



Innovate
UK

CATAPULT
Network

INNOVATE UK CATAPULT NETWORK: CATAPULTS AT THE HEART OF THE UK'S INNOVATION ECOSYSTEM

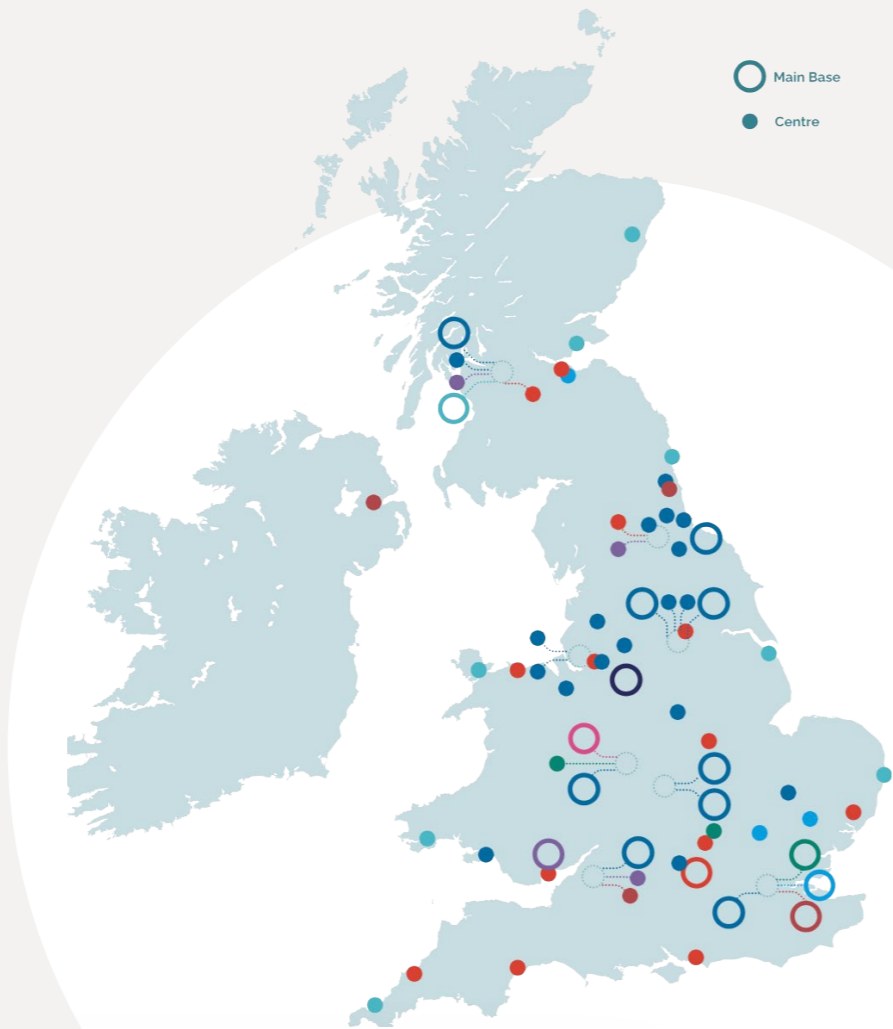
#CATAPULTINGGROWTH



- CELL AND GENE THERAPY
- COMPOUND SEMICONDUCTOR APPLICATIONS
- CONNECTED PLACES
- DIGITAL
- ENERGY SYSTEMS
- HIGH VALUE MANUFACTURING
- MEDICINES DISCOVERY
- OFFSHORE RENEWABLE ENERGY
- SATELLITE APPLICATIONS

65+ LOCATIONS **6000+** EMPLOYEES

**CONNECTING TO
BUSINESSES
ACROSS THE UK**



INTRODUCING THE INNOVATE UK CATAPULT NETWORK



The Innovate UK Catapult Network provides a unique combination of cutting-edge research and development facilities and world-class technical expertise to support UK business innovation.

We encompass nine sector-based world-leading technology and innovation centres, operating from more than 65 locations across the UK.

First established in 2011, Catapults have grown to become a critical element of Innovate UK's portfolio of products and services, where the application of research is accelerated, and where new technologies are further developed, scaled up and realised.

