

We work with
Innovate UK

CATAPULT
Network

SUPERCHARGING BUSINESS PERFORMANCE THROUGH INNOVATION



2,260

ACADEMIC
COLLABORATIONS



12,379

INDUSTRY
COLLABORATIONS



OVER £1BN
OF RESEARCH AND
DEMONSTRATION FACILITIES
UNDER MANAGEMENT

491

INTERNATIONAL
PROJECTS



4,389

SMES
SUPPORTED



4,100

EMPLOYEES
IN 2019



FOREWORD



By collaborating with ORE Catapult, we are gaining access to some of the UK's most talented innovators and helping to accelerate new products and services by testing them in the best possible environment - the real world.



Danielle Lane
UK Country Manager, Vattenfall

Innovation drives productivity, exports, and economic growth, by accelerating the development of products, processes, services, and business models based on new ideas and technologies. Innovation creates new value chains, transforms existing sectors, and stimulates new industries.

The Catapult Network is a vital asset of the Innovate UK portfolio and an essential part of UKRI's overall infrastructure roadmap, providing expertise and infrastructure through its world-leading Catapult centres across the UK.

I look forward to seeing the continued success of the Network in transforming the UK's capability for innovation, helping to bridge the gap between research and industry to tackle the biggest challenges that society and industries face today.

Dr. Ian Campbell
Interim Executive Chair, Innovate UK



Hundreds of thousands of businesses in the UK are hungry for growth and capable of bringing brilliant new products and services to market. However, only a few have all the resources, expertise, equipment or contacts they need to develop their ideas into new products and services or to apply the new technologies that increase their productivity and keep their companies competitive.

The Catapult Network's vision is to bridge the gap between these ambitious businesses and the expertise of the UK's world-class research communities. The people in our centres understand the challenges businesses face and the risks that can come with innovation. Our not-for-profit network extends across the country to offer businesses of every shape and size access to world-class R&D facilities and the insight and know how needed to translate great ideas into the market-winning, problem-solving products and services that spur company growth, generate new high quality jobs and invigorate communities.

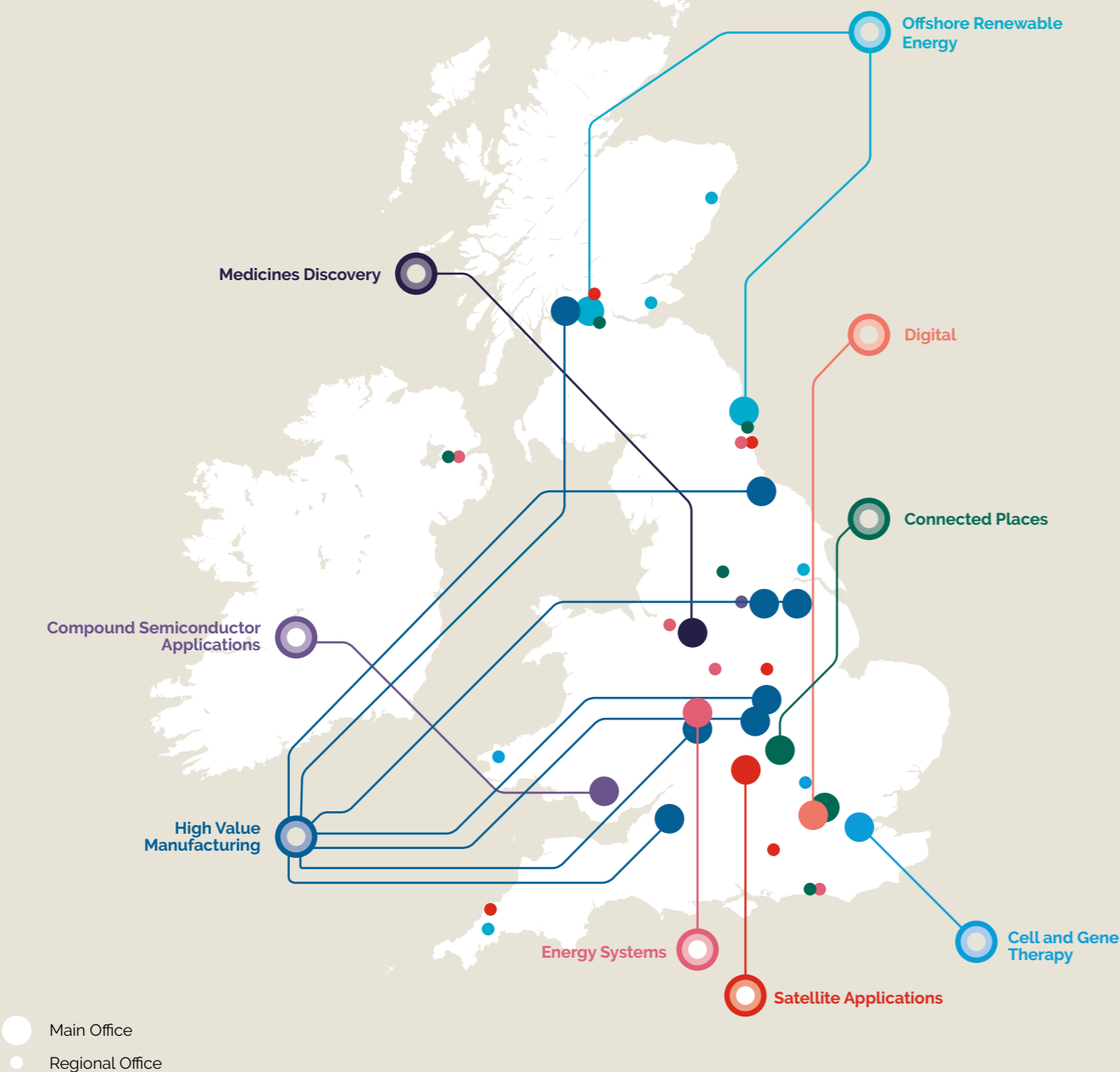
After only 7 years of operation, the Catapult Network has supported over 5,000 organisations working on over 12,000 projects. This brochure highlights some of these more recent projects and the impact they have had on innovative industries across the UK. While we can't cover them all, we hope this gives you a flavour of our work, and perhaps inspires you to realise your own ambitions with help from the Catapult Network.

