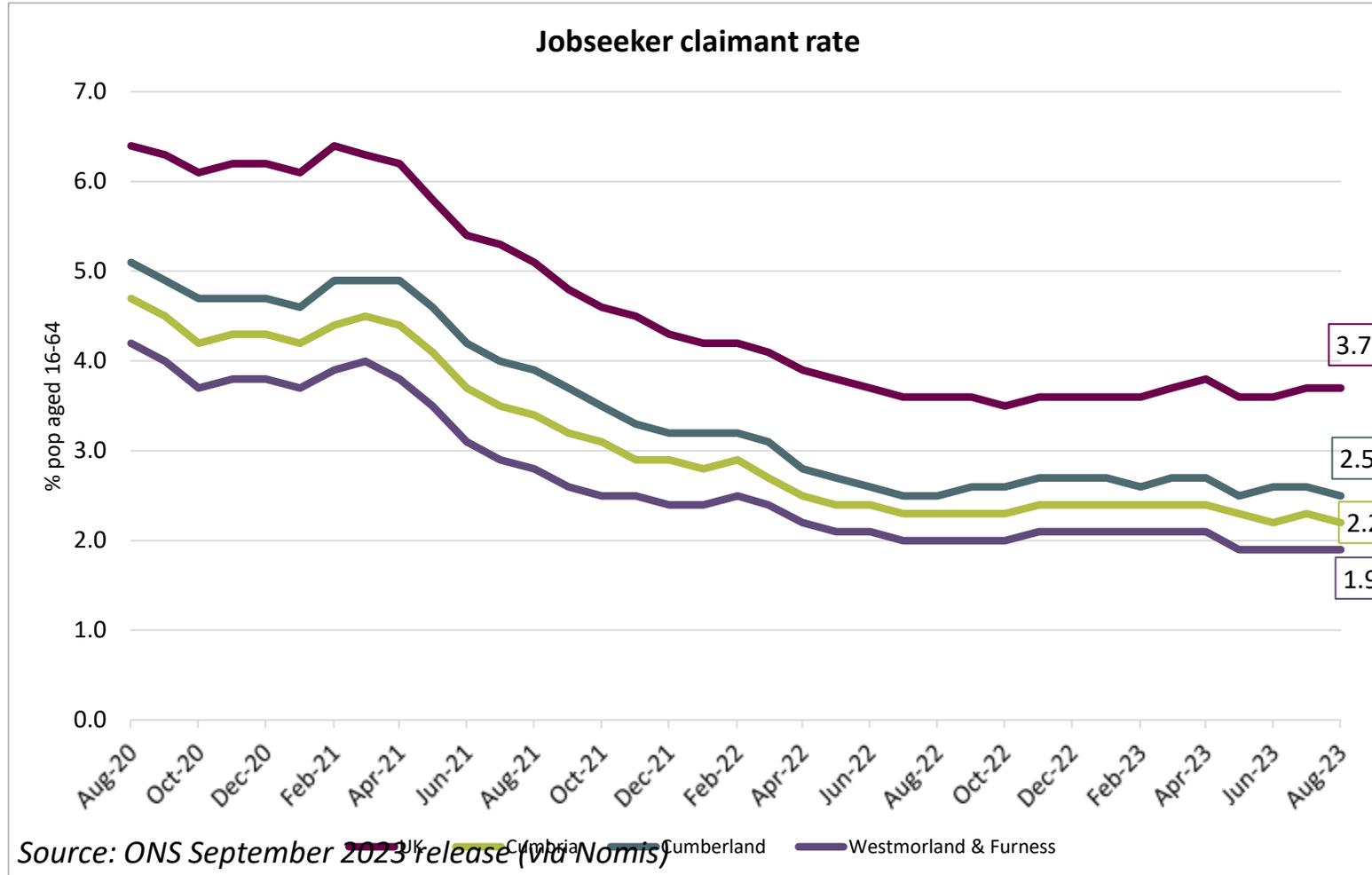
# Cumbria's Economic Output – Pre/Post Pandemic



Source: ONS Sub-regional productivity 2021

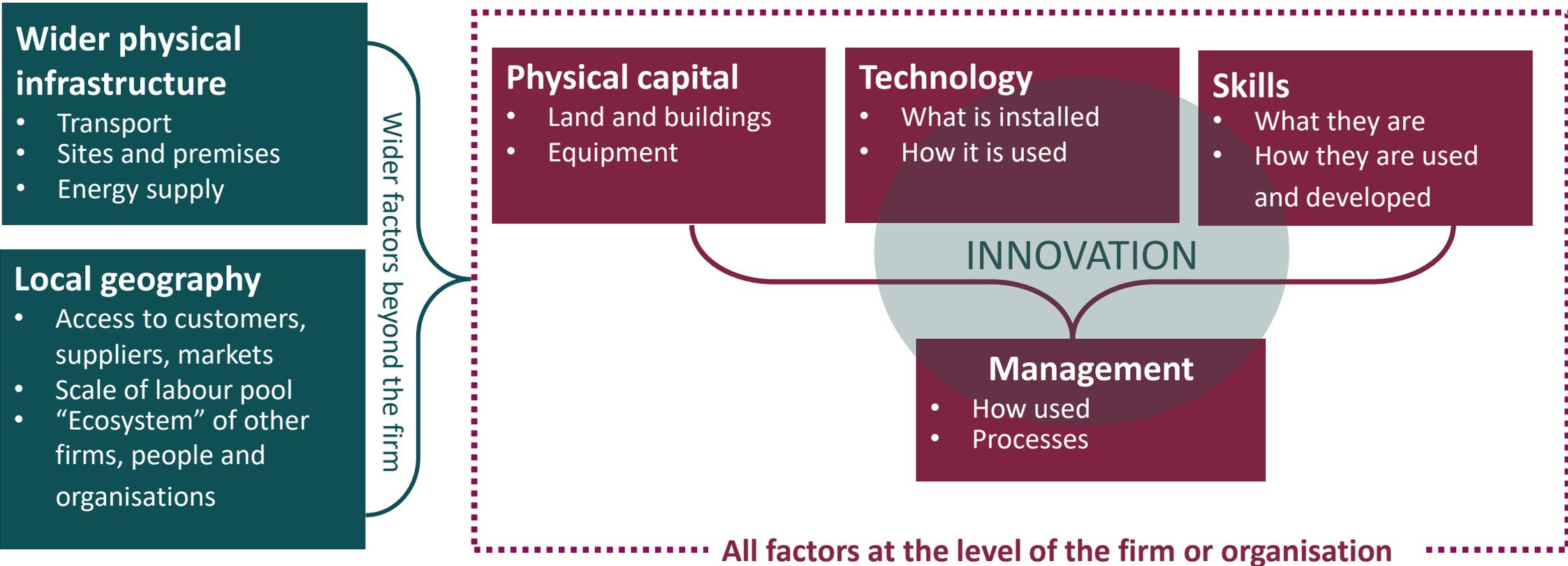
- UK growing steadily going into the pandemic –2% per annum.
- Cumbria flatter but varied between unitary areas.
- Cumberland already declining pre-pandemic and shrank more than nationally in 2020.
- Westmorland & Furness growing steadily pre-pandemic and shrank less than nationally.
- Cumbria and both unitaries were just under 96% of 2019 levels in 2021 (UK just over 96%)
- BUT** if shipbuilding and nuclear are removed, Cumbria was only 91% of 2019 levels.

# Cumbria – Claimant Unemployment



- ▣ Labour supply continues to be very tight with claimant rates low across Cumbria compared to the UK.
- ▣ Seasonal factors may explain some of that at present but the key factor is the very tight labour market locally.
- ▣ Rates are especially low in more rural areas – just 1.6% among residents in Eden and 1.3% in South Lakeland.
- ▣ But young adult rates still high, especially in Barrow where under 25s are more than twice as likely to be unemployed as over 25s.

# Factors Explaining Productivity Performance



# Improving Productivity Performance – Focusing Our Efforts

Wider explanatory factor	Likely scale of impact on productivity	Cumbria's position and performance?		Scope to change to impact productivity
<b>Physical infrastructure</b>	Some issues	<b>Physical access issues and access to digital in parts</b>		MODEST (except digital connectivity)
<b>Physical capital</b> (sites, buildings, equipment etc)	Some issues, but not highlighted	Not identified as a major constraint		MODEST
<b>Human capital</b> (skills)	<b>VERY LARGE</b>	<b>UNDER PERFORMER</b> (in some respects)		<b>LARGER</b>
<b>Management</b>	<b>LARGE</b>	Not clear, some evidence of lifestyle business and challenges in SMEs [the long tail]		<b>LARGER</b>
<b>Exporting</b>	<b>LARGE:</b> linked to stronger performance	Stronger in manufacturing, less so in services		<b>LARGE</b>
<b>Innovation and technology</b> (inc R&D)	<b>VERY LARGE</b>	Patchy in much of the economy	Strong in nuclear and related	<b>LARGER</b>
<b>Agglomeration/ geography</b>	Contested - access to markets and collaborators an issue in some sectors	<b>Challenges of large, sparsely populated location</b>		<b>LIMITED</b>

# Study Work

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# Innovation Performance

## **Below average overall levels of innovation across Cumbria's economy**

- A deep but narrow innovation ecosystem around the nuclear sector and nuclear engineering especially linked to decommissioning (covering robotics, technical forms of clean-up technology, AI and visualizations etc). This ecosystem involves large organisations such as NDA, NNL and Sellafield along with specialist firms and academic institutions in Cumbria and further afield. Some of this technology is and has been transferred to the offshore oil and gas sector. This eco system is both local, but also part of a wider ecosystem that extends regionally and beyond in the sector.



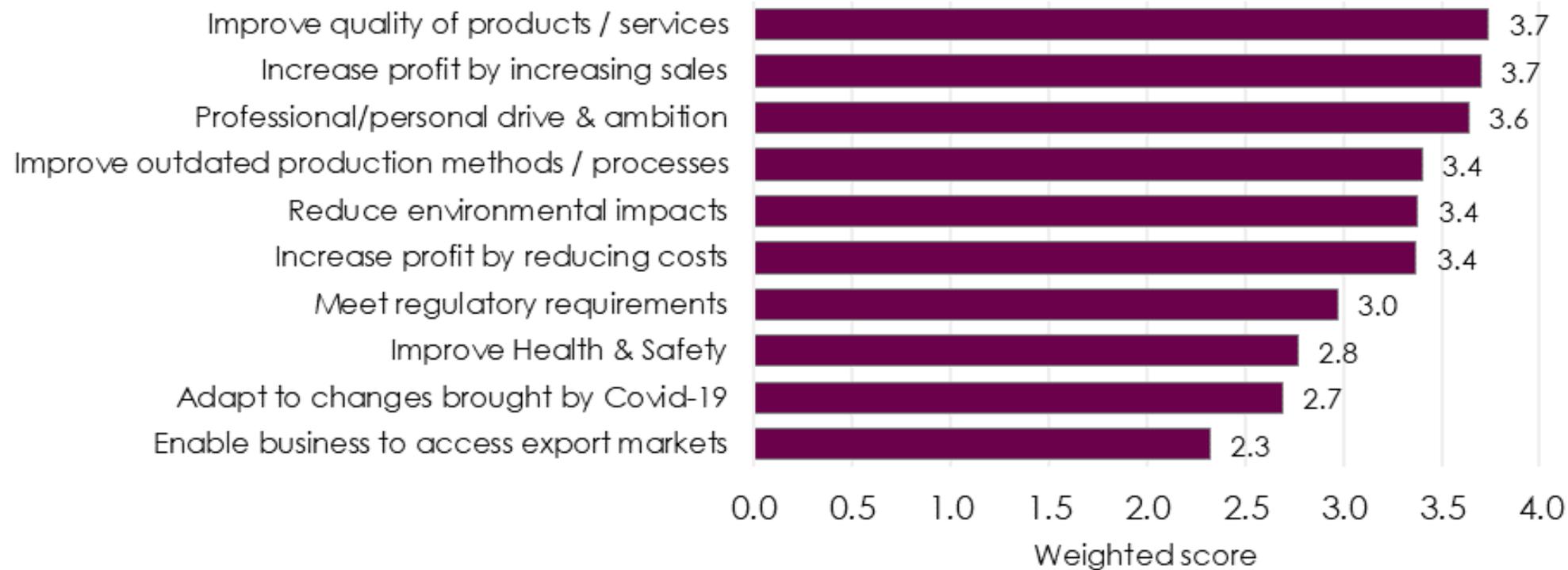
# Innovation Performance

- Some strong islands of innovation built around single firms who are globally competitive and specialist in their fields (such as Innovia, Futamura, James Cropper etc) where there are significant links to the research base and universities across the UK that relate to their specific technology areas. However, there are limited interconnections between these islands of innovation in Cumbria (and with the nuclear sector).
- Individuals and firms, who have and are developing excellent innovative ideas but operate largely in isolation (and often struggle to have to time to link to or find out who else is involved in innovation locally).



# Drivers of Innovation

**Importance of factors in decision to innovate**  
(weighted score)



# Cumbria's Innovators

- **One-off** – firms who introduced and designed new products in the past but are content to produce and sell these products.
- **Revolutionary**– where entirely new products, services or ideas have been produced or are being produced. This is a feature of new tech start-ups of which there are some in Cumbria. The products and services can be small scale and have limited applications or much wider applications.
- **Willing but struggling** – small or medium sized firms which see the need to innovate to diversify their business and move into new markets but are being held back by a variety of factors (usually time and cost). Their main business is selling to and servicing clients based on existing technologies and products, but they see the need to enhance and improve the range of products and technologies and markets and services.

# Cumbria's Innovators

- **Core** –innovation is way of life because of the nature of their business (constantly having to address complex situations with innovative solutions). Often, this innovation is built into the delivery of services, but with a separate stream aimed at anticipating future clients' needs and diversifying market opportunities.
- **Strategic** – larger firms that rely heavily on technological innovation to remain at the cutting edge of their markets – which are often global in nature. Tend to have significant R&D/innovation departments and relatively long time horizons on their products and market places.

# Barriers to Increasing Innovation

## Factors which act as a barrier to increasing the level of innovation

Finance related



# Barriers Working with HEIs/Research Bodies

Research has demonstrated clear barriers to innovation, including:

- Limited time to progress
- Concerns about the cost of innovation.
- Understanding of what support, opportunities and information is there and how to access it.
- Lack of alignment of:
  - time horizons in engaging with academic partners
  - the relevance of the research to the innovation needs of businesses, especially in the ICT sector



# Lancaster

Georgia

## Cumbria

Newcastle

York

## Strathclyde

Bournemouth

NPI

## Manchester

Leeds

Glasgow

Iowa

LSU

## Bristol

Northumbria

Cambridge

Warwick

Strathclyde

Glasgow

AerospaceCatapult

Southfield



# CLEP's Response

- **Supporting Catalytic Opportunities** – Fusion, Civil and Defence nuclear, CCUS, Hydrogen Future of Food etc.
- **Funding** – Innovating for Success Programme and Westmorland and Furness Shared Prosperity Fund
- **Advice and Support** – Cumbria Accelerator signposting to wide range of investment and advisory organisations
- **Skills** – Apprenticeship Strategy, Skills Bootcamps; Labour Supply Action Plan, Careers Hub; Resilience and Employability Action Plan; Leadership Development Programme



# Exploring Barriers to Innovation

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# FIS 360

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A red paper airplane is shown in flight against a light blue background. Below the airplane, a dark blue wavy line represents a path or trajectory. Several vertical wooden sticks are placed at various heights along this path, acting as barriers or obstacles. The overall scene is a metaphor for navigating challenges and barriers in the process of innovation.

