



# SUPPORT PROGRAMMES FOR SMES AND STARTUPS



### WHAT IS A CATAPULT?

The Catapult Network supports businesses in transforming great ideas into valuable products and services. We are a network of world-leading technology and innovation centres established by Innovate UK. We deliver impact across the UK economy, enabling businesses to thrive in global markets.

Catapults accelerate the application of research, they are where new technologies are further developed, scaled up and realised, across a range of sectors. Catapults provide businesses with access to their expertise and facilities, enabling them to test, demonstrate and improve their ideas. By fostering collaborations between industry, government, research organisations, academia and many others, Catapults are helping to create the best environments for innovation. Catapults work with small, medium and large businesses, to understand the challenges they face and support them in the development of innovative solutions that will help improve their business performance.

## SUPPORT PROGRAMMES FOR SMES AND STARTUPS

Since their establishment, Catapults have tailored their offerings to be best suited to the SME and start-up communities they serve. In addition to helping SMEs through direct provision of cutting-edge infrastructure, technical expertise and through participation in collaborative R&D programmes across multiple sectors to develop their innovation capability, a variety of support approaches are being applied across the network.

#### Some examples below:

- Toolkits and transferable methodologies to investigate, evaluate, develop and demonstrate technology, improve products, processes and technologies, working with end users and supply chain for readiness
- Rapid commercialisation, growth accelerator and incubator programmes that support early stage, start-ups and scale-ups to utilise the Catapult assets, capabilities and expertise
- Expert advice, independent diligence of programmes, analysis and insights, market analysis, cost modelling, business-case support, creation of industry-relevant R&D project plans, achievable IP estates

- Signposting, support in partnering, access to knowledge sharing networks, including routes to other Catapults and supply chain organisations
- Support in developing routes to funding (identifying opportunities, consortia building, application process), routes to finance by developing ideas further and strengthening proposals to investors. From wide experience, where Catapults have been engaged in supporting companies, we have seen it helped breed investors. Catapults engagement with businesses helps to breed investor confidence.
- Regulatory and compliance guidance
- Advice on workforce development
- Where relevant, routes to international expertise

Find out more



# CELL AND GENE THERAPY CATAPULT





#### **SME Support Approaches**

#### **Technology and Process Innovation**

- Process development
- Analytical development
- Manufacturing systems
- Supply chain

#### **Regulatory Affairs and Clinical Development**

- Regulatory Affairs
- Non-clinical safety
- Clinical Delivery
- Programme management

#### **Engagement**

- · Collaboration formation
- Intellectual property
- Health economics & Market Access
- Reimbursement

#### **Commercial Readiness Advice Clinics**

- SMEs can access commercial support in the form of advice, meetings or access to advisory panels.
- Small companies and spin outs in the UK can receive funding through programmes such as Innovate UK EDGE.

#### Support to potential university spin-outs

Our Academic Liaison team engages with Technology Transfer Officers (TTOs) at universities to identify potential technologies, support spin-outs and secure investment.



#### Capabilities & Assets

### Technology and Process Innovation Labs (London Stevenage, Edinburgh)

- Industrialisation and scale up of cell and gene therapy processes
- Analytical Characterisation and Process Development
- Bioprocessing Technology Innovation
- Purpose built collaboration laboratories

### Manufacturing Innovation Centres (Stevenage, Braintree)

- Manufacturing innovation centres designed specifically for cell and gene therapies processes
- MHRA licensed facilities with segregated large Good Manufacturing Practices (GMP) cleanroom modules
- Stevenage Manufacturing Innovation Centre has been central to the development of the third largest cell and gene therapy cluster globally

#### **Advanced Therapy Treatment Centres Network**

- Building systems and frameworks for routine clinical adoption and reimbursement of cell and gene therapies
- NA-ATTC, iMATCH, MW-ATTC

### Advanced Therapies Medicinal Products (ATMP) skills and training development

- ATAC Advanced Therapies Apprenticeship Community providing industry led training, mentoring and assessment ensuring a suitable workforce for a rapidly expanding industry
- ATSTN Advanced Therapies Skills Training Network on-site and online training platforms aimed to attract talent from other industries

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# COMPOUND SEMICONDUCTOR APPLICATIONS CATAPULT

#### **SME Support Approaches**

#### Collaborative CR&D

Working with universities and companies on CR&D projects to support the entire compound semiconductor supply chain in key technical areas of Power Electronics, Photonics, and RF. Alongside the core technology areas, we can support CR&D bid writing, market intelligence, and project management across multiple companies.