Keith Thompson
Chair of Catapult Network and
CEO Cell and Gene Therapy Catapult

The High Value Manufacturing Catapult is one of the best industrialisation models in the world. These centres translate early ideas into proven ones, from the lab to a successful solution. You get 50, 60 companies together in one space creating ideas which spill down into the supply chain.

Dr Hamid Mughal OBE
Director of Global Manufacturing, Rolls-Royce

The Catapult centres are a network of independent, world-leading centres designed to transform the UK's capability for innovation in specific areas and help drive future economic growth.



CATAPULT Cell and Gene Therapy

CGT Catapult is bridging the gap between scientific research and full-scale commercialisation, working to break down technological and market barriers, enabling the large-scale manufacture and supply of living medicines. We work with companies helping them manufacture at scale in our unique manufacturing centre, and with hospitals enabling seamless adoption of these new medicines. We aim to make the UK the best choice for partners to develop and commercialise advanced therapies.

ct.catapult.org.uk

CATAPULT Compound Semiconductor Applications

Compound Semiconductor Applications (CSA) Catapult is focused on accelerating the adoption of compound semiconductors (CS), bringing applications to life in three technology areas: Power Electronics, RF & Microwave and Photonics. A number of the pillars of the Industrial Strategy and the next wave of emerging technologies, such as 5G communications, electric and connected autonomous vehicles, multimedia services, clean energy and advanced sensing, will all be underpinned by CS technologies.

csa.catapult.org.uk

CATAPULT Connected Places

The new Connected Places Catapult accelerates smarter living and travelling in and between the places of tomorrow. We focus on growing businesses with innovations in mobility services and the built environment that enable new levels of physical, digital and social connectedness. We help innovators to navigate the complexity of doing business, creating new commercial opportunities and improving productivity, socio-economic and environmental benefits for places.

cp.catapult.org.uk

CATAPULT Digital

Digital Catapult is the UK's leading advanced digital technology innovation centre. We connect large established companies, start-up and scaleup businesses and researchers to discover new ways to explore big challenges in the manufacturing and creative industries. We provide physical and digital facilities for experimentation and testing that would otherwise not be accessible for smaller companies, de-risk innovation for large enterprises and uncover new commercial applications in immersive, future networks, and artificial intelligence technologies.

digicatapult.org.uk

CATAPULT Energy Systems

Energy Systems Catapult was set up to accelerate the transformation of the UK's energy system and ensure UK businesses and consumers capture the opportunities of clean growth. It bridges the gap between industry, government, academia and research, taking a whole-systems view of the energy sector, helping to identify and address innovation priorities and market barriers, in order to decarbonise the energy system at the lowest cost.