Catapults provide businesses with access to their expertise and facilities, enabling them to test, demonstrate and improve their ideas. Catapults foster collaborations between industry, government, research organisations, academia and many others.

This guide will help you find out more about Catapults, connecting you with the wealth of knowledge and expertise available to drive growth and innovation across the Innovate UK Catapult Network.

Get in touch at enquiries@catapultnetwork.org.uk.



Dr Megan Ronayne
Head of Network Office,
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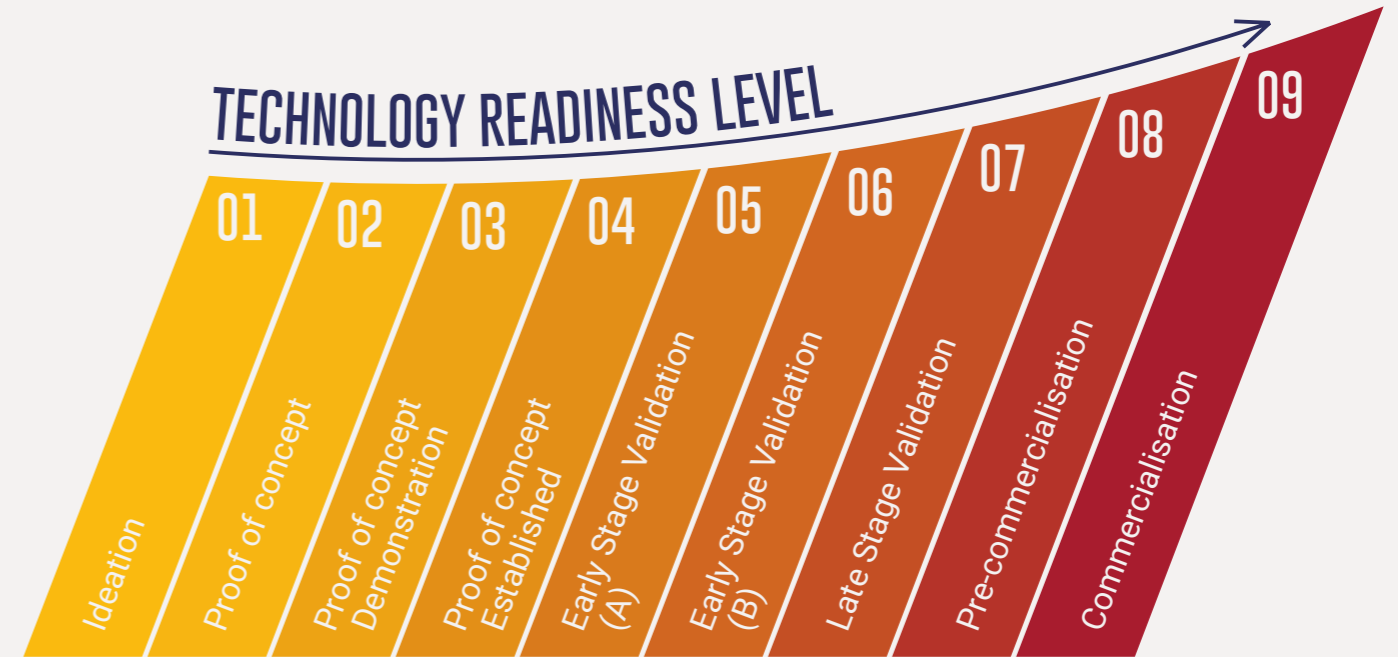


CATAPULTS EXPLAINED

Harnessing the possibilities and potential of technology as a society is an exciting and inspiring opportunity. However, to translate new ideas and concepts into commercial, viable and sustainable actualisation is challenging.

New ideas are graded at Technology Readiness Level (TRL) based on a scale of 1 to 10, with 1 being the concept idea, through to 10 achieving widespread adoption.

Research confirms huge numbers of concepts struggle to jump from the early stages of TRL and achieve viable propositions due to the high rate of failure between TRL 3 and 7 and as a result of complexity, lack of investment and supply chain collaboration.