#### **Design & Development**

This service includes technical design services, contracted R&D, EVM analysis, for example, analysis of technical feasiband IP development, and led by our technical team.

Market intelligence: Market ability for new product ideas. Benchmarking of existing and planned products against competitors to guide product development decisions and roadmaps.

#### **Training & Skills**

Regular workshops in a range of specific topics which offer a significant potential impact for companies developing new products, which relate to 'how to design with' and 'how to optimise system performance' using compound semiconductors.

#### **Facilities & Testing**

The Catapult has significant in high-end equipment, including, equipment/lab hire, testing & failure analysis, including in-house capability to explore higher temperature, humidity, and frequency ranges for their product designs, and modelling, simulation, characterisation, validation & integration.





#### **Capabilities & Assets**

#### Power electronics laboratory

- 300kV test & verification capability
- Chip/device/module characterisation & modelling
- Simulation
- · Access to 0.5MW of power
- Power device/module lifetime tests (HTS, LTS, HTRB, HTGB, H3TRB)
- · Vibration, thermal & mechanical shock
- Device/Module power cycling and thermal lifetime

#### Photonics & sensors laboratory

- · Linewidth narrowing reference designs
- Spectroscopic techniques
- · Die preparation & hybrid integration
- Environmental testing
- Reliability and HALT/HAST
- Failure analysis

#### **Advanced Packaging laboratory**

- Prototyping
- · Class 10K clean room
- Precision engineering
- · Thermal management
- Sintering
- · Die/Wire Bond & test

#### RF/microwave laboratory

- Device characterisation
- 5G

#### **Contact**

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# CONNECTED PLACES CATAPULT

#### **SME Support Approaches**

#### Universal

- Access to a wide network of businesses (small, medium & large) and government organisations
- Signposting to other support organisations & networks
- Access to newsletters, information guides, case studies and educational materials
- Notifications and invitations to general industry events, competitions and opportunities

#### **Targeted**

- Comprehensive Business Needs Assessment (1:1)
- Invitation to speak at our Connections Café
- Access to the Innovation Leaders Forum
- Exclusive and tailored notice of opportunities, tenders and competitions
- Introductions to potential customers, collaborators, investors
- Support for Entrepreneurs Network (SfEN) Clinics
- Invitation to tradeshows

#### Specialist

- Mentoring & technical advice and market insight from industry experts
- Collaborative Project Exploration Workshops
- Business Modelling Clinics
- Masterclasses (IP, Skills/Team Development, Business Development, Pitch Perfect)
- Promotional showcase of business and technology on our featured hub
- Pitch days with commercial partners & investors

#### **Partnership**

- CR&D projects
- Commercial projects
- Access to Accelerator Programmes (and 3rd Party Programmes)
- Access to facilities and premises
- Knowledge Transfer Partnerships (KTP) projects





#### **Capabilities & Assets**

- Planners
- Market Analysis
- Graphic & Urban Designers
- Connected & Autonomous Vehicle Experts
- · Human Factors and Anthropologists
- Bid, Communication and Dissemination
- Urban Internet of Things (IoT) Experts
- Standards Experts
- Drone and Aviation Specialists
- Customer Insight Experts
- Freight Logistics Experts and Transportation Planning
- Data Scientists
- Visual Designers and Software Developers
- Academic Engage and Deep Academic Alliances
- Accelerator and Incubator Programme
- Supply Chain Innovation
- Insight Experts
- Engineers, Architects and Economists
- · Business and Economist Modelling
- Air Quality and Pollution
- Stakeholder Engagement and Experts
- Strategists
- Systems Architects and Data Specialists
- Systems Development
- · Geospatial Analysis and Modelling

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### DIGITAL CATAPULT



#### **SME Support Approaches**

#### Collaborative research & development

Working with digital first companies, academics and large businesses on CR&D projects to transform research into successful products and services, promoting the application and use of future networks, artificial intelligence, distributed ledger and immersive technologies within the manufacturing and creative sectors.