es.catapult.org.uk

CATAPULT High Value Manufacturing

High Value Manufacturing (HVM) Catapult creates the conditions for economic growth by enabling UK manufacturers to achieve significant improvements in their performance and productivity. We do this by providing open access to world-class innovation capability and technical expertise, enabling companies to embrace different ways of working, adopt new technologies and achieve step-change in their performance.

hvm.catapult.org.uk

CATAPULT Medicines Discovery

Medicines Discovery Catapult is a national facility connecting the UK life sciences community to accelerate innovative drug discovery. We provide unique scientific capabilities and act as a gateway to UK resources and expertise. By helping to industrialise and drive the adoption of new scientific tools and modern techniques for discovering medicines, we support the UK life sciences industry, SMEs and innovators deliver growth for the UK life sciences economy.

md.catapult.org.uk

CATAPULT Offshore Renewable Energy

Offshore Renewable Energy Catapult is the UK's leading innovation centre for offshore renewable energy. With world-leading test and demonstration facilities and engineering and research expertise, we convene the sector and deliver applied research, accelerating technology development, reducing risk and cost and enhancing UK-wide economic growth. Active throughout the UK, ORE Catapult also operates a collaborative research partnership in China.

ore.catapult.org.uk

CATAPULT Satellite Applications

Satellite Applications Catapult helps UK organisations harness the power of satellite-based services and realise their potential from space infrastructure and its applications. We accelerate new research and its commercialisation and bring together multi-disciplinary teams to generate ideas and solutions in an open innovation environment. We aim to support UK industry to capture a 10% share of the predicted £400Bn global space market by 2030.

sa.catapult.org.uk



CATAPULT
High Value Manufacturing

Manufacturing productivity gains provide competitive edge

A family-owned precision aerospace supplier achieved a 10% increase in its forward order book and made double-digit productivity gains with the help of experts from the High Value Manufacturing (HVM) Catapult's Manufacturing Technology Centre (MTC).

Harris RCS, a progressive, well-established company based in Exhall, Coventry, approached the MTC for help reducing waste, improving set-up times and driving up productivity in their CNC machining operations. Working with Harris RCS managers and operators, MTC engineers began by replacing manual set-up processes with a digital solution. They captured data already available and made it visible to all operators to allow real-time monitoring of every machine. The company was able to make significant advances in production planning, productivity and on-time schedules, enhancing the company's reputation for quality and efficiency.

"We are now able to handle more orders without having to bring in more resources, and we are investing in new technology where we really need it"

Graham Harris
MD, Harris RCS



CATAPULT
Offshore Renewable Energy

Business fitness programme from Catapult collaboration

Inspired by the High Value Manufacturing (HVM) Catapult's successful Fit For Nuclear programme, in 2018 ORE Catapult, in partnership with HVM, launched Fit For Offshore Renewables (F4OR), a business improvement journey designed to help the UK supply chain grasp the growing offshore wind opportunity.

With its key focus on business excellence, the programme allows companies to measure their operations against the standards required to supply the industry and take steps to close any gaps.

The pilot programme assessed and visited 30 Scottish firms before creating action plans for improvement. Fourteen are now progressing to the next stage, which will actively work to increase competitiveness and productivity in preparation for the growth catalysed by the Offshore Wind Sector Deal.

In July 2019, Rigmar Group became one of the first companies to benefit from the programme when it won its first major contract in offshore wind. The Aberdeen-based firm was selected by Vattenfall to carry out inspections and repairs at the 93.2MW European Offshore Wind Deployment Centre in Aberdeen Bay.

Further F4OR programmes are now being developed in East Anglia and the North-East of England, providing a nationwide economic boost.

"ORE Catapult is playing a leading role across the offshore wind sector in the drive to increase home-grown innovation... and will play a key role in unlocking the growth of the UK supply chain"

Benj Sykes
Industry Chair, Offshore Wind Industry Council and UK
Country Manager Offshore, Orsted

Pashley gears up for success

Pashley Cycles is the longest-established British bicycle manufacturer and one of only a handful remaining in the UK. With a desire to grow the business, an opportunity arose to develop a new bicycle for the London Cycle Hire (LCH) scheme, popularly known as 'Boris Bikes'.

