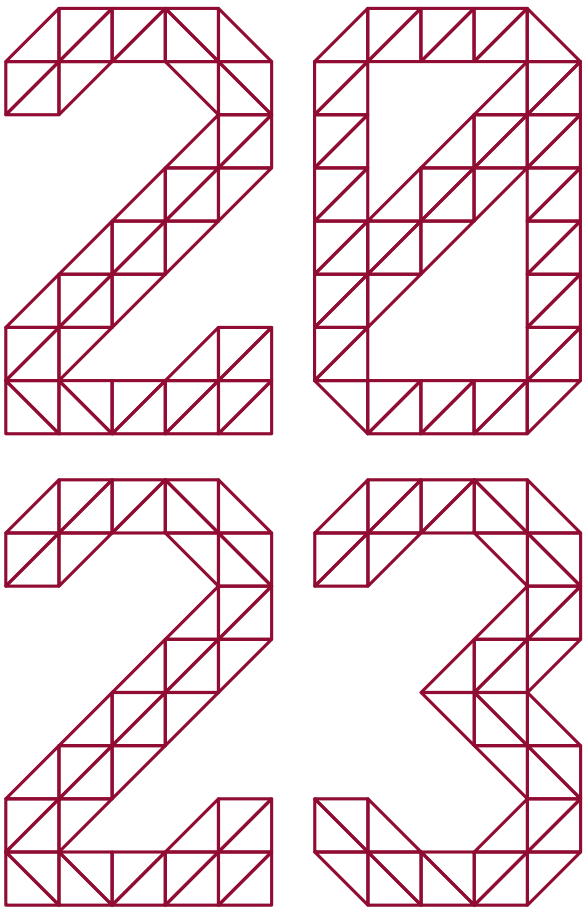
CATAPULT Digital

Annual Engagement and Impact Report

2022–2023

Digital Catapult is the UK authority on advanced digital technology.



Contents

At a glance

Digital Catapult is the UK authority on advanced digital technology. Through collaboration and innovation, we accelerate industry adoption to drive growth and opportunity across the economy.

We bring together an expert and enterprising community of researchers, startups, scaleups and industry leaders to discover new ways to solve the big challenges limiting the UK's future potential. Through our specialist programmes and experimental facilities, we make sure that innovation thrives and the right solutions make it to the real world.

Our goal is to accelerate new possibilities in everything we do and for every business we partner with on the journey – breaking down barriers, de-risking innovation, opening up markets and responsibly shaping the products, services and experiences of the future.

Digital Catapult is part of the Catapult Network that 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.

Our team's deep tech expertise, specialist knowledge, and experience in applying and combining advanced digital technologies is helping to deliver transformational solutions for UK industry.

£555m

investment raised by 174 startups after engaging with Digital Catapult since 2018

£172m

raised by startups in FY 22/23 after engaging with Digital Catapult

45

academic collaborative R&D engagements in FY 22/23

77

new industrial collaborations in FY 22/23

20

advanced digital technology facilities nationwide

~30%

people growth year on year (Oct '22–Oct '23)

70+

active projects

2,967

company engagements since 2018

About us and what we do

Digital technologies continue to challenge the boundaries between sectors and enable disruptive behaviours throughout the economy. Digital Catapult plays a critical role supporting organisations of all sizes to deliver the products, services and experiences of the future.

For industry

We bring our depth of leading edge technical expertise to help businesses achieve strategic advantage. We work with early adopters to educate and inform, develop and co-create. We drive the innovative application of emerging technologies to solve real-world problems, either through commercial or collaborative research and development work.

New facilities

We identify, design, build and operate open access physical and digital facilities for companies to explore, test and demonstrate how advanced digital technologies work in practice. Digital Catapult collaborates with a wide range of stakeholders to provide facilities that would not exist without our intervention; from our network of Advanced Media Production studios – the first commercially available 5G-enabled studio facilities in the UK – to SONIC Labs, a world-leading collaborative environment for testing interoperability of next generation telecoms solutions.

Innovation and acceleration programmes

We design and deliver targeted innovation and acceleration programmes to connect the supply and demand of advanced digital technologies, and overcome barriers for scaling. Our deep-tech acceleration programmes offer a next level support system for the UK's leading tech innovators and businesses. Providing access to business, ethics, tech and investment expertise, mentorship and collaboration, our FutureScope acceleration and innovation programmes advance companies and solutions to accelerate the digital future.

Collaborative research and development

We convene consortia of industry and academia to collaborate on research and development. These programmes trial and explore the future potential for advanced digital technologies, building expertise, creating demand and opening up new markets for suppliers.

Working across the technology ecosystem

We are uniquely placed at the centre of the innovation landscape, working with early stage technology businesses, corporates, academics, government and investors across the UK. Our expert staff contribute to the work of many areas of policy advisory including the Government's Telecoms Supply Chain Diversification (TSCD) Advisory Council, the National Infrastructure Commission's NIA2 expert advisory panels, the Creative Industries Council, the Digital Economy Council, the Made Smarter Commission and many Research Council advisory groups.

Digital Catapult is part of the Catapult Network, a network of world-leading technology and innovation centres established and funded by Innovate UK, that support businesses in transforming great ideas into valuable products and services.

What our impact looks like:

- Reducing carbon emissions through digitalisation
- Driving confidence in private investment
- Opening access to new markets
- Growing regional specialisation
- Developing new scaleable products and services
- Developing new disruptive business models
- Creating new high value jobs
- Improving workforce inclusion and diversity
- Supporting innovation policy development

Market-defined application areas

We are focused on market-defined application areas where a combination of advanced digital technologies can have tangible benefits in the real world:

- **Digital Infrastructure** – supporting the development of open and interoperable digital infrastructure as the framework for connecting the digital and physical worlds – read more on pages 14 to 17
- **Supply Chains** – working with a wide range of partners to develop transparent supply chains to drive the positive impact of digitalisation – read more on pages 18 to 21
- **Virtual Environments** – playing a critical role in the development of cross-sector national capability in cyber physical systems, virtual production facilities and digital twins – read more on pages 22 to 25

CEO statement

> We want the UK to continue to be ahead of the curve in its capability, with greater flexibility, more skilled practitioners and significantly reduced carbon emissions.

Dr Jeremy Silver
CEO of Digital Catapult

Digital Catapult celebrates its ten-year anniversary in 2023, a major milestone in the growth of an organisation that has gone from being a fledgling startup to a scaleup business, widely regarded as a vital cog in the complex UK innovation machine.

Our mission has become more clearly focused, but the goal has consistently been to encourage new businesses and established companies to become early adopters of leading edge digital technologies. We firmly believe that doing so gives those businesses global competitive advantage. We know that first mover advantage is also high risk – and that's why public sector support makes sense and ultimately contributes to boosting the UK economy.

From a handful of people in 2013, we have grown to nearly 300 professionals clustered around London, Belfast, Gateshead and Bristol. And, outside of these hubs, there are teams working on numerous projects touching many other parts of the UK.

Long before 'levelling up' became a policy, Digital Catapult was committed to using technology adoption as a driving force to help accelerate opportunity in areas outside of London and the South East. Our centre in the North East opened in 2014 and our investment in Belfast started in 2016. We're looking forward to building on this kind of regional success by developing a more permanent presence in Bristol, where our team is currently delivering the industry-defining MyWorld programme.

So today we confidently point to how Digital Catapult operates around the country with local and regional partners, playing a significant role in the delivery of programmes that resonate not just locally, but on the national and international stage.

The scale of Digital Catapult programmes and projects continues to grow. In the telecoms sector, our work in SONIC Labs, a £20 million collaboration with Ofcom funded by DSIT, is generating international respect as our expertise and testing capabilities help Open RAN innovators improve their products' interoperability so that they work better together. This effort is complemented by the £10 million DSIT-funded UK Telecoms Innovation Network (UKTIN), which is helping to catalyse R&D investment, cooperation and commercialisation in the sector. Meanwhile, as the world revolves increasingly around artificial intelligence (AI), born from the success of our pioneering Machine Intelligence Garage, the £30 million Innovate UK-funded BridgeAI programme is stimulating development of AI solutions in underserved industrial sectors, such as construction and the creative industries.

In the creative industries, over four years of Digital Catapult team engagement and dialogue with industry players in the UK and the US around disruptive media production technologies laid the groundwork and built the case for public investment in the sector. The result is the Arts & Humanities Research Council (AHRC)-funded £70 million CoSTAR programme. We first talked about creating a network of connected research production facilities when we opened our third Immersive Lab in Belfast back in 2017. So it's gratifying to see funding for that vision finally come to fruition. Meanwhile, Digital Catapult's £10 million Innovate UK-funded network of Advanced Media Production research studios is laying the foundations for what others may go on to explore later. Our vision remains to push at the boundaries, ahead of mainstream adoption, to ensure that UK expertise leads the world in a new era of AI-augmented games and media production. We want the UK to continue to be ahead of the curve in its capability, with greater design flexibility, more skilled practitioners and significantly reduced carbon emissions – effectively shrinking geographies in the process.

