



Innovate
UK

Business
Connect

Global Innovation Network Semiconductors

Webinar Series: Understanding the UK Semiconductor Ecosystem - PART 1

6th October 2026

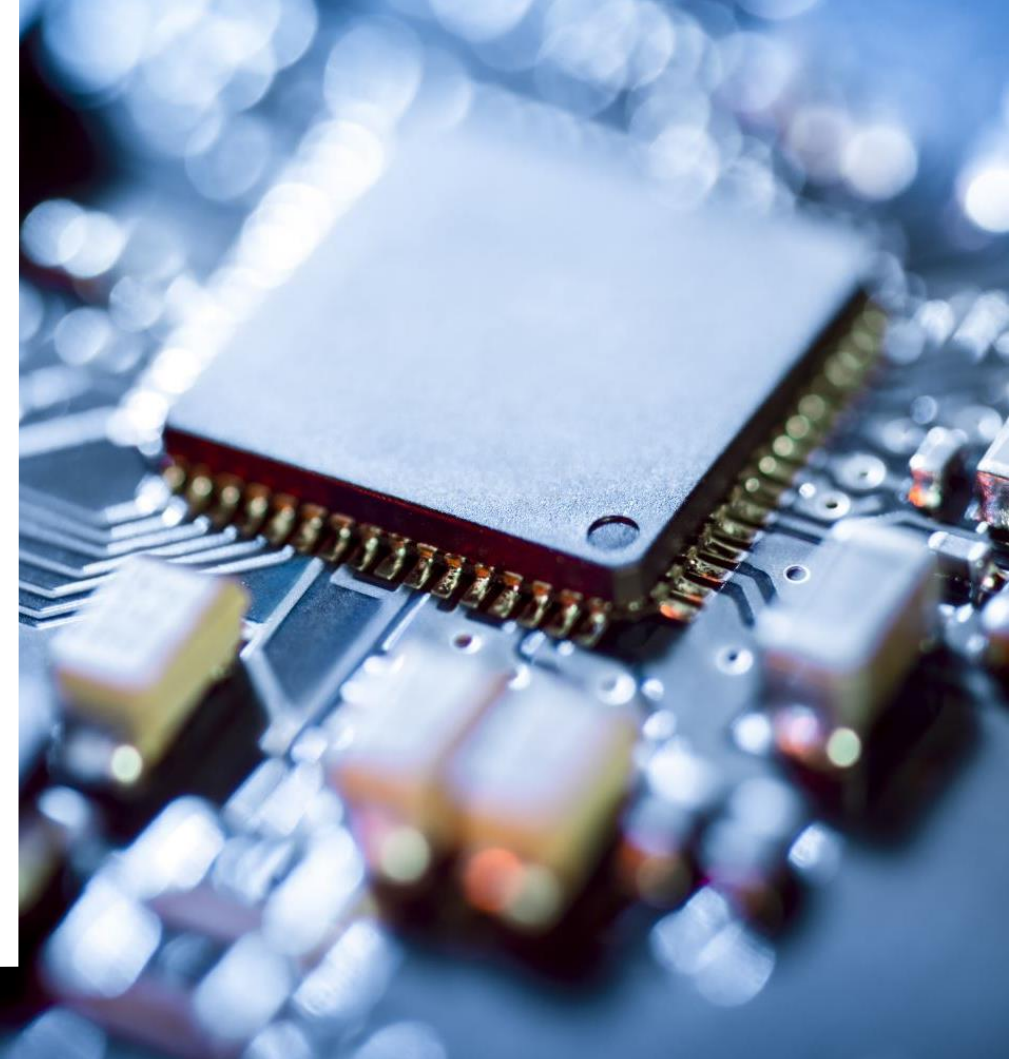
WELCOME - Quick Housekeeping

- Please note that this session is being recorded and will be shared on the Global Innovation Network page.
- Should you have any technical issues during the session, please let us know in the chat box.
- This is an informative session hence we will not have a session dedicated to questions. However, please feel free to use the chat to ask any questions and we will pass it onto the speaker.
- Please mute yourself and turn off your cameras.
- The presentation will be shared with you at the end of the session with a feedback survey.

Global Innovation Network (GIN) Semiconductors



- **Global Semiconductor Growth** - The semiconductor sector is rapidly growing worldwide, making it a strategic priority for the UK and its partners.
- **International Collaboration Platform** - The GIN provides a scalable platform enabling continuous global collaboration in the semiconductor industry.
- **Supporting SMEs: Peer Exchange, Learning and Growth** - GIN helps SMEs access new markets and foster innovation through international partnerships. GIN also helps SMEs access peer exchange platforms and learn from some of the UK's leading semiconductor companies.
- **Strengthening UK Innovation** - The programme boosts the UK's position in semiconductor innovation through global collaboration.



How does the GIN work?



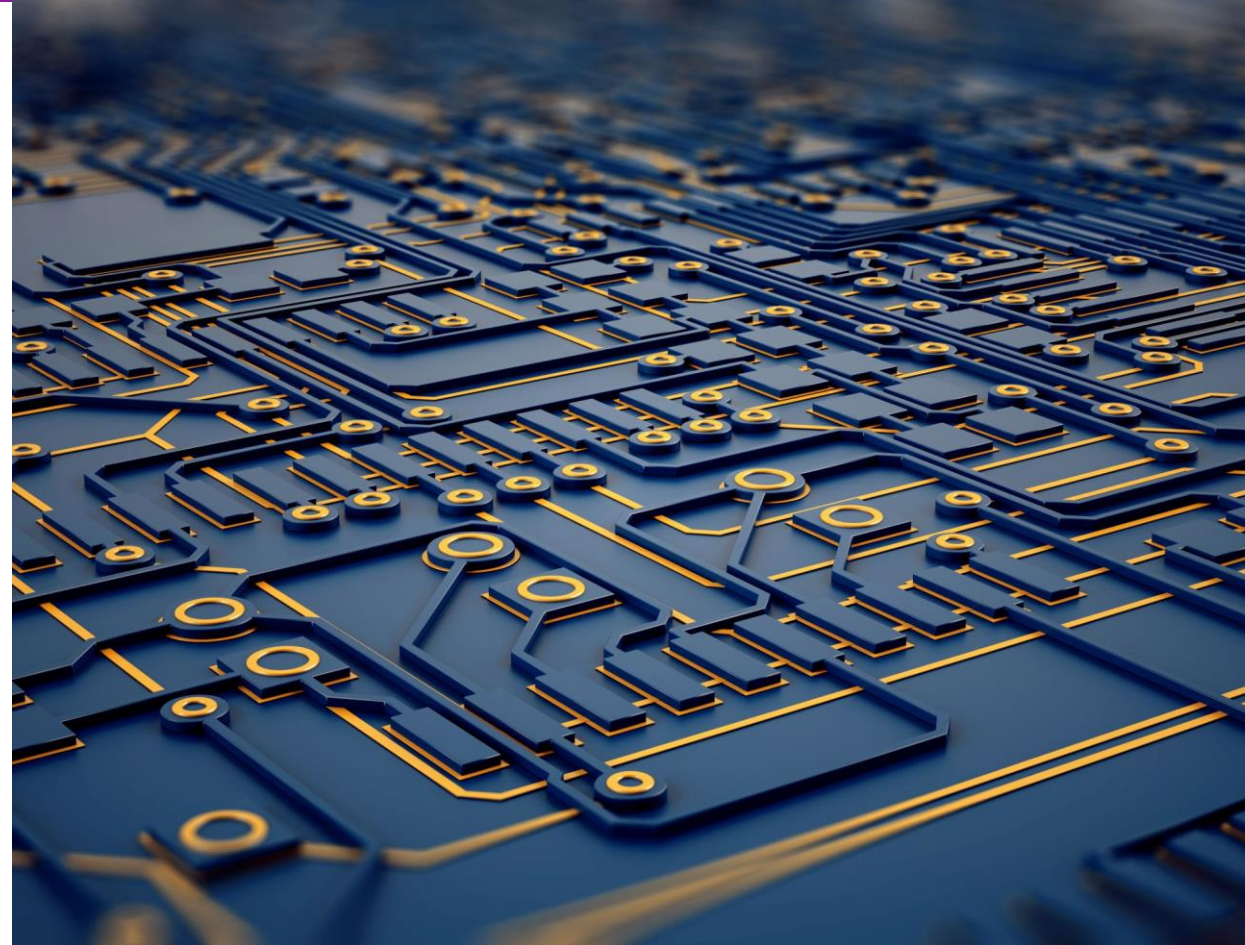
Regular webinars focused on individual countries

- Explore the UK semiconductor sector in a three-part webinar series.
- Learn about each country and global priorities, partnerships, interests and needs.
- Build on our global community and connect with organisations and experts to develop semiconductor partnerships faster.

Market information and support

Understand markets, rules and new technologies to make informed decisions and enter new markets.