Part of the High Value Manufacturing Catapult, WMG's expertise in light-weighting, polymers, reverse engineering and materials testing directly benefitted the company, helping de-risk the design development, whilst reducing cost and labour.

With its new design, Pashley was selected as the sole supplier for the next generation of LCH bicycles, providing stability for the company, securing the jobs of the 52 strong workforce in Stratford Upon Avon and creating new employment. WMG and Pashley continue to collaborate to advance the product further, and to establish a UK supply chain to fully re-shore the LCH bicycle manufacture.



CATAPULT
High Value Manufacturing

"This was a departure from our core business. The bike had to have an aluminium frame and plastic mud guards, and be pretty indestructible. We know how to design and build bikes, but these materials were totally new for us. WMG helped us with the selection of an alloy to make the frame and other components, which was vital"

Adrian Williams
MD, Pashley Cycles

Robotic visualisation revolutionises subsea inspections

Subsea inspections are a necessary part of maintaining an offshore wind farm but are currently laborious and expensive, requiring analysis of thousands of hours of video.

Bristol-based SME Rovco's pioneering subsea robotic systems and 3D visualisation technology create real-time 3D mapping and stereo images of the seabed and underwater structures, helping technicians quickly identify issues and instruct repairs, potentially lowering the cost of subsea inspections by 80% and helping to make offshore wind a cheaper, low-carbon energy source.

Support from ORE Catapult helped Rovco secure two Innovate UK grants worth £1.46m and two rounds of private investment. The system underwent testing and validation in the Catapult's unique dry dock facilities in Blyth, supported by experienced marine engineers and technicians.

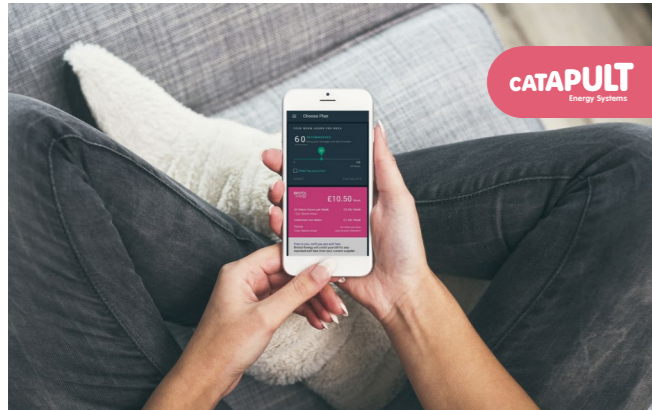
The company has secured further backing from Global Marine Group to scale up operations and will deploy its technology across GMG's fleet of 21 specialised crew transfer vessels. With an estimated export revenue of £20m per year, Rovco's robotics expertise has put the firm in line to become the market leader in subsea surveying. The company plans to create around 70 highly skilled jobs in manufacturing and operations, and its expansion will bring further UK supply chain benefit in the remotely-operated-vehicle and subsea equipment sectors.



CATAPULT
Offshore Renewable Energy

"Since we began working with ORE Catapult, we have increased our workforce from three to 10 people and boosted our turnover from £60k to an estimated £800k this year"

Brian Allen
CEO, Rovco



CATAPULT
Energy Systems

Low carbon heating that consumers want

Energy Systems Catapult delivered the UK's largest-ever trial into the potential of smart technology to help address the challenge of decarbonising domestic heating. The £25m Smart Systems and Heat programme piloted a new way to sell heating, where people buy a warm home, heated to the schedule they want, rather than just paying for units of energy they use. Tested in the Living Lab of real homes, this revealed what consumers really want and how they heat their homes.

Supported by a decade of research, ESC has developed unparalleled insights into energy services. The maturing of smart homes, AI and data science are providing an opportunity to make the energy sector more consumer-focused, with opportunities for entirely new business models to aid the switch to low carbon heating.

The programme has positioned the Catapult as the leading institution for exploring how to decarbonise the UK's heating systems, a key challenge identified in the government's Clean Growth Strategy. Businesses such as Bristol Energy and Baxi have trialled selling innovative customer propositions in the Living Lab, including Heat as a Service, and AirEx Technologies used the Lab for testing its intelligent airbrick device – cutting their evidence gathering process by one year.