## Exploring barriers to innovation

Jo Tunney, Frank Allison and Lauren Povey

# **Roll the dice. Depending on the number you roll, answer the following corresponding question:**

- 1. Which actor would play you if they made a movie of your life and why?**
- 2. Imagine you no longer have to work. How would you spend a Monday?**
- 3. What is an easy item on your bucket list that you haven't done yet?**
- 4. How would you describe your job to a five year old?**
- 5. Which trap in Home Alone was the best?**
- 6. What is your favourite kitchen gadget?**



# Task one

- **Take two Post-It notes**
- **On each one, write down something that you consider to be a barrier to innovation in your organisation**



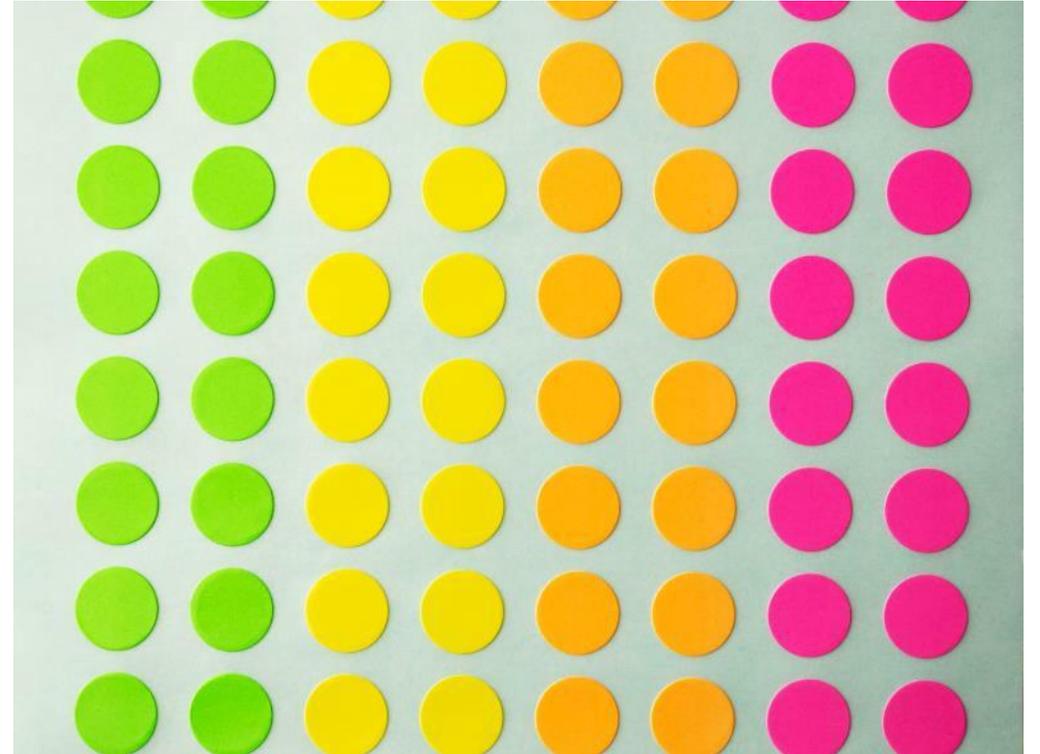
## Task two

- **Take it in turns to share your barriers with everyone else on your table**



## Task three

- **Take a sticky dot and use it to vote for the barrier you'd be most interested in exploring further**
- **One dot per person**



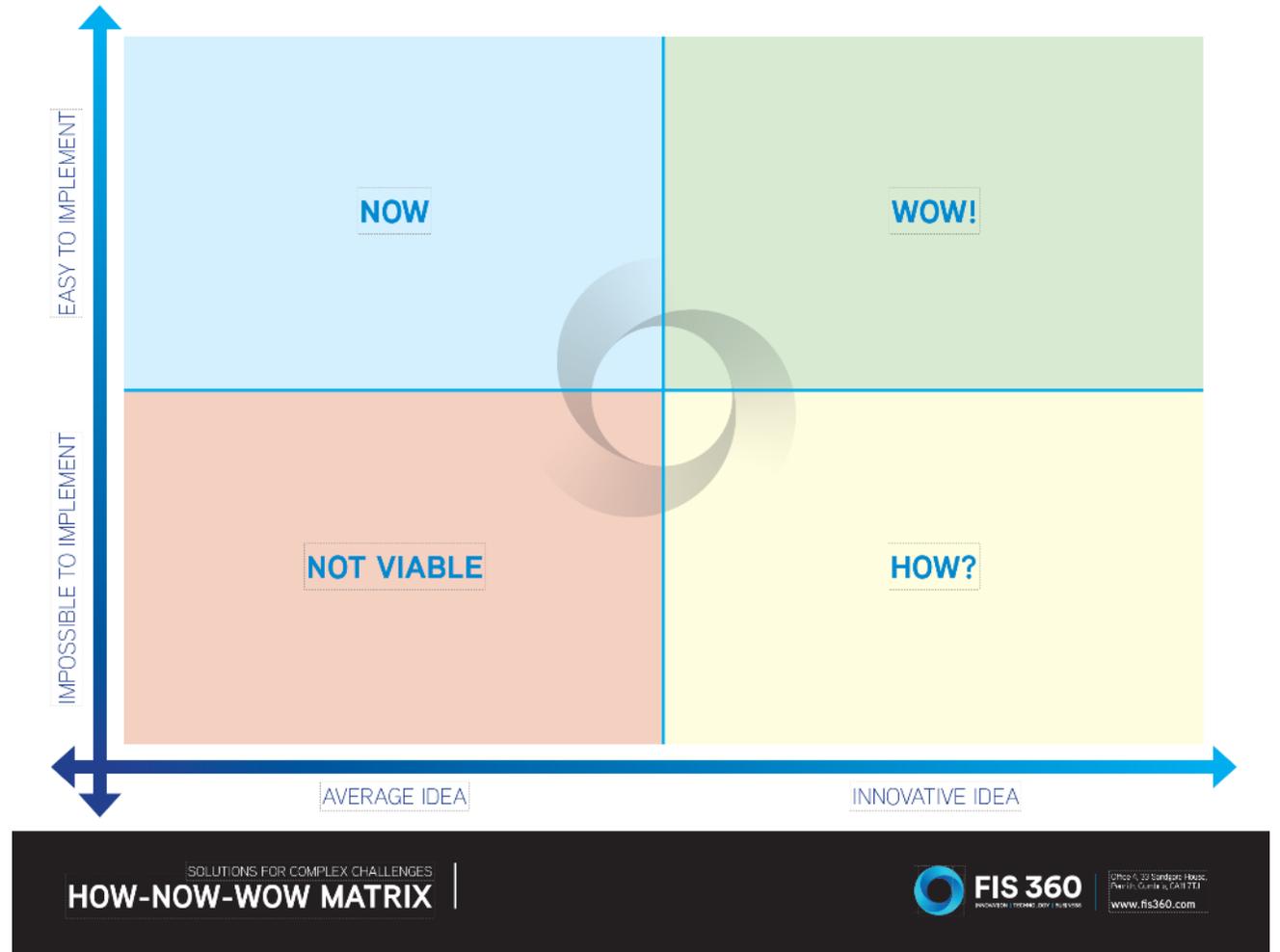
## Task four

- **Take two more Post-It notes**
- **On each one, write down a potential solution to the barrier**



# Task five

- Place the Post-It notes on the HOW-NOW-WOW matrix



## Task six

- **One representative of each group to share your barrier and your WOW solutions**



# Networking Lunch

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# Supply Chain Innovation Opportunities

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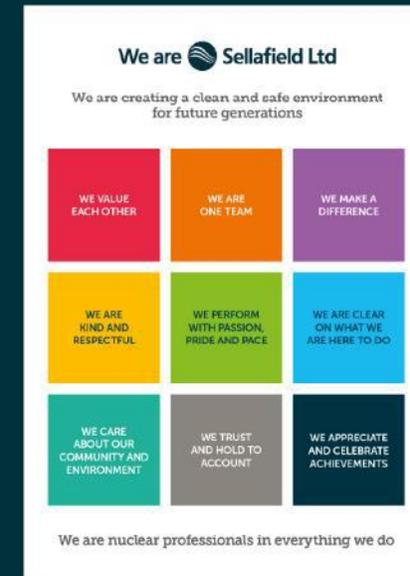
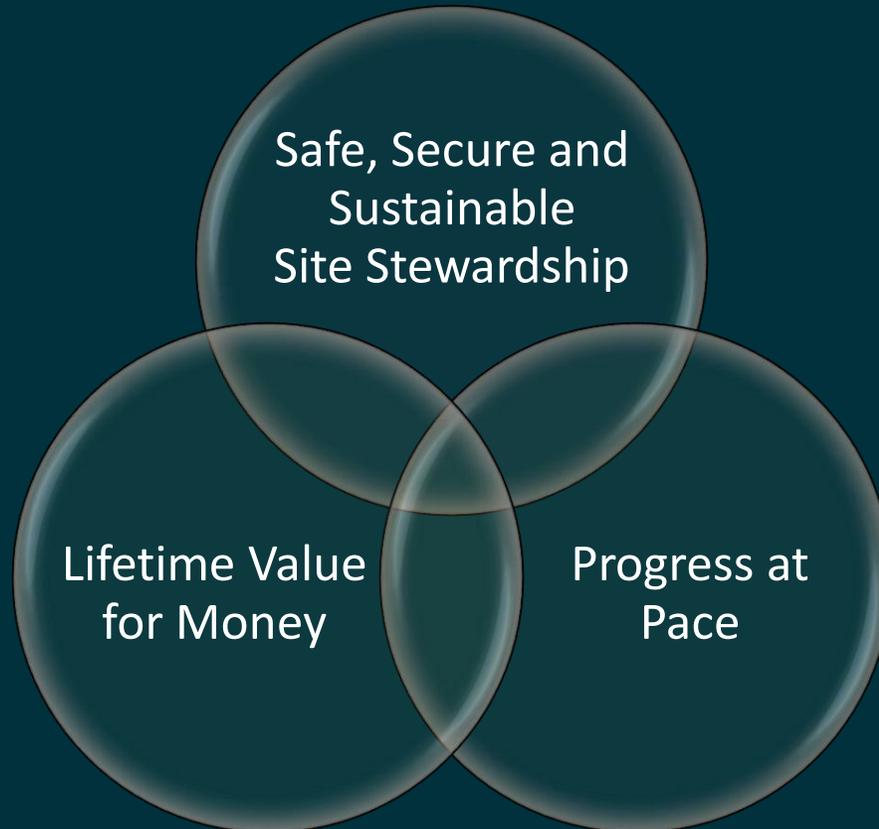
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**Sellafield Ltd**

# Our strategic aim



**Our purpose is to create a clean and safe environment for future generations**

# Sellafield by numbers

## Budget

**£2bn+**

We manage an annual budget of more than £2bn every year

## Projects

**£7.5bn**

We have a £7.5bn capital programme over the next 20 years

**£50m**

~25 projects over £50m

## Our people

**11,000+**

We have 11,033 employees (full-time equivalents)

**40 YEARS**

We have had our current dedicated training centre at Sellafield for nearly 40 years

**10,500+**

We have trained more than 10,500 apprentices over the last 67 years

**~42,800**

We have approximately 42,800 supply chain people supporting us

## Infrastructure

**70+**

More than 70 substations on site

**100km**

100km of pipework for water supplies, on/off site

**120km**

120km of high voltage cable

**19km**

19km of steam mains

**40km**

40km of road and tracks on site

**1,750m<sup>3</sup>**

1,750m<sup>3</sup> of sewage effluent processed every day

**1,000**

1,000 shipments in/out of site each year

**2,500m<sup>3</sup>**

2,500m<sup>3</sup> domestic water supplied per day

## Supply Chain

**£1.26bn**

We spend approx. £1.26bn each year, 64% of our total budget in our supply chain

**~£300m**

We spend £300m each year with small and medium enterprises (SMEs)

**£15.25bn**

Value of our Contract Portfolio: £15.25bn

**£350m**

We spend more than £350 million every year on major projects, constructing the buildings that we need in order to empty and demolish old facilities

**953**

Current vendors: 953

## General

**2 square miles**

Size of the Sellafield site: 2 square miles

**1,300**

Number of buildings on site: 1,300

**200+**

200+ of the buildings are nuclear facilities and Sellafield is home to 4 of the biggest nuclear risks and hazards in Europe

**Locations**

Sellafield and Warrington are our two main locations

**70+ years**

the site has been operating for 70+ years and has 100+ years of work ahead of it



business with Sellafield Ltd

procurement opportunities via:  
 Management (CTM)  
 Contracts Finder  
 (subject to public procurement  
 thresholds)  
 use existing frameworks and DPS  
 (e.g. Systems), as appropriate, such as:  
 Commercial Service  
 Technology Solutions Marketplace  
 Training System

across the NDA Estate to access a greater  
 range of suppliers to utilise existing and commonly  
 used technology solutions. The Engineering  
 Solutions Marketplace DPS is open for  
 technology products and services from  
 Business Levels 1 to 9.  
 The four categories that form the Engineering  
 Solutions Marketplace DPS are: Asset  
 Management, Digital, Engineering Services,  
 and Operations. We have the ability to create new  
 categories as a business requirement.  
 Suppliers will be able to participate in a DPS in CTM  
 more in order to qualify for the DPS in CTM

with your existing details or if you are  
 registering as a 'new supplier' and navigates to the  
 appropriate page to register under  
 Maintenance and Management  
 Engineering Services  
 Infrastructure

**LINC For SMEs:**

We are passionate about contributing to the UK SME Agenda  
 and we encourage SMEs at local and national level to work  
 together to deliver innovative solutions to our purpose. We  
 recognise that SME Agenda is more than a financial target.  
 It is about committed interaction and engagement with the  
 SME community, to evaluate, realise and materialise every  
 possible business opportunities. For further details on how  
 we aim to spend a third of our supply chain spend with SMEs,  
 please see the SME action plan, LINC to: SME Action Plan.  
 LINC (Innovate, Network, Collaborate) has been  
 designed to provide Sellafield Ltd with direct access to SMEs.  
 It is designed to increase participation of Micro, Small and  
 Medium Enterprises (SMEs) directly with us and is available to  
 all procurements up to a maximum value of £100k.

**Useful website links:**

- Sellafield Ltd website
- NDA website
- Contracts Finder
- Supply Chain Strategy
- Procurement Plan
- Find a Tender
- Legislation
- Crown Commercial
- Nuclear Industry
- Association
- Nuclear Institute

This works as a great platform to allow our SME community  
 to work directly with us and to bring innovative solutions  
 to our opportunities.  
 Only registered suppliers will be able to participate in  
 opportunity, therefore in order to qualify for LINC a  
 system please either log in with your existing details  
 are new to CTM, register as a 'new supplier' and  
 RFO 10536 - LINC Qualification.  
 Further guidance is provided on our website  
 register for LINC with Sellafield Ltd, please

**About Sellafield Ltd:**

We're creating a clean and safe  
 environment for future generations.  
 From cleaning-up the country's highest  
 nuclear fuel, materials and waste, our  
 work is nationally important.  
 We do this work on behalf of our owner,  
 the Nuclear Decommissioning Authority.  
 We can't clean up the site on our own.  
 Our teams work hand-in-hand with  
 colleagues from the supply chain. We  
 spend more than half of our annual £2  
 billion budget bringing in specialists in  
 nuclear, engineering, construction and  
 demolition.

Cleaning up the site will take us more  
 than 100 years, and there is much that  
 we still don't know. Every day we are  
 building greater certainty, and we will be  
 progress in cleaning up the site.  
 That will be our legacy.

**Sellafield Ltd**

**How to do business**  
with Sellafield Ltd

Frameworks Public Procurement Regulations  
 Sustainability SME Agenda  
 Strategic Supply Chain Supplier Relationship Management  
 Partnership Quality  
 CTM Collaboration Innovation  
 COMMUNICATION Transparency  
 Challenging Contracts Finder  
 Find a Tender  
 LINC  
 ITT  
 DPS  
 NUCLEAR  
 Supply Chain Development

**Working with us:**

Our Supply Chain is critical to Sellafield in  
 delivering against our mission, we are therefore  
 investing in the relationships with our suppliers,  
 adopting a structured, collaborative approach.  
 Our work at Sellafield can only be achieved  
 through strong partnerships with the supply  
 chain.