WHERE CATAPULTS SPECIALISE

That's where Catapults come in, providing the practical support such as technical advice, testing facilities, access to funding and supply chain connections to help bridge the gap that can make the difference between business failure and success. Catapults serve the needs of different sectors and tailor their support to address the unique challenges found in each innovation process.

THE INNOVATE UK CATAPULT NETWORK

The Catapult Network is made up of the combined innovation capabilities of nine Catapults and spearheads the deep collaboration amongst Catapults. This activity is supported and enabled by the Catapult Network Office.

Catapults work together to tackle cross-cutting industry themes, rise to technological and national challenges that cut across multiple sectors and share learnings across the science, innovation and technology ecosystem.

Whilst individual Catapults have close strategic partnerships with Innovate UK and many Government Departments, the Catapult Network has a combined power to support the Government's overall ambition to achieve its missions and deliver an impactful industrial strategy.

Working together we deliver...



Toolkits and methods to evaluate and improve products, processes and technologies.



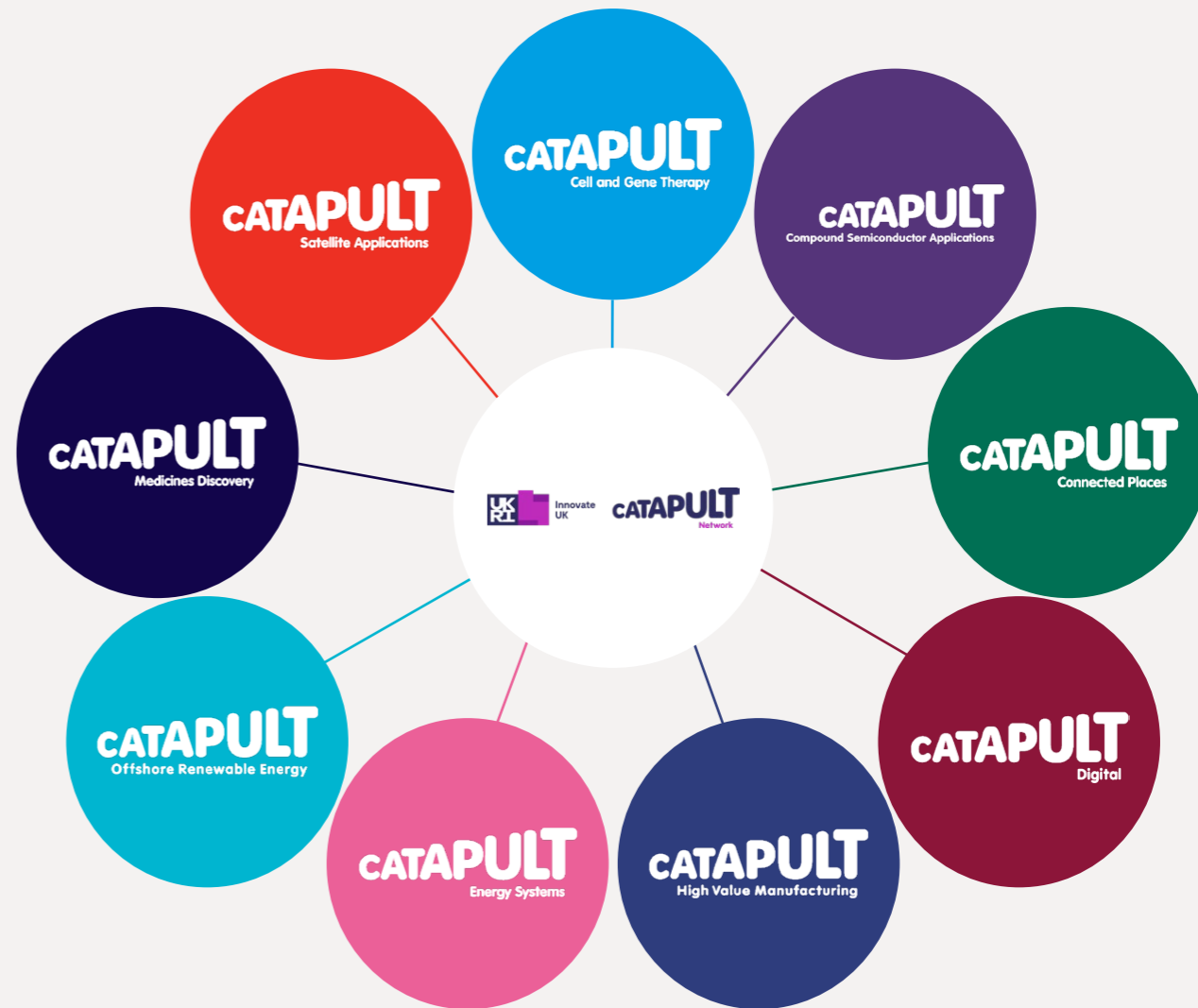
Advice on business development, skills and workforce, routes to finance and regulation.