Working closely between industry, academics, startups and funders, Digital Catapult plays a vital role in identifying gaps and barriers, designing public interventions to address them and collaborating with funders to launch and deliver new investments, which, in turn, stimulate private and industrial investment. The Made Smarter Digital Supply Chain Hub, designed and led by Digital Catapult, has engaged the active participation of over 200 companies and is funded by Innovate UK with £10 million of public investment. The Digital Supply Chain Hub has already attracted commitments of over £12 million of private investment from industrial partners, with two more years of the programme to run. Typical of its ambition is the project to reduce the number of freight delivery trucks on our roads by 30%, which, typically, run empty and create mega-tonnes of carbon emissions and waste.

CEO statement continued

This is my last annual report as I step down as Digital Catapult CEO in the spring of 2024, after eight years in the role. During that time, we have refined the strategy, delivered for government and gained a reputation in industry as exciting, visionary and dependable partners. We have developed long-term commercial partners, such as Thales and HS2. The organisation has trebled in size and we have just secured core funding from Innovate UK to take us through to our 15th year.

This last year of Digital Catapult's double-digit growth has coincided with the advent of a massive new wave of global technology innovation in the form of generative AI. This without doubt will be as paradigm-shifting and as disruptive of business as the advent of the internet, 25 years ago.

It's been a privilege and an honour to have helped the Digital Catapult team grow from an uncertain toddler to a mature organisation. I have no doubt that it is now ready to take on the even greater challenges and exciting opportunities for British industry unleashed by this latest massive wave of technology innovation. So it is with a touch of envy and regret that I bid you farewell and to quote the much-loved technology visionary author, Douglas Adams, "so long and thanks for all the fish".

Dr Jeremy Silver
CEO of Digital Catapult


Welcome

Chair statement

> Our work across the UK is recognised as critical to underpinning long-term sustainable change for the UK's key sectors, and providing a critical backbone for brand new ones

Juergen Maier
Chair of Digital Catapult

Digital Catapult is a force for sustainable, resilient and long term impact across the UK economy

The UK has a tremendous industrial and creative base, home to world-leading universities, engineers, innovators, content creators and entrepreneurs. As we mark Digital Catapult's tenth anniversary, we reflect on the achievements of an organisation that is using its influence and ability to forge deep and lasting collaborations to create tangible, sustainable and long lasting impact on the UK innovation landscape at large.

With 77 industrial collaborations in the last financial year, double the number of the previous financial year, our work with industry continues to go from strength to strength. Signature programmes like SONIC Labs and the Advanced Media Production Studios are notable examples, but our work on projects such as the Black Founders Programme with Sony Music UK to drive positive change in the creative industries for underrepresented founders, or tackling supply chain challenges related to critical minerals for batteries as part of the Digital Supply Chain Hub with international partners from Australia and Germany, demonstrate the full spectrum of the challenges we're working to address - in partnership with industry, academia, government and startups - across the UK economy.

There has been similarly successful growth in the number of academic partnerships, from 22 last year to 45 collaborations this year. Notable examples include the expansion of our long-standing relationship with the University of Bristol on the REASON programme that is exploring the potential of 6G network technologies, and a new partnership with The Alan Turing Institute on the ADViCE programme to drive forward the role of AI in helping to solving critical decarbonisation challenges.

Consistently, the diversity, energy and ingenuity of the Digital Catapult team has been an impressive and inspiring reminder that our people are one of the main reasons that organisations from around the UK want to work with us. Our culture - and the deep technical expertise right across the team - are huge selling points when I'm talking to people in industry about what we can do for them.

Throughout Digital Catapult's ten years, we have delivered a number of bilateral international collaborations, and at the time of writing Digital Catapult represents the UK on the Board of the European Association of Research Technology Organisations. The UK's return to Horizon Europe is a welcome move to ensure that the world's best researchers based in the UK, once again have access to European-wide research communities and funding opportunities.

The 17 Horizon projects that Digital Catapult delivered during our first few years of operation serve as excellent examples of our experience in turning cross-border cooperation into real world capability and impact. Now that access to this vital programme has resumed, we very much hope that the numerous benefits of greater international collaboration and innovation will once again be keenly felt across the UK's innovation landscape.

Most recently, I am delighted to welcome three new non-executive directors to the Digital Catapult Board; Valerie Todd, Perdita Fraser and Damien Buie. They bring an impressive level of expertise and experience to Digital Catapult as we mark our tenth anniversary, and I am looking forward to working with them as we double down on spearheading the early adoption and application of emerging technologies into industry.

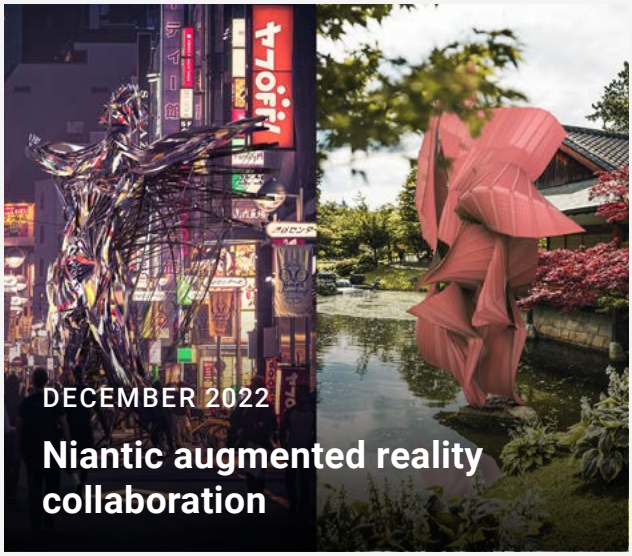
Finally, I extend my sincerest thanks to Rowena Ironside, Jill Ridley-Smith and Steve Thomas, who have stepped down from the Board. Rowena, Jill and Steve have provided extensive and incredibly valuable contributions to Digital Catapult's journey over the last eight years.

Digital Catapult is a major player on the UK innovation stage. Our work across the UK is widely recognised as the impartial authority on the application and adoption of advanced digital technologies, underpinning long-term sustainable change for the key sectors of the UK economy, and providing a critical backbone for brand new ones.

With a new five year plan in place for 2023-2028 and clear focus application areas designed to embed cross-technology adoption into critical areas of the UK economy, Digital Catapult is poised for even further success in the next decade.

Juergen Maier
Chair of Digital Catapult

Year in review

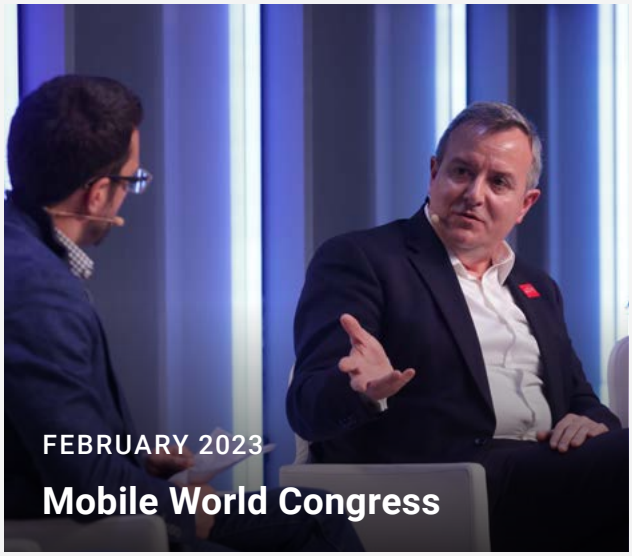


DECEMBER 2022

Niantic augmented reality collaboration

JANUARY 2023

5G Industrial Testbeds & Trials



FEBRUARY 2023

Mobile World Congress

MARCH 2023

SXSW

APRIL 2023

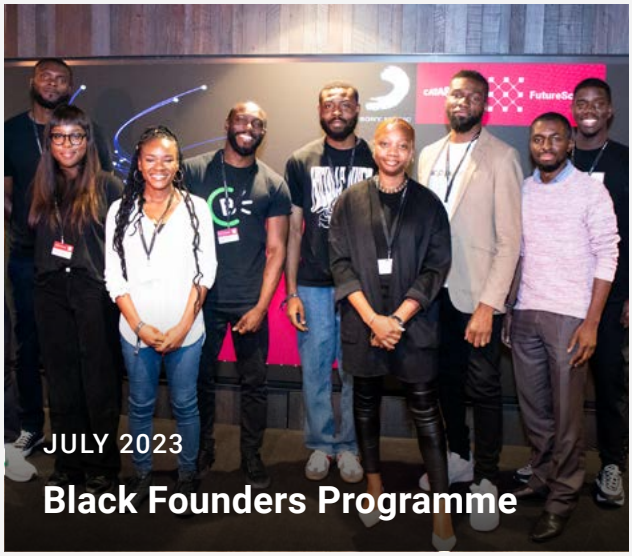
Bridge AI launch

MAY 2023

SONIC Labs workshops

JUNE 2023

Smart Nano Photonics cohort



JULY 2023

Black Founders Programme

AUGUST 2023

ADViCE programme launch

SEPTEMBER 2023

Advanced Media Production Studios launch

OCTOBER 2023

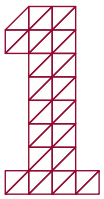
MyWorld showcase in Bristol

NOVEMBER 2023

Digital Catapult ten-year anniversary

Digital infrastructure

Open and interoperable digital infrastructure is the framework for connecting the digital and physical worlds. Digital Catapult is supporting the development and adoption of open and interoperable advanced digital infrastructure. We are a catalyst for the development of softwarised network applications, and for open standards for advanced digital infrastructure, systems and platforms. We are supporting new and innovative vendors to become part of the UK digital fabric as we help deliver the Government's telecoms diversification strategy.