"The heat plan trial in collaboration with Energy Systems Catapult is an important step in our journey to creating energy products which are fairly priced for everyone, support sustainable energy supply and the decarbonisation of our homes and businesses"

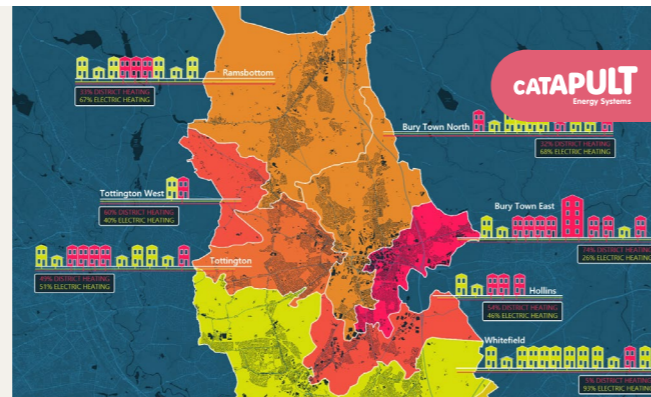
Samantha Nicol
Head of Innovation & Marketing at Bristol Energy

Local Area Energy Planning

The UK has a national target to achieve Net Zero carbon emissions by 2050. Yet every local area in the UK is unique. The characteristics of buildings, energy networks and people can change substantially from place to place, as can the approach required to decarbonise. Local Area Energy Planning (LAEP) is a new approach to finding the lowest-cost decarbonisation pathways for local areas pioneered by Energy Systems Catapult. Demonstrating the process, data and insight required to build consensus between different stakeholders, including local and national government, network operators, energy suppliers, businesses and local communities.

Working with companies such as Western Power Distribution, Cadent, North Gas Networks, Wales and West Utilities, Six Town Housing; LAEP was piloted with local authorities in Newcastle, Bury in Greater Manchester and Bridgend in Wales.

LAEP demonstrated there is not a one-size-fits-all approach for decarbonising heat, and that in future, different parts of the same local area may use district heating, hydrogen gas or electric heat pumps. Energy sector regulator Ofgem has now included LAEP recommendations in its latest RIIO-2 Business Planning Guidance for energy networks.



"We are interested in the potential offered by LAEP to provide improved data on and assessment of possible heat decarbonisation options, and provide a structured framework for engagement and investment planning decisions within a wider context of planning for net zero energy systems and network infrastructure"

Ofgem updated guidance



CATAPULT
Satellite Applications

Using satellite data for life sciences and healthcare

In 2018, Bowel Cancer UK highlighted the scale of the endoscopy crisis in England, revealing that nearly 5,000 patients in England during August 2018 were waiting beyond the six-week NHS target for a colonoscopy.

The Satellite Applications Catapult was a key player in a new capsule endoscopy solution in the UK, with partners Highlands & Islands Enterprise (HIE) and SME Corporate Health International (CHI). Working with local medical practices in the Highlands and Islands, CHI are detecting bowel disease using Video Capsule Endoscopy, a tiny video capsule consumed orally by patients. This uses satellite technology to upload data and images of patients from GP practices, and supports assimilation of innovation into NHS procurement processes.

The Catapult is also a partner in their £1.6m Innovate UK project, AID-GI. Working with academics from Barcelona, the project aims to use AI to improve the process of viewing the 400,000 images captured per patient and reduce this down to a more manageable amount for clinicians to review. The follow-on project is a two-phase, up to £10m, Innovation Partnership with NHS Scotland and introduces a managed service for tele-endoscopy. The service has 350 patients currently and will be rolled out to support up to 7,000 per annum starting in 2020/21.

"Working with the Catapult team on our business strategy in a concise sprint provided us with insights into what is working and what not. Every challenge to the Business Strategy description became an opportunity to validate the strategy as well as its communication"

Dr Hagen Wenzek
Managing Director and Chief Innovation Officer
Corporate Health International

Bringing space to innovative UK companies

2019 saw a significant milestone in Satellite Applications Catapult's In-Orbit Demonstration (IOD) programme, which offers companies a fast-track, low-cost opportunity to test a service or technology in orbit. IOD-1 GEMS, with its lightweight weather data payload from Orbital Micro Systems, was delivered to the International Space Station in April for launch into low Earth orbit. OMS's involvement in the Catapult's In-Orbit Demonstration programme has fuelled its expansion from Boulder, Colorado, to Edinburgh, UK. The company predicts this move will open up a wide variety of commercial opportunities in various markets including aerospace, maritime transportation, agriculture, insurance and energy.