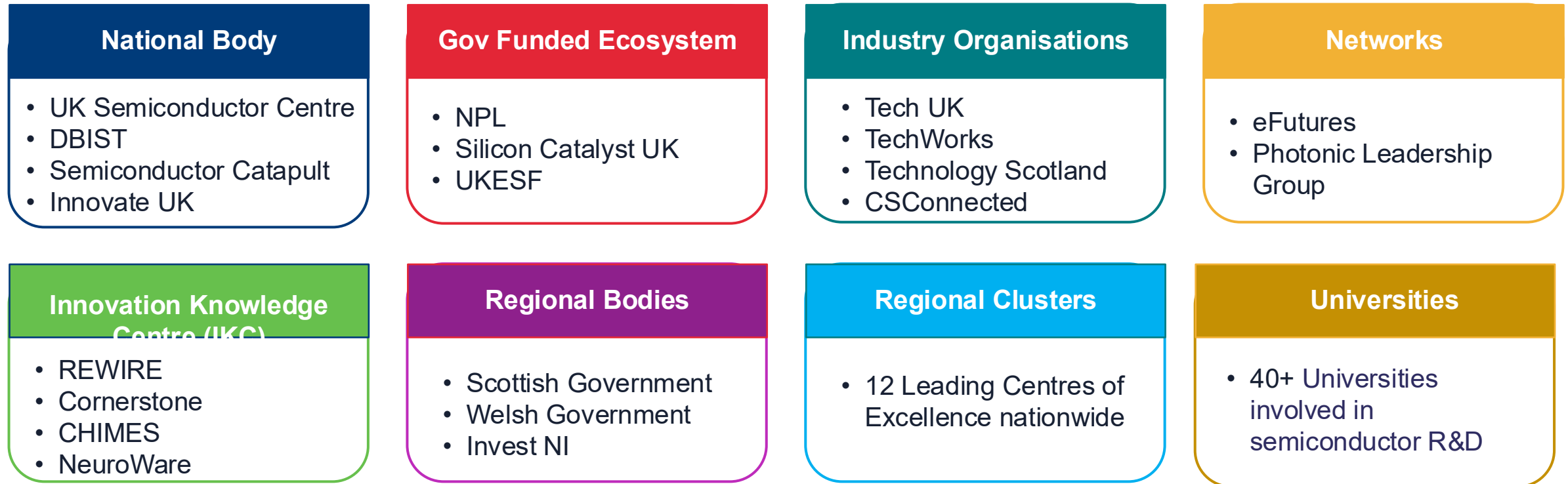
Find the right people and organisations worldwide



UK Semiconductor Ecosystem: Leading Actors and Clusters



The UK model is distributed: specialist companies, universities, RTOs and regional clusters connect across the value chain.



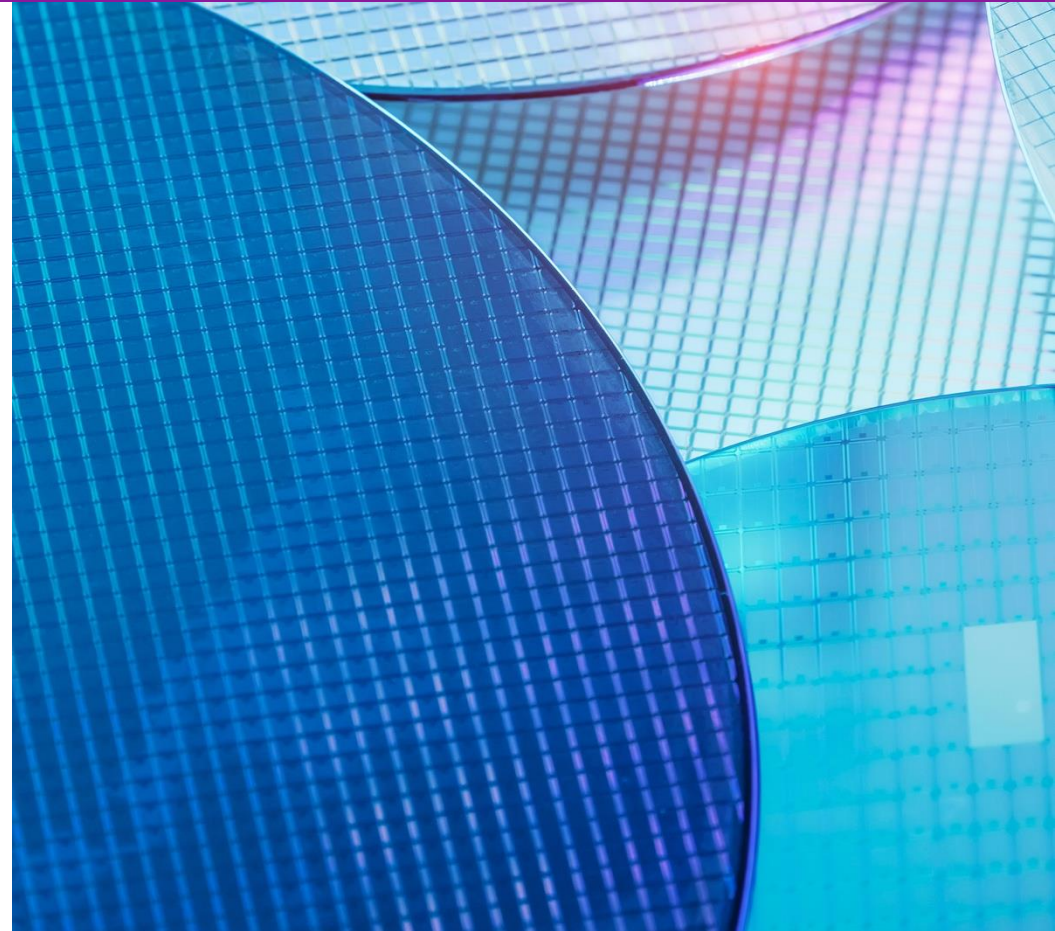
Illustrative, not exhaustive

Understanding the UK Ecosystem



First Series : The UK Ecosystem

- Part 1 – October 6
- Part 2 – November 11
- Part 3 – December 2



Today's Speakers



Jan Taylor

Innovate UK

Innovation Lead
Semiconductors



Charlie Bellingall

DBIST

Head of
Semiconductor
Innovation



Elis Thomas

TechUK

Programme
Manager –
Tech and
Innovation



Beth McEvoy

eFutures

Futures
(foresight)
researcher
(Queen's
University,
Belfast); Co-
Lead,
eFutures4.0.



**Professor Martin
Kuball**

REWIRE

Director of the
REWIRE
Innovation and
Knowledge
Centre (IKC)



Suresh Kumar

**Scottish
Government**

Deputy Director
for Innovation
and Industrial
Transformation



**Professor Fernando
Castro**

NPL

Department
Head of Science
- Materials and
Semiconductors,
NPL Fellow

Today s' agenda



Time	Title	Speaker
09:00 BST	Welcome and Opening: Introducing the Global Innovation Network on Semiconductors	Geraldine Durand KTM Global Innovate UK Business Connect
09:15 BST	Semiconductor UK Landscape and International activity	Jan Taylor Innovation Lead, Semiconductors Innovate UK
09:30 BST	The UK AI Hardware Plan - Delivery the UK's Modern Industrial Strategy	Charlie Bellingall Head of Semiconductor Innovation - Department for Business, Innovation, Science and Trade
09:45 BST	Connecting Industry and Opportunity: techUK's Role in Strengthening the UK Semiconductor Ecosystem	Elis Thomas Programme Manager – Tech and Innovation, TechUK
10:00 BST	Overview of efutures and Impacts.	Beth McEvoy Futures (foresight) researcher (Queen's University, Belfast); Co-Lead, eFutures4.0
10:15 BST	Opportunities for (Ultra)Wide Bandgap Semiconductors: From University Research to Commercialisation	Professor Martin Kuball Director of the REWIRE Innovation and Knowledge Centre (IKC), University of Bristol
10:30 BST	Scotland's Critical Technologies Supercluster	Suresh Kumar Deputy Director for Innovation and Industrial Transformation, Scottish Government
10:45 BST	Measurement That Enables Innovation: How NPL Supports the UK and Global Semiconductor Ecosystem	Professor Fernando Castro, FInstP FIMMM Department Head of Science – Materials and Semiconductors, NPL Fellow
11:00 BST	Closure	