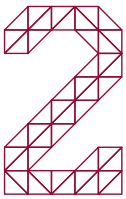
Telecoms: SONIC Labs and UKTIN

SONIC Labs is a world-leading programme driving forward the rollout of a new wireless communication technology known as Open Radio Access Networks (Open RAN), enabling mobile networks to be built using a variety of different equipment suppliers. Its approach has put the UK at the forefront of telecoms innovation globally and has generated interest from global companies looking to participate. Open RAN technology is at the forefront of innovation in the telecommunications industry, offering a more open and interoperable approach to wireless network infrastructure. SONIC Labs gives vendors the opportunity to trial, test and accelerate the development of their products in a commercially neutral environment.

In partnership with Ofcom and funded by the Department for Science, Innovation and Technology (DSIT), the SONIC Labs programme has collaborated with 20 vendors and 59 Open RAN products, signifying the largest concentration of Open RAN vendors coming together to collaborate in a commercially neutral environment in the UK.

In late 2023, the SONIC Labs programme, with global collaborators Cellnex UK and Capgemini, launched its first independent 5G Standalone outdoor field testing site for Open RAN technology. The outdoor testbed, located in London and established via a special research and development licence from Ofcom, will serve as a critical hub for the advancement and validation of Open RAN solutions, allowing vendors to rigorously test products in a representative network deployment scenario. The outdoor test site will be fully integrated with existing state-of-the-art indoor facilities, providing a unique location to encourage further Open RAN experimentation allowing vendors to take product testing to the next level by simulating the typical challenges encountered in a real-world network.

The £10 million UK Telecoms Innovation Network (UKTIN) is dedicated to boosting creativity in the UK's telecoms supply chain. Digital Catapult is working alongside CW (Cambridge Wireless), University of Bristol and West Midlands 5G to set up and oversee the network. As an information and ideas hub for industry and academics looking to access funding or R&D testing facilities and opportunities to collaborate on developing new mobile and broadband technology, UTKIN will work to join up the UK's fragmented telecoms ecosystem across research, development and innovation.



Quantum Data Centre of the Future

Digital Catapult launched its first initiative to demonstrate the potential of quantum technology, raise awareness, educate end users, and foster industry partnerships to drive the future adoption and commercialisation of quantum computing, as part of the Innovate UK Industry Strategy Challenge Fund (ISCF)-funded Quantum Data Centre of the Future programme led by Orca Computing.

The Quantum Data Centre of the Future programme aims to embed a quantum computer within a classical data centre to explore real-world access to a quantum computer. The first-of-its-kind Quantum Technology Access Programme onboarded 11 leading UK businesses to improve the quantum readiness of key industries. The programme will help organisations including Airbus, Arup, Frazer-Nash, Rolls-Royce, the Port of Dover and UKAEA to overcome industrial challenges using pioneering new quantum computing solutions. These eleven companies operate within sectors that are key to UK's economic growth including energy, aerospace and transportation, demonstrating the industrial value of the new programme.

Digital Security by Design (DSbD)

Digital Security by Design (DSbD) is a UKRI-funded initiative in association with Arm and the University of Cambridge to create a more resilient and secure foundation for a safer future. Through the Technology Access Programme, Digital Catapult is engaging with a range of companies from across the UK to give them access to early-stage software and prototype security hardware for development (years before it is market ready) to support commercialisation by providing valuable information to test and improve the product.

35 companies have joined the Technology Access Programmes to experiment with the Arm Morello Board, a prototype cybersecurity technology designed by Arm and based on the CHERI (Capability Hardware Enhanced RISC Instructions) protection model created by the University of Cambridge.

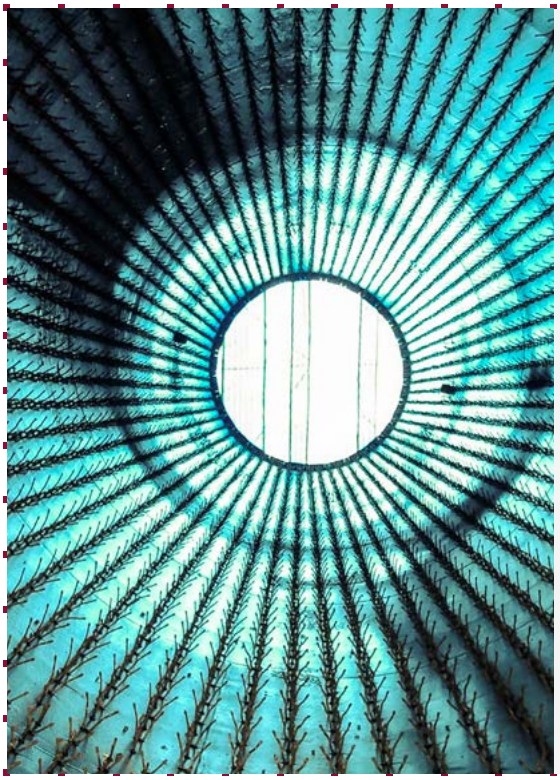
The Programme has produced growing interest from a variety of UK businesses specialising in industrial internet of things (IIoT), cloud-based solutions, secure networks and wireless applications. These pioneering companies have devoted time and effort to experiment with the Morello board, validating its effectiveness in mitigating cyber threats and, by doing so, have inspired more businesses to participate in the Technology Access Programme.

5G-VICTORI

5G-VICTORI (vertical demos over common large-scale field trials for rail, energy and media industries) was a pan-European project showcasing how advanced 5G technology can transform services in dynamic and diverse environments. One example involved demonstrating how a pop-up 5G network could support the delivery of high-quality media services to meet fluctuating increases in demand at congested locations such as railway stations.

The Digital Catapult team scoped and planned a common open platform to help automate the management of network slices and resources across a common virtual infrastructure for multiple sectors, Europe-wide – a core part of the overall programme. As a result, we developed the interdomain 5G-VIOS platform, which is now publicly available for anyone to use at https://zenodo.org/record/8424751. This platform is a key exploitable result of the project, which we plan to further enhance as part of our role in the REASON programme (led by the University of Bristol).

Our work in REASON will contribute to R&D of next generation open networks – including sixth-generation (6G) mobile networks – by providing new insights into novel application scenarios and a range of important enablers, especially on multi-access technologies and pervasive end-to-end AI integration. Digital Catapult's role focuses on architecture R&D, which could have a high impact in terms of shaping the overall 6G architecture vision from the UK.



CASE STUDY:

DE&S

Digital Catapult worked with the Ministry of Defence's Defence Equipment & Support (DE&S) organisation to help it understand how best to work in an agile manner and successfully generate and harness new ideas. We used our expertise and neutral position to support the start of a major cultural change within DE&S, including helping to define what 'innovation' means, what the more successful processes are, and how impact can be tracked and measured. It also included helping to develop in-house skills at DE&S to continue this transformation.

Digital supply chains

Digital Catapult is working with industry partners to develop new, open and transparent supply chains, to drive the positive impact of the digitalisation of industrial supply chains through optimised flows of goods, finance and information, and to enable resilient and sustainable opportunities for new data-driven economies.

Digital Supply Chain Hub

The Made Smarter Innovation Digital Supply Chain Hub is a £25 million UK-wide initiative to tackle challenges faced by the UK's manufacturing supply chains, funded by UKRI, the Made Smarter Innovation programme and industry.

Over the course of the past year, the Digital Supply Chain Hub has launched a number of initiatives to nurture and exploit new knowledge and insights of how advanced digital solutions can be applied to supply chains in aerospace, automotive, healthcare, logistics and more. These flagship projects are the programme's backbone, bringing together partners from across the ecosystem to demonstrate the value of digital supply chains and the potential for the use of digital technologies in making supply chains more efficient, resilient and sustainable.

- **Logistics Living Labs:** aims to reduce congestion, improve the customer experience, and bring the UK closer to its net zero ambitions through the use of technology to better coordinate last-mile logistics
- **Interoperability:** aims to overcome barriers to information flow in supply chains to optimise decision making through the creation of open, extensible and verifiable artificial intelligence/machine learning-based solutions
- **Critical Minerals:** enabling UK manufacturers to improve the sustainability and resilience of their supply chains through better informed sourcing decisions by developing a digital toolkit to govern and incentivise data pooling in the critical minerals supply chain
- **Progress:** developing core capabilities in digital consignment tracking to enable simpler, cheaper and more efficient trade processes
- **Connected MBEEs:** aims to create a new standard for interpreting engineering information to allow better coordination across more resilient supply chains, cutting waste in materials, time and money

The programme also launched the National Digital Supply Chain competition to find large UK suppliers and manufacturers that wanted to develop digital twins of their supply chains to test new solutions that will increase business sustainability and resilience. Established with NBT Group, Hydrologiq, Circle 8 Textiles Ecosystems and Contained Technologies, the testbeds will measure supply chain emissions, optimise inventory management and automate supply chain mapping, with up to £1.5 million in co-investment.