**The Sellafield Ltd Supply Chain Strategy  
 2019/20** sets out how we will work with the  
 supply chain to deliver the Sellafield purpose  
 in line with **procurement regulations**.

We do not have a preferred supplier list. Any  
 supplier who meets the stated requirements  
 and criteria of an opportunity can tender.  
 Contract opportunities are awarded  
 through open competition in line with  
 the general European Treaty principles of  
 non-discrimination, equal treatment and  
 transparency in order to ensure we provide  
 value for money to government and taxpayers.

Opportunities are also available for businesses  
 to work indirectly as a subcontractor through  
 our **Prime Partners**.

The Supply Chain Development Team works as  
 the conduit between Sellafield and the supply  
 chain and should be the first point of contact  
 for any enquiries. The team can be contacted  
 on: [supply.chain.enquiries@sellafield.com](mailto:supply.chain.enquiries@sellafield.com)

We also use LinkedIn to advertise our  
 engagement days and procurement  
 opportunities so make sure to follow us on our  
 LinkedIn page.

**Finding tender opportunities:**

Current opportunities to do business  
 with Sellafield Ltd are advertised on our  
 published **Procurement Plan Schedule** which is  
 available on our website. Procurement activities for the next 2 - 5  
 years. \*Note that tender dates are subject to  
 change! To bid for these opportunities  
 suppliers must register on Sellafield's Core  
 Tender Management System (CTM). Once  
 registered on the system, you can use  
 manage your tendering activities.

The Procurement Plan Schedule also lists  
 our awarded tenders that suppliers use to  
 identify relevant opportunities to bid  
 with one of our Prime Partners.

For details on  
 large contracts,  
 please contact  
 Sellafield Ltd, please

**Did you know?**

- Sellafield covers 2-square miles  
 week, 265 days a day, 7 days a  
 week, 365 days a year
- it's home to 4 of the biggest nuclear  
 and hundreds in Europe
- over 10,000 staff operate the site  
 help our employees
- more than 4,000 supply chain people  
 a non-profit organisation
- we spend £2 billion every year - but  
 find out more:  
[www.gov.uk/sellafield](http://www.gov.uk/sellafield)

**How to do business with Sellafield**



Sellafield Ltd

# Supplier Journey Document



Our new reference tool which is available to inform suppliers of the different stages of a supplier journey within Sellafield Ltd. The tool provides useful information for new and existing suppliers to understand what to expect when working with us.



# ATAMIS



Atamis is our new procurement planning, tender management and contract management tool.

For suppliers, Atamis is the tool that allows you to find and access procurement opportunities with Sellafield Ltd directly. No pre-requisites are required before registering for Atamis – any organisation can sign up.



## How to Register

Visit <https://one-nda.force.com/s/Welcome> or scan the QR code to view our tender notices, user guides and business alerts!

# Procuring Innovation

Sellafield Ltd are reliant on our supply chain to bring innovation into the organisation to help us solve some of our most complex and challenging problems. Our procurement routes for innovation outline number of ways in which we may bring solutions into the business.



LINC with Sellafield



Engineering &  
Technology Solutions  
Dynamic Purchasing  
System



Gamechangers

# LINC



LINC is a dynamic purchasing system that encourages SME's to work together and deliver innovative solutions to help deliver Sellafield's mission.



LINC opportunities can be valued up to £180,000 in line with Public Contract Regulations.



## How to Qualify to LINC

To qualify to LINC, first create an ATAMIS account and navigate to C11968 (or scan this QR code) to answer our qualification questions.



# DPS

The Engineering and Technology Solutions Marketplace Dynamic Purchasing System (DPS) for SMEs and non-SMEs:



Asset  
Maintenance



Engineering  
Services



Digital



Manufactured  
Products

To join the DPS, scan the QR code and sign up to ATAMIS and locate the opportunity using 'Find Opportunities' - C12362 Engineering and Technology Solutions Marketplace DPS Qualification.



# Gamechangers

Game Changers is an innovation programme which finds solutions for complex nuclear industry challenges.

They work with organisations of all sizes, across all sectors, to identify and develop the most promising technologies.



# Main Category Opportunities

## Construction & Asset Care

c. £250 M spend p.a.

- Civils Below Ground
- Civils Above Ground
- Demolition & Decommissioning
- Mechanical Asset Care
- Plant & Equipment Asset Care
- Electrical & Instrumentation Asset Care

## Design Engineering

c. £120M spend p.a. (£c. £30M @ Tier 3)

- Major Project Design
- Infrastructure Design
- Asset Care Design
- Categorised Project Design
- Technology Development & Prototyping
- Safety Case Services
- Manufacture Design

## Technical (Research and Development)

c. £45M spend p.a. (£c. £20M @ Tier 3)

- Waste Treatment
- Measurement and Analysis
- Robotics and Artificial Intelligence
- Digital Technologies
- Underpinning Science

## Manufactured Products

c. £20M spend p.a. (£c. £8M @ Tier 3)

- Proprietary products/materials
- Product & Waste Containers
- Pond Furniture & Mass Storage
- Bespoke Manufactured Products
- Plant & Operational Spares

## Corporate Services

c. £180M spend p.a.

- Networks and Telecoms
- Data Centre Infrastructure
- Consultancy
- Contingent Labour
- Legal services
- Travel
- Employee Services
- Records Mgmt.
- Quality Assurance
- Environmental Services, a.o.

## Site Operations

c. £250 M spend p.a.

- Operation, Maintenance & Management of CHPP & Boiler Park
- Civilian Guard Force
- Logistics Service
- Engineering Consumables & Janitorial
- Bus services
- Maintenance
- Gases, Chemicals & Feedstocks

## How to do Business with Sellafield Ltd

1

Visit the How to do Business section of the Sellafield Ltd website and follow the advice provided:  
[How to do Business with Sellafield Ltd](#)

2

Email the Supply Chain Development and Innovation team directly with enquiries and to sign up to receive our supply chain bulletin and event invites:  
[supply.chain.enquiries@sellafieldsites.com](mailto:supply.chain.enquiries@sellafieldsites.com)



3

For guidance on all stages of our contract lifecycle, please consult our [new Supplier Journey guidance document](#).



4

Research sub contract opportunities by viewing our Prime Contract list available on our website, scan the QR code to view.



5

Register on our new tendering portal, ATAMIS, for direct opportunities:  
<https://one-nda.force.com/s/Welcome>

6

SMEs can qualify to our LINC Dynamic Purchasing System to view opportunities up to the value of £180k. Contact [linc@sellafieldsites.com](mailto:linc@sellafieldsites.com) for more information or search record ref C11968 on ATAMIS to qualify.



7

Follow us on our LinkedIn Page for business opportunities and updates.

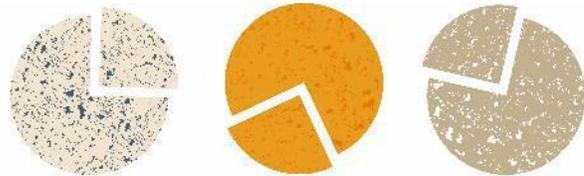


# Innovating for Success Case Studies

**CLEP**  
CUMBRIA  
LOCAL  
ENTERPRISE  
PARTNERSHIP

IN CONJUNCTION WITH





**The Cheese Larder**  
*Suppliers of specialist cheeses to the catering trade*



# Introduction to Lakes Speciality Foods

---

- Chris Gray – Managing Director
- Andy Todd - Operations Manager
  
- Established in 2004
- Award winning Catering Butcher
- Pinks
- Proud to supply top hotels and restaurants
- Cheese Larder
- Ulverston
- Company Ethos



# CLEP – Project Introduction

---

- New sausage and burger production factory
- Gas flushed production – burger and sausage
- Variovac Rotarius Tray Sealer
- Enable further investment
- Expert analysis and support



# Business Opportunities

---

- Market leader
- Shelf-life extensions
- Product Improvements
- Fully recyclable packaging
- Other Environmental impacts
- Growth



# Business Challenges

---

- No packaging technology that meets key requirements
- Environmental impacts of food production
- Customer demands changing
- Research and development costs are high
- High production costs
- Scarce labour force
- Teething problems



# The story so far

---

- January 2023 – Burger transfer
- Delays with equipment
- Delays with Gas
- Recruitment – skilled labour
- June 2023– part sausage transfer
- August 2023 – packaging equipment in place
- September 2023 full production



# Next Steps

---

- Perfect current product range
- Widen variety of products
- Develop new products
- Rebrand – Lake District Sausage and Bacon Company
- Increase Sales + delivery area
- Grow



# Thank you for Listening

---



## Any Questions?

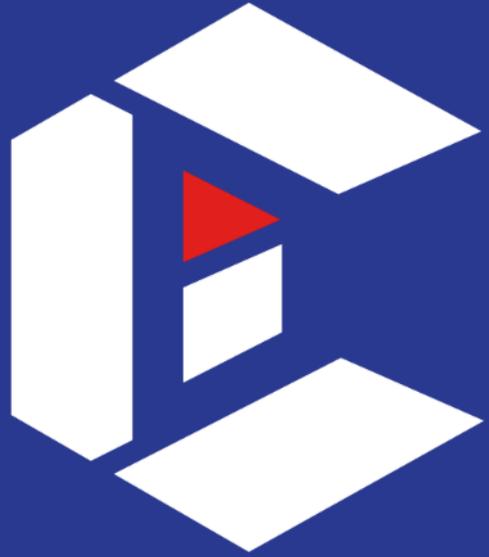


# Innovating for Success Case Studies

**CLEP**  
CUMBRIA  
LOCAL  
ENTERPRISE  
PARTNERSHIP

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# IAN CLEASBY

## AGRICULTURAL

Scrapenset



# My agricultural background

Working on my families mixed dairy farm, on the edge of the lake district



# How much help was there for innovation in the 1990's

- No Tax relief
- R&D wasn't allowable as an expense!
- No Patent Box
- Difficult to search for help - no internet
- I was told that the government policy was "if my idea was good enough it would succeed"
- How much has the innovation help progressed since 1990?

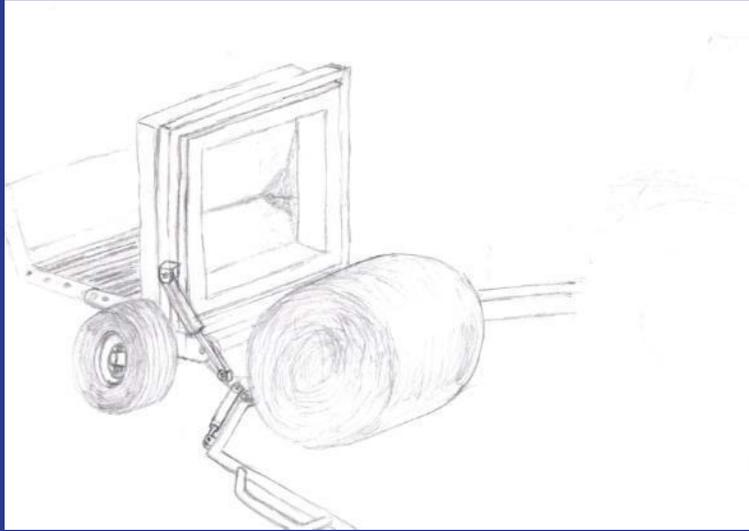


# My First Innovations

- Early 1990's
- Limited budget from savings
- No design software
- No mobile phones
- No internet
- No training
- No Experience
- Tried all sources of help
- ADAS (Defra) had no suggestions



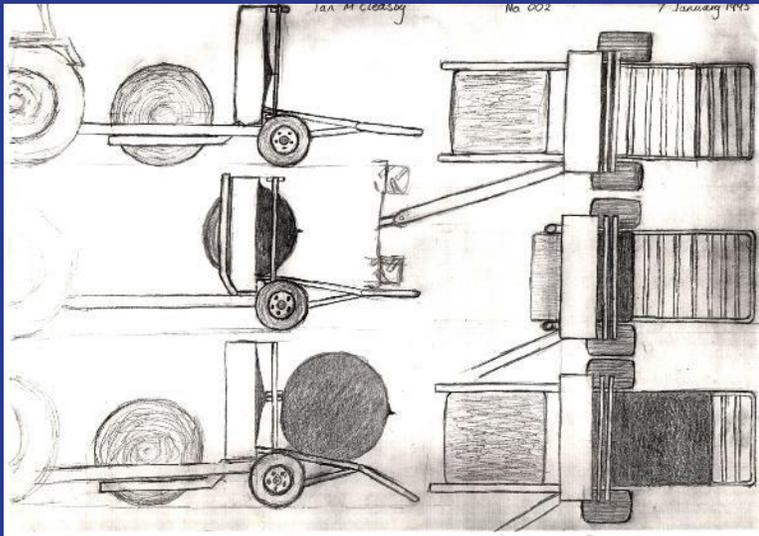
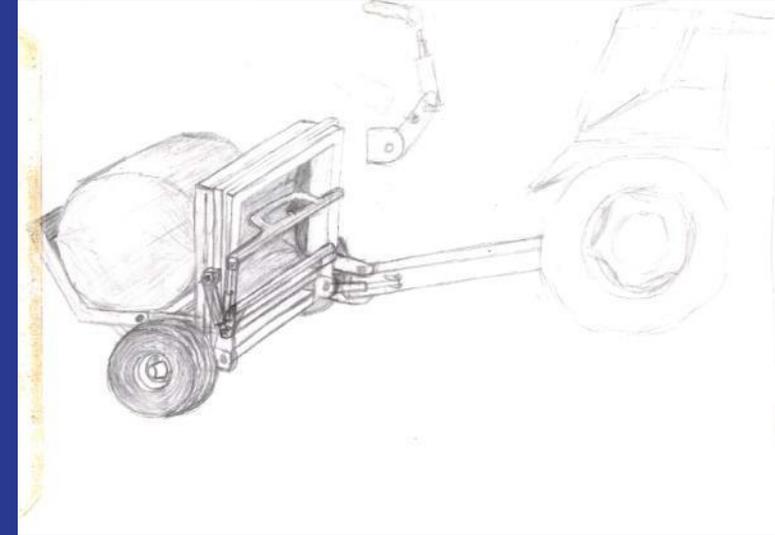
# Silage bale sealer Mid 1990's



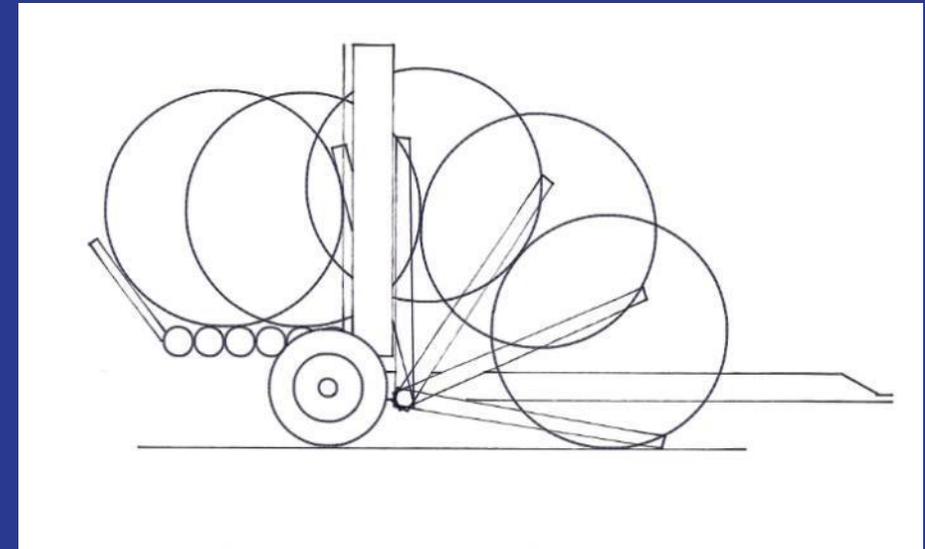
Much faster than existing machines

First sketches on a split envelope

And even on AutoCAD 12  
While doing an evening CAD course



Construction drawings were prepared on a drawing board (not shown)



# Working Prototype

Mid 1990's  
Emails and internet, still slow and expensive



Prototype made by me in my sister's shed, during evenings

Minimal equipment, welder angle grinder

Patent applied for with patent agent

Heat sealing bars and Hydraulics by sub-contractors

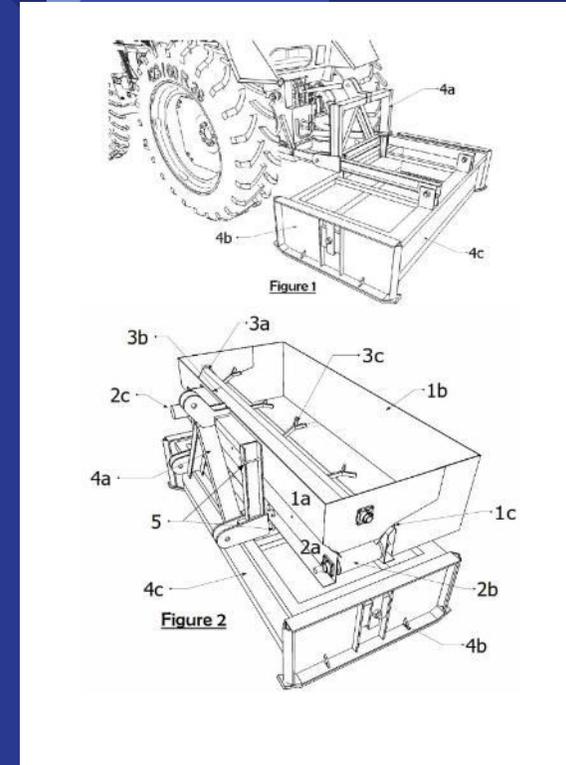
Licensed out to Dowdeswell Ltd, but never commercially available

R & D could not be set against tax, accountant advised me to go bankrupt!