**Innovate
UK**

**Business
Connect**

Our Team



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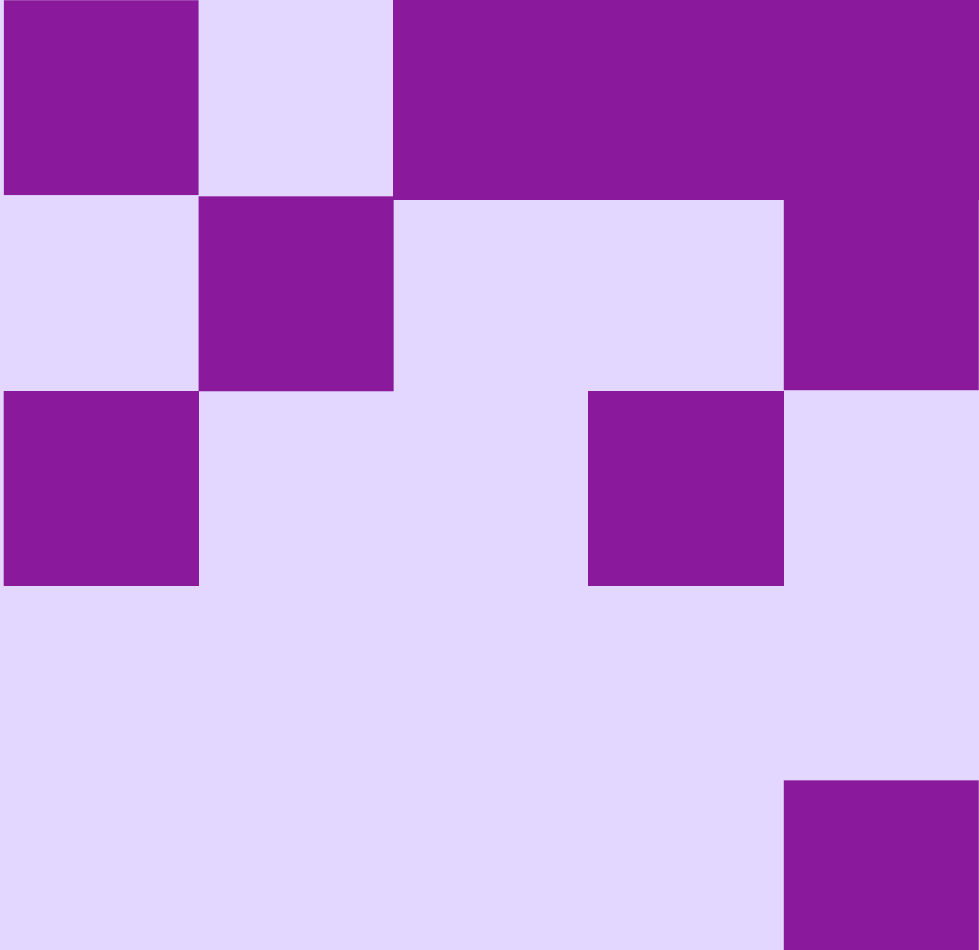
Semiconductor UK Landscape and International activity

Innovate UK

Jan Taylor

Innovation Lead Semiconductors





- Semiconductor UK - Landscape and International - Activity

06th October 2026

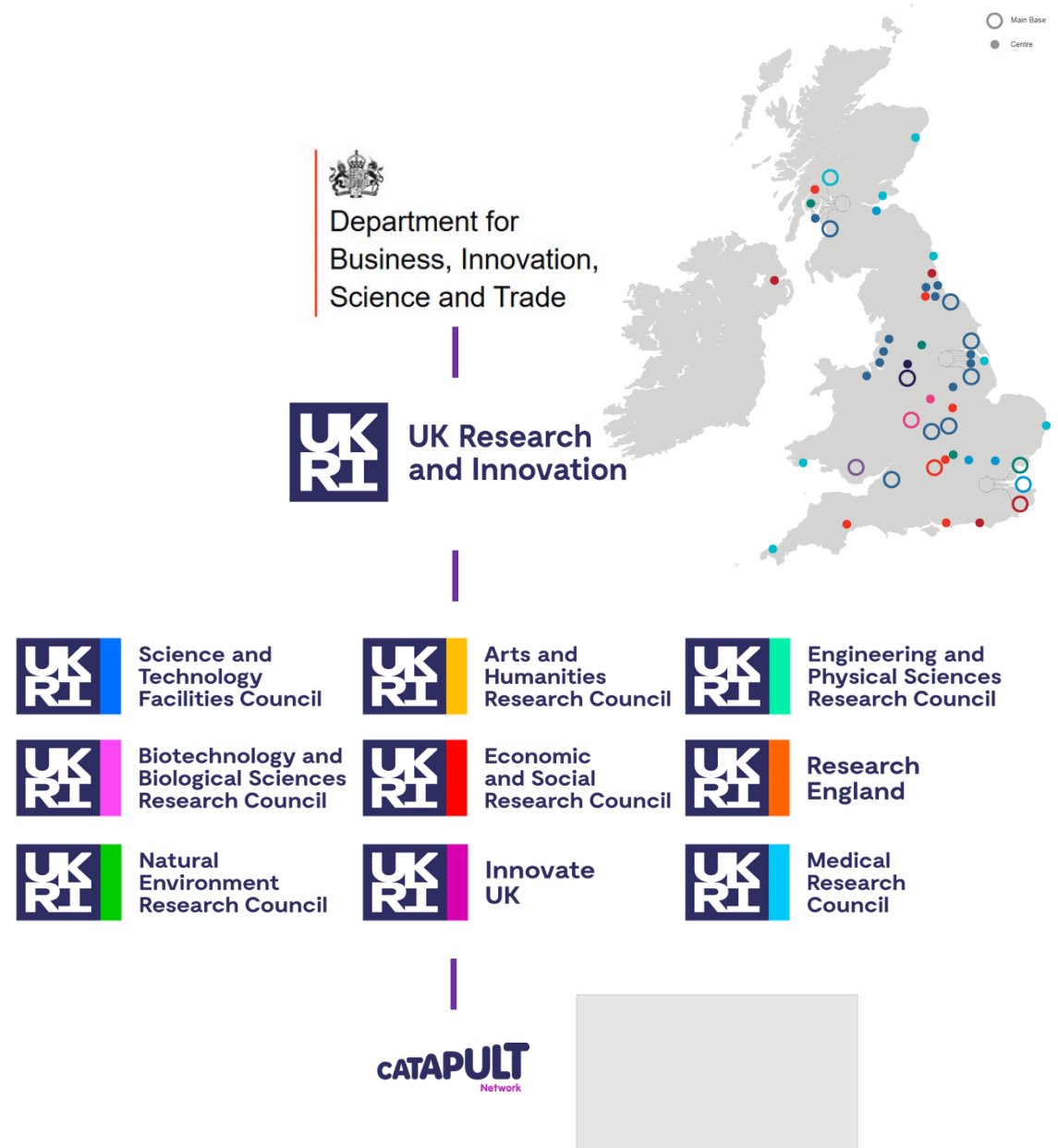
Mr Jan Taylor
Innovation Lead - Semiconductors

Who are UKRI and Innovate UK?

- UK Research and Innovation (UKRI) is a non-departmental public body sponsored by the Department for Business, Innovation, Science and Trade (DBIST).
- UKRI's (UKRI) mission is to advance knowledge, improve lives, and drive growth.
- Innovate UK is part of UKRI and is the UK's innovation agency.

Innovate UK's role

We back deep tech businesses in the UK's priority sectors for national benefit, supporting their journey from startup to scaling business to industry leader. We provide the funding, expert support and connections to help breakthrough ideas reach their potential, improve lives and drive economic growth.



OUR VISION AND MISSION

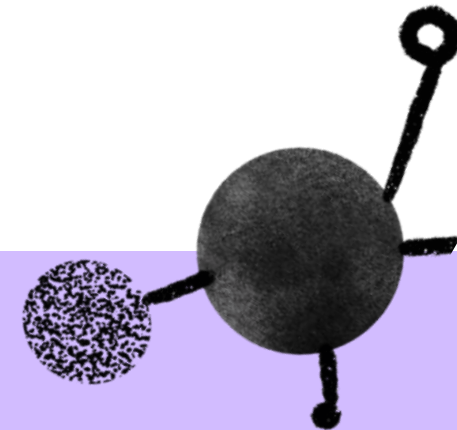
OUR VISION

Our vision is for a UK where breakthrough ideas become industry giants.

OUR MISSION

Our mission is to accelerate business innovation for the nation.

We will help breakthrough technologies become scalable businesses – turning innovation into commercial and economic growth.