Smart Nano Northern Ireland

Smart Nano NI is a flagship initiative for Digital Catapult Northern Ireland. This year, the programme has run four targeted programmes focused on smart manufacturing, photonics and 5G that have supported over two dozen small businesses, as it looks to unlock local economic growth and accelerate the development of transformative advanced prototyping and manufacturing methods in Northern Ireland.

Digital Catapult has also opened Northern Ireland's largest 5G testbed in Derry-Londonderry to bolster economic growth and investment opportunity in Northern Ireland. Located at North West Regional College's Springtown Campus, and delivered by CGI, the testbed is a first-of-its-kind in a smart manufacturing and education setting in Northern Ireland, providing access to the latest network technologies including 5G and NarrowBand-Internet of Things (NB-IoT), and will be instrumental in upskilling the next generation of innovators and experts across the country.

We have delivered four accelerator programmes for the Smart Nano NI programme, including the Photonics NI accelerator to provide Northern Irish companies with the skills to pioneer commercial photonics solutions that will help to solve significant industry challenges, ultimately driving industry adoption of photonics solutions. Other programmes have focused on Smart Manufacturing and the adoption of 5G technologies.

With £42 million funding from UKRI's Strength in Places Fund (SIPF), and £21.9 million leveraged funding from other sources, the Smart Nano NI consortium is led by data company Seagate Technology in collaboration with Digital Catapult, Analytics Engines, Causeway Sensors, Cirdan Imaging, North West Regional College, Queen's University Belfast, Ulster University and Yelo, forming a corridor of expertise from Derry–Londonderry to Belfast.

Hydrogen Innovation Initiative

The Hydrogen Innovation Initiative (HII) has been created to accelerate the development of critical technologies and supply chains in the UK for the fast-growing hydrogen economy.

The programme will help to accelerate innovation in the nascent hydrogen sector, support and develop growth in the UK hydrogen supply chain and overcome technology and integration challenges to establish an effective UK hydrogen economy. Across generation, distribution and consumption, HII will seek to accelerate renewable and low-carbon hydrogen production, develop safe and efficient hydrogen distribution technologies, and examine how to develop new hydrogen applications in power, transport, industry, and heating.

The multi-partner collaboration brings together the strengths and capabilities of the Catapult Network, the Advanced Propulsion Centre, the Aerospace Technology Institute, the Net Zero Technology Centre and the National Physical Laboratory, and the initiative is supported by Innovate UK.

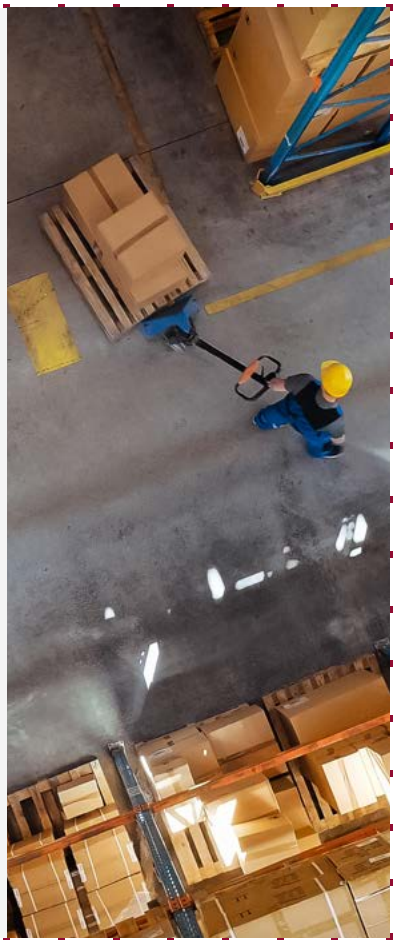
CASE STUDY:

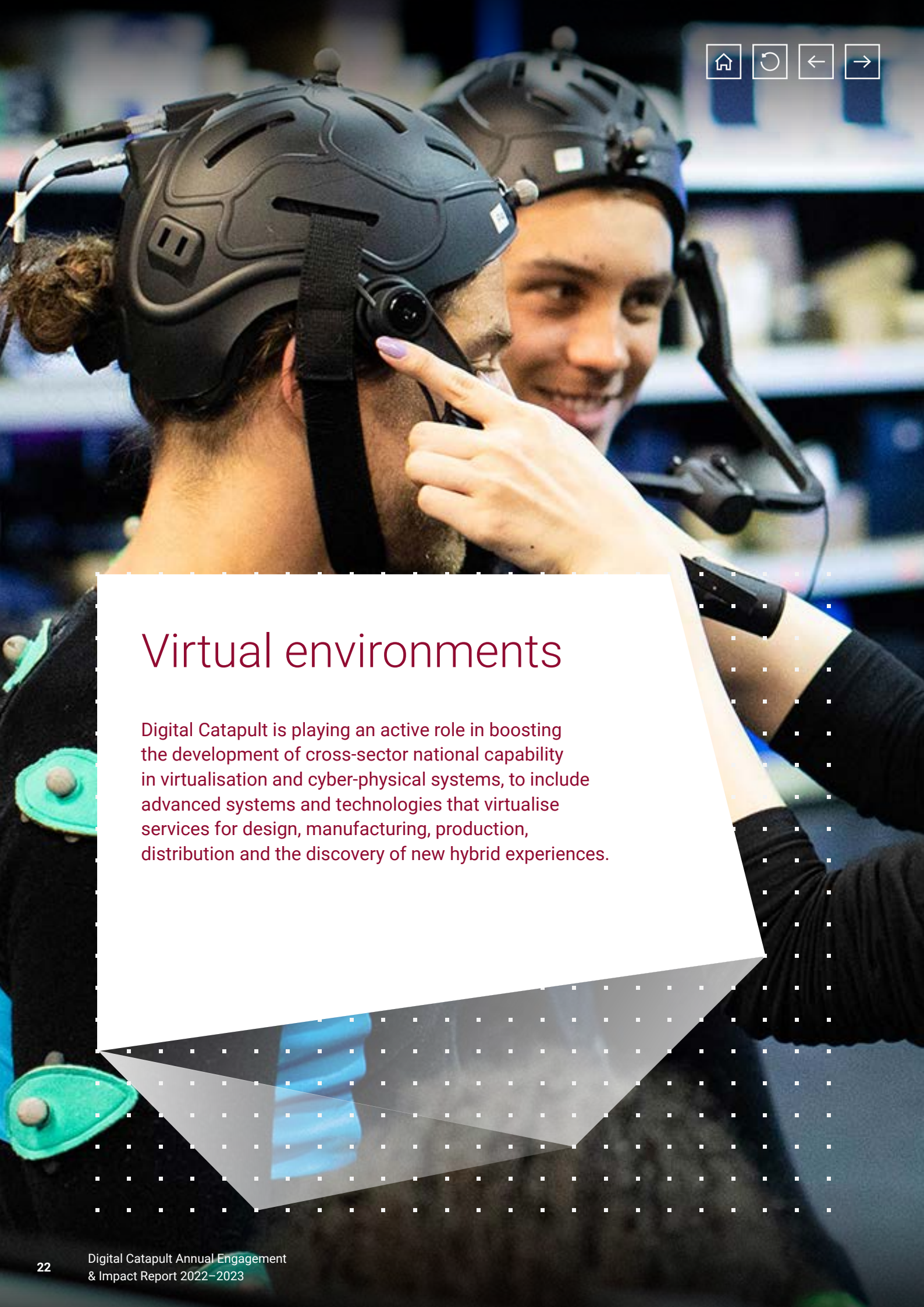
Logistics Living Lab

The Logistics Living Lab, part of Digital Catapult's Made Smarter Innovation Digital Supply Chain Hub, is leveraging emerging technologies - including distributed ledger technology (DLT) and the internet of things (IoT) - to reduce the number of empty trucks releasing pollutants into the atmosphere on roads across the country.

The project brings together five leading digital innovators: Vodafone Digital Asset Broker, Microsoft, Yusen Logistics, Fuuse, and Parity Technologies, to develop a shared digital infrastructure for more intelligent management of vehicle slot filling, routing, and tracking to allow competing logistics providers to safely share information available truck space across their collective fleets, without the need for a single party needing full control or visibility of the whole system.

Underpinned by DLT, the Logistics Living Lab aims to deliver greater coordination across the logistics sector without compromises to commercial sensitivity and security of data, whilst enabling greater operational efficiency.





Virtual environments

Digital Catapult is playing an active role in boosting the development of cross-sector national capability in virtualisation and cyber-physical systems, to include advanced systems and technologies that virtualise services for design, manufacturing, production, distribution and the discovery of new hybrid experiences.

Advanced Media Production Studios

Digital Catapult, Target3D and PROTO have launched the UK's first network of Advanced Media Production studios in London and Gateshead. Enabling seamless media production between the two sites, the groundbreaking 5G-enabled interconnected studio facilities allow multiple types of media content to be created simultaneously, revolutionising the media and entertainment industries, helping to 'amp up' digital entertainment by democratising access to cutting-edge screen production technologies.

The facilities offer a comprehensive suite of capabilities and use a sophisticated private 5G network to empower remote content direction, fostering national and international collaboration and improving efficiencies during the production process. The studios offer motion capture, XR equipment and photogrammetry – the creation of 3D models based on photographs – to meet global demand for compelling content. Importantly, the studios will support emerging local talent in virtual production through partnerships with educational institutions including ScreenSkills, Goldsmiths University of London, and Gateshead College.