There has also been strong progress on subsequent other IOD programmes: IOD-3 AMBER has been awarded to Horizon Technologies for an adapted version of its FlyingFish™ system for tracking vessels at sea; IOD-5 TARS will be Kepler Communications' final prototype for its GEN1 low Earth orbit constellation. This partnership will also see Kepler build a UK supply chain for its new satellite constellation with overall service capability for Kepler estimated to be around £71 million by 2022. Open Cosmos will provide a one-stop mission package for IOD-6, marking the start of a commercially sustainable service in this field. This follows its use of the Catapult's new Disruptive Innovation for Space Centre (DISC) to effectively grow its business, which has seen staff levels rising sharply, recruiting 30 people in 2018 and doubling in size every 6 months.



"We could have gone anywhere, but the UK space industry is unparalleled in terms of innovation, opportunity, and speed-to-market"

William Hosack
CEO, OMS



Connected and Autonomous Vehicles – the Future of Mobility

Since 2013, Connected Places has been at the forefront of Connected and Autonomous vehicle development in the UK. Launching the first UK CAV R&D project, Lutz Pathfinder (Last mile driverless Pod), in 2014, the CPC went on to define the potential of the global CAV market (£907bn) for UK investors and developed the 'Pathway to Driverless Cars: A Code of Practice for testing' on behalf of DfT and CCAV. They also introduced the concept of "Intelligent Mobility" to the transport industry.

In 2015, Oxbotica spun out of Oxford university two years ahead of schedule and SME RDM doubled their workforce as a result of Lutz Pathfinder.

In 2016, the CPC led the first public demonstration of a driverless vehicle in public in the UK and launched UK Autodrive, a far-reaching project demonstrating CAV technology around the UK with the likes of JLR and Ford. The CPC has also taken part in eight further CAV projects since and stimulated £500million inward investment into CAV technologies in the UK – many are conducting public trials in 2018-19.

The CPC is now working on projects which will help verify CAVs for use on public roads and increase testing in virtual environments.

"Having designed and built the pods for the LUTZ pathfinder autonomous last mile project, RDM's profile on a world scale has dramatically increased, allowing the company to grow exponentially over the next 5 years. This would not have happened if it weren't for the Catapult"

David Keene
CEO, RDM

Building Belfast Business

Since 2016, Connected Places Catapult has been supporting leaders in Belfast to create new opportunities for businesses, leading to a successful bid for a City Region Deal that will deliver £2 billion in additional GVA and 10,000 new jobs.

In 2016, CPC catalysed an SBRI open call to identify innovative ways to maximise business rates capture. The project funded four companies, resulting in the creation of innovative tools by two UK firms, and the identification of around £1m additional annual revenues for the council. Both firms have now scaled those products to new customers.

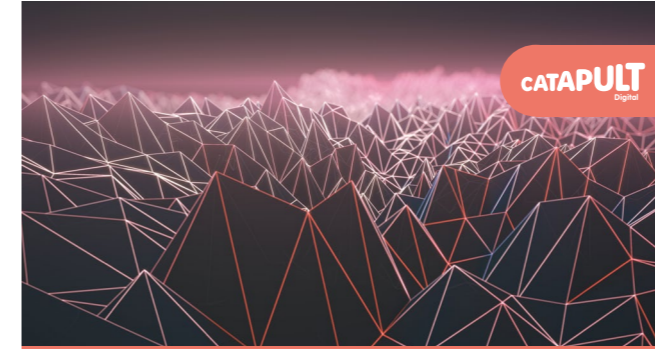
CPC then worked with Belfast to create the Smart Belfast Framework, outlining further city challenges and opportunities for investment totalling £1-2 million a year. 300 firms attended the launch and 75 businesses are now involved in this growing market.

Building on its trusted relationship with Belfast City Council, CPC was then invited by the city to drive development of an ambitious, robustly evidenced plan for the economic development of the region. CPC's CEO Nicola Yates OBE chaired the digital and innovation workstream, bringing together six councils, two universities and a range of private sector allies, to develop a The Belfast Regional City Deal. This deal secured £500 m of investment in the region's digital and innovation economy, including over £150m of private investment into the region from the likes of Catalyst Inc, Caterpillar, Ryobi, Bombardier, GSK, Belfast Harbour, BAE Systems and others.