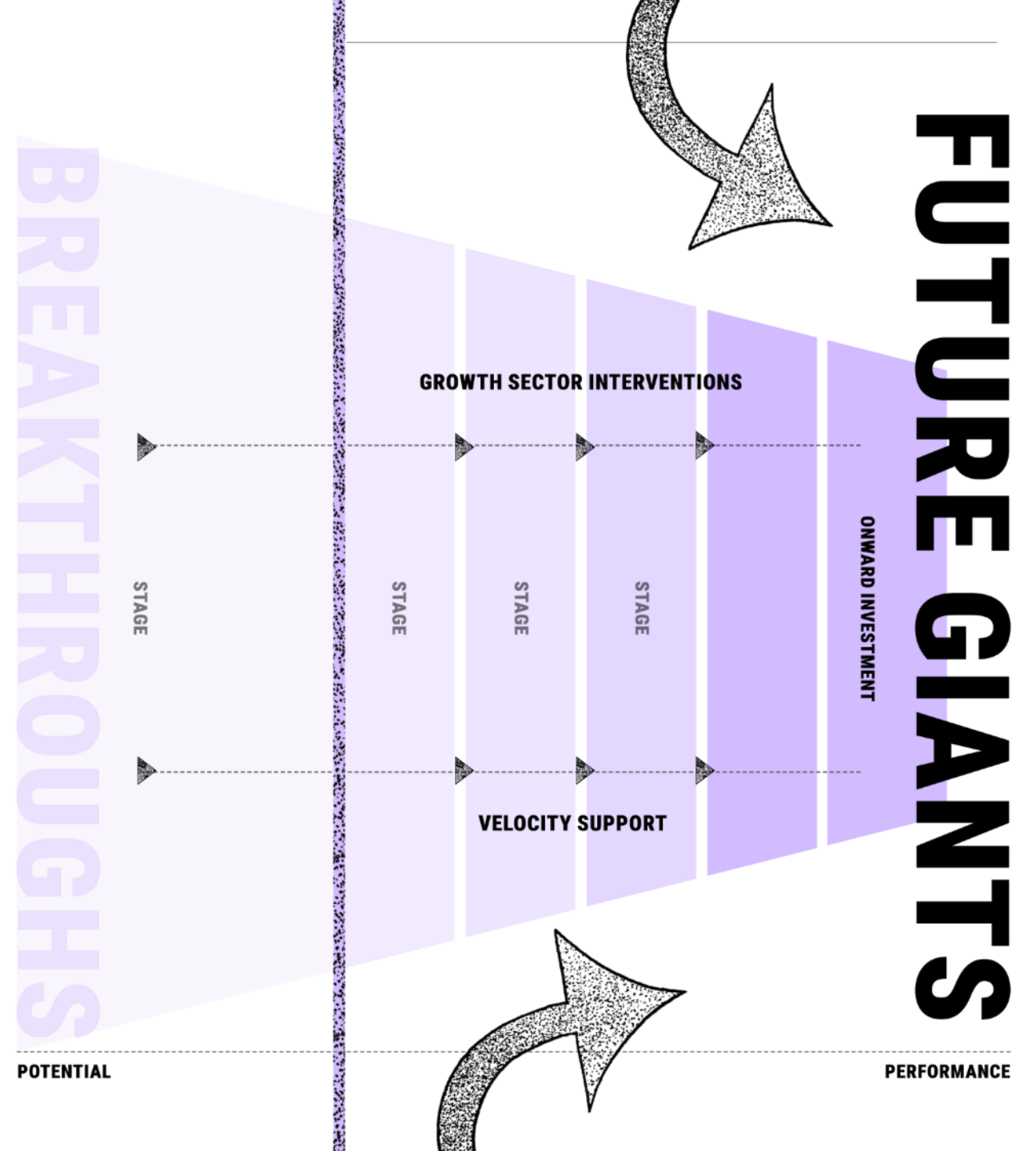


HOW WE WORK: THE INNOVATION UK MODEL

Identifying Innovate UK's high potential businesses: signals of potential, signs of performance

Growth sector teams: deep sector expertise and active portfolio management

Velocity: a concierge approach to growing innovative businesses





THE INVESTMENT PIPELINE

We will prepare both sides:

- ☐ Building investment ready, innovative businesses
- ☐ Briefing investors on what is coming through the pipeline.

UK Modern Industrial Strategy - Digital and Technologies

The **UK's Modern Industrial Strategy** backs 8 Sectors (*aka IS-8*)

- Advanced Manufacturing
- Clean Energy Industries,
- Creative Industries,
- Defence,
- Digital and Technologies,
- Life Sciences
- Financial Services
- Professional & Business Services

Digital and Technologies Sector Plan emphasises the importance of semiconductors as one of the “frontier technologies”, along with

- *Advanced Connectivity Technologies*
- *AI*
- *Cyber Security*
- *Engineering Biology*
- *Quantum Technologies*
- *Semiconductors*

Collection

The UK's Modern Industrial Strategy 2025

Policy papers, Sector Plans and documents in support of the UK's Modern Industrial Strategy.

Policy paper

Sector Plans

Updated 8 September 2025



Semiconductor Application Areas aligned to IS-6*

		Medical	Automotive	Aviation	Maritime	Space	Nuclear	Energy	Electrification	Comms	Cryogenic	Chemical	Robotics
	Advanced Manufacturing												
	Clean Energy												
	Creative Industries												
	Defence												
	Life Sciences												
	Digital and Technologies AI, ACT, EB, SC, QT, Cyber												

UK Semiconductor Sectoral Analysis

- Dedicated companies generated an estimated £10.6bn in revenue, £7.5bn in GVA and directly employed approximately 16,350 people in 2025 - up 7%, 9% and 9% respectively since the baseline study.
- The sector is estimated to support up to ~32,550 jobs across the economy.
- Average GVA per employee among dedicated semiconductor companies is estimated to be approximately £460k.
- Dedicated companies employ an estimated 15,000 people in the UK. UK headquartered companies account for more than 60% of this total
- There is evidence of greater government support for the sector since the publication of the National Semiconductor Strategy, at both national and regional levels, spanning R&D, skills and use of public finance institutions
- Future revenue scenarios suggest that dedicated UK semiconductor revenues could be between £13bn and £17bn by 2030. The difference in semiconductor revenues over the six years to 2030 under the low and constant (high) growth scenarios is estimated to be £13.5bn



Semiconductors – Creating high value jobs & growth across the UK

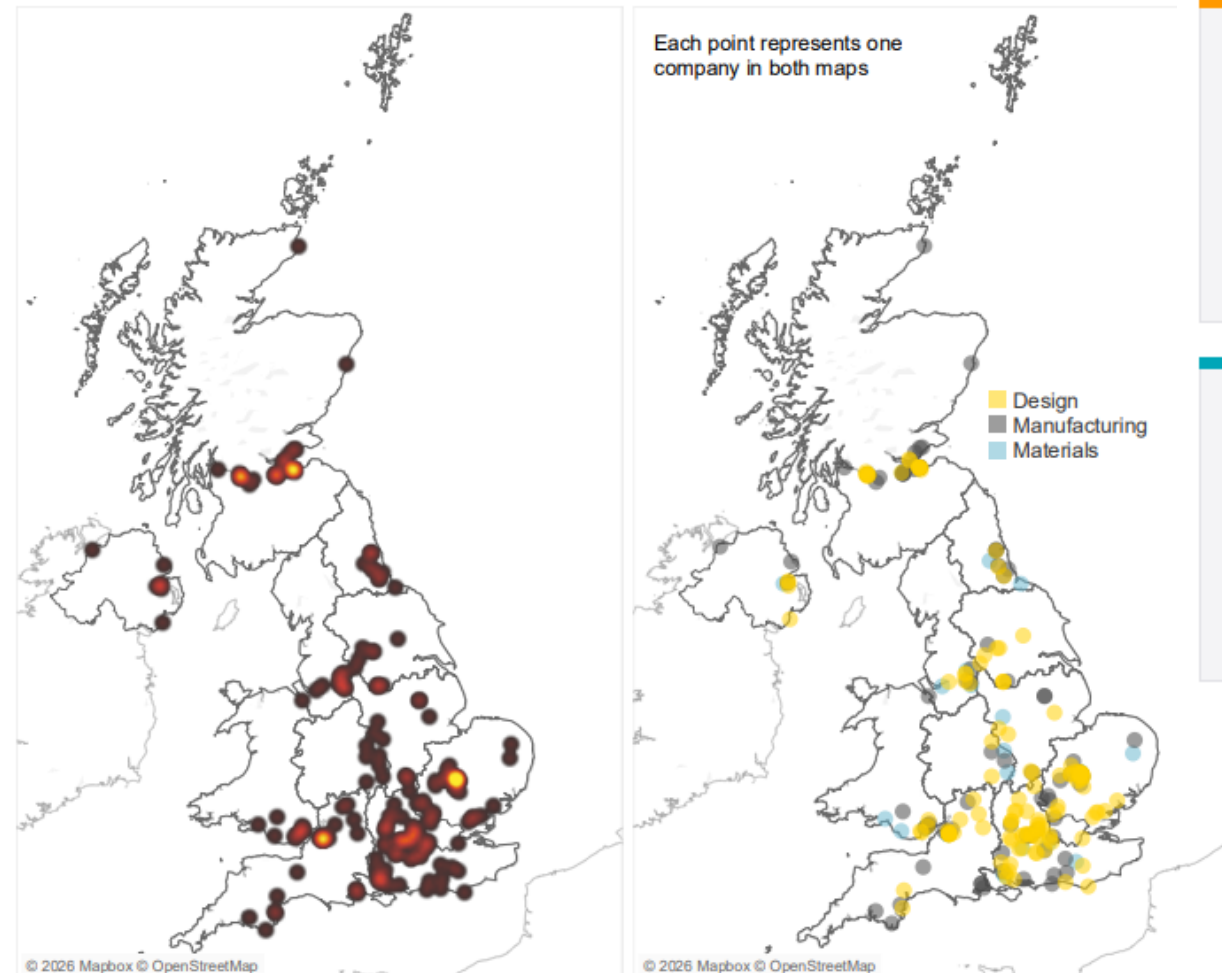
Cross-UK spread with clusters of activity present in all four nations

Design clusters in and around London, particularly in Cambridge. Other clusters near Bristol and Southampton

Main manufacturing clusters are in Scotland, Wales and the North East.

However, there is significant design activity in Scotland, and manufacturing in Cambridge.