For the last decade, Digital Catapult has been a pioneer of investment in digital entertainment, concentrating our efforts on the UK's creative industries and strengthening the relationship between technology and the arts. Our concerted efforts – including years of direct industry engagement and the support of Innovate UK – have built the case for new public investments, such as the AHRC's CoSTAR programme to secure funding, to further advance the success of the UK's creative industries at scale.

Bridge AI

A new £100 million programme from Innovate UK, Bridge AI aims to drive growth and competitiveness in the UK economy through the adoption of artificial intelligence (AI) and machine learning (ML). The programme will focus on businesses in sectors with high growth potential, such as agriculture, construction, transportation and creative industries, to help them enhance productivity and efficiency through AI. Alongside Digital Catapult, key partners on the programme include The Alan Turing Institute and Hartree Centre (STFC).

As part of our role, Digital Catapult is running an accelerator programme to help startups and small businesses develop responsible, ethical and desirable AI and ML-based deep-tech solutions, working with a diverse range of collaborators and industry leaders to access computation power, technical and business expertise, and industry-leading support on applied AI ethics.

2

sites connected via a private 5G network

3

partners: Digital Catapult, Target3D and PROTO

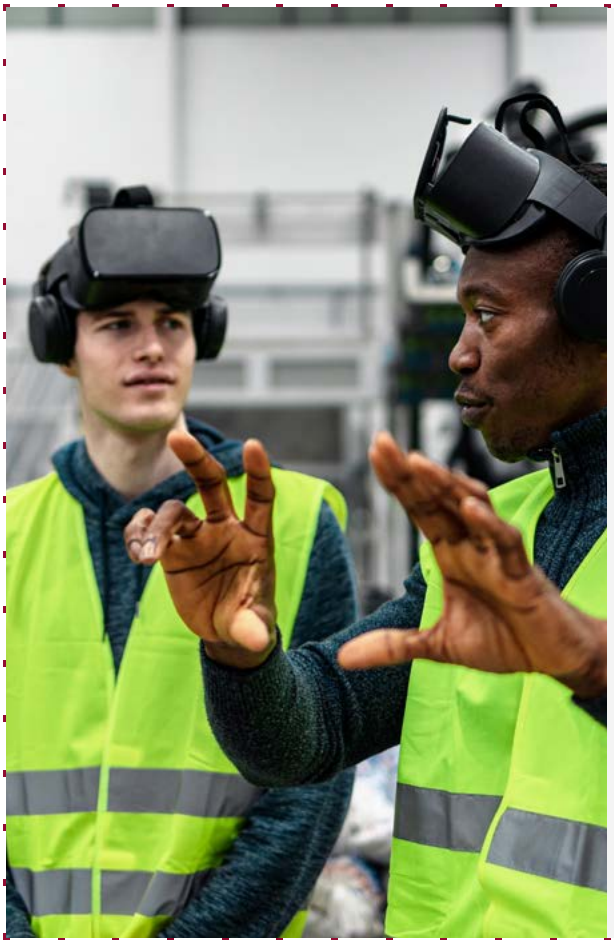
360°

live-action filming facility

National Cyber Physical Ecosystem

Digital Catapult, Connected Places Catapult and the High Value Manufacturing Catapult are jointly developing the emerging National Cyber-Physical Infrastructure (NCPI) ecosystem in the UK through a new initiative funded and supported by the Department for Science, Innovation and Technology (DSIT), which builds on the foundations of the UK Government's Cyber-Physical Infrastructure Consultation published in March 2022.

As the range of industrial initiatives focused on cyber-physical infrastructure has grown increasingly fragmented, the unique position held by the Catapults as technology and commercially agnostic players in the centre of the landscape, makes them ideally placed to help cross-sector industrial and tech companies collaborate. This initiative will be a first step towards developing a wider vision for the UK by helping to develop the groundwork for future initiatives, establish discussions between key stakeholders, and provide a national and international front door for future developments in this area.



CASE STUDY:

Scottish Power Energy Networks VR Training

Scottish Power Energy Networks (SPEN) was seeking a technology solution to refresh its training curriculum with increased efficiency and savings in costs.

Digital Catapult helped SPEN evaluate the benefits of virtual reality for training purposes by collaboratively evaluating various maintenance-related use cases.

The project produced an implementation roadmap that documents a clear way forward for SPEN in their adoption of VR for a more engaging and distributed training approach.

Working with industry

We empower businesses to capitalise on the competitive benefits offered by advanced digital technologies, providing resources, programmes and expertise to enable organisations to learn, explore, experiment and scale. Our technology agnostic approach, insight into the innovation landscape, and proximity to government policy, enables us to provide ethical and sustainable business frameworks to drive best-practices throughout the UK.

Digital Catapult focuses on specific sub sectors of the UK's major industries – energy & utilities; transport & infrastructure; aerospace, defence & security; and the creative industries – where we work with industrial early adopters to educate and inform, develop and experiment, and ultimately drive the application of technology to solve real-world problems through commercial, or collaborative research and development work

We do this in three ways:

Advanced digital technology consulting and co-creation: we help companies create a robust, scalable, strategic approach to advanced technology adoption. We focus on accelerating the time to value. We can also work with industry to provide feasibility assessments, as well as ideation services, technology innovation and solutions roadmapping to support sustainable industry.

Design and deliver targeted innovation programmes: we support and help grow the startup and scaleup ecosystem. We also help startups connect and deliver value to traditional industry. Through our FutureScope acceleration programmes and our Field Labs, we provide a proven method for growing business understanding and technical readiness for companies with legacy systems and a desire to transform themselves.

Support the scaling of digital innovation: Ensuring the full impact of advanced digital technology innovation is realised by industrial end users, we help our customers move rapidly and strategically from proof of concept to MVP to preparation to scale.

Energy and utilities

The energy sector has a significant impact on sustainability for UK industry, as well as the wider global ecosystem. Whilst the sector is embracing an unprecedented digitalisation journey, it generally lacks the in-house skillset to deliver it. Digital Catapult is supporting the energy sector in data and digitalisation innovation projects to upgrade legacy infrastructure as well as enabling future digital infrastructure.

Along with industrial partners such as Sellafield Ltd, National Grid, Northern Gas Networks, and Scottish Power Energy Networks, we are collaborating with stakeholders, such as the Nuclear Decommissioning Authority (NDA), RAICo, Ofgem and government departments, to accelerate the sector on its journey to net zero.

Transport and infrastructure

The transport sector is the largest contributor of greenhouse gas emissions (GHG) across the EU. The right kind of infrastructure, delivered on time, is key to unlocking sustainable development of transport and infrastructure. Our work with HS2 is helping develop an innovation legacy for the UK that will exist long after the construction phase of the railway has been completed.

Digital Catapult's work in the transport and infrastructure sectors focuses on helping to develop new digital foundations to accelerate the use of data driven decision making for efficient and digitally enabled transportation systems across the UK; from our support for the Rail 100 Club and driving digitalisation in the rail freight sector, to the Logistics Living Lab, one of the flagship projects of the Made Smarter Innovation Digital Supply Chain Hub programme.

Aerospace, defence and security

The Ministry of Defence (MoD) has recently published strategies that make both digital and sustainability central to its future direction. Sustainable digital transformation is a key objective of the aerospace, defence and security (ADS) sector, whilst lack of engagement with non-traditional defence technologies and non-traditional defence suppliers is a significant challenge to achieving that transformation.

Digital Catapult has a long tradition of working with the MoD and key partner organisations, such as DE&S, Dstl and Defence Digital to run bespoke programmes. Our role is to help the sector engage with the innovation community and deliver transformative digital capabilities that enable sustainable military and business advantage in a secure, integrated, and easy-to-use, delivered at scale and pace.

Creative industries

The UK has a strong creative sector, with more than 95% of businesses in this sector classed as SMEs, which may struggle to invest in digital innovation. Digital Catapult is supporting some of these organisations by providing access to facilities across the UK to enable the UK creative industries to become leaders in areas such as virtual production and new audience experiences with 5G.

The creative industries are undergoing an unprecedented period of change, navigating the complex intersection of new business models and technologies. We are working with key stakeholders to help develop a sustainable and ethical metaverse and, by working closely with partners such as Target3D, BDBF, Niantic and Sony Music UK, we are enabling new creative experiences to be designed, developed and delivered in the UK.

FutureScope

Digital Catapult is proud to support the next generation of startups and scaleups through our FutureScope acceleration programme.

The UK has an outstanding innovation ecosystem, and Digital Catapult's FutureScope programme is designed to help innovators reach their full potential, providing 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.

More than 66 startups have benefitted from taking part in FutureScope this year, on some of the most ambitious programmes to date:

Black Founders Programme with Sony Music UK

Digital Catapult and Sony Music UK launched the inaugural FutureScope Black Founders Programme to support Black British entrepreneurs in the digital entertainment space, and encourage the successful commercialisation of their innovative new solutions. Ten startups were onboarded to the programme, receiving business and investment readiness support through mentorship, workshops and masterclasses.