# Scrapenser - combined sawdust dispenser and slurry scraper

- First drawings in 2003 - no savings to make prototype = delay
- Patent applied for, written by myself and granted after some patent agent help
- 2018 Prototype made by local firm, worked perfectly and was sold to my brother
- 3D CAD software makes it possible for digital twin
- Internet, mobile phones, experience, savings, but didn't find help



# Our First Innovation to Market - 2020

Two models  
National Dealer network  
Demonstrations and Expos  
Exporting to Ireland  
Constant innovation to improve  
Improved CAD design speeding  
changes  
Social media marketing



# Next Innovation 2022

I saw a need in the market for an animal slurry spreading system which improved absorption of nutrients into the soil - but -Is not complicated to manufacture and maintain



Splash Plate Spreading  
Losing up to 80% of Nutrients to the air



Dribble Booms  
Complicated and Expensive

## Level of Help Available Now

Assistance has increased dramatically since 1990:

### **R & D tax relief**

**Patent Box** - 10% tax on patented products

Easy access grants - **CLEP, RAEng, Innovate UK, FIS  
360**

### **Accelerator programs**

Internet access, mobile phones, social media

Free Training & Advice - **Cumbria Chamber of Commerce**

# Cumbria Local Enterprise Partnership

## Innovating for Success Program

My experience:

Easy application process

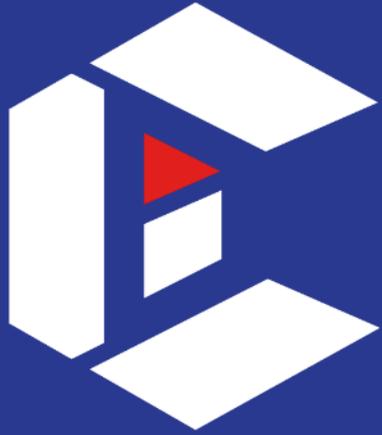
High success rate

Suits a huge variety of applications

Straightforward 3 monthly claim system

Prompt payment

Great execution and backup



# IAN CLEASBY

## AGRICULTURAL

Huge Thank you to all organisations mentioned for helping me  
achieve my dreams

Ian Cleasby  
Penrith  
Cumbria

01768892027  
07866775858

[iancleasbyagri.co.uk](http://iancleasbyagri.co.uk)  
[info@iancleasbyagri.co.uk](mailto:info@iancleasbyagri.co.uk)



# Question and Answer Session



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**FIS 360**  
INNOVATION | TECHNOLOGY | BUSINESS

# Supporting Innovation – Funding Opportunities

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ENTERPRISE  
PARTNERSHIP

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# FIS 360

INNOVATION | TECHNOLOGY | BUSINESS

## Supporting Innovation- Finding Funding

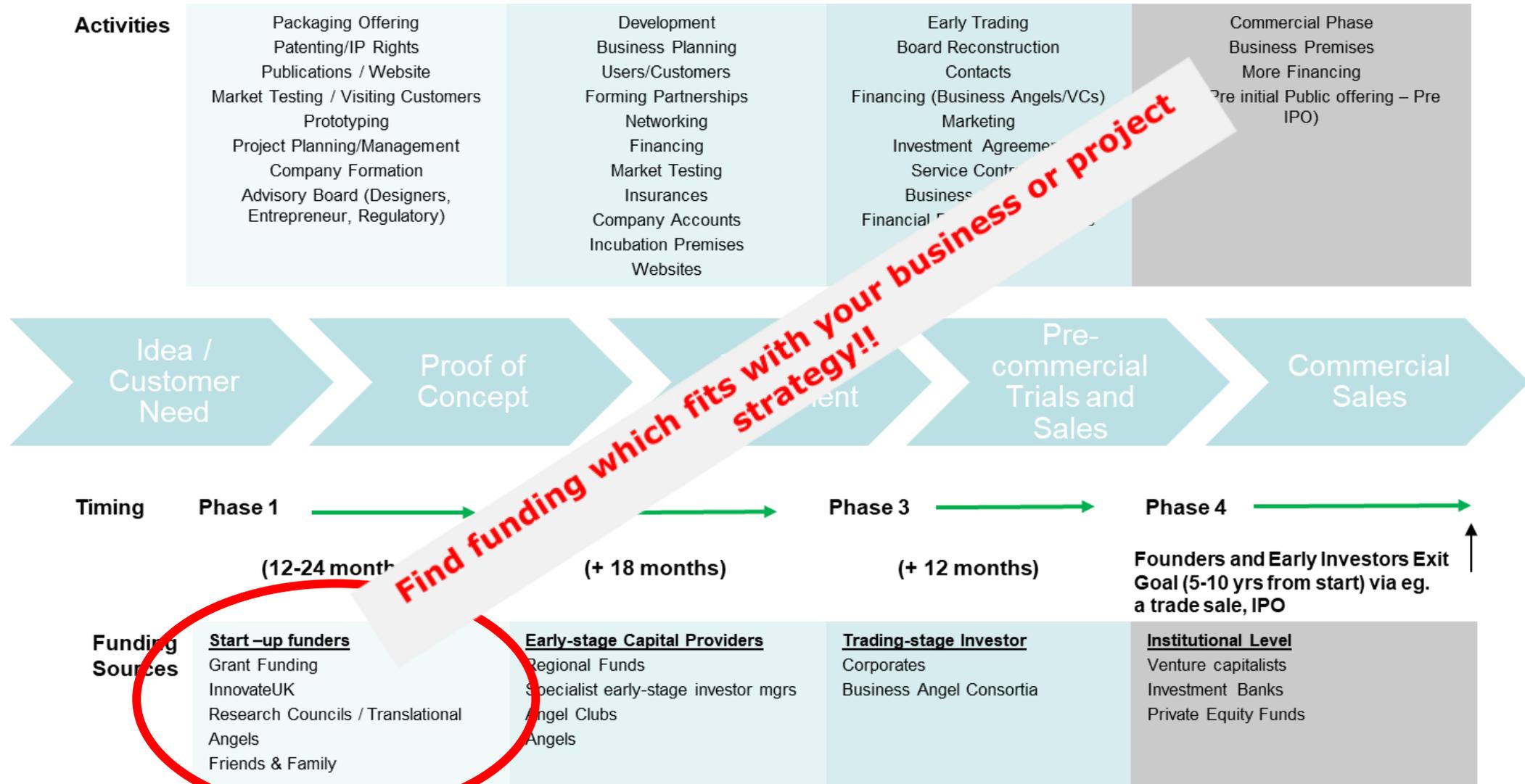
[Dr. Frank Allison](mailto:frank@fis360.com)  
[frank@fis360.com](mailto:frank@fis360.com)

# Overview

1. National Funding Grants and Research Contracts
2. Corporate Funding
3. EU Funding
4. Alternative Funding Routes



# Non-Dilutive funding (aka Grants & Contracts)



# National funding calls

- UK Research & Innovation (UKRI)

## Our main funds

Learn more about the key areas we're currently investing in.

[www.ukri.org/what-we-offer/our-main-funds/](http://www.ukri.org/what-we-offer/our-main-funds/)



### Industrial Strategy Challenge Fund

Tackling the big societal challenges of the government's industrial strategy



### Global Fund

A £1.5bn opportunity



### Strength In Places Fund

Using research and innovation to drive regional economic growth in the UK



### Future Leaders Fellowships

Developing the next generation of world-class research and innovation leaders



### Fund for International Collaboration

A £160m fund strengthening global partnerships with research and innovation leaders



# National funding calls

The screenshot shows the UKRI Funding finder website. At the top left is the UKRI logo and the text 'UK Research and Innovation'. To the right is a navigation menu with links: 'Apply for funding', 'Manage your award', 'Our work', 'News and views', 'About us', and 'Our councils'. A search bar is located on the far right. Below the navigation is a secondary menu with links: 'Funding finder', 'Before you apply', 'Funding for COVID-19 research', 'How we make decisions', 'Projects we've funded', and 'Horizon Europe: help for UK applicants'. The main content area is titled 'Funding finder' and features three sorting options: 'Sorted by publication date (newest first)' (highlighted in purple), 'Sort by opening date (oldest to newest)', and 'Sort by closing date (oldest to newest)'. Below the sorting options, a dark purple bar indicates '113 opportunities found using the current filters'. A featured opportunity is titled 'Analyse the probation and criminal justice system linked dataset' with a sub-description: 'Apply for funding to analyse the new probation and criminal justice system linked dataset.'

<https://www.ukri.org/opportunity/>



# National funding calls

## Innovation competitions

### Filter competitions

Keywords

Innovation area

Update results

### 34 competitions

#### [UK-US Offshore Wind Collaborative R&D](#)

UK registered organisations can apply for a share of up to £2 million for offshore wind R&D projects. UK projects must work in collaboration with separately funded US projects. This funding is from Innovate UK and for UK projects only.

#### Eligibility

This competition is open to UK organisations working in collaboration with US projects.

To lead a project your organisation must:

- be a UK registered business of any size or a research and technology organisation (RTO)
- be or involve at least one grant claiming UK registered [micro, small or medium-sized enterprise](#) (SME)
- work with a US project which intends to apply or has already applied for funding from the US National Offshore Wind Research and Development Consortium (NOWRDC)

#### Opening soon

Opens: 16 October 2023

<https://apply-for-innovation-funding.service.gov.uk/competition/search>



# National funding calls

**Finance and support for your business**

Apply for a [Start Up Loan for your business](#)  
Find [coronavirus financial support for your business](#)

From: [Department for Business, Energy & Industrial Strategy](#)

Search **173 schemes** [Get emails](#) [Subscribe to feed](#)

**Type of support**

- Finance
- Equity
- Grant
- Loan
- [Creative and digital](#)

**Business stage**

**Industry**

**Number of employees**

**Access to finance - Greater Manchester and Lancashire**  
Access to finance is a scheme for businesses who need help raising finance for growth.

**AD:VENTURE - Leeds City Region**  
Provides free business development support and guidance.

**Advisory, Conciliation and Arbitration Service (Acas) - UK**  
Advice on good practice in employment and employment relations.

**Agri-tech Cornwall - Cornwall and the Isles of Scilly**  
Grants and support to increase research, development and innovation in agritech.

**ART Business Loans - West Midlands**  
Loans for new and existing small businesses to create and safeguard jobs in the West Midlands.

[www.gov.uk/business-finance-support](http://www.gov.uk/business-finance-support)

Discover how to grow your manufacturing through technology at the Made in Greater Manchester event: 22 Mar 2022 - [Find out more](#)

SEARCH [Already Registered? SIGN IN](#)

**MADE SMARTER**

[ADOPTION](#) [INNOVATION](#) [SKILLS](#) [ABOUT](#) [INSIGHTS](#) [START YOUR JOURNEY →](#)

**Current Opportunities**

Support and opportunities to drive a leading-edge, sustainable, and effective UK manufacturing landscape

[www.madesmarter.uk/made-smarter-innovation/current-opportunities/](http://www.madesmarter.uk/made-smarter-innovation/current-opportunities/)



# National funding calls

## **KTP Programmes** (*technical & management*)

- <https://www.ktp-uk.org/business/>

## **Impact Accelerator**

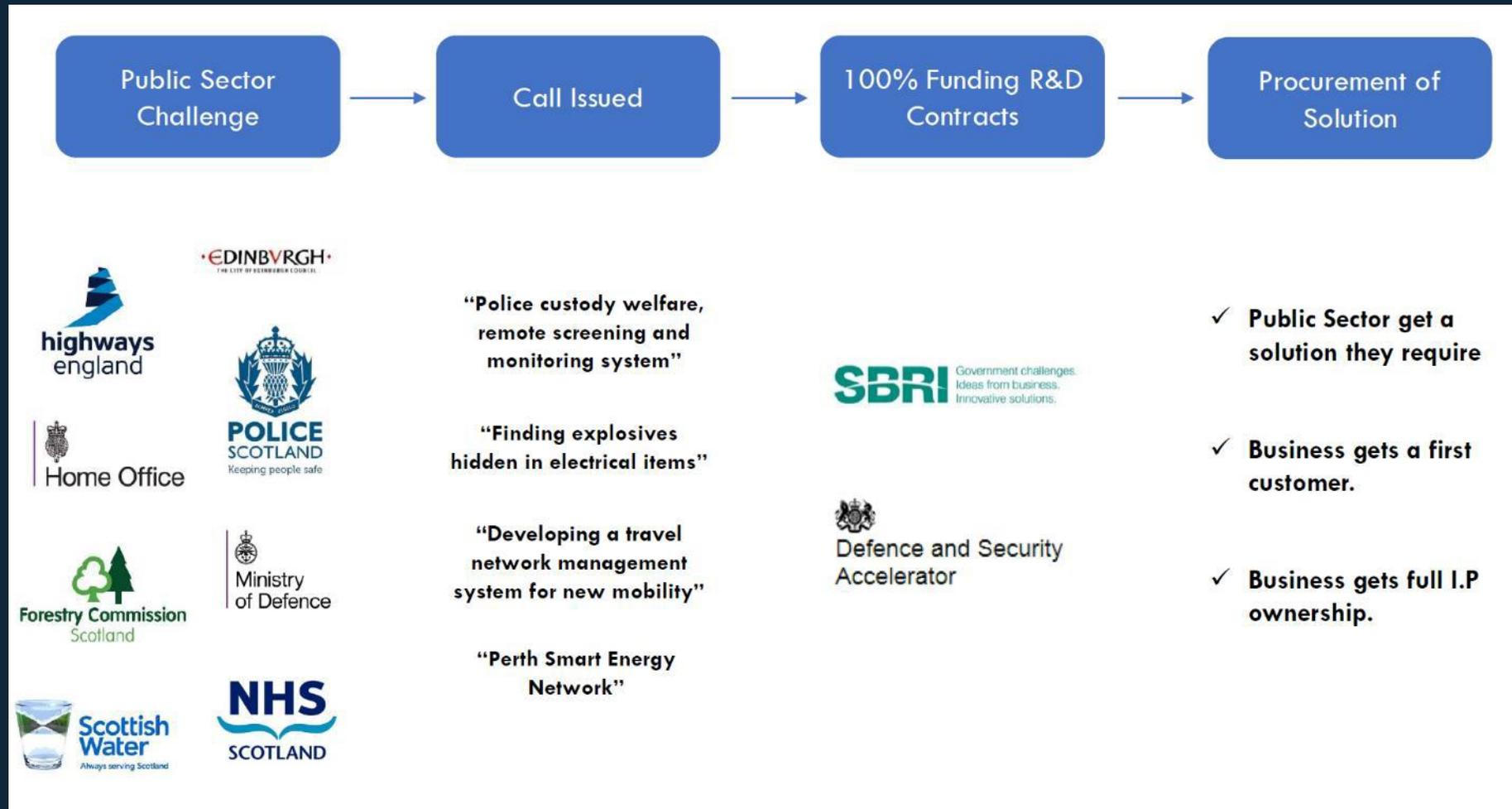
- <https://epsrc.ukri.org/innovation/fundingforimpact/impact-acceleration-accounts/>