FIGURE 3.6 – UK SEMICONDUCTOR CLUSTERS (DEDICATED COMPANIES)



HIGH-VALUE JOBS

£52,000

Average semiconductor fab salary in South Wales

60% higher than the UK average

FUTURE GROWTH OPPORTUNITY

~8% a year

Forecast average growth in the UK sector, every year to 2030

Compounding – growth that builds year on year

Semiconductor research & innovation capabilities

Infrastructure

- [CPI - Centre for Process Innovation](#)
- [Fraunhofer UK Research Ltd](#)
- [JWNC - James Watt Nanofabrication Centre](#)
- [NMIS - National Manufacturing Institute Scotland \(NMIS\)](#)
- [NASPIC - Advanced Semiconductor Packaging & Integration](#)
- [NPL - National Physical Laboratory](#)
- [Semiconductor Catapult - enabling semiconductor technologies](#)
- [UKSC - UK Semiconductor Centre](#)

University Facilities

- [ANZIC - Advanced Net Zero Innovation Centre](#)
- [BriCS - Bristol Centre for Supercomputing](#)
- [CGC - Cambridge Graphene Centre](#)
- [Centre for Integrative Semiconductor Materials](#)
- [CS Hub - Compound Semiconductor Manufacturing Hub](#)
- [DAWN - UK Artificial Intelligence Research Resource](#)
- [EPCC - Delivering UK supercomputing](#)
- [eFutures - The UK's national Network+ for electronic systems.](#)
- [GEIC - Graphene Engineering Innovation Centre](#)
- [Henry Royce Institute - Research and Innovation in Advanced Materials](#)
- [JOINER - Open experimentation platform for future networks research](#)
- [NEF - National Epitaxy Facility](#)
- [NASPIC - Advanced Semiconductor Packaging & Integration](#)
- [SMC - The Scottish Microelectronics Centre](#)
- [WMG - Warwick Manufacturing Group](#)

Innovation & Knowledge Centres

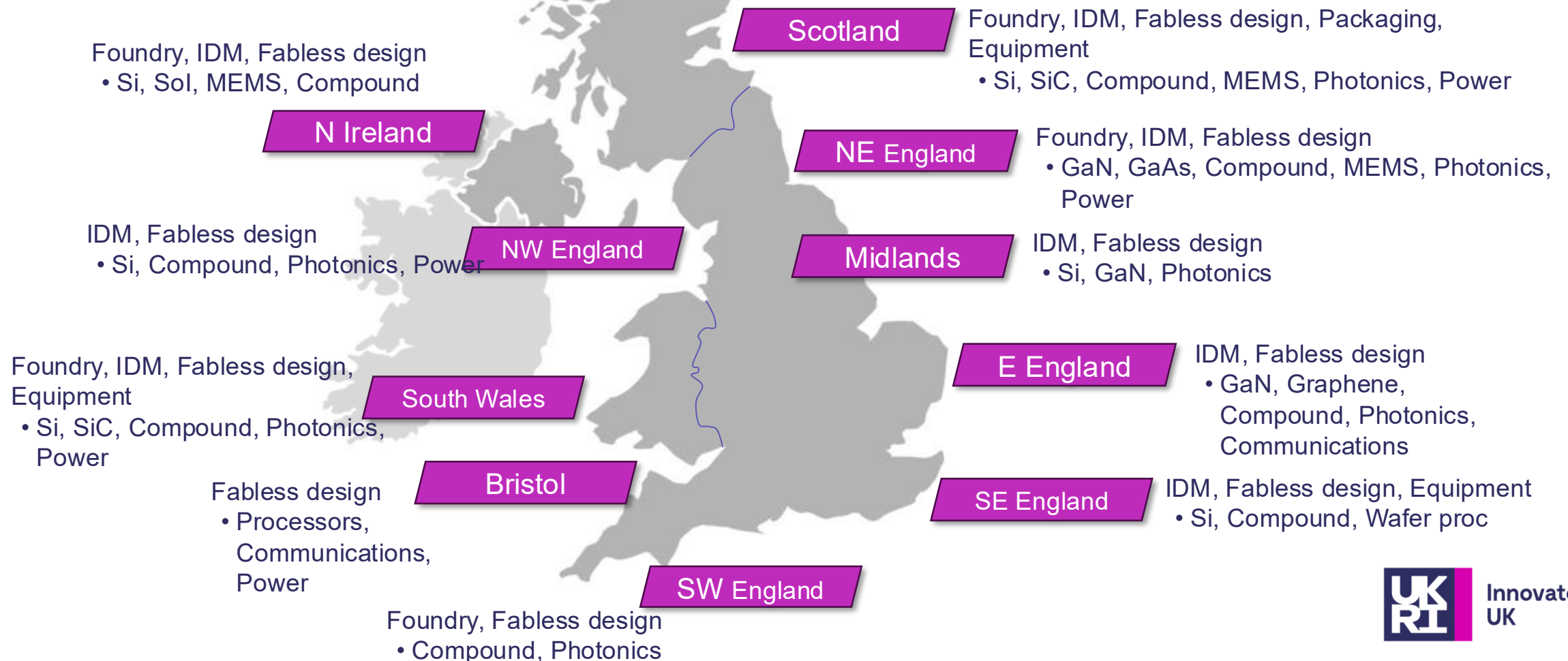
- [CHIMES | Heterogeneous Integration IKC](#)
- [C-PIC IKC - Silicon Photonics](#)
- [CSIT IKC - Centre for Secure Information Technologies](#)
- [NeuroWare IKC - Neuromorphic computing hardware](#)
- [REWIRE IKC - Next Generation Power Semiconductors](#)



Regional strengths across the UK

IP Licensing	Design	Manufacture	Packaging	Equipment & Supplies
10	160	30	10	50

Approximate number of UK Companies engaged in each stage of the value chain



The Ubiquitous AI – (“...the [AI Hardware Action Plan](#)..... and it’s not all compute”)

- “AI hardware should be understood as **the chips and semiconductor technologies that underpin AI, required to enable capability across data centre, edge and embodied AI systems.**”
 - Compute
 - Photonic interconnects and data movement
 - Sensing
 - Power and energy systems
- “The UK has **differentiated strengths** within industry and academia across a range of AI **enabling semiconductor technology areas**”
 - Leading materials science and specialist manufacturing
 - A **world-leading research base** with a long history in computer science, electronic and photonic engineering, and quantum computing.



Semiconductor/Photonics Related Opportunities

Funding & Support Networks:

Funding Finder - UKRI: This resource identifies UKRI funding opportunities currently open, or due to open soon.

Opportunities - Innovate UK Business Connect: IUKBC connect businesses, researchers and innovators with the right opportunities they need to grow.

Future research and innovation funding opportunities: This timeline lists planned opportunities by anticipated launch month across all of UKRI's funding councils, including Innovate UK. The opportunities listed are still under development and some details may change.
(N.B. Not all upcoming funding opportunities will be listed on this page in advance.)

Some Current Calls:

Horizon Europe Chips Joint Undertaking 2026: Topics under the CHIPS-JU work programme, aiming to strengthen Europe's semiconductor ecosystem, with up to €70m available for the largest projects..

Investor Partnerships – ACT and Semiconductors: UK registered SMEs can apply for grant funding alongside private investment from selected investor partners. Up to £15 million has been allocated to fund innovation projects in this competition.

UK-Singapore CRD 2026: UK registered businesses can apply for a share of up to £3 million for the purpose of developing innovative proposals with Singapore. You must collaborate with at least one Singapore business applying under the equivalent Enterprise Singapore programme.

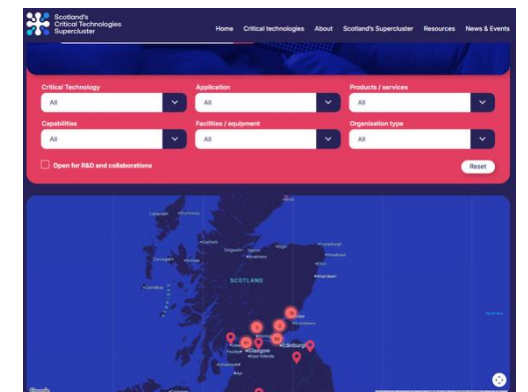
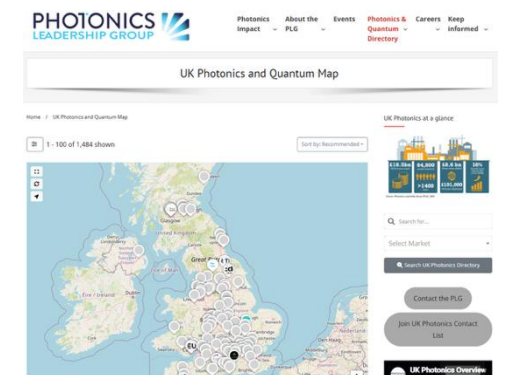
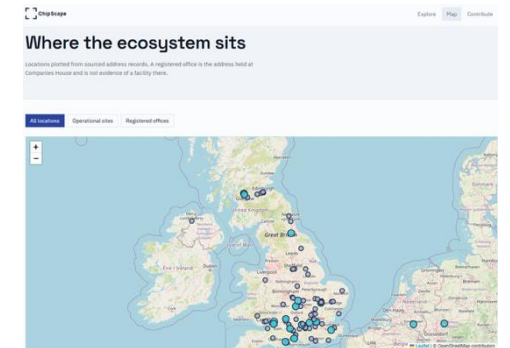
Eureka collaborative R&D: Globalstars Japan 2027

Semiconductor/Photonics Related Directories

ChipScape - the gateway to the UK semiconductor ecosystem - UKSC: Connecting organisations, capabilities, research and public evidence across the UK semiconductor sector - every record backed by a public source link.

UK Photonics and Quantum Map – UK PLG: The UK Photonics Directory

Scotland's Critical Technologies Supercluster - Capabilities Map: Scotland's critical technologies capabilities



Recent - UK Government Deeptech News

Collection

The UK's Modern Industrial Strategy 2025

Policy papers, Sector Plans and documents in support of the UK's Modern Industrial Strategy.

Strategy

Turning breakthrough ideas into the UK's next industry giants

This prospectus shows how Innovate UK backs deep and hard tech businesses in priority sectors with funding, support and connections to help them start, scale and stay.