#### **FutureScope**

Digital Catapult supports the next generation of startups and scaleups through its FutureScope acceleration programme. Designed to help innovators reach their full potential, it provides world class mentorship, investment essentials and connections to the investment community, workshops, and access to facilities and resources that might be otherwise out of reach for a small business.

As the home of Digital Catapult's acceleration programmes, FutureScope is built on our best practice framework to develop UK companies using advanced digital technologies.

#### **International Engagement**

Digital Catapult helps to create new international opportunities for advanced digital technology companies: supporting startups and scaleups by facilitating and showcasing UK innovation, attracting overseas investment, and driving the UK's global leadership and collaboration with other markets.



#### Capabilities & Assets

#### **5G Facilities**

Innovation in 5G depends on access to expensive and complex infrastructure and relevant expertise. Digital Catapult is removing barriers to market and helping startups to develop leading edge solutions by providing access to seven 5G testbeds nationwide.

#### The Immersive Labs

Built to encourage and support the UK's growing immersive community in developing commercially viable immersive content and applications, the four Immersive Labs provide an ideal place to test and demonstrate immersive experiences.

#### Machine Intelligence Garage

Digital Catapult's flagship Artificial Intelligence (AI) programme, Machine Intelligence Garage, is an acceleration programme that addresses the challenges faced by today's artificial intelligence and machine learning startups. The programme provides the computation power and expertise needed to develop and build responsible and sustainable machine learning and artificial intelligence solutions.

#### **Virtual Production Test Stage**

Independent production companies that cannot access larger commercial facilities and early stage innovation companies will be able to access this fast start facility to develop new tools and applications.

#### **SONIC Labs**

SONIC Labs, from Digital Catapult and Ofcom, and funded by DCMS, allows new solutions providers to enter the UK telecoms supply chain. SONIC Labs is a real-world testing facility, and brings together a set of suppliers deploying products for the first time to create a more open, competitive and diverse telecommunications supply market.

#### Field Labs

Distributed Ledger Technology (DLT) Field Labs offer businesses the opportunity to explore how distributed ledger technologies can address commercial and operational challenges.

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#### North East Tees Valley

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#### South West

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# ENERGY SYSTEMS CATAPULT

#### **SME Support Approaches**

#### Energy Launchpad (3-tiered support)

#### 1. Universal

Standardised support for all SMEs, helping start-ups gain insight about the UK energy system and Energy Systems Catapult. Find partners, access events and workshops, plus sign-posting for funding calls, investors and international opportunities.

#### 2. Incubation

Tailored support for selected start-ups, including business model development, system integration, consumer insights, digital fitness, market testing and validation, and investor readiness.

#### 3. Acceleration

Scale-up support for selected high-impact potential SMEs, including incubation support plus access to test and demonstration environments such as our Living Lab, engagement with potential corporate clients and investors, and links to international opportunities.

#### Global challenges & collaborations

Solving challenges in other countries (e.g. India, South Africa) through competitions and representing companies to international stakeholders through projects and collaborations.

#### Supply Chain Network & Landscapes

Insight into the UK supply chain, including landscapes for sector areas (e.g. digital, Electric Vehicles, hydrogen, heating & cooling). A detailed database of UK SMEs that wish to be notified of international opportunities and stay up to date with Energy Systems Catapult's and its partners service offers.

#### **Investment Readiness**

Support to SMEs to prepare for investment rounds and pitching to investors, including annual programme.

#### Collaborative research and development

Work with academics and companies on CR&D bids and projects.

#### **Green Finance**

We help SMEs de-risk investment decisions for green finance institutions, such as investors and mortgage lenders, with technical, commercial and regulatory due diligence that ensures they back proven, emissions-and energy-saving innovations.





#### **Capabilities & Assets**

#### **Living Lab**

Over 1,500 digitally connected real homes and consumers spread across the UK to support innovators to rapidly design, market-test and launch smart energy products and services.

#### **Consumer Insight**

Offering in-depth consumer research, cutting-edge data science, user-experience design thinking and real-world consumer trials. An online panel of 5,500 UK households that can provide rapid and cost effective consumer feedback on a product or service

#### **Business Model Innovation**

Helping SMEs develop the right value propositions and routes to market, through our Business Model Canvas, market analysis and deep understanding of the evolution of the energy sector.