## **Fellowship Schemes**

- <https://www.rse.org.uk/awards/enterprise-fellowships/>
- <https://www.raeng.org.uk/grants-prizes/grants/support-for-research/raeng-research-fellowship>



# Research contracts



# Funding with Corporate Pull (examples)

EIC

Collaborate to innovate

[www.ukaic.com/](http://www.ukaic.com/)

nationalgrid

[www.nationalgrid.com/](http://www.nationalgrid.com/)

ofwat

<https://waterinnovation.challenges.org/>



GAMECHANGERS  
DELIVERING NUCLEAR INNOVATION

[www.gamechangers.technology/](http://www.gamechangers.technology/)



# Other funding options

## Grant Finder

<https://www.grantfinder.co.uk/>

## Grants Online

<https://www.grantsonline.org.uk/>

- Annual subscription
- Good level of detail across all grant funding industry sector

## Social Enterprise Funding

<https://www.unltd.org.uk>

## School of Social Entrepreneurs

<https://www.the-sse.org/resources/starting/what-funding-is-available-for-social-entrepreneurs/#1>

## Crowd Funding

<http://crowdfunding.com/>

## KTN Funding

<https://ktn-uk.co.uk/funding>



*The list is endless and an ever  
changing landscape*

# EU funding options

European Commission | Funding & tender opportunities  
Single Electronic Data Interchange Area (SEDIA)

Register Login

HOME SEARCH FUNDING & TENDERS HOW TO PARTICIPATE PROJECTS & RESULTS WORK AS AN EXPERT SUPPORT

Search funding & tenders

Search

Search by keyword...

Match whole words only

Type

- Grants (9458)
- Tenders (10144)

Submission status

- Forthcoming (346)
- Open for submission (807)

There are more than 10000 results, please refine your search criteria.

Technical Assistance for Development of End-of-Waste Concept in Turkey  
NEAR/ANK/2021/EA-RP/0099

Design work, project support and documentation  
JRC/KRU/2022/RP/0912

Supply of "Improving Digitalization and Creativity Ecosystem in Kütahya"  
NEAR/ANK/2023/EA-OP/0181

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-search>

enterprise europe network

HOME THE NETWORK ADVICE AND SUPPORT PARTNERSHIP OPPORTUNITIES EVENTS SUCCESS STORIES BLOG

Helping companies innovate and grow internationally

International partnerships  
Expertise, contacts and events to connect you with the right international partners to grow your business.

Advice for international growth  
Expert advice for growth and expansion into international markets.

Support for business innovation  
Solution-driven services to help you turn your innovative ideas into international commercial successes.

<https://een.ec.europa.eu/>



# EU funding options

Eurostars is a European funding programme dedicated to supporting R&D performing SMEs in innovative R&D projects



European Criteria	UK –Specific Criteria
**SME applicants must be "R&D-performing" **	Only SMEs eligible to receive funding
There must be at least two eligible organisations from two Eurostars countries in a consortium.	Company must be VAT registered and trading for 12 months at time of application
Participant SMEs must be responsible for at least 50% of the total project costs.	All work by that SME must be carried out in the UK
No single participant or country should undertake more than 75% of the total work.	All project funds by the SME must be spent in the UK
Projects must be no more than 3 years.	Subcontracting is capped at 20% of total project costs and subcontractors must be in the UK
Market Introduction is foreseen within 2 years of project end.	Project management cannot be subcontracted

## UK Contact

**Ben Morris**

[ben.morris@innovateuk.ukri.org](mailto:ben.morris@innovateuk.ukri.org)

Desk: +44 (0) 1793 361 220

Mobile: +44 (0) 7795 641 229

## Funding for UK

Up to €360k per SME Partner

60% of eligible costs

## Next call

Spring 2021 (2 PA)

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/topic-search>





**FIS 360**

INNOVATION | TECHNOLOGY | BUSINESS

Thank you

[www.fis360.com](http://www.fis360.com)

**REMEMBER:**

**Apply for funding which fits with your business or project strategy!!**

# Comfort Break



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ENTERPRISE  
PARTNERSHIP

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# Innovation Lightning Talks

**CLEP**  
CUMBRIA  
LOCAL  
ENTERPRISE  
PARTNERSHIP

IN CONJUNCTION WITH



# The beating heart of the UK entrepreneurial ecosystem



At Barclays Eagle Labs our mission is to connect the UK's entrepreneurial ecosystem through a network of business incubators, expertise and support.

We have created a community of top innovators, industry experts and mentors designed to support ambitious entrepreneurs and startups looking to scale as well as helping transform organisations and empower future skills.

# The impact of Eagle Labs

**34**

Locations supported

**15,455**

Event attendees YTD

**8,462**

Businesses supported

(volume of members, programme participants, alumni as well engaged ecosystem businesses)

**6**

Growth Programmes due to be delivered in 2022

**>£1.9b**

Funding raised by members, programme participants and alumni

**+86**

Net Promoter Score

# Eagle Labs supports:



## Dedicated Growth Programmes

We partner with specialists to design programmes to help founders accelerate their growth, with themes that include fundraising, international connectivity and founder diversity.

Relevant for:

- Startups
- Scaleups



## Ecosystem Expertise

Our team understand their local and national ecosystems, and are able to connect startups and scaleups with specialists, corporates and investors.

Relevant for:

- Startups
- Scaleups



## Industry Specialisms

Bringing together key industry players and startups, giving them a facilitated environment to collaborate and innovate.

- Corporates
- Startups
- Scaleups



## Access to Business Mentoring

Dedicated one-to-one coaching and support for founders from mentors with backgrounds in business, growth and academia.

- Startups
- Scaleups



## Investor Connectivity

Creating opportunities for high potential businesses to connect and showcase their businesses to investors.

- Private investors
- Scaleups



## National Network of Incubators

Eagle Labs operate the UK's largest network of business incubators. Founders are able to work from, and connect with, our locations and spaces.

- Local authorities and government
- Startups



## Events and Workshops

A series of events, networking opportunities and workshops designed to help educate and inspire ambitious businesses.

- Startups



## Learning and Insights

Videos, reports and articles; we publish content that covers a wide range of topics to help founders run their business and for everyone to gain insights into our ecosystem.

- Startups



## Engineers

Access to our engineers and dedicated Maker Spaces who help bring ideas and prototypes to life.

- Startups



## Deals & Offers

Specially curated offers from third parties that are designed to help businesses run more smoothly.

- Startups



# MAKER SPACE

Eagle Labs Cumbria

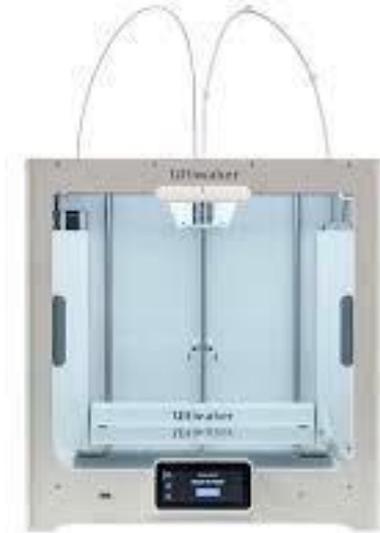
Zoe Crossan  
Eagle Labs Lab Engineer





MAKER SPACE in the Bus Station, Whitehaven

## FDM PRINTERS (3 ULTIMAKER 2+, 3 ULTIMAKER 3, ULTIMAKER 2+CONNECT, ULTIMAKER S3 )



- Dual Print Heads
- 2 Extended versions - build height up to 300mm
- S3 Build plate (largest) – 190 x 200mm
- Compatible with over 110 materials



- Applications – Rapid prototyping & product development
- Metal expansion kit available for S3

## MJP PRINTER (PROJET 2550)



- Material – Gypsum based powder and ink binder
- Colour - full CMYK
- Generous build volume: 254 x 381 x 203mm

- Applications – Concept modelling, validation prototyping, biocompatible medical devices, jigs, tools

## MJP PRINTER (PROJET 2550)



- Material – Gypsum based powder and ink binder
- Colour - full CMYK
- Generous build volume: 254 x 381 x 203mm

- Applications – Architectural models, educational models, industrial design validation.

## LASER CUTTERS (TROTEC SPEEDY 100 & TROTEC SPEEDY 100 FLEX )



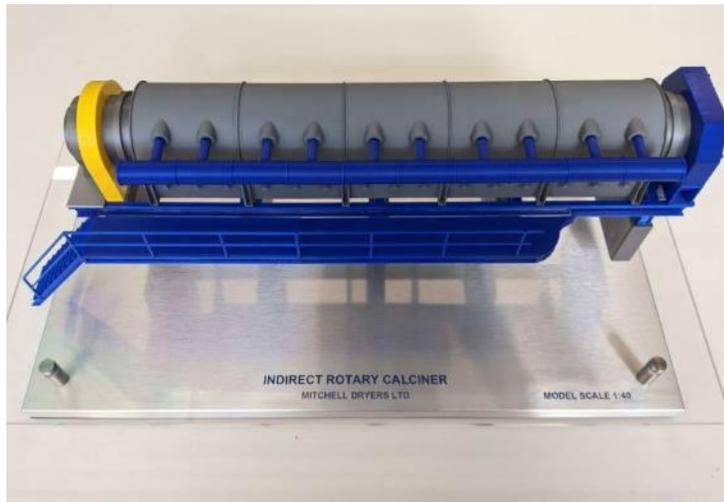
- Cutting bed size – Max. 740mm by 440mm
- Material choices CO2 laser – laserable plywood, acrylic, polypropylene, rubber up to 10mm thick
- Material choices Fibre laser – stainless steel, aluminium, bronze etc (marking only – doesn't cut)



- Accuracy - High resolution engraving and precision cutting
- Rotary axis – for engraving glasses, trophies etc
- Applications – rapid prototyping, point of sale and bespoke signage/branding.

## OTHER KIT (VINYL CUTTER ROLAND GS-24, CNC MILLING ROLAND SRM-20, SLA PRUSA SL1)

Combining the technology with CAD skills opens-up lots of exciting innovation possibilities...



- Exhibition & consultation models



- Apprentice style workshops



- Room hire for members



**Thank you**

 **BARCLAYS** | **Eagle Labs**

# Innovation Lightning Talks

**CLEP**  
CUMBRIA  
LOCAL  
ENTERPRISE  
PARTNERSHIP

IN CONJUNCTION WITH





# DEFENCE AND SECURITY ACCELERATOR (DASA)

## INNOVATION FOR A SAFER FUTURE



### What we do

**DASA finds and funds exploitable innovation to support UK defence and security quickly and effectively.**

We help small and medium-sized enterprises to reach the marketplace quicker and help larger companies to enhance their offerings. We unlock innovation potential by offering a unique set of benefits to innovators:

- We do not take any of the Innovators' Intellectual Property or equity
- We provide **100%** funding for most open and themed competitions
- We can provide access to unparalleled expert government advice

### Applying for funding

We fund innovation through four main mechanisms:

**Open Call for Innovation** – Any innovation relevant to defence and innovation focus areas for security.

**Themed Calls** – Innovation that meets the needs of specific government areas of interest.

**Defence Technology Exploitation Programme** – For UK SME projects aligned to MOD Enduring Capability Challenges. 50% match funding. Higher Tier Supplier contributes time and resources to work with Lower Tier Supplier.

**Defence Innovation Loans** – Encourages UK SMEs to move towards commercialisation through later stage R&D.

### Contact a DASA Innovation Partner

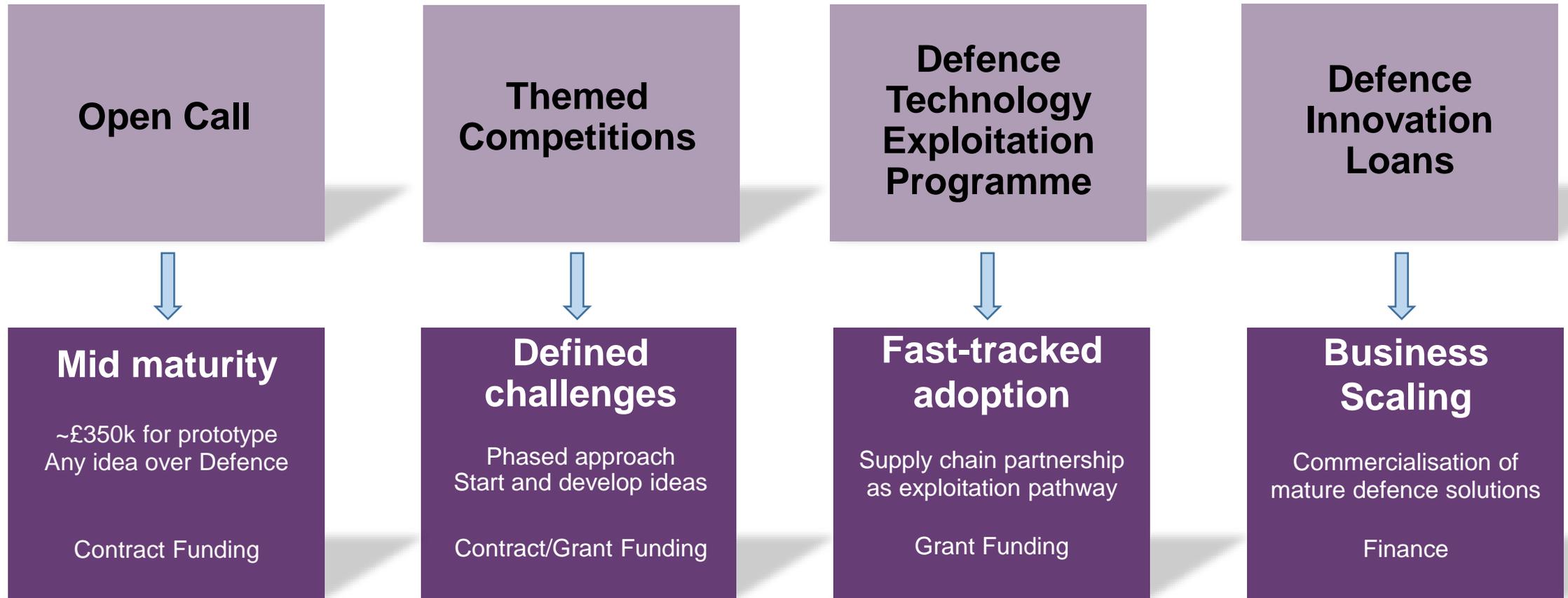
Innovation Partners are available to give advice to suppliers about their ideas and how they can best engage with DASA.