Growth accelerators, incubator programmes, and opportunities to scale up.



Routes to international, and export of technical and professional services.



DRIVING IMPACT

The Catapult Network has collectively driven



18,785 INDUSTRY COLLABORATIONS



11,916 SMES SUPPORTED



1,120 INTERNATIONAL PROJECTS



OVER £1.4BN OF RESEARCH AND DEVELOPMENT FACILITIES



5,560 ACADEMIC COLLABORATIONS



£8BN GVA GENERATED FOR THE UK ECONOMY



50% GROWTH IN BUSINESSES SUPPORTED BY CATAPULTS AFTER 6 YEARS, WHEN COMPARED TO SIMILAR BUSINESSES THAT DIDN'T RECEIVE CATAPULT SUPPORT



80% OF PROJECTS WOULD NOT HAVE HAPPENED, OR WOULD HAVE HAPPENED SLOWER, WITHOUT CATAPULT SUPPORT



90% OF BUSINESSES SURVEYED SAID CATAPULTS PLAY A ROLE IN HELPING THEM FORM PARTNERSHIPS

CELL AND GENE THERAPY CATAPULT

Our vision is for a thriving industry delivering life-changing advanced therapies to the world.

We apply our unique capabilities and assets to collaborate with academia, industry, and healthcare providers to develop new technology and drive innovation.

Our support for the advanced therapy sector focuses on:

New therapeutics

- Supporting and encouraging the funding of new technologies, to ensure there is a strong flow of novel therapies coming into clinical trials

Lower cost of goods

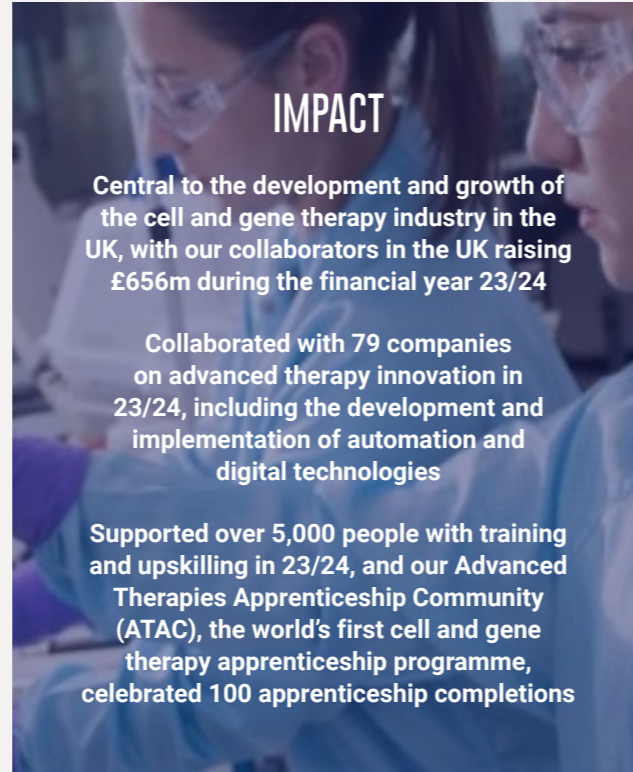
- Helping companies develop innovative technologies that enable scalable low-cost manufacturing approaches

Strong supply

- Ensuring industry is supported to apply these approaches in manufacturing settings, and is able to meet the demands of a rapidly expanding uptake

High uptake

- Supporting healthcare systems to deliver advanced therapies across the UK



IMPACT

Central to the development and growth of the cell and gene therapy industry in the UK, with our collaborators in the UK raising £656m during the financial year 23/24