"To fulfil our ambition to make Belfast a more vibrant and prosperous city for all, we need the active support, involvement and contributions of many partners. We welcomed working with Connected Places Catapult to explore and develop the technologies, services, expertise, projects and ideas that could contribute to this"

Deborah Colville
City Innovation Manager, Belfast City Council



Building an export market for UK AI

Digital Catapult's flagship artificial intelligence and machine learning accelerator programme, Machine Intelligence Garage, is absolutely unique in providing access to computing power and expertise to help UK AI start-ups overcome growth barriers and continue to expand. AI start-up IntelliSense.io developed artificial intelligence powered real time decision support optimisation software that improves the efficiency of the mining value chain from mine to market. They joined Machine Intelligence Garage getting access to compute power which let them develop and train their model on huge data sets, something that would not have been possible without Digital Catapult.

This support helped IntelliSense.io increase productivity, sped up its development time, double its headcount and expand to three offices across the world. As a result, the company successfully developed an AI-enabled solution that will help grow the UK's export market. Further support from Digital Catapult and the UK's Department for International Trade has now helped IntelliSense.io to win contracts in Kazakhstan and Chile.

Working with Digital Catapult has enabled IntelliSense.io to achieve all this without the need to raise finance, allowing the company founders to keep control of the business and focus on the long-term rather than needing to serve shareholders.

"Support from Digital Catapult built on funding from the Department for International Trade enabled us to start an export market for our AI solutions. Machine Intelligence Garage made us faster, more productive and attractive to top-tier AI talent"

Grant Kopec
Head of Operations, IntelliSense.io

Boosting open-access 'internet of things'

Low power wide area networks (LPWAN) allow connected devices such as sensors to communicate small amounts of data over large distances using low power: from monitoring footfall at an event to tracking military assets. It allows a battery powered device to send data for years without needing to be replaced.

Digital Catapult's Things Connected programme - which has created an open access LPWAN testbed specifically designed to drive open innovation by giving small businesses the opportunity to experiment with the internet of things (IoT) - is one of the foundation blocks of the Catapult's work in IoT.

Digital Catapult worked with WNDUK to help solve the challenges it faced in rolling out a Sigfox network in the UK; starting from scratch WNDUK needed to quickly acquire a large number of sites from where it could deploy base stations across the UK to establish the Sigfox network.

WNDUK gained access to these deployment sites for base stations, and established connections with innovative UK startups and scaleups developing solutions using Sigfox.

As a result, WNDUK offered its entire UK network free of charge for experimentation for startups and small businesses that are part of the Things Connected programme. Digital Catapult provided WNDUK and its partners with access to £140,000 in funding and expertise to run innovation programmes, engaging with over 50 startups as a result.



"Collaborating with Digital Catapult has really helped to accelerate the rollout of our LPWAN network, which now covers 82% of the UK"

Tim Harris
CEO, WNDUK



CATAPULT
Cell and Gene Therapy

Developing large scale manufacture and supply of cell and gene therapies

In August 2018, the Cell and Gene Therapy Catapult's manufacturing centre was awarded two licences from the MHRA, allowing collaborating companies to produce living medicines at scale to support clinical trials and commercial supply.

The centre, which is currently supporting UK and US companies, has a unique operating model which allows collaborator companies to manufacture their therapies at scale, all to Good Manufacturing Practice (GMP) standards and underpinned by end-to-end expertise and practical support from CGT Catapult experts across scientific research, manufacturing, supply and regulation. In March 2019, Autolus were the first collaborating company to receive a Manufacture of Investigational Medicinal Product (IMPD) license and are now producing therapies at the centre for clinical trials.

TCR2 Therapeutics, a clinical-stage immunotherapy company pioneering the next generation of novel T-cell receptor (TCR)-based therapies for solid tumours and blood cancers, are the first U.S. company to develop their global manufacturing systems and establish operations at the centre to support their immediate clinical trial needs, highlighting its flexibility, access to an established supply chain and the UK ecosystem.

"The agreement with CGT Catapult enables us to meet our immediate clinical trials needs and have the flexibility of both our own dedicated manufacturing space and access to an established supply chain at one of the world's premier centres for cell and gene therapy development"

Garry Menzel
Ph.D. President & CEO, TCR2 Therapeutics



CATAPULT
Medicines Discovery

£1 million innovation boost for drug discovery platform

In collaboration with Optibrium Ltd. and Intellegens Ltd., the Medicines Discovery Catapult were awarded a grant from Innovate UK to fund a £1 million joint project to support the creation of a novel deep learning drug discovery platform, unleashing the power of Artificial Intelligence (AI).