#### **Digital & Data Science**

Offering a range of expertise, tools and labs, including digital strategy, data science, artificial intelligence for energy systems, developing Digital Twins, and modernising energy data.

#### **Systems Integration**

Offering systems engineering to help define and deliver the future energy system to unlock and integrate innovation.

#### **Clean Tech Engineering**

Independent and technology-agnostic approach to accelerating Net Zero innovation across Bioenergy, Carbon Capture, Utilisation & Storage, Energy Storage, Hydrogen, Industry Decarbonisation, Energy Networks, Nuclear, Renewables and Transport.

#### Markets, Policy and Regulation

Offering energy policy, regulatory, and market design expertise that combines deep understanding of technology, economics, and policy, informed by cuttingedge modelling and evidence-based analysis.

#### **Energy System Modelling**

World-class whole systems modelling including national and local energy systems, storage and flexibility, and building energy systems.

#### Contact

Energy Launchpad Team energylaunchpad@es.catapult.org.uk +44 (0)121 203 3700

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### HIGH VALUE MANUFACTURING CATAPULT

#### **SME Support Approaches**

#### What we offer

High Value Manufacturing Catapult is here to help turn great ideas into commercial realities by providing access to world-class research, development facilities and expertise that would otherwise be out of reach for most businesses in the UK.

#### **Expertise**

Access to 3,500 of the UK's best engineers, scientists and technicians ready to help solve your business challenges.

#### **Equipment**

Access to the specialist equipment and technology you need to develop and test your ideas.

#### Capability

Spanning material technologies, processing and formulation through to high integrity product assembly and validation.

#### Connections

A magnet for conversations and collaborations that will shape tomorrow. We connect SMEs to the UK's leading supply chains and with government and academic support.

#### Insight

Deep industry understanding and experience allows us to guide your business towards the best outcomes in a fast-changing and competitive world.

#### Workforce development

Business success starts from within. We are experienced in reskilling and upskilling your current workforce. We also offer access to apprenticeships, knowledge transfer partnerships, training courses and student placements to help build and maintain the high-level skills needed to transform your business.

#### **SME Support Services**

#### Walk the line

We can arrange a walkthrough (virtual or otherwise) of your facility, meet your engineers and production staff and look at your business processes to help you to identify areas where gains could be made.

#### Consultation

We offer bespoke support and can talk through your idea in detail, drawing on expertise from across the whole High Value Manufacturing Catapult.

#### **Technology Workshops**

We offer access to seminars and workshops to help you decide whether new technologies could offer solutions to the business challenges you face.



#### **Innovation Workshops**

We can work with your team to explore how innovation could unlock the potential of your business and identify how you can bring your ideas to reality.

#### **Funding Advice**

We can make recommendations on where to find finance and the best funding direction for your project.

#### 13 Capability Areas

Additive manufacturing; Assurance; Automation; Biomanufacturing; Composites; Digital manufacturing; Electrification; High value design; Joining; Near net-shape manufacturing; Net zero; Subtractive manufacturing; and Sustainable material and circular economy.

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# MEDICINES DISCOVERY CATAPULT



#### **SME Support Approaches**

### MDC enables the community to reshape drug discovery by:

- Industrialising new technologies: Developing and driving the adoption of new technologies and methodologies better able to predict probability of successful medicines discovery
- Connecting the Life Sciences Ecosystem: Driving global focus on key barriers to innovation in areas of unmet patient and technological need
- Supporting Drug Discovery Innovators: Making world-class expertise, facilities, complex technologies, and advanced analytics accessible to drive informed decisions

#### How MDC can help your business

MDC applies high-quality scientific skills and resources to drive the proof and adoption of valuable new tools and techniques. These are targeted to improve success rates across all stages of medicines R&D from new ideas to proof of concept in patients.

From your first engagement, MDC will work with you to understand the commercial and scientific potential of your assets and ideas. The team will then help you identify the best route to proving, protecting and applying your asset, with any services and support you need.

MDC engages with its partners in a range of different models:

- Commercial collaborations: innovators can access our skills and assets
- Joint grant applications for collaborative R&D funding: collaborations for mutual benefit
- Signposting and connecting: helping you find the right partner, collaborator, advisor or supplier who can deliver what you need

#### Capabilities & Assets

### Cellular Sciences / Biomarkers / Translational Imaging

Direct support to partners combining industry, technical and disease expertise with state-of-the-art technologies to deliver decision making data.