Collaborated with 79 companies on advanced therapy innovation in 23/24, including the development and implementation of automation and digital technologies

Supported over 5,000 people with training and upskilling in 23/24, and our Advanced Therapies Apprenticeship Community (ATAC), the world's first cell and gene therapy apprenticeship programme, celebrated 100 apprenticeship completions

BRAINTREE, EDINBURGH, LONDON AND STEVENAGE



COMPOUND SEMICONDUCTOR APPLICATIONS CATAPULT

We are the UK's authority on compound semiconductor applications and commercialisation.

We help our partners to de-risk commercialisation, eliminate barriers to market and accelerate compound semiconductor technologies.

Our vision is for the UK to become a global leader in developing and commercialising new applications for compound semiconductors.

Our capabilities

- Advanced packaging
- Photonics and quantum
- Power electronics
- RF and microwave communications

Industries we support

- Aerospace
- Defence
- Energy
- Telecoms
- Transportation
- Space



IMPACT

Since 2018, we've undertaken **261 industrial collaborations** and have helped **create or safeguard 4,718 jobs**

Our R&D projects have contributed **£600m of GVA** to the UK economy

SMEs we've worked with have leveraged **£589m of public and private investment**

NEWPORT, DURHAM, GLASGOW AND BRISTOL

CONNECTED PLACES CATAPULT



We are the UK's innovation accelerator for transport, the built environment, cities and local growth.

A connected place is where living, working, and moving are improved by innovation in the systems, infrastructure, and economy of a place.

Capabilities and expertise:

- Transport
- Decarbonisation
- Net Zero
- Neighbourhoods
- Human Connected Design
- Innovation Procurement
- Accessible Travel
- Digital Twins
- Drones and Air Mobility
- Innovation Districts and Freeports
- Planning and urban design
- Integrated data infrastructure
- Innovation-led local growth



IMPACT

Delivering the HS2 Accelerator, which has supported 31 SMEs, who have gone on to raise over £220m in investment and create over 430 UK jobs

Supporting the NHS to trial drones to transport essential medicines and medical supplies

Helping to unlock £300bn of investment into net zero infrastructure in UK cities

LONDON, MILTON KEYNES AND BIRMINGHAM

DIGITAL CATAPULT

Digital Catapult accelerates the practical application of deep tech to realise a better future for the UK.

We help businesses grow by applying deep tech in partnership with government, industry and academia.

We focus on four primary interventions: enabling deep tech companies to scale; improving UK industrial supply chain resilience; driving industrial decarbonisation; and advancing UK development and use of data driven and open future networks.

Technologies

Future Networks - 5G, 6G, Open RAN, Industrial IoT
Immersive Technologies - Virtual Reality, Augmented Reality, Mixed Reality, Haptics
Artificial Intelligence and Machine Learning
Distributed Systems such as blockchain Quantum

Sectors

- Aerospace, Defence & Security
- Creative Industries
- Energy & Utilities
- Transport & Digital Infrastructure



IMPACT

£545 million investment raised by 254 startups after engaging with Digital Catapult

Nationwide network of 5G-enabled facilities

30% productivity and 30% waste reduction achieved across digital supply chain projects