From: Innovate UK
Published: 19 March 2026

Policy paper

UK AI Hardware Plan

Published 8 June 2026

UK LAUNCHES SEMICONDUCTOR CATAPULT TO STRENGTHEN SOVEREIGN CAPABILITIES IN AI HARDWARE AND DEFENCE

techUK news and views 17 Mar 2026

UK Government announces up to £2 billion for quantum technologies

UK Semiconductor Centre launches London HQ to support rapid sector growth

Policy paper

Digital and Technologies Sector Plan

The UK's Plan to drive growth in the digital and technologies sector and unlock growth in the technologies of the future as part of the UK's Modern Industrial Strategy.

Correspondence

CST advice on growth and global leadership in photonics

Published 9 March 2026

Area of investment and support

National Materials Innovation Programme

The National Materials Innovation Programme (NMIP) aims to establish a nationally coordinated approach to the UK advanced materials sector, driving the translation and adoption of materials across key industrial sectors.

Corporate report

UK Space Agency Corporate Plan 2025-26

Published 12 September 2025

Missions & Outcomes

ECOSYSTEM & ADVOCACY



We will have a more connected and visible UK innovation ecosystem

STRATEGY & ROADMAP



We will have an aligned strategy including a long-term roadmap guiding investment

SCALE-UP



We will have accelerated the scale-up and growth of UK semiconductor companies

INTERNATIONAL



We will have stronger global partnerships and greater inward investment

WORKFORCE



We will have developed the skilled workforce the sector needs

Semiconductor/Photonics Recent International Activity

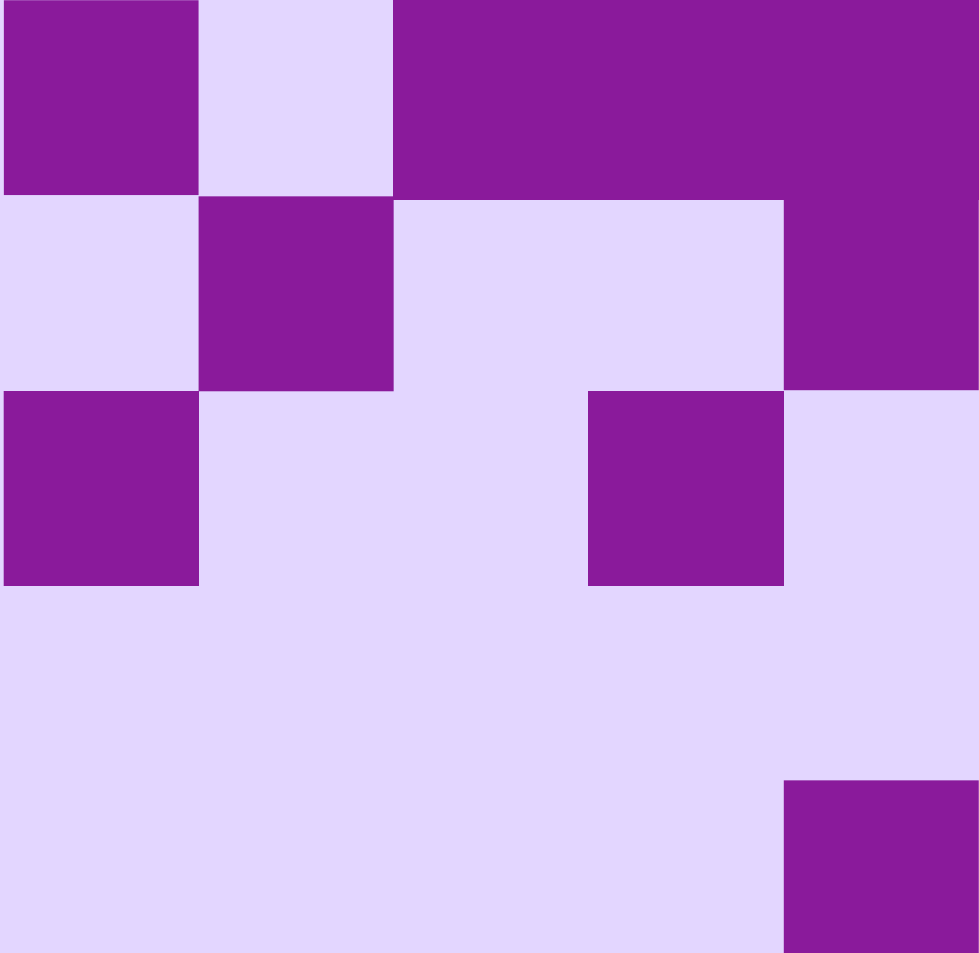
Recent GBIPs

- Taiwan
- Switzerland
- Japan
- Canada
- Singapore

Recent Bilateral CR&D Calls

- Switzerland
- Canada
- Singapore

We have also undertaken a GEM in the Republic of South Korea, a discovery visit to Malaysia and have welcomed an inbound mission from India



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Thank you

Mr Jan Taylor
Innovation Lead - Semiconductors

The UK AI Hardware Plan - Delivery the UK's Modern Industrial Strategy

Department for Business, Innovation,
Science and Trade (DBIST)

Charlie Bellingall

Head of Semiconductor Innovation





Department for
Business, Innovation,
Science and Trade

OFFICIAL

The UK AI Hardware Plan – Delivering the UK's Modern Industrial Strategy

Charlie Bellingall, Head of Semiconductor Innovation,
Department for Business, Innovation, Science and Trade

Global Innovation Network (GIN) on Semiconductors, 6 October 2026

OFFICIAL

UK SEMICONDUCTOR SECTOR AT A GLANCE

UK semiconductor sector is innovative and growing

**295**

Dedicated semiconductor companies in the UK, 70% UK-headquartered. 705 companies active in the sector.

**£10.6bn**

Revenue and £7.5bn GVA in 2025, up 9% since 2023 — could exceed £17bn by 2030.

**16,350**

Workers directly employed in 2025 — supporting 26,850 jobs economy-wide.

Where the UK is strongest

- 01 Chip design and IP** — >140 design companies, anchored by Arm and Cambridge.
- 02 Advanced materials** — Incl. compound semiconductors, notably in South Wales, Warwick, Bristol, Scotland & North-East England
- 03 Photonics** — >6 photonics fabs, cutting edge startups, excellent research

RESEARCH STRENGTHS

The UK is an innovation powerhouse

RESEARCH AND INNOVATION EXCELLENCE — KEY STATS

The UK is one of the few countries that combines world-class research, world-leading university spinouts, deep venture capital markets and globally significant technology firms, making it one of the best places in the world to create and commercialise frontier technologies.

**1st in Europe
for VC (3rd
globally)**

40+
Universities active in
semiconductor research

13%
of the world's most highly cited
papers are UK-authored

**4th for research
impact in
semiconductors**

**>185
unicorns**

**>\$500m raised
by chip startups
in 2026**



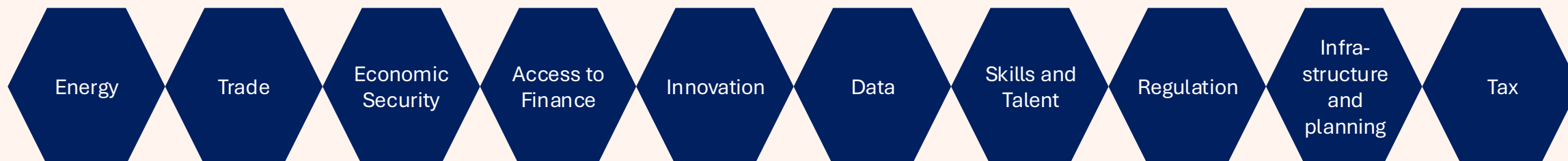
eFutures (EPSRC Network+)

The UK's Modern Industrial Strategy

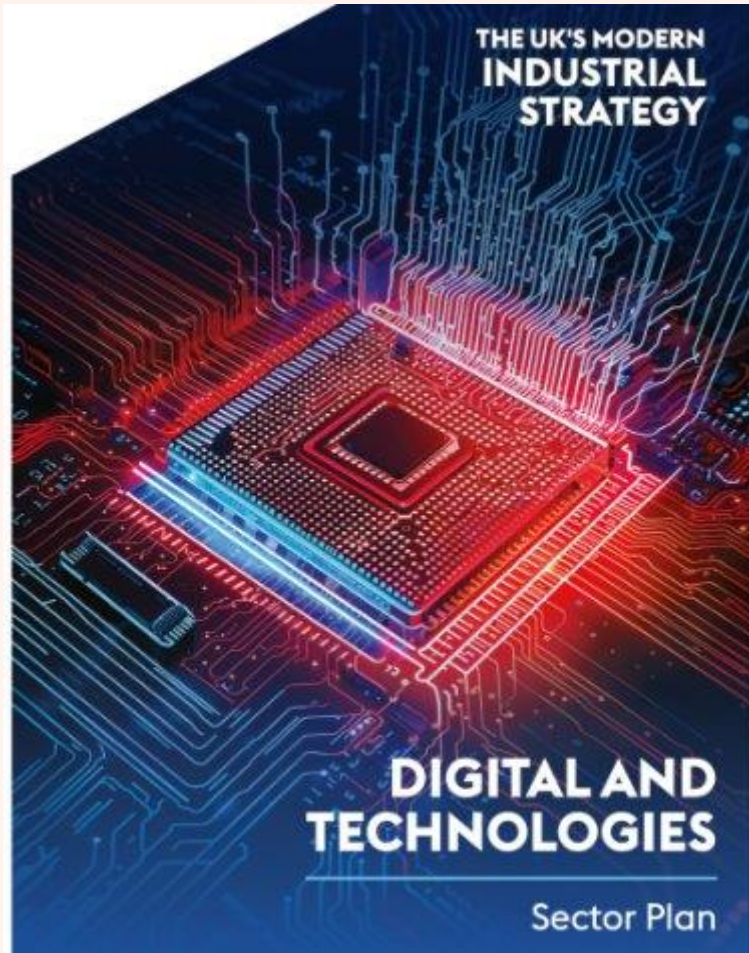
The sectors in the Industrial Strategy

Advanced Manufacturing	Clean Energy Industries	Creative Industries	Defence
Digital and Technologies	Financial Services	Life Sciences	Professional and Business Services