### Engagement with DASA helps you

- Understand the viability of an innovative idea
- Discover the potential wider government application
- Investigate commercial exploitation opportunities
- Explore collaboration prospects
- Access front line users and decision makers across government



# Funding Innovation



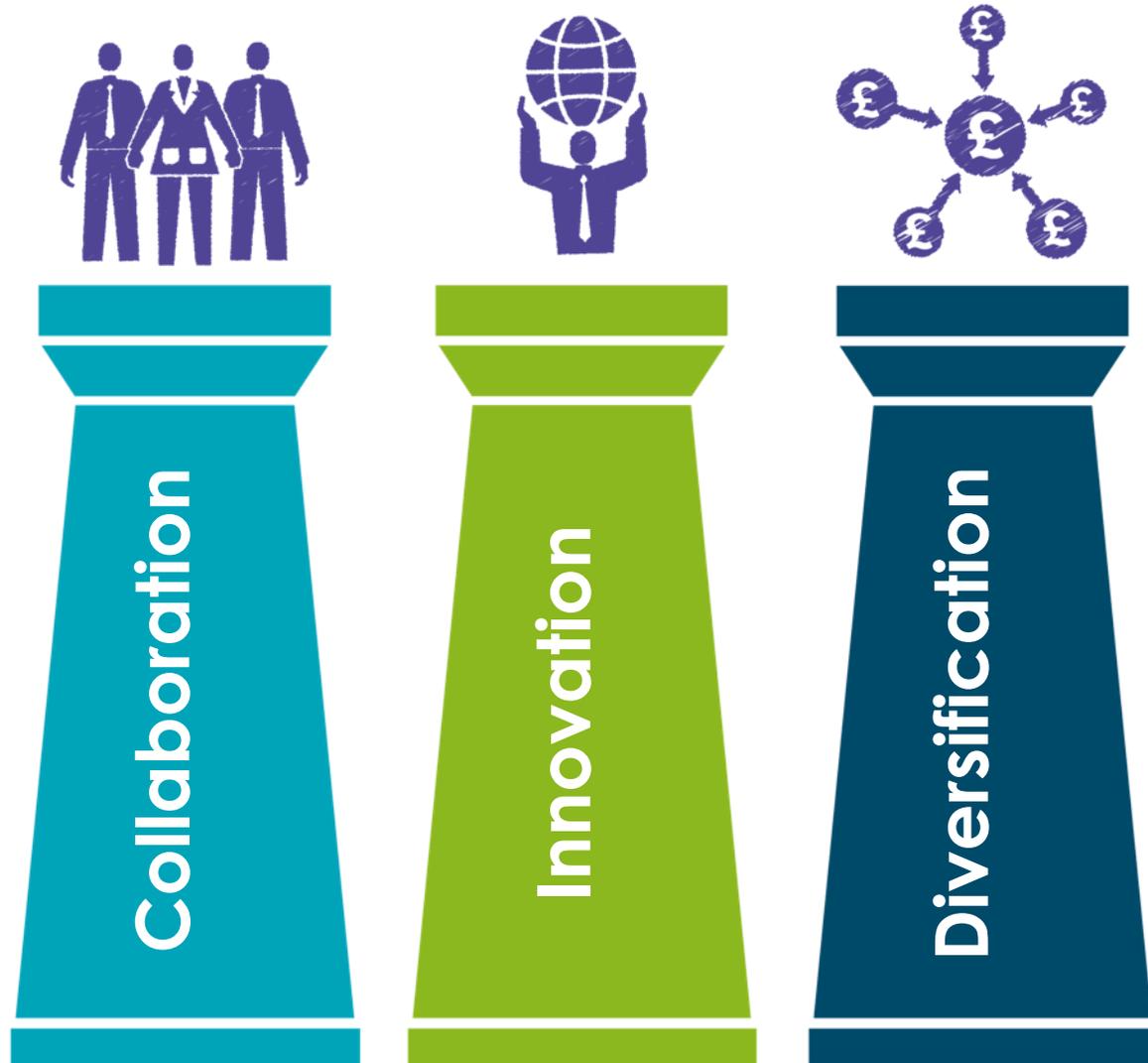
# Innovation Lightning Talks

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# A Growth Economy Needs



# The Hub – Indicative Visuals



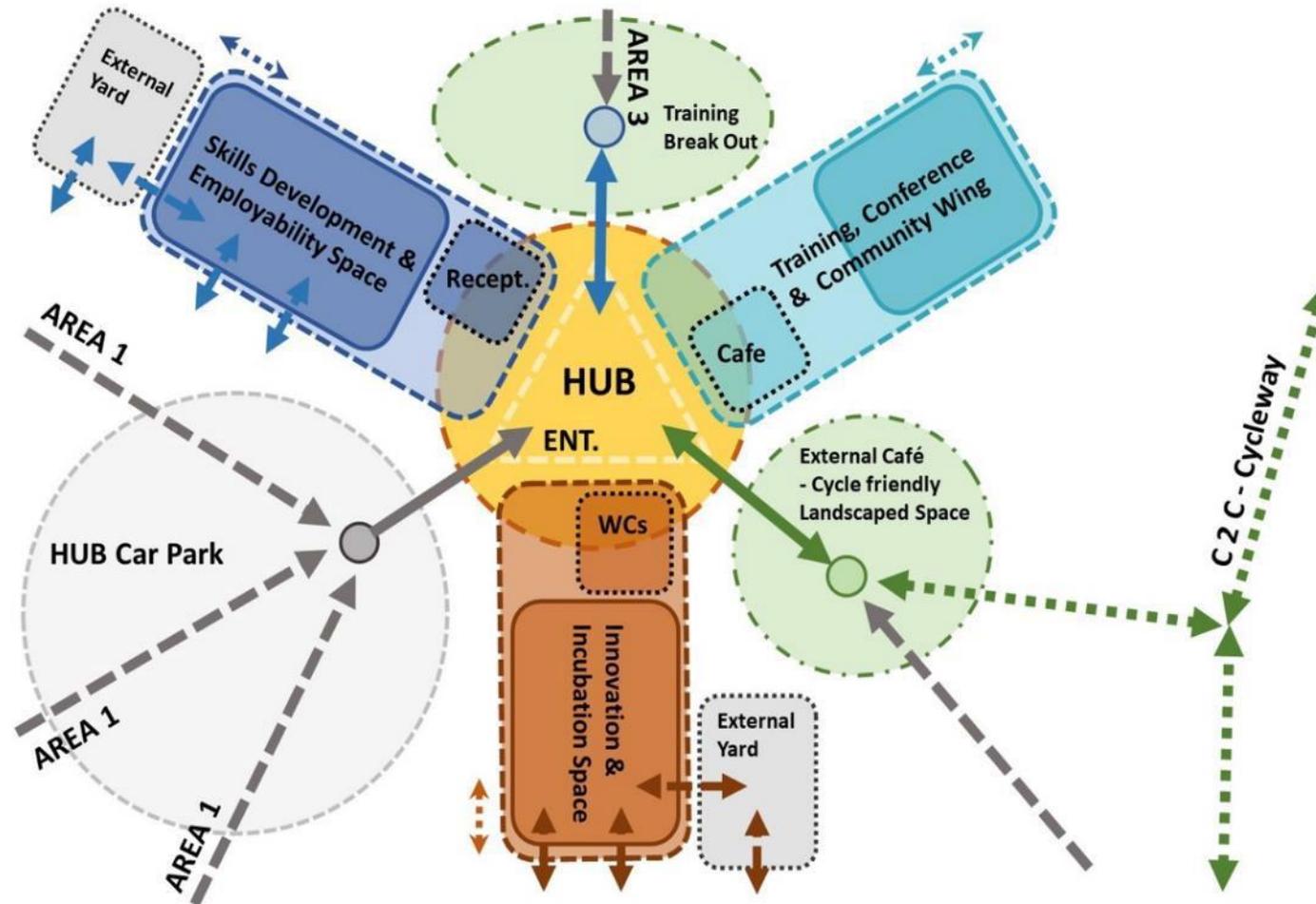
**iSH**  
Making ideas Work

## Hub Design

- Design a building that will help support existing and new business.
- Fits into local context as well as suitable within shadow of the lake district national park.



# The Hub – Spark of Innovation, Incubation, and Education



**iSH**  
Making ideas Work

## HUB

- 3 main elements
- Innovation and Incubation Space
- Skills, Development and Employability and
- Training, conference and community.





[john.maddison@ishco.co.uk](mailto:john.maddison@ishco.co.uk)

**iSH**  
Making ideas Work

# Innovation Lightning Talks

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# Financial and Additional Support

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# NPIF Funding

[BUSINESSFINANCE.GROWTHCO.UK](https://businessfinance.growthco.uk)



# Core Lending Products

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We offer a viable, publicly backed alternative to mainstream finance with solutions from £500 to £2m for growing businesses across the North West.



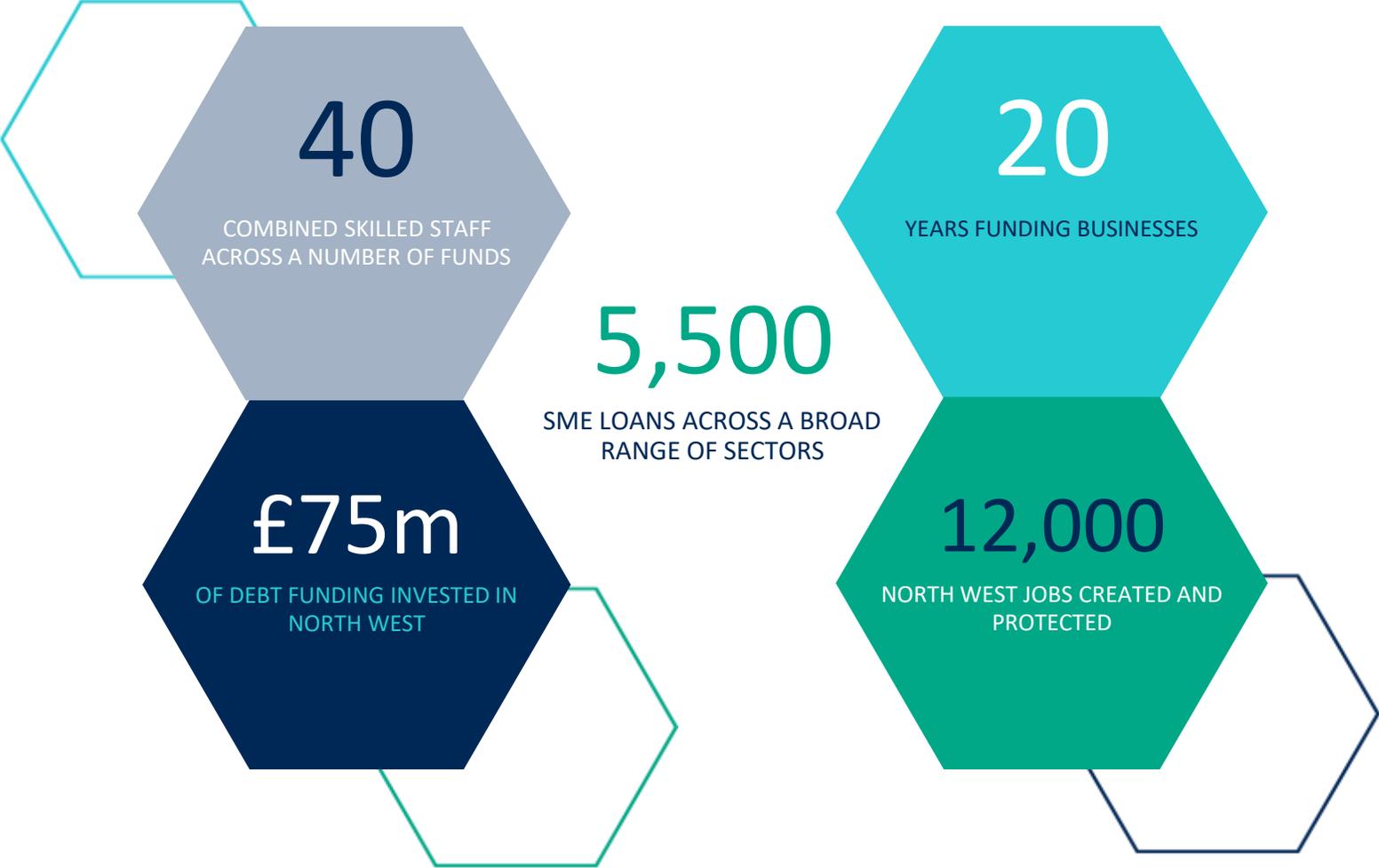
The Start Up Loans programme, delivered by GCBF on behalf of the British Business Bank, can provide loans of £500 - £25,000.



Northern Powerhouse Investment Fund microfinance, delivered by GCBF on behalf of the British Business Bank, provides loans of between £25,001 and £100,000.



# GCBF – Track Record



# NPIF Microfinance

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- Part of £500m Northern Powerhouse Investment Fund (NPIF) launched by the British Business Bank.
- Amount: £25,000 to £100,000
- Term: up to 60 months
- Cost: 2% arrangement fee, 1% annual monitoring fee
- Interest rates typically from 9% to 12%.
- Security: Recovery Loan Scheme and Personal Guarantee.



Department for  
Business, Energy  
& Industrial Strategy



**NORTHERN  
POWERHOUSE**  
Investment Fund



Delivered by British Business Bank



**European Union**

European Regional  
Development Fund



# Our Criteria

---

- Based in the Northwest i.e., Lancashire, Cumbria, Greater Manchester or Cheshire & Warrington.
- Funding required for business growth and development.
- 
- Sector agnostic (except property)
- Trading B2B or B2C.
- Creating or safeguarding jobs.
- Bank decline or self-certification.



# What We're Looking For

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- A thorough business plan.
- Filed accounts
- Profit & loss and balance sheet covering trade since year end.
- A cashflow forecast with details around the assumptions.
- 3 months of bank statements.
- Specifics on any projects or contracts including the terms.
- Aged debtors and creditors.
- Details of any other debt or credit agreements.



# Summary

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## Examples of previous deals

- £50,000 to a hotel looking to update furnishings etc
- £50,000 to a cleaning company taking on new contracts and staff
- £40,000 to a web design company diversifying into ecommerce
- £45,000 to an aesthetics company
- £30,000 to a retail store increasing their product lines



FOR MORE INFORMATION, PLEASE CONTACT US:

ALISON POWELL

SENIOR LOAN MANAGER

[ALISON.POWELL@GROWTHCO.UK](mailto:ALISON.POWELL@GROWTHCO.UK)

[BUSINESSFINANCE.GROWTHCO.UK](https://BUSINESSFINANCE.GROWTHCO.UK)

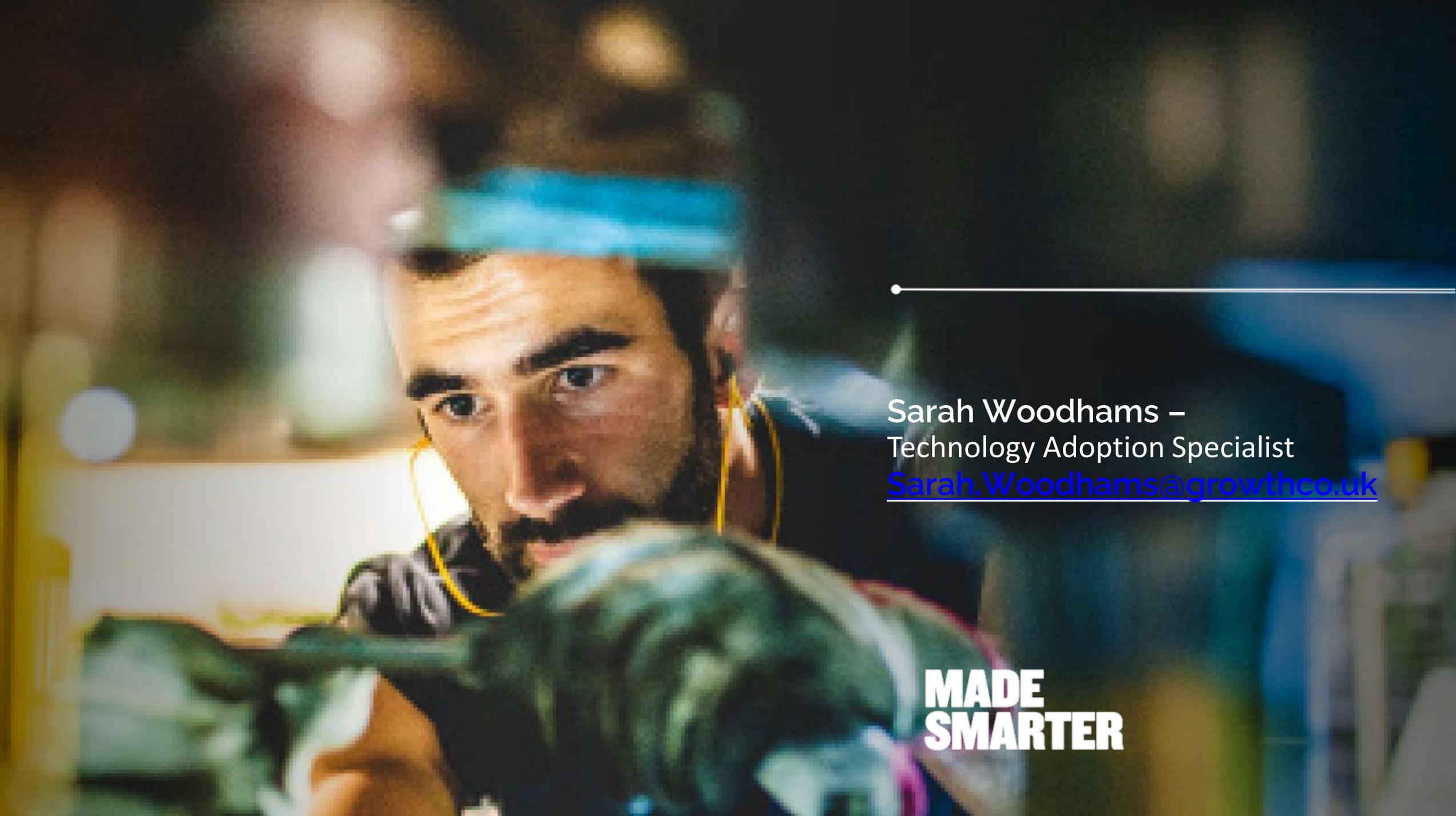


# Financial and Additional Support

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Sarah Woodhams –  
Technology Adoption Specialist  
[Sarah.Woodhams@growthco.uk](mailto:Sarah.Woodhams@growthco.uk)

**MADE  
SMARTER**

# MADE SMARTER

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Made Smarter is a programme backed by world-renowned businesses and UK government.