LONDON, BELFAST, BRISTOL AND SUNDERLAND



ENERGY SYSTEMS CATAPULT

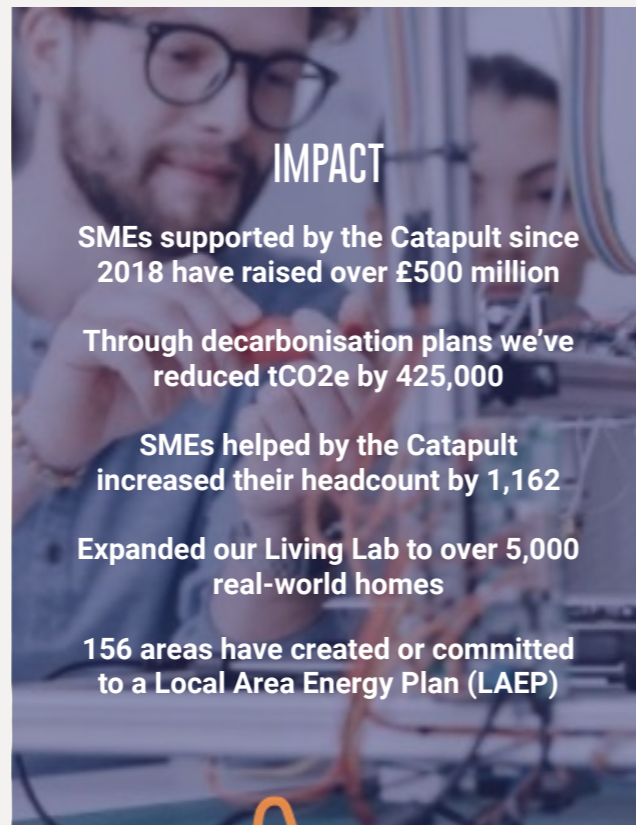
Accelerating Net Zero energy innovation.

The Catapult has built a team of more than 300 people, with a range of technical, engineering, consumer, commercial, incubation, digital, and policy expertise. The Catapult draws on sector-leading test facilities, modelling tools, and data collected from its back catalogue of more than 500 research projects.

The Catapult uses that 'whole energy system' capability to support innovative companies to test, trial and scale new products and services.

We have five strategic ambitions:

1. UK companies supported by Energy Systems Catapult are global leaders in energy innovation.
2. That it becomes easy and desirable for people to decarbonise their homes.
3. That businesses and the public sector have the tools to quickly and easily decarbonise the energy used in their buildings and sites.
4. Every local area in the UK is investing in new, Net Zero energy infrastructure, based on robust whole system plans.
5. A new flexible, digitalised Net Zero energy system is being rapidly rolled-out, which is more resilient and better for all consumers.



IMPACT

SMEs supported by the Catapult since 2018 have raised over £500 million

Through decarbonisation plans we've reduced tCO₂e by 425,000

SMEs helped by the Catapult increased their headcount by 1,162

Expanded our Living Lab to over 5,000 real-world homes

156 areas have created or committed to a Local Area Energy Plan (LAEP)



BIRMINGHAM

HIGH VALUE MANUFACTURING CATAPULT

We are a strategic research and innovation hub for UK manufacturing, helping academia, industry and government solve the world's toughest engineering challenges to accelerate industrial transformation.

We provide companies across the UK with access to world-class facilities and expertise that would otherwise be out of reach.

For 14 years, we have matured pioneering technologies, harnessed emerging trends, opened doors for SMEs, developed supply chains, unlocked alternative investment models and trialled new approaches to talent and skill development. All with the ultimate goal of increasing the capacity, capability and competitiveness of the UK's manufacturing supply chains.

Working together, our centres are tackling strategic priorities to enhance our domestic capabilities, giving UK businesses competitive advantage in a global marketplace. Our 3,500 employees and 23 UK sites have world-leading expertise that is being applied to tackling key objectives in support of net zero, healthy living and national security.



IMPACT

Every £1 spent by HVM Catapult is matched by around another £3 from our partners

Our work generates £0.5bn of research and development spend per year.

Since HVM Catapult was established in 2011, we have worked with 36,655 companies (20,878 of those SMEs)



MEDICINES DISCOVERY CATAPULT



IMPACT

Our approach to drug discovery drives game-changing breakthroughs and improves patients' lives. Medicines Discovery Catapult has:

- Worked with almost 300 partners, helping them raise over £1.24bn of R&D investment
- Accelerated 5 compounds into clinic
- Driven 3 products to market
- Developed 6 national programmes to meet unmet patient need

CHESHIRE

Reshaping drug discovery for patient benefit, by transforming great UK science into better treatments through partnership.

Medicines Discovery Catapult is a national Life Sciences service dedicated to turning drug discovery into commercial breakthroughs. At the frontier of drug discovery, we work with entrepreneurial scientists to make every move count.

We validate their ideas, de-risk investments, and feed insights back into the sector to drive productivity and impact. We create momentum through our unique blend of discovery expertise, technology, insights, and sector-leading partnerships. Where there is unmet patient need, we stimulate innovation through our National Programmes.