Using advanced digital technologies, such as distributed ledger technologies, artificial intelligence/machine learning, virtual and/or augmented reality, the cohort provides wide-reaching solutions for art, music, social media, retail and tourism. From a digital fine art gallery made possible by an extended reality (XR) immersive world, to an AI-powered social media platform designed to build a community of music lovers, the innovations at the centre of each business are created to transform the UK's digital entertainment space and bring the sector into a new era.

66

number of startups taking part in FutureScope programmes

£172m

raised by startups in FY22/23

Heritage XR with Brighton Dome & Brighton Festival (BDBF)

Funded by Brighton Dome & Brighton Festival (BDBF) and delivered by Digital Catapult in collaboration with Wired Sussex, the HeritageXR programme welcomed three pioneering immersive companies to create experiences inspired by the history and heritage of Brighton Dome's Corn Exchange using advanced digital technologies including augmented reality (AR), ambisonic sound and 5G.

The bespoke, interactive experiences created by Immersive Networks Collective Ltd, OmBeond, and SENSECity will enable audiences to explore and engage with the venue's rich heritage, allowing visitors to immerse themselves in Brighton Dome's rich architectural and social history.

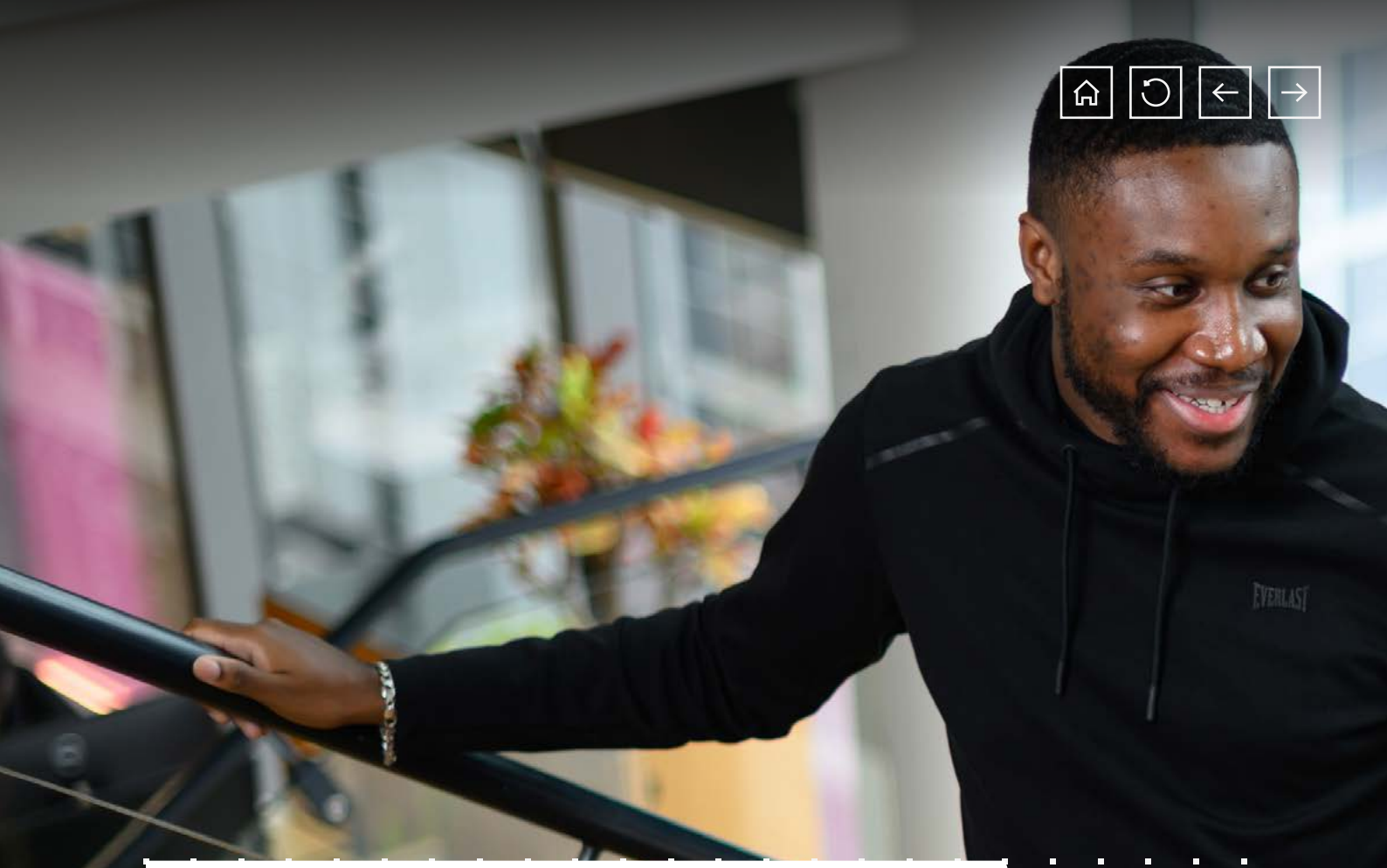
Technology is bringing the arts, culture and heritage sector into an exciting new era. Digital Catapult has worked with Brighton Dome & Brighton Festival for a number of years on truly groundbreaking technology programmes, including the 5G Festival, and is an ideal place to demonstrate why immersive experiences offer a fresh perspective for engaging new and existing audiences in novel ways.

Virtualisation and Cyber-Physical Systems with Arrow

In collaboration with Arrow Electronics, Digital Catapult created a new programme for startups using advanced immersive technologies with a focus on digital twins, the metaverse, and groundbreaking virtual production techniques.

As part of the programme, each of the seven selected startups worked to overcome specific challenges in the sphere of virtualisation – the use of technology to model, understand, communicate and connect the digital and physical worlds. These challenges included the design of garments, accessibility of entertainment and access to training, as well as developing new technologies to further bridge the gap between virtual and real-life environments for the benefit of business and industry.

The innovative solutions developed during the programme will have a real-world impact, such as operating robots remotely using Extend Robotics' VR technology to improve workplace safety and developing footwear that can emulate the vibrations of live music with GroundWaves' haptic technology.



Celebrating ten years of Digital Catapult

In 2023, Digital Catapult marks its ten-year anniversary. Established in 2013, Digital Catapult has evolved and adapted to the fast-moving, dynamic technology landscape over the following decade, and now, as the UK's authority on advanced digital technology holds a position of influence deep within the UK's tech ecosystem.

Highlights from 2013–2023

2013

50 People

- Digital Catapult launched
- Andy Green CBE appointed Chair
- Neil Crockett appointed CEO

2014

- Digital Catapult HQ opens in London
- Digital Catapult North East Tees Valley opens in Sunderland

2015

- Digital Catapult Brighton opens
- Digital Catapult Yorkshire opens in Bradford
- Researchers in Residence initiative founded

2016

- Digital Catapult Northern Ireland opens in Belfast
- Things Connected IoT programme launches with 50 locations across London
- Jeremy Silver appointed CEO

2017

- CreativeXR launched with 20 cohort teams
- First Immersive Labs open
- Dimension Studios, Europe's first commercial Volumetric Capture Studios opens
- £1.1m Cyber101 programme begins
- UK-wide LPWAN experimental network created to accelerate IoT
- IoT enabled anti-poaching project with ZSL London Zoo developed

2018

120 People

- First cohort on Machine Intelligence Garage
- Based on Immersive Lab success, Gateshead City Council opens £8m PROTO studio
- First cohort of nine companies on 5G Technology Access Programme
- 5G Nation report launched

2019

- First Augmentor cohort of five VR & AR companies
- Future Networks Lab opens in London
- Brighton Dome 5G Testbed opens
- Made in 5G report published
- Industrial 5G Accelerator launched with Ericsson
- Andy Serkis leads Imaginarium Studios and Digital Catapult collaboration on artist-led motion capture
- LPWAN and IoT trials with UK Army, Navy and Royal Air Force
- Juergen Maier CBE appointed Chair
- Provided LPWAN data gathering for Bloodhound land speed trial in Kalahari desert

2020

- 5G testbeds open in the West Midlands as part of the 5PRING programme
- Global Challenge in Germany delivered with over a dozen international partners
- DETI, Made Smarter Technology Accelerator, and 5G Factory of the Future programmes launched
- Solve for Tomorrow programme delivered for Samsung

2021

- Digital Catapult and University of Bristol plan strategic partnership in the South West
- SONIC Labs programme begins
- Virtual Production Test Stage opens in Guildford
- 5G Festival begins trials with nine partners across tech, music and venues
- Made Smarter Digital Supply Chain Hub
- Smart Nano Northern Ireland, and Digital Security by Design (DSbD) programmes begin
- Digital Catapult wins two CogX Awards for Outstanding Achievement in AI Ethics, and for Outstanding AI Accelerator
- HS2 and Digital Catapult begin collaboration

2022

- 5G VISTA and MyWorld programmes begin
- First FutureScope acceleration programme runs, focused on Industrial Net Zero
- 5G Festival delivered: live event at Metropolis Studios, O2 in London, and Brighton Dome with 22 artists
- Additional £15m investment for SONIC Labs
- Collaboration with dstl on Defence Data Research Centre
- Solve for Tomorrow 2022 delivered for Samsung

2023

250+ People

- SONIC Labs facility opens in London. Outdoor testbed goes live in Fulham
- Niantic collaboration to increase access to augmented reality
- Digital Catapult and NVIDIA announce MOU
- Advanced Media Production Studios delivered in London and Gateshead
- BridgeAI and Quantum Technology Access Programme begin
- First 5G testbed in Northern Ireland opens
- FutureScope Black Founders Programme launched
- Digital Catapult recognised as a Great Place to Work

Views from the Board

Belinda Howell

Founder and managing director of Decarbonize Limited

Opportunities lie in Digital Catapult's unique ability to enable cross-technology collaboration to blend transformative digital technologies into solutions for real-world issues. Digital Catapult's work is supporting sustainable growth in the UK economy, which is critical as digital technology underpins the transition to net zero. Digital Catapult has a buzz of energy and diversity of people meeting and collaborating together, and in the future, the organisation will be ever increasingly, deeply collaborative with industry stakeholders, policymakers, and researchers to share best practices and drive systemic change.