Policy areas that drive growth across all of these include:



Digital and Technologies Sector Plan



Frontier Technologies:

**Advanced Connectivity
Technologies (ACT)**

Artificial Intelligence

Cyber Security

Engineering Biology

Quantum Technologies

Semiconductors

AT A GLANCE

The UK AI Hardware Plan

Sets out how the government will secure Britain's future capability in the chips and semiconductor technologies that underpin AI — from strong but fragmented activity to a coherent, system-level strategy.

An end-to-end pipeline of innovation: develop → demonstrate → deploy → scale AI hardware in the UK and internationally.

£1.1bn+

targeted public investment



THE OPPORTUNITY

AI compute future is heterogeneous, UK is well placed to lead

THE OPPORTUNITY

- Hardware is the biggest economic upside of AI — \$2.8tn spend on AI data centre chips to 2028. AI chip market growing 30% p.a.
- Energy-efficient compute is the key constraint on AI roll-out.
- The market is diversifying — a shift towards inference and edge.
- Trajectory towards heterogeneous AI compute and a post-GPU era.

WHY THE UK?

- Globally competitive chip design capability — the only major AI processor designer outside the US (Arm).
- A world-leading research base.
- A vibrant ecosystem of innovative companies.
- Large government investment in AI compute and incentives for private investment in AI data centres.

OBJECTIVES

What the plan sets out to achieve

01

Build globally competitive AI hardware companies in the UK

02

Maximise adoption of UK-developed technologies in AI systems

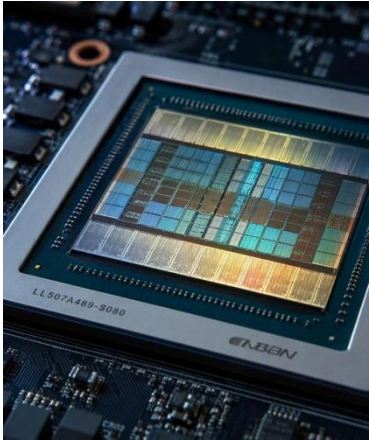
03

Establish the UK as one of the leading places to develop and scale AI hardware

WHAT IS AI HARDWARE?

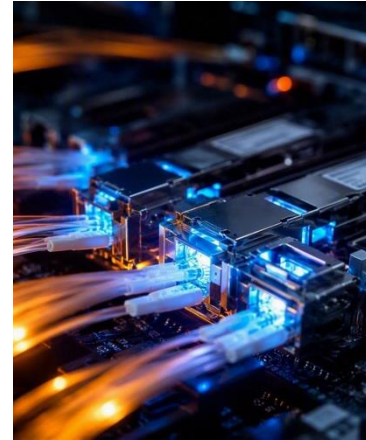
How we are defining AI Hardware

“The chips and semiconductor technologies that underpin AI, required to enable capability across data centre, edge and embodied AI systems.”



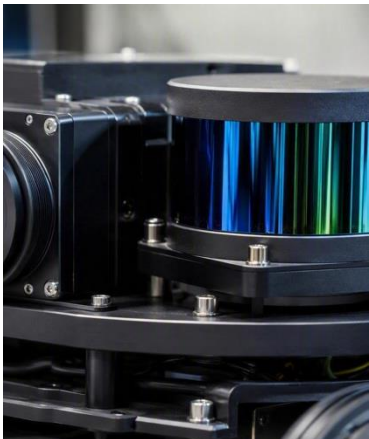
Compute

AI chips and accelerators for training, inference and edge use — CPUs, GPUs/TPUs and AI ASICs. Trends include chiplets, heterogeneous integration and 3D packaging, novel architectures such as quantum and neuromorphic computing, and photonic approaches.



Photonic interconnects & data movement

Chip-to-chip, board- and system-level connectivity, including integrated photonics and co-packaged optics, alongside memory and data storage technologies that are increasingly critical to scaling AI systems.



Sensing

Sensors and front-end devices that generate and pre-process data — vision, radar, lidar, RF-based and photonic sensing — particularly important for edge and embodied applications such as robotics and autonomous systems.



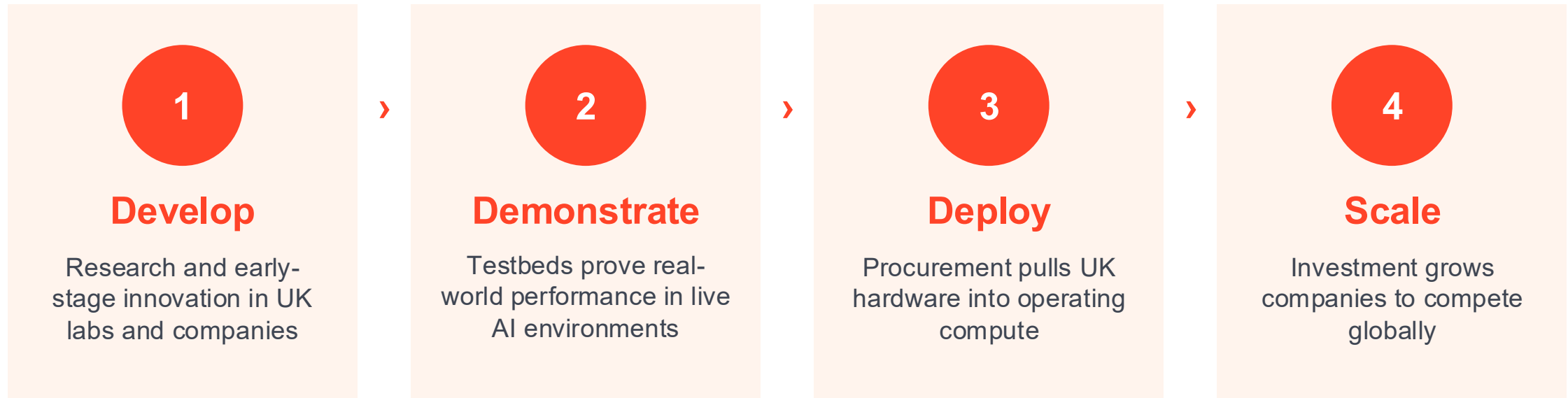
Power and energy systems

Power electronics using advanced materials such as silicon carbide and gallium nitride for efficiency and thermal management, fundamental to scalable, cost-effective and sustainable AI compute.

OUR APPROACH

Building the AI hardware pipeline

One connected route from research to deployment — so ideas generated in the UK are also demonstrated, deployed and scaled here.



International partnerships run through every stage of the pipeline.

SUMMARY OF INTERVENTIONS

Over £1.1 billion of targeted support

Backing British companies to develop, demonstrate, deploy and scale in the UK — and compete globally.



£120m

Innovation

Programmes, prototyping and a national testing capability for AI compute systems.



£80m

Skills

Bursaries, doctoral training and PhD support to grow the chip design talent pipeline.



£750m

Procurement

A heterogeneous AI supercomputer for the AI Research Resource, creating early markets.



£150m

Investment

British Business Bank backing for a new deeptech hardware venture fund.

Alongside support for AI hardware companies through the £500m Sovereign AI Fund, which is prioritising compute, and a new digital procurement model through the multi-billion pound National Cloud Infrastructure Programme.

INNOVATION PILLAR

£120m Innovation Funding

Support researchers and companies to **develop** and **demonstrate** semiconductor technologies, helping get them to an investible and **deployable** stage.

1 LIVE NOW – closing
14th October

£15m Investor Partnership call

Supporting semiconductor and advanced connectivity businesses attract private investment. Delivered by Innovate UK.

2 NEXT

Broader AI Hardware Innovation Programme

A wider multi-year programme is currently being developed.

3 NEXT

Expanded Scaling Inference Lab

Providing greater access to open, neutral testbeds that integrates emerging technologies into deployable rack-level systems.

International partnerships wrap around the programme, helping UK technologies access global capability and markets.

Can chip manufacturing help reindustrialise the UK?

A leading-edge logic fab costs \$20bn or more and takes years to build — a race the UK will not win on subsidy. The opportunity lies in specialist manufacturing where the UK already has capability.



The UK has ~25 fabs

Across compound semiconductors and advanced materials, power electronics, photonics, MEMS.