We connect makers to digital tools that will transform the way you work that make an everyday difference to their business.

Who do we work with?

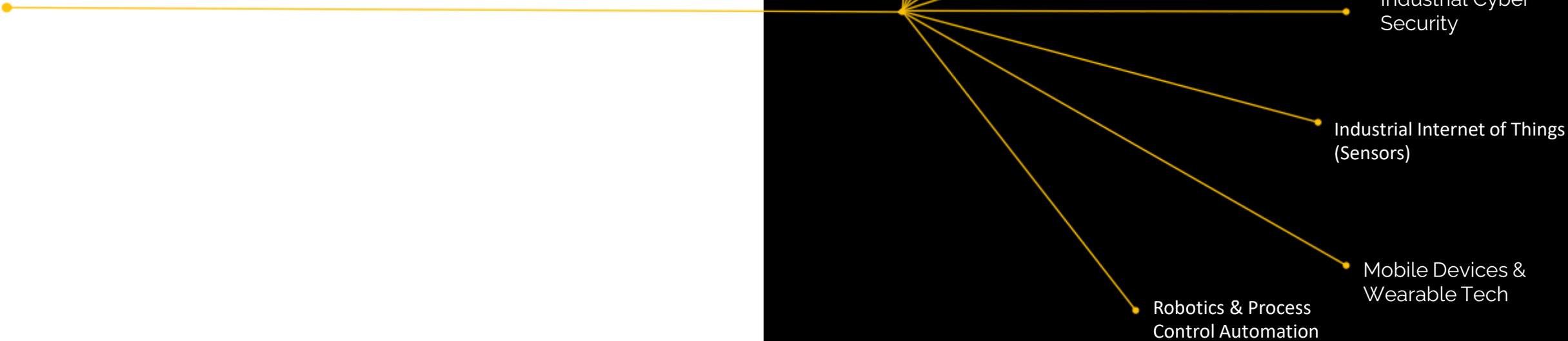
- 
- Manufacturers, makers and creators
  - SMEs with operations or facilities in Cheshire & Warrington, Cumbria, Greater Manchester, Lancashire & Liverpool City Region
  - Businesses with less than 250 employees
  - Those at any stage of digital journey from first-time adopters to experts

## What do we do?

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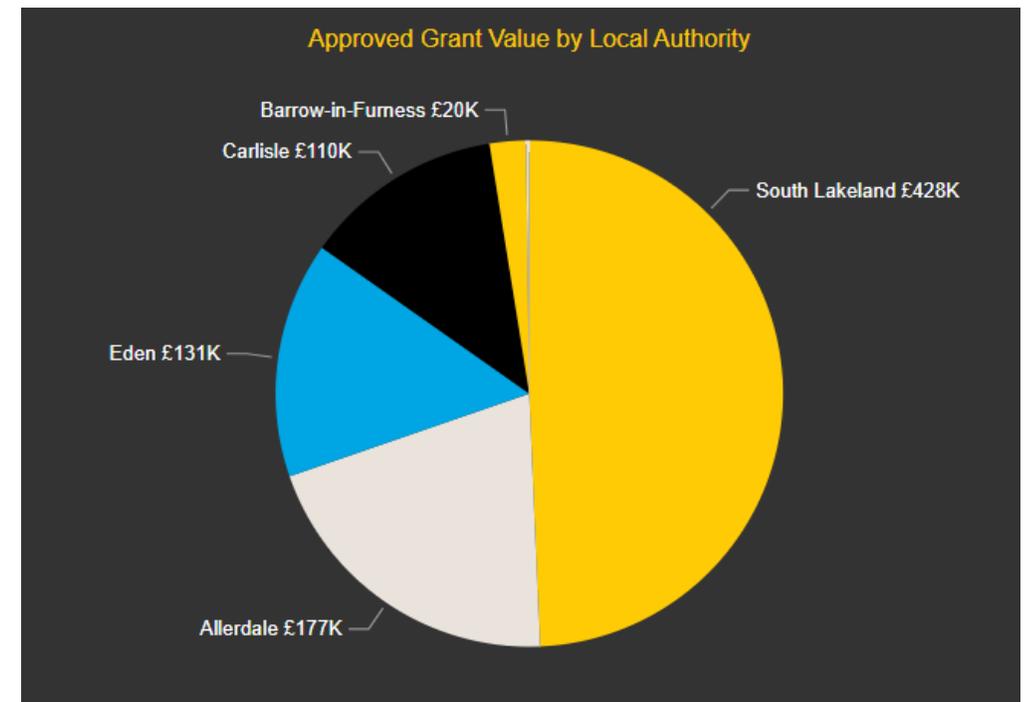
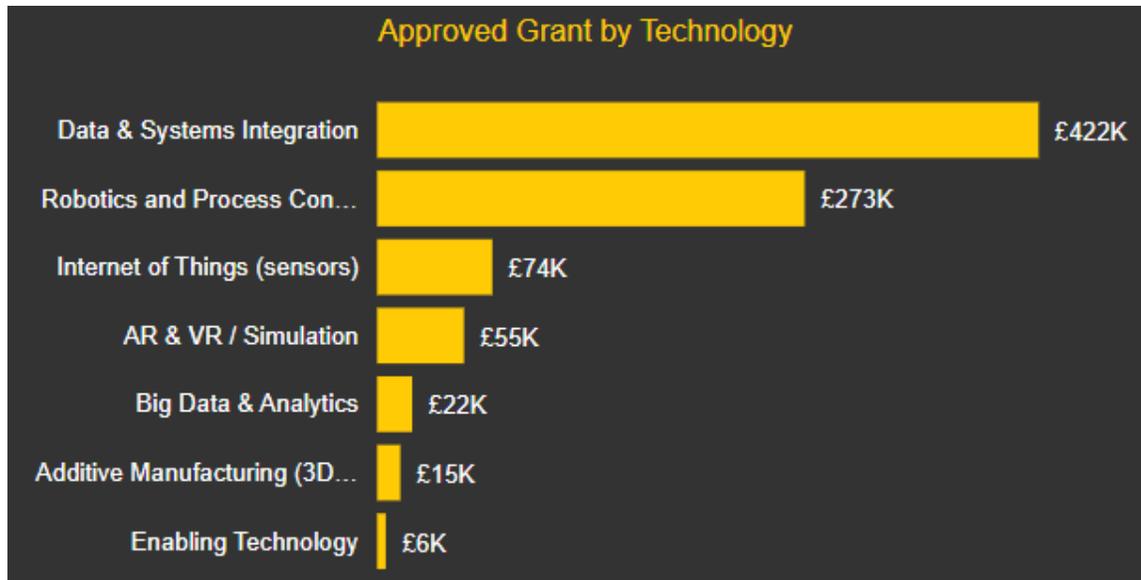
- Advice from specialist technology experts
- Create a digital transformation strategy and roadmap
- Organisation and workforce development to support technology projects
- Leading Digital Transformation and Leading Change for Digital Champions programmes
- Grant funding for implementation of projects (currently match funded up to 50% with £20k cap)

# What Technologies do our Made Smarter projects support?



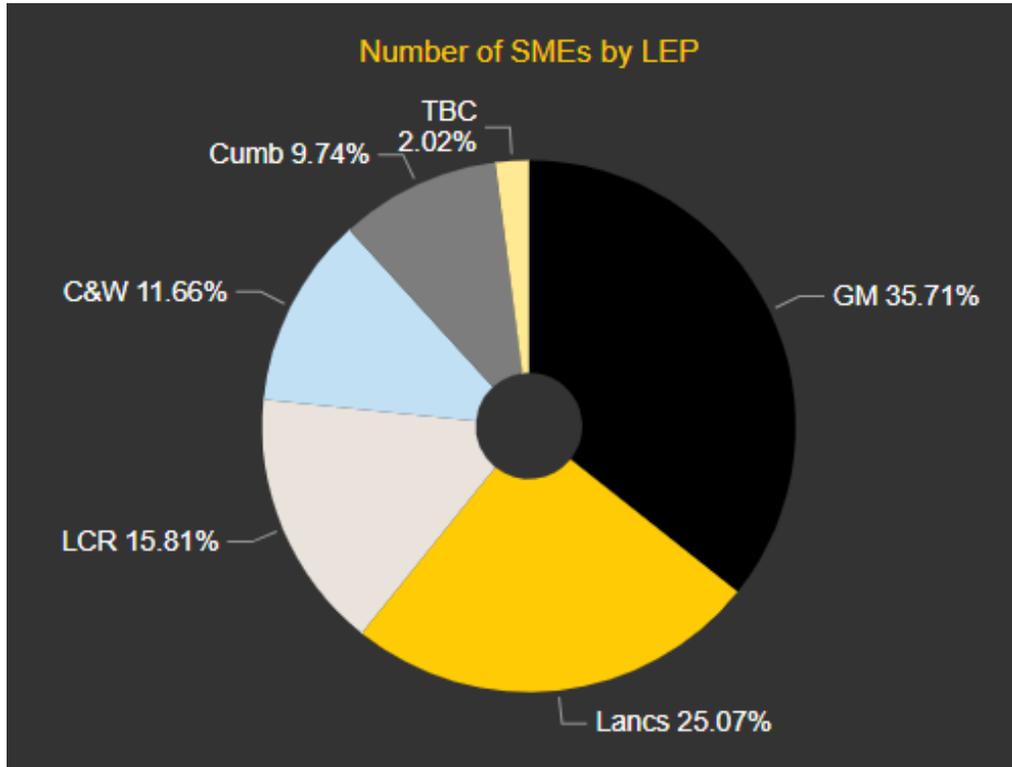
# Made Smarter in Cumbria

Grant Recipients	Grants Awarded	Grant Value
42	47	£867K

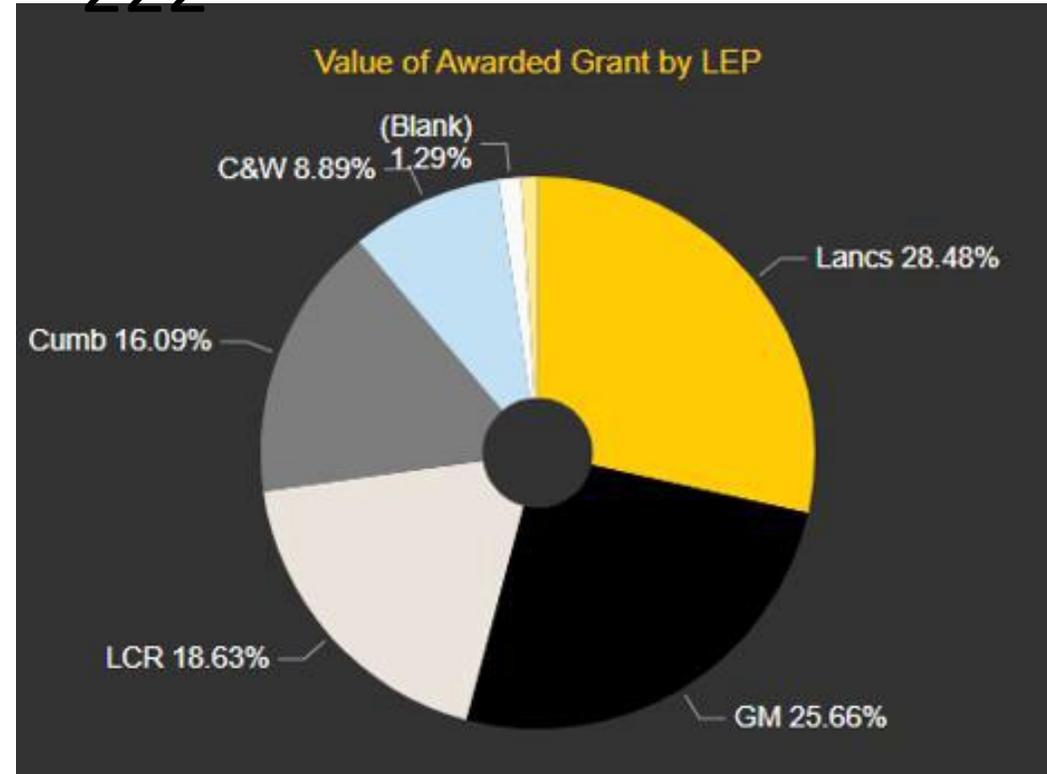


# Made Smarter in Cumbria

Jobs created in Cumbria  
- 124



Jobs upskilled in Cumbria -  
222



## Ratio Technology Tech helps bike component maker move up a gear

A manufacturer of bike components is unlocking innovation and growth with backing from Made Smarter.

A manufacturer of bike components is unlocking innovation and growth with backing from Made Smarter.

Ratio Technology, based in Kendal in the Lake District, was founded in 2018 by engineers and cycling enthusiasts Tom Simpson and Felix Barker.

It specialises in drivetrain products including chainrings and derailleur cages, and has a growing customer base around the world.

The business has now invested in 3-axis CNC machining technology, bringing its production in-house, increasing opportunities for customisation and innovation, and reducing costly delays and mistakes due to subcontract manufacturing.

### The Challenge

Ratio Technology was launched from the research Tom and Felix performed as part of their engineering studies at Cambridge University.

Since the business was launched in 2018, the pair have been driven to progress the design and manufacture of components which are made to work alongside existing parts made by larger companies.

However, as a start up with limited resources, Ratio previously needed to use subcontractors to deliver their orders.

Tom explained: "Our experience of using subcontractors for manufacturing was mixed, and we particularly wanted to begin our own CNC machining in order to reduce development time and improve quality control."

### The Solution

With support and guidance from Made Smarter, Ratio were able to invest in a Brother R450X2 3-axis CNC machine.

The key feature of the solution is a twin pallet setup which allows one part to be machined while another is loaded. This allows for non-stop machining.