#### Virtual R&D

Support partnered projects and initiatives through provision of expert drug discovery advice.

#### **Syndicates**

Unlock barriers to successful medicines discovery through creation of disease-focused consortia with patient need at the heart of strategy.

#### **Technology Innovation**

We have established a suite of 'hard-to-access' technologies that can be applied to address project challenges.

#### Key platforms include:

- · Preclinical small animal imaging including PET
- Mass spectrometry
- Advanced microscopy
- Molecular pathology

#### Informatics

Analyse & interpret complete data to help partners make decisions about developing new medicines.

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# OFFSHORE RENEWABLE ENERGY CATAPULT



#### **SME Support Approaches**

#### Research, Development & Innovation

- Live Innovation Calls
- Insights & Analysis
- Collaborative R&D
- Test & Validation
- Academic Engagement

#### Commercialisation

- Accelerator Programmes
- Investor Engagement
- Business Case Development
- Market Entry Information

#### **Company Growth**

- Supply Chain Readiness
- Improving Competitiveness
- Cross Sector Transfer
- Export Opportunities

#### **Office Locations**

Glasgow, Blyth, Leven, Pembrokeshire, West Cornwall, Hull, Suffolk, Aberdeenshire, Anglesey and Shandong Province

#### **Centres of Excellence**

Testing and Validation, Operations and Maintenance, Floating Offshore Wind, Marine Energy Engineering

#### Launch Academy

Offshore wind-focussed technology accelerator, removing barriers to commercialising new products and services.

#### Fit for Offshore Renewables

Supply chain readiness support targeting enhanced competitiveness.

#### Offshore Wind Growth Partnership

Funded by industry support for increasing supply chain competitiveness, capability, and capacity.

#### **TUS Offshore Renewable Energy Research Centre**

Market entry and incubation for UK businesses in China.

#### Capabilities & Assets

#### Blades

100m and 50m Blade Test Halls, Blade Erosion Test Rig, Blade Modelling, Advanced Materials and Manufacture

#### **Powertrains**

1MW, 3MW, 15MW Powertrain Facilities, Wind Turbine Bearing Test Facility, eGrid Grid Compliance Testing, Reliability and Health Monitoring, New Components



#### **Electrical Infrastructure**

HV and Materials Labs, Pre-qualification bays, Dynamic Cable Test Rig, Fault Diagnostics, Reliability, Future Energy Systems & Hydrogen

#### **Data and Digital**

Data Analytics, Power Performance Assessment, Dashboarding, Data Benchmarking, Access to Operational Data

#### **Operations and Maintenance**

Benchmarking against current technologies, Inspection, Intervention, Planning/Optimisation, Cable Insights

#### **Robotics and Autonomous Systems**

Subsea Docks, Training Tower, Blade Sections, Robotics and Autonomous Systems Testing

#### **Floating Offshore Wind**

Novel substructures, Technical & Commercial Risk, Ports and Logistics, O&M

#### **Foundations and Substructures**

Condition Monitoring, Novel Foundations, Survey & Inspections, Dock Facilities and Simulated Seabed

#### **Marine Energy**

Simulation and Modelling, Array Optimisation, Wake Effects, Nacelle Testing, Cost Modelling, Technology Assessment, Resource Modelling

#### **Additional Facilities**

7MW R&D turbine, Met Mast, ROV Zone, Access to Operational wind farms

#### **Contact**

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# SATELLITE APPLICATIONS CATAPULT



#### **Community and Capability Discovery**

Services created to help business discover market opportunities, technical capabilities, and networks to help them reach new customers and potential partners.

#### **UK Space Capability Catalogue**

A comprehensive source of information that outlines several organisations that work within the UK space ecosystem.

#### **Business Sprints**

Workshops with a user centred designer, business strategist and a technical expert to support businesses in developing commercialisation and scale-up strategies. Focus areas include:

- Business Diagnostics
- Value Analysis
- Go-to-market strategies
- Service development approaches
- · Business model exploration
- Investor readiness

#### **Westcott Incubator and Accelerator**

The Incubator and Accelerator Programme at Westcott is a new funding opportunity that will enable businesses of various sizes and maturity, to access the facilities and expert teams based at Westcott to explore, build, and test their innovations.