Using novel deep learning methods and supported by the expertise of Medicines Discovery Catapult in scientific data analysis, informatics, simulation, data science and knowledge bases, the DeepADMET project will build on Optibrium's existing software product (StarDrop™) and Intellegens' deep learning toolkit (Alchemite™).

The combined aim is to support the creation, validation and industrialisation of this new data-driven approach to design new medicines faster.

The grant enables two UK SMEs to deliver a new business offering to the market, grow their businesses and support their customers to more quickly identify candidate drugs with a higher chance of success.

"We have enjoyed a stimulating and productive collaboration with the team at MDC, who bring a wealth of experience to the project. The project is progressing well and with strong interest in the platform from our customers, we are anticipating a successful outcome"

Matt Segall
CEO and Company Director, Optibrium

Scaling-up viral production to clinical scale

Adaptimmune's TCR therapy uses a lentiviral vector to deliver genes to the cells. Adaptimmune's existing lentiviral process was successfully transferred into the CGT Catapult facility, with CGT Catapult supporting that transfer. Adaptimmune has implemented a number of process improvements, including scale-up of virus production and analysing different single use assemblies for the closed addition of reagents to the process. Adaptimmune aims to manufacture the first GMP lentiviral batches by the end of 2019 for use in ongoing and future clinical trials.



CATAPULT
Cell and Gene Therapy

"With our own vector manufacturing capability at the CGT Catapult facility, we will extend vector supply capacity beyond 2020"

James Noble
CEO, Adaptimmune

Discovery Services platform boosts UK life sciences R&D and international competitiveness

Drug discovery is complex, costly and requires many skills. The industry has moved from a fully integrated model to one which is performed through a 'virtual', or fully outsourced approach. It is also increasingly reliant on SMEs as a source of innovation. However, 42% of biotech SMEs have fewer than 5 employees and require access to the very best scientific expertise and technology.

To address this, MDC established the Virtual R&D Discovery Services platform that leverages MDC's extensive drug discovery expertise and relationships to match UK SMEs with the best Contract Research Organisations (CROs).

The Discovery Services platform, launched in partnership with twenty-two UK CROs, combines full service and specialist private sector CROs and expert labs providing medicines discovery expertise, drug discovery services, and state-of-the-art assays.

This approach means that high quality drug discovery projects are channelled through best-in-class service providers, whilst also providing CROs in the platform with the benefit of deeper market penetration and access to new customers they would not have previously reached.



CATAPULT
Medicines Discovery

"XenoGesis and Medicine's Discovery Catapult have worked together to assist UK clients with their drug discovery projects. Their expertise combined with our DMPK knowledge has helped to guide clients and give them next step recommendations. Through their platform, Medicine's Discovery Catapult directly delivers benefit to UK drug discovery projects while simultaneously feeding into the UK's dynamic CRO ecosystem"

Rachel Hemsley
Global Head of Business Development, XenoGesis



We really enjoyed working with CSA Catapult. They clearly understood our business needs and were able to identify and analyse relevant opportunities for our product that we had not yet considered.



Ellie Galanis
Business Developer,
Paragraf



"The National Physical Laboratory will work closely with the Catapult to develop metrology techniques that enable us to characterise the next generation of compound semiconductor devices and systems"

Dr. Peter Thompson
CEO, National Physical Laboratory

Compound Semiconductor Applications – the newest addition to the Catapult Network

Compound semiconductors (CS) are at the heart of many of our future electronic devices. They provide a faster, more efficient and lighter form of technology than their predecessors, such as silicon, and will be a vital part of the devices that power our future.

CSA Catapult is a partner in the £20m ESCAPE (End to End Supply Chain Development for Automotive Power Electronics) consortium which will produce game-changing technology supporting the drive for electrification UK and worldwide. CSA Catapult will also contribute to challenges identified by the UK Government's Industrial Strategy, such as ageing society, future of mobility, clean growth, AI and the data economy.

Since becoming fully operational, CSA Catapult has established itself at the heart of the world's first compound semiconductor cluster, building on £350m regional investments. It has led a consortium of industrial partners committing over £500m for the Industrial Strategy 'Driving the Electric Revolution' and introduced four high-growth companies valued at over £200m to South Wales Trade and Invest.

Through its initial five R&D projects it has already leveraged over £23m in industrial investments, and invested £8.1m in infrastructure to ensure that the UK seizes on the growing global opportunity from the development of Compound Semiconductor Applications.