Manufacturing clusters in South Wales, Scotland, North East England, Northern Ireland



Compound semiconductors, power, photonics, advanced materials

Including large scale facilities e.g. Vishay Newport, Lumentum, Seagate + state owned GaAs/GaN fab Oetric Semiconductor.

Novel material fabs Paragraf & Pragmatic



Semiconductor production equipment

Large scale manufacturers of equipment for fabs incl. Oxford Instruments, KLA, Edwards Vacuum



Advanced Packaging

Innovative low-medium volume facilities incl. Custom Interconnect Ltd, Alter Technologies, RAM Innovations, Bay Photonics
New advanced packaging pilot line – National Advanced Semiconductor Packaging and Integration Centre at NMIS in Glasgow



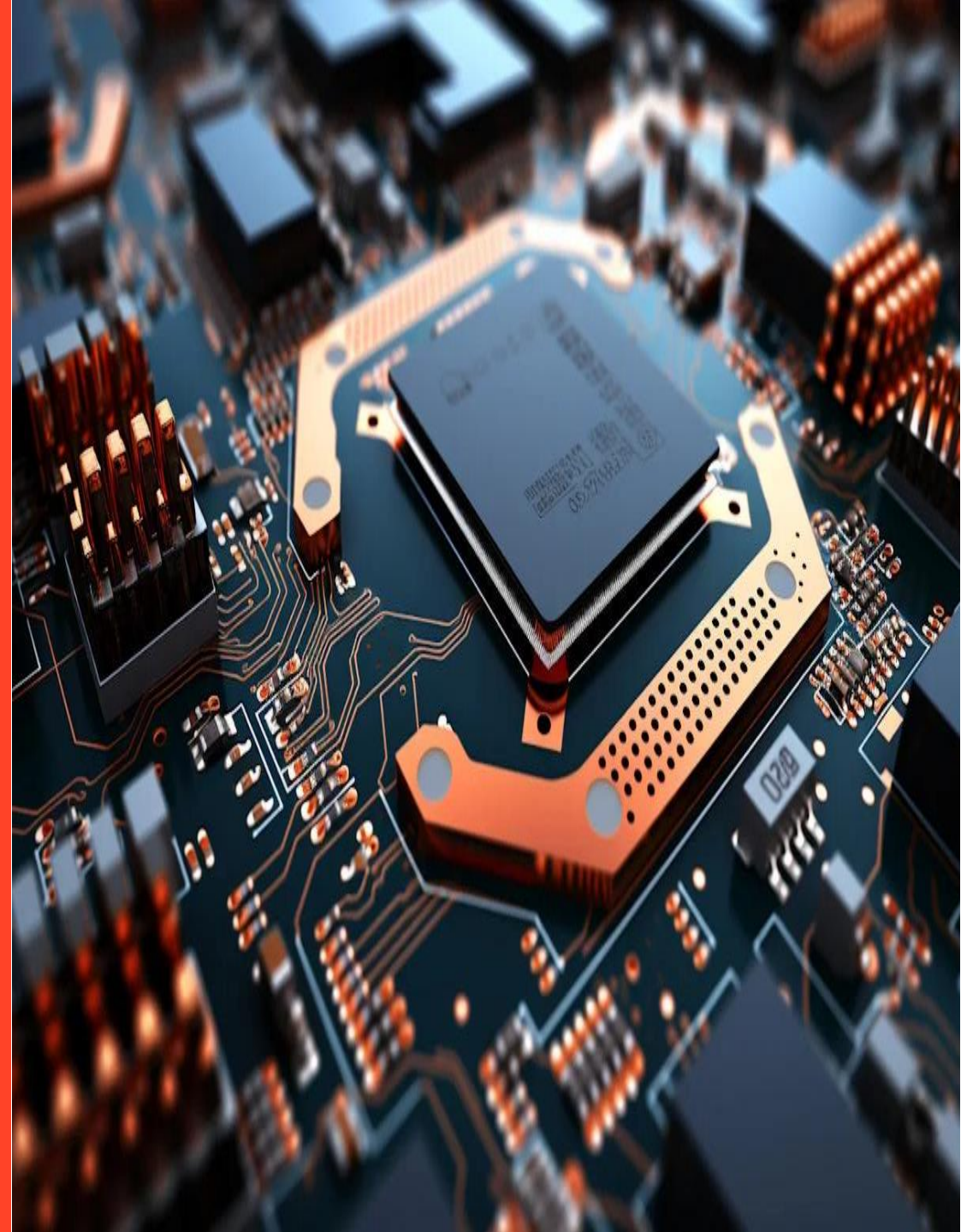


Department for
Business, Innovation,
Science and Trade

Thanks for listening

Innovation · Skills · Procurement · Investment

Together creating a coherent and investable ecosystem, delivered in close partnership with international allies.



TechUK's Role in Strengthening the UK Semiconductor Ecosystem

TechUK

Elis Thomas

Programme Manager – Tech and Innovation





techUK's role in strengthening the UK semiconductor ecosystem



Elis Thomas

Programme Manager, Tech and Innovation, techUK
Global Innovation Network · 6 October 2026

techUK elis.thomas@techuk.org

Today

- 1 Who we are
- 2 What industry tells us, and our role
- 3 Get involved

techUK and our semiconductor work

1,200+

members

20+

programmes

Turning strategy into action

Make the case

**Convene the
ecosystem**

Shape the agenda

What we're hearing from industry

Renewed optimism

1

AI hardware

2

Scaling up

3

Convergence

4

Supply chains

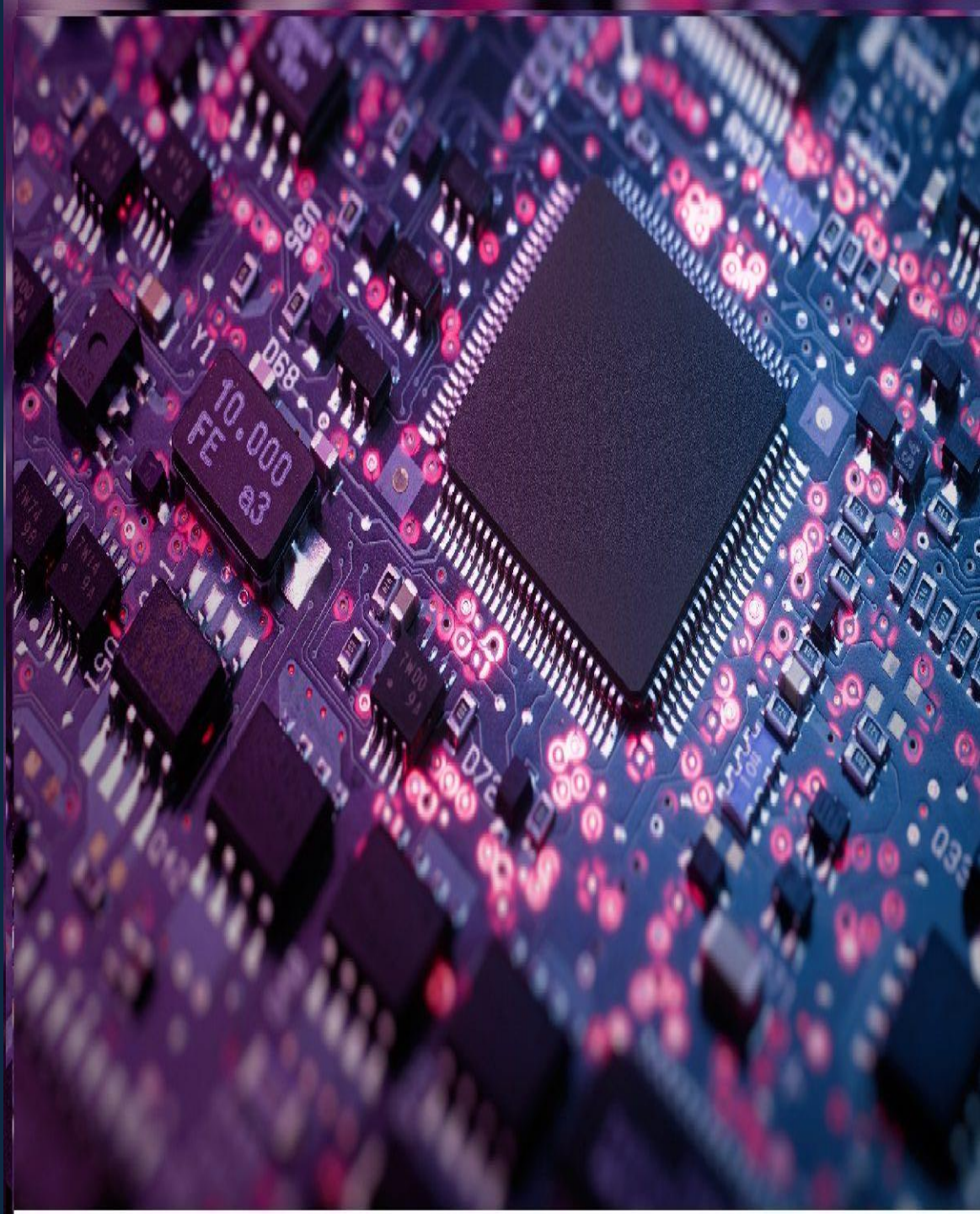
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Execution

What industry tells us, and techUK's role

Why it matters internationally

No country can go it alone



Get involved!

- techUK membership
- The Chips Coalition
- Navigating the UK ecosystem

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