Jessica Cecil

Former BBC Chief of Staff, and University of Bristol Trustee

It's the mission that makes me so proud to have joined the Digital Catapult Board. We have fantastic deep tech in the UK, and Digital Catapult is helping deep tech solutions and products find their way into the organisations that create opportunities and jobs at scale across the UK economy, as well as reaching markets abroad.
The web of great universities across the UK is one of our greatest national assets, and it means there are centres of innovation around the country - we must continue to collaborate across regions and innovation centres. In five to ten years, I see Digital Catapult at the heart of new ecosystems around the three market application areas, with a strong set of UK-wide partnerships debating how best digital applications can help the green transition.

Keith Underwood

Chief Financial and Operating Officer at The Guardian

I am proud of how a diverse and highly skilled team of experts at Digital Catapult create the foundations, forums and facilities to enable organisations of all sizes convene and collaborate in accelerating innovation and driving sustainable growth across the digital economy. Digital Catapult has a proven track record in accelerating the growth of thousands of businesses with innovation programmes and open access facilities – like the Advanced Media Production Studios – which promote hands-on experimentation, collaboration and significantly lower the financial and technical barriers to scaling.

Priya Guha

Venture Partner at Merian Ventures

Facilitating relationships between investors and UK startups is a fundamental component of economic growth. Digital Catapult supports early stage businesses throughout their growth journey whilst helping investors navigate and understand the potential of technology as an investment opportunity. It also plays a key role supporting larger businesses to harness positive disruption and maintain their innovation momentum.

William Priest

Board Director and Advisor to UK Government

I am hugely impressed by Digital Catapult's ability to adapt, grow and seek new opportunities. This is done through a "can do" attitude and by being innovative. For example, the SONIC Labs programme and our association with UKTIN puts Digital Catapult at the heart of the UK government's telecoms diversification policy agenda. We are now seen as experts in this field and cements our reputation in this fast- moving sector. In the future, I would expect us to be the leading and go-to tech innovator right across the UK.

Yvonne Rogers

Director of the Interaction Centre at UCL (UCLIC)

Digital Catapult is in a great position to expand, by collaborating with European and academic partners in large scale consortiums who are working at the cutting edge of developing new platforms, applications and services, especially for AI. The challenge facing organisations is working out how to collaborate with big companies to enable startups to use new technologies so that they're fit for purpose, without being overly constrained and ensuring what is being developed is ethical. Throughout this change, Digital Catapult possesses the ability to adapt whilst remaining close to its core values.

Working with investors

Digital Catapult helps the investment community connect with high-calibre startups and scaleups with the latest ideas and developments in advanced digital technologies.

We understand the problems faced by small innovative businesses and entrepreneurs, as well as investors – we also understand how to solve them. From angel investors to corporate venture capital, Digital Catapult helps the investment community discover more about the innovator ecosystem for mutual benefit, to improve their pipeline, increase their visibility of the wider innovator ecosystem, and raise their profiles with sought-after businesses.

We support investors in a number of ways:

- Connecting the investment community to high calibre startups and scaleups – we apply technical due diligence to pre-qualify all potential opportunities
- Helping investors increase their understanding of the investment and scaling potential of the digital technologies we work with – our insight reports summarise and analyse the activities of businesses participating in our programmes and we provide valuable contextual information on the investment landscape, and market and tech trends
- Regular opportunities enable interested investors to scout the most promising startups, as well as meet other investors focused on the same technologies
- Our knowledge of the UK, EU and international collaborative R&D helps to de-risk innovation for our investor partners

Diverse founders in Advanced Digital Technologies 2023 report

The comprehensive "Diverse Founders in Advanced Digital Technology 2023" report underscores the UK's dominance in tech investment and the boom in high-growth startups across our five technology focus areas. The report exposes stark inequalities, especially for founders who are female or from ethnic minority backgrounds. The report, compiled by research firm Beauhurst, paints a revealing picture of the UK's tech landscape showcasing a remarkable amount of tech investment and an increasing number of high-growth startups.

This new report reinforces that all diversity metrics impact founders' ability in advanced digital technology to get finance. This report marks a significant step in understanding the impact of some diversity characteristics on investment opportunities. This research exposes a clear opportunity for investors and for industry – there's a wealth of talented people running exciting, innovative small businesses eager to work with new companies and disrupt traditional ways of working. Our Futurescope Black Founders Programme is one example of how to highlight the investment opportunities in underrepresented founders.

Digital Catapult European Investor Attitudes Tracker

The European Investor Attitudes Tracker 2023 is a comprehensive pulse check on the early-stage investor ecosystem across Europe. The pan-European research of 1,250 early-stage investors closely examines attitudes towards most notable investment risks and opportunities, the current deeptech landscape, inclusive investment initiatives, and the state of green tech investment.

- The data reveals that 25% of investors view the UK as the deeptech epicentre of Europe, though Germany is hot on its heels (24%)
- Generative AI and Responsible AI lead the field as the two technological areas that European investors believe have the greatest potential for growth in the next 12 months
- 69% of European investors have changed their risk appetite in response to challenging economic circumstances across the continent. This shift is even more pronounced in the UK, where 75% have reviewed their risk strategy
- A lack of investor understanding/knowledge (31%) and limited access to talent/skills (33%) are cited as the biggest risk for deeptech investing and the biggest challenge for tech start-up investment respectively
- Though 99% of investors acknowledge that there is some form of bias in the investment process, to some extent, investors blame founders for reduced opportunities, with 41% citing a lack of investment knowledge as the principal culprit for startups struggling to secure funding

Investing for growth in our regional centres

Digital Catapult drives regional and national economic growth. Ten years after we were established in 2013, our nationwide network has forged partnerships across the UK, and our centres – in London, Sunderland, Belfast and Bristol – focus on local market needs, creating more opportunities for growth and inward investment.

Digital Catapult is helping level-up the UK in partnership, by building on the ingenuity unleashed when industry, academia, local leadership and government work together.

Our centres, partnerships and programmes drive the adoption and diffusion of innovation across the UK, ensuring businesses and communities can benefit from advanced digital technologies.

Our interventions fuel the growth businesses need and the jobs our communities deserve. We drive productivity in sectors and supply chains to strengthen regional economies and align with wider national and local investments.

CASE STUDY:

MyWorld

MyWorld and Digital Catapult are exploring emerging technology innovations, including AI, haptics, and immersive animation, and how these technologies are transforming the UK's creative industries. In October 2023, we showcased technology that was researched and developed through MyWorld's Catalysts and Connectors: Tools for the Creative Industries funding call, delivered in partnership with Digital Catapult with the support of industry partner, NVIDIA. A cohort of nine companies worked on a broad range of innovations, including large language model development, haptic shoes, and augmented reality in architecture.

The MyWorld programme sits at the very heart of Digital Catapult's ambition to grow a larger, permanent presence in the South West of England. MyWorld is a flagship programme for the UK's creative technology sector. Led by the University of Bristol, it convenes the leading universities in the region and over 30 technology, creative and film companies to cement the West of England's position as a creative media powerhouse, funded through the UK Research and Innovation (UKRI) Strength in Places fund.

Northern Ireland

The Digital Catapult Northern Ireland team is leading one of Digital Catapult's biggest ever programmes: Smart Nano NI. Launched in 2020, the £60 million Smart Nano NI programme, a consortium of nine companies led by Seagate, has delivered major new acceleration programmes focused on smart manufacturing, photonics and 5G that are helping to upskill Northern Irish companies and drive economic growth in the region and beyond.

Elsewhere, Digital Catapult Northern Ireland has been supporting Belfast City Council on several initiatives including the Creative Capacity programme. Our team has supported several key Belfast City Council programmes as part of XR Belfast, including a newly commissioned immersive technology installation in partnership with BT at the historic Belfast City Hall exhibition rooms: the Immersive Journey's Programme. This is a series of events and mentoring sessions for Belfast-based businesses to help them better understand the applications of creative technologies, as well as developing a stories engine for Belfast Stories, a flagship cultural venue for the city, and "Augment The City", £500,000 three-phase accelerator programme to develop immersive solutions for the city's growing tourism economy.