### The Benefits

Housing design and production in one location means Ratio can now digitalise the entire workflow from concept to prototyping to production.

Tom said: "This has transformed our efficiency. We can take concepts to production far faster than we could with a subcontractor. Integration of the full production process means we can design with manufacturing in mind, making the entire process more efficient - whether that's material consumption, tool use, or fixture design."

Bringing manufacturing capability in-house has also meant that Ratio can produce its first fully 'Made in the Lakes' components.

The new capability is supporting Ratio's growth plans and intentions to almost double its current team of four. This includes recruiting one more machine operator/assembly role, another engineer to help launch new products and another to support with inventory, shipping and day-to-day admin tasks.

Tom said the investment has been game-changing for the business.

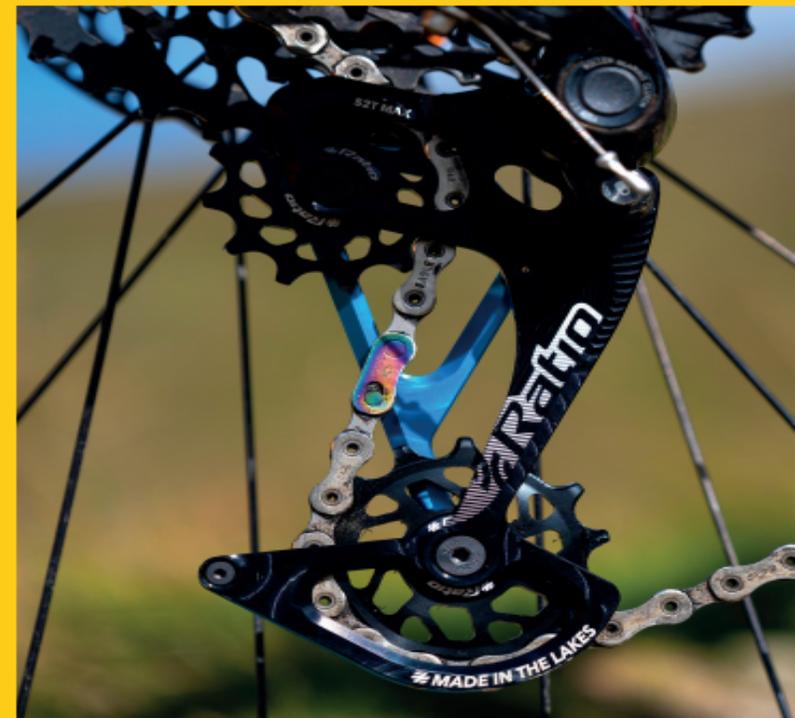
"Made Smarter's grant has accelerated our adoption of this vital technology by a year or more and broadened the scope of the investment," he said.

### The Future

The new in-house capability and incoming staff will support Ratio's focus on its own new bicycle drivetrain technology.

If successful, Tom and the team are predicting the need to expand manufacturing and sales capability.

Tom said: "Ratio's brand is built around disrupting the current planned obsolescence ethos in the bike industry. This is an approach that has earned us a great deal of respect amongst our customers, and one we will continue to keep at the centre of the business."



"Home-grown technology has been Ratio's focus since the business was founded. While we launched through seed funding we have been able to organically fund the majority of our continued R&D work."

"We hope to be able to continue this organic growth through to launch, at which point our new products will fund their continued development."

Ratio is also working towards Certified B Corp status to ensure it applies sustainable practices, whether they relate to manufacturing, shipping or running its office.

 Ratio

Ratio's brand is built around disrupting the current planned obsolescence ethos in the bike industry



**Forth Engineering Immersed in digitalisation**

“The application of immersive technology will be a value-added service, offering our customers something no one else is.”



FIND OUT MORE ABOUT HOW MADE SMARTER CAN HELP YOUR BUSINESS AT [MADESMARTER.UK](http://MADESMARTER.UK)

A Cumbrian engineering firm, Forth Engineering Smarter, is using immersive technologies to drive global growth and innovation.

**The Opportunity**

Forth Engineering, based in Flimby, are dedicated to engineering excellence and specialise in manufacturing bespoke robotics that can be used in harsh environments for nuclear, oil and gas, marine, and renewables sectors. They work closely with industry leaders in a wide range of sectors to help them deliver cutting-edge and ground-breaking solutions to complex problems.

**The Solution**

With the support of Made Smarter, Forth is investing in a hardware and software solution which will allow a client to step into a virtual room and interrogate a 3D model of their asset.

They are adapting office space to create a mixed reality studio to enable customer demonstrations.

3D data of assets will be converted into a model using 3D visualisation software. This will allow the asset to be viewed within virtual/mixed reality environments in a true to life scale.

Forth will use a leading Extended reality (XR) headset to project a clear and precise visual representation of the asset into a room at their facility. Meanwhile, mixed reality smart glasses are

cadres recent focus is bespoke orthoses and is embarking on a trial to create 3D-printed insoles for NHS patients to help prevent diabetic foot ulceration, a major complication of diabetes which in serious cases can result in amputation.

sent to the customer to access a virtual face to face meeting or inspect a product from the safety and comfort of their own place. What is more, the smart glasses will create a hologram of the customer to the studio where they can interact and interrogate the asset, which can be animated and exploded into parts.

Mark explained: “We are creating a platform where two fantastic technologies meet. By taking the best of the headset’s ability to project a high intensity AR image and the smart glasses’ ability to import a hologram of a person, we can show clients their assets in staggering precision.

“We hope that more customers will come to us with dreams of realising their prototype dreams through the use of mixed and virtual reality.

“We also hope to be able to open up the scope of work to clients from around the world and include them in an engineering decision making wherever they are whilst feeling like they are interacting with us and the project in person.”

**The Benefits**

The use of digitalisation, immersion, and presentation technologies will mean that Forth’s customers will now be able to interrogate a digital model of their assets from

anywhere in the world; opening up new markets and increasing services offered to customers.

The project will be at the forefront of immersive technology and will also help to upskill staff, reduce cost and travel, and create a safe inspection environment.

*This groundbreaking technology will allow Forth to deliver innovative and novel solutions to complex problems globally. Moreover, the team of thirty-eight full time employees believe the value-added service will give it a competitive advantage as it is forecast to increase GVA by at least £500,000 over the next five years and in the process create five new, highly skilled jobs.*

**The Future**

Forth believes this service will raise its profile in the global, harsh environment market and support the growth strategy to double turnover by £2m each year and help to upskill the team, secure jobs and increase job satisfaction.



Around 176 people undergo diabetes-related amputation each week in the UK. Forth Engineering Smarter has obtained new technologies and training, accelerating implementation in years to reduce costs and improve patient outcomes.

Mark Telford, Managing Director is proud of the transformations taking place, stating: “Our engineering solutions are giving customers new and accurate insights into the state of their assets, without risking their workforce, and ultimately saving them a considerable amount of money.

“The application of immersive technology will be a value-added service, offering our customers something no one else is.

“We hope that we can be a place of technological brilliance

for the whole community around us, not just our customers.”

Made Smarter has obtained new technologies and training, accelerating implementation in years to reduce costs and improve patient outcomes.

**FORTH**  
Alistair Buchannan  
MD, Cadscan

**£1.2M**

GVA of £1.2M over the next five years

**15**

new jobs created

## English Lakes Ice Cream Tasting the sweet success of digitalisation blend

“Lakes Ice Cream is already investing in new machinery. It's automated packing machine will be four times quicker than the current manual process.”



FIND OUT MORE ABOUT HOW MADE SMARTER CAN HELP YOUR BUSINESS AT [MADESMARTER.UK](http://MADESMARTER.UK)

An ice cream manufacturer is transforming its operations by using data and system integration tools, with the support of Made Smarter.

English Lakes Ice Cream (Lakes Ice Cream), based in Kendal, has deployed a bespoke field service management solution that links key business operations: order processing, manufacturing, stock control, sales, distribution and accounting.

The technology has replaced traditional manual, time-consuming and paper-based processes, sped up communications within the business, and freed the small team of 15 employees to focus on more high-value and skilled tasks.

Crucially, the investment has futureproofed Lakes Ice Cream plans to scale up the business.

James Stephens, Managing Director, said: “We are delighted with our experience of Made Smarter. From the start Sarah Woodhams and the team have supported our digital transformation, offering their expertise and giving us that confidence in starting this journey.”

“While we are only part way through the project, the technology has had an incredible impact, making everything easier. It has made us excited for the next stage.”

### The Challenge

After 25 years as a family-owned business, growing organically through sales in shops, supermarkets, hotels and food service wholesalers, Lakes Ice Cream began a new era under new ownership in 2019.

While a rebrand and new sales strategy has seen a rapid increase in business, it has exposed challenges with its manufacturing capacity and IT infrastructure. It currently manufactures 1.2m

litres of ice cream per year and distributes all over the UK.

Lakes Ice Cream realised it needed to do things smarter.

Made Smarter helped identify a raft of challenges and potential solutions during a digital transformation workshop.

James explained: “Our growth has exposed an IT system not capable of handling the increasing complexity of our operation, too many manual and duplicated processes, no operational integration, no oversight of the valuable data within the organisation, and ultimately slow decision making.”

“For instance, customer orders from hotels would typically come in on the answering machine overnight or over the phone during the day. Someone would then need to capture that order, add it to a stock card, then to a spreadsheet, and then manually pick the order, before adjusting the stock records. At the end of the process, an invoice would be manually produced.”

“Stock control was also time consuming using the old system.”

### The Solution

Lakes Ice Cream has worked with a specialist system integrator with expertise in the foodservice and ice cream distribution industries to create a bespoke modular solution using its “Tract” software.

The first stage, which is now complete, has focussed on linking order processing, stock control, and accounting.

Orders are now plugged into the system which automatically

creates a picking list. This then automatically subtracts elements like ingredients and packaging from stock.

The system keeps track of manufacturing and sales data and when stock reaches certain levels it automatically alerts the team to create an order which is then emailed to the supplier.

The latest module to be activated is for distribution management via the DeliveryWeb tool. This introduces an integrated app for mobile devices with a digital signature, removing the need for paper, and includes GPS tracking of vehicles to optimise delivery routing.

The next stage is to replace the manual ordering process with an online ordering system, ColdWeb. This will enable our clients to order at any time via the website or an app, giving them visibility of historical order information to enable quick reordering of repeat orders.

Other modules expected over the coming months include credit control, product traceability, key product information storage and temperature control logging.

### The Benefits

Lakes Ice Cream is already experiencing faster and more streamlined internal communication and efficiency gains.

For example, time spent managing stock has reduced from eight hours a week to two, while the savings on time spent processing orders will be “highly significant”, according to James.

“What we have achieved so far really demonstrates the substantial benefits that integration achieves,” James said.



“When you have such a small team, time is extremely precious, so to squeeze more productivity wherever you can is fantastic. What's more, there is real buy-in from the team who can see these benefits and how that allows them to learn new skills and enjoy their work more.”

When all the modules are integrated, management will have access to live and accurate data enabling them to make much quicker decisions about schedules and plan production accurately.

Improved data flow across the production process will improve batch efficiency, give the business reliable quality control and traceability, making compliance with food standards easier.

The digitalisation of its operation is accelerating Lakes Ice Cream's carbon footprint. Distribution tools will eliminate the need to use paper and route optimisation will reduce fuel use.

The new software will enable Lakes Ice Cream to free up time to develop new recipes, flavours

and products. It will also enable trend prediction and volumes more accurately to enable the business to plan expansion or changes when needed.

### The Future

While plans for a new factory are two years away, Lakes Ice Cream is already investing in new machinery. It's automated packing machine will be four times quicker than the current manual process.

Now armed with a digital roadmap, James is confident of taking the next step.

James said: “Lakes Ice Cream has a great reputation for quality products and service. We want to take the business to the next level. That means a new factory and cold store, new automated machinery and new vehicles. At the heart of those changes will be a software system that integrates all aspects of our business and lays the foundations for scale.”



## The Cumbria Clock Company Keeping up with the times

“ At our heart we are conservationists finding engineering solutions to keep some of the UK's most precious clocks running. ”

A Cumbrian clock repair and restoration specialist is bringing conservation and horology into the 21st century using digital technology adopted with Made Smarter advice and support.

The Cumbria Clock Company (CCC) is responsible for the maintenance of more than 1,000 church and public clocks in the UK including prestigious timepieces at Salisbury Cathedral, Hampton Court Palace and Westminster Clock, better known as Big Ben.

But the company has long outgrown its out-dated, paper-based maintenance monitoring system.

Now with expert guidance from Made Smarter, CCC has embarked on a digital transformation journey which will introduce a bespoke digital management system to give the business complete oversight of its operation.

The solution will increase productivity and efficiency, cut costs and reduce its carbon footprint.

Keith Scobie-Youngs, director, said: “As a business we've always kept in stride with technology, but to take this next step would have meant saving for two or three years. Made Smarter has not only accelerated that to now, but opened our eyes to so many possibilities which could transform our business from reactive and regular service and repair to a proactive data-driven service provider.”

### The Challenge

Established by Keith and Lynn Scobie-Youngs 30 years ago, CCC's team of 18 includes engineers who travel 260,000

miles per year on a maintenance schedule, and conservators who carry out repairs from the Penrith workshop.

The work schedule is managed using a mixture of paper files, spreadsheets and magnetic whiteboards.

“Over the last 30 years our system has evolved to cope with our increase of clients,” Keith said. “But it is becoming too unwieldy for an analogue system and we need to find a better way to do things.”

“Our lack of overview of the location of all our clocks and our engineers means that opportunities to be more efficient with our service routes are missed. That means driving past a problem clock by mistake and then having to return. That's extra time, cost and mileage.”

“We've also had problems with communicating the full and correct information to our engineers, which have led to errors, unnecessary delays and wasted journeys.”

### The Solution

A bespoke digital management system with desktop and mobile app will give the business access to a complete history of each clock, parts and costings, maintenance schedule, technical documents and photographs.

Engineers will access the app on a tablet to view their schedule of jobs and routes, contact details and any health and safety concerns they need to be aware of. They can then capture

and upload information and photographs in real-time, and order new parts.

Meanwhile, a dashboard and interactive map will give management an overview of all clocks, job types and status, and engineer schedules.

### The Benefits

CCC believes the solution will significantly improve its efficiency to plan routes and combine service visits with call backs and inspections, and reduce its annual mileage by 30,000.

This would not only save a significant sum of money, but reduce its emissions by 11%, the equivalent to 12 tonnes of carbon.

Keith said: “My vision of the system is to be able to see an interactive digital map giving us a complete overview of all our clocks and engineers, which will enable us to plan our work more efficiently.”

“This system will vastly improve how we do things, increase profit, give us more scope to create new jobs, and reduce our carbon footprint, which is something very important to Lynn and I.”

The app will allow the engineer to capture, store and upload vital data, which will save time and reduce the number of visits they need to make to the site.

“This solution will give engineers all the correct information about the clock, its location and its history, at their fingertips,” Keith added. “Instead of us waiting until the end of the day for an engineer to send us some paperwork or an email,



the information is in the system immediately, so we can act.”

At the end of the process CCC can produce a comprehensive conservation report for the customer, at the touch of a button.

### The Future

CCC is also exploring a digital chip tracking system which will enable the business to remotely monitor clock functions, such as time keeping, strike and chime sequence, and power outages, to better understand problems before the engineer attends onsite.

Data captured from these clocks could then be used to create a

digital twin, a virtual replica of the clock, for the purpose of writing operations and maintenance manuals.

“At our heart we are conservationists finding engineering solutions to keep some of the UK's most precious clocks running,” Keith said. “What we try and do is combine the old mechanical world with modern technology. We need to embrace the opportunities it offers our business.”





**MADE  
SMARTER**

# Closing Comments

Oli Wignall

Chair of Ideas and Innovation Strategy Group

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CUMBRIA  
LOCAL  
ENTERPRISE  
PARTNERSHIP

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**FIS 360**  
INNOVATION | TECHNOLOGY | BUSINESS