We do this through the integrated and intelligent deployment of our advanced lab and partnership platforms:

- Lab: Biomarkers, Cellular Sciences and Translational Imaging
- Partnerships: National Programmes and Virtual R&D

Our capabilities have been applied across key areas of focus:

- Oncology
- Neuroscience
- Infectious Disease
- Immunology
- Complex Medicines
- ...while also supporting rarer disease areas

OFFSHORE RENEWABLE ENERGY CATAPULT



IMPACT

Over the past five years Offshore Renewable Energy Catapult has helped to bring nearly 200 new products and services to market and, through its support for innovative UK companies, has helped to generate £717m in GVA for the UK offshore wind sector and nearly 13,000 jobs

We enable innovation and accelerate the development of offshore renewable energy, growing businesses and creating jobs throughout the UK.

Our vision:
A thriving, Net Zero UK, powered by renewable energy.

We deliver:

- Research
- Innovation
- Test & Validation
- Supply Chain growth

Facilities:

- Turbine blade testing
- Powertrain test rigs
- High Voltage testing lab
- Marine test docks
- 7MW offshore research turbine
- Floating Wind Innovation Centre

HEADQUARTERED IN GLASGOW, WITH KEY OPERATIONS IN COASTAL LOCATIONS AROUND THE UK



SATELLITE APPLICATIONS CATAPULT

Our vision is to enable a world leading space sector to solve some of the world's greatest challenges.

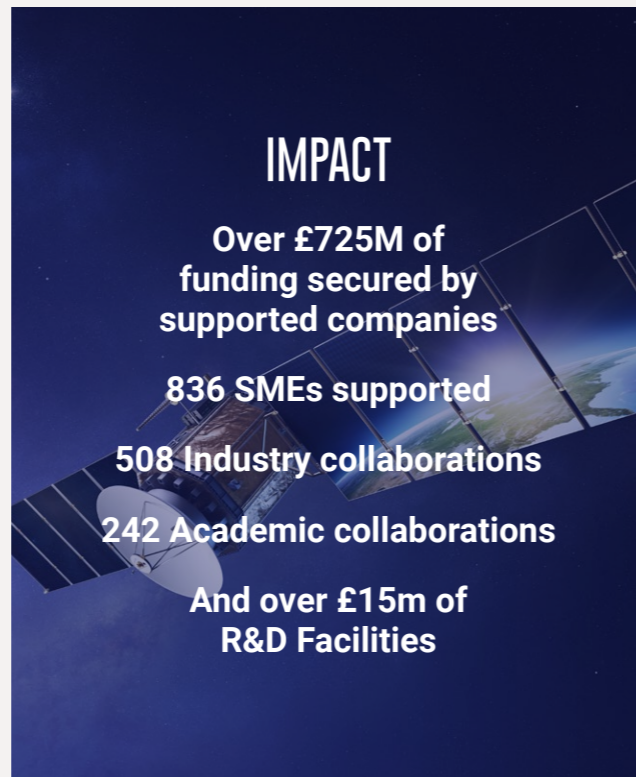
We stimulate market adoption of satellite services in end-user communities.

We support businesses in the sector directly with access to facilities, technical experts and commercialisation.

We play key roles in collaborative and commercial R&D projects.

We do this in three mission areas:

- **Autonomous and Connected Earth** - By 2030, the UK will be a leading adopter of autonomous systems, integrator and user of satellite and terrestrial networks, with enhanced digital inclusion.
- **Sustainable Earth** - By 2030, the UK will be a leading provider and adopter of space-enabled capabilities to advance nature restoration, reduce emissions and to build inclusive and resilient communities.
- **Beyond Earth** - By 2035, the UK will be a leading player in the global ISAM market, acting as an integral provider of in-space logistics, servicing and manufacturing technology and capability.



IMPACT

Over £725M of funding secured by supported companies

836 SMEs supported

508 Industry collaborations

242 Academic collaborations

And over £15m of R&D Facilities

HARWELL, WESTCOTT, LEICESTER AND AT 14 SPACE ENTERPRISE LABS AROUND THE COUNTRY

GET IN TOUCH



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