#### **Space Commercialisation Engine**

A national business support programme aimed at accelerating innovative and commercially viable Earth Observation ideas into the market; for businesses of all sizes.

#### **In-Orbit Demonstration Programme**

Supports companies with novel space-based service concepts by dramatically reducing the cost to develop and launch a satellite. Companies contribute typically 20% of the cost of doing a similar demonstration commercially.

#### **Capabilities & Assets**

#### Co-Space

Flexible desk space for companies wishing to locate in Harwell, at the heart of the space ecosystem.

#### **Space Enterprise Lab**

12 regional spaces for innovation, free to use, providing users with access to resources, virtual demonstrations and Catapult experts

#### **Spark Exploration Workshops**

Design and delivery of multistakeholder workshops to explore new opportunities for space technology across a range of markets. Working with industry changemakers to focus thinking around ambitious projects or specific investment strategies.





Real world test environments coupled with engaged end user communities, supported by technical expertise and design thinking practices to help the discovery, development, and deployment of new services in the agriculture, health, and environmental sectors.

#### Strategic advice and mentoring

Provide advice to decision makers on the opportunities and risks facing their business to support the formulation of effective strategy.

#### **Market Research**

Draw upon a host of learnings from research centres, satellite industry service providers, clusters of small and medium sized enterprises, academia, industrial players across the space sector to provide robust market intelligence.

#### **Business Integration**

Identify business capabilities needed to achieve business ambitions and make recommendations on operating model improvements to integrate satellite data and services.

#### Multi-faceted Due Diligence

Using a combination of understanding of business planning, a strong knowledge of technologies related to satellite data, communications, and the most current ecosystem information to provide a detailed opinion of firms, markets, and geography.

#### Corporate ESG

Identifying how satellite data and technology can be leveraged against corporate ESG targets in order to support reporting, regulations, and provide insight for strategy development.

#### **Additional Facilities:**

- Clean Rooms
- · Near-field Antenna Test Range,
- Goonhilly Ground Segment
- Operations Centre
- Westcott In Orbit Servicing & Manufacture Yard
- Metalfab
- DISC

#### Contact

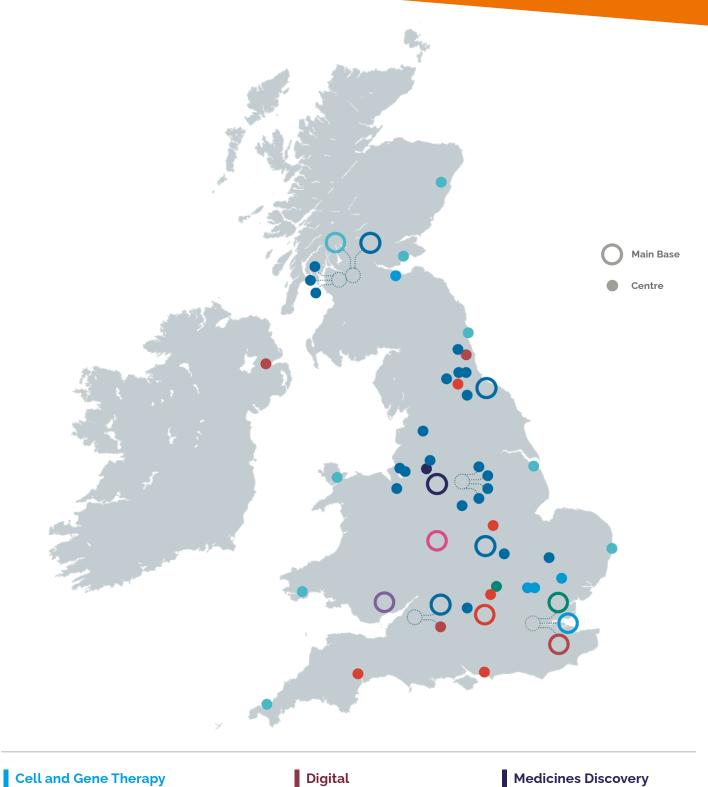
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**Connected Places** 

Compound Semiconductor Applications

Digital

**Energy Systems** 

High Value Manufacturing

**Medicines Discovery** 

Offshore Renewable Energy

Satellite Applications