Our creative industries work in Northern Ireland continues to bear fruit. We organised a trade delegation of immersive companies to head to SXSW in 2023 alongside the Department for Business and Trade to give Northern Irish companies a platform to reach a global audience with panels featuring pioneering women who have pivoted from traditional creative art forms to embrace emerging technology, and another on Northern Ireland's homegrown virtual production skills and world class media production facilities.

Investing for growth in our regional centres continued

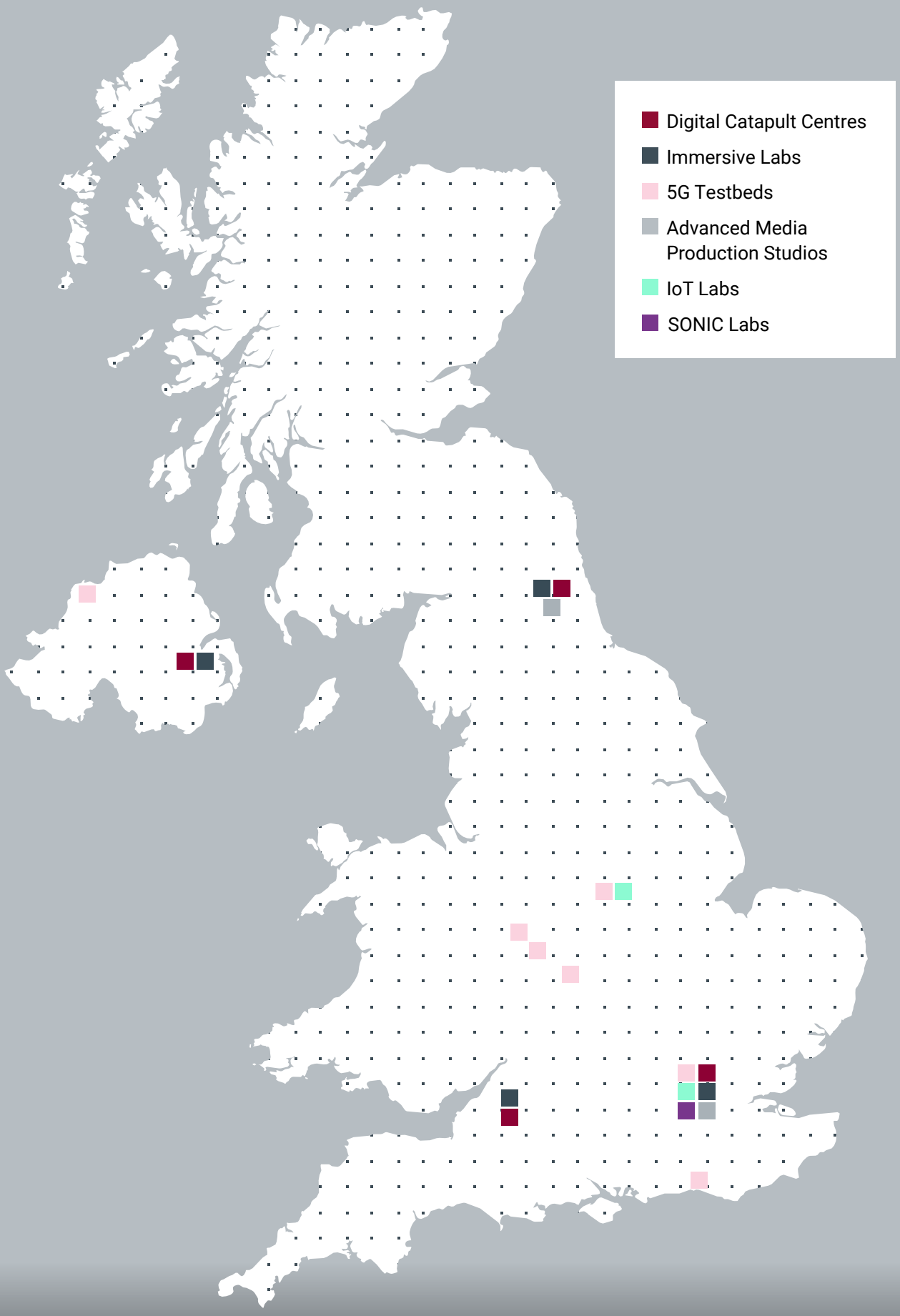
North East Tees Valley

This year, we have witnessed a significant surge in the region's involvement with immersive technologies, particularly motion capture. One motion capture project that has left a profound impact is 'Game Changers', hosted by the Megaverse company. Game Changers was a free, live and interactive game where participants collaborate to make environmental and societal decisions aimed at instigating positive change. Over the course of four days, hundreds of users logged into the event, including numerous members of Digital Catapult North East Tees Valley, through which we have, undoubtedly, become more attuned to the ongoing climate crisis.

Not only has the Advanced Media Production facility at PROTO hosted companies like Megaverse, but it also serves as the headquarters for the region's newest immersive technology support programme known as Immex City. In the pilot programme we assisted a cohort of job seekers in acquiring immersive technology skills, particularly in game design for virtual production, through a six-week bootcamp. Alex Cook, head of the programme said "Immex City is where innovation thrives and comes to life. With a track record of upskilling job seekers with the latest immersive tech skills, we're on an exciting journey supporting the future of virtual production and immersive technologies." Over the next few years, our focus will remain on enhancing skills within the immersive and virtual production sector, facilitating the adoption of immersive and screen technologies, and reducing the risks associated with research and development.

By working closely with Innovate UK's Edge programme this year, we have provided support to SMEs across England totalling £300,000 in value. One recipient, CRMG, a cyber risk management company, utilised this funding to assess the market for the adoption of a new cyber risk-management tool. This initiative contributed to raising awareness about the importance of prioritising cybersecurity to enhance future resilience. Patch Work Hub also benefitted from our fully funded support, enabling them to enhance their business plan, strategy, and services. During the market research phase for Patch Work Hub, we sampled 70 companies from North America, India, and the UK, providing valuable and actionable market insights.

As we reflect on these achievements, we remain dedicated to furthering our efforts in the immersive technology sector, fostering skills development, and supporting businesses in their growth. By continuing to collaborate with innovators and offering strategic support, we aim to pave the way for a more resilient and technologically advanced future.


Digital Catapult Centres
Immersive Labs
5G Testbeds
Advanced Media Production Studios
IoT Labs
SONIC Labs

Sustainability

Sustainability is embedded into everything that Digital Catapult does. Companies can increase their competitiveness and resilience through a focus on sustainability alongside digitalisation, and we are seeing increasing demand from our commercial partners who recognise both their social responsibility and the role of sustainability in driving future profit growth.

We support startups and scaleups working in climate tech and on specific sustainability R&D and commercial innovation programmes through our FutureScope programme and our knowledge of industry needs.

HS2 carbon marketplace

Our longstanding commercial partnership with HS2 continues with the launch of a new project, the Carbon Marketplace. HS2 is looking to demonstrate a single source of truth to incentivise accurate carbon tracking and accounting across their supply chain, leveraging distributed system technologies to decentralise carbon tracking and utilise a common reporting process. This project will bring together stakeholders and partners to identify the economic and behavioural requirements underlying the operation of a carbon marketplace in order to design a simulation tool, enabling HS2 to experiment within the proposed system before investing in a full technical solution.

Ecometer

Digital Catapult developed the Ecometer as part of the DETI project in the South West of England, an innovative tool designed to change behaviours and implement environment friendly solutions across industries. The Ecometer allows organisations to measure the carbon footprint of their products and processes using sensors. By streaming data on the equipment's energy consumption and multiple process variables, the Ecometer can visualise carbon footprint data on an hour-by-hour basis, to enable decision making and planning based on that business' carbon footprint. We have future plans to install the Ecometer in our facilities, including the SONIC Labs in London and our PROTO facility in Gateshead, to show the carbon intensity and footprint of our own facilities.

Scottish & Southern Energy Networks (SSEN) supply chains

Digital Catapult's involvement in the Strategic Innovation Fund (SIF) SSEN 'Secure' project proposed advanced digital solutions to address the challenge of rapidly expanding the offshore wind industry's transmission infrastructure. Focusing on the critical High Voltage Direct Current (HVDC) cable supply chain, this project delivered a detailed analysis, recommendations and concept designs to enhance visibility and effectiveness for Transmission Owners (TOs) to reduce risk and boost investment confidence. By de-risking the HVDC cable supply chain, the project is contributing to the UK's net zero goals whilst setting the stage for similar strategies in other key transmission infrastructure components, expediting the decarbonisation of the power system and enhancing market competitiveness.

AI for decarbonisation

In partnership with The Alan Turing Institute and Energy Systems Catapult, Digital Catapult has launched the UK's first Centre for Excellence on AI innovation for decarbonisation (ADViCE). This project will provide a virtual hub, bringing together businesses, academics and experts to advance research into AI solutions that will help industries cut emissions. The ADViCE programme will drive forward AI's integral role in solving critical decarbonisation challenges, forging collaborations between the technology community and some of the UK's most carbon-intensive sectors.

Our people and culture

Digital Catapult is a thriving, dynamically expanding organisation.

Digital Catapult has grown by 25% since November 2022, with 80 new people joining our diverse team in London, Bristol and Belfast.

We pride ourselves on the range of skilled and talented people from a variety of backgrounds that we successfully attract to join us, and we continue to analyse and carefully consider how our team is growing and how well this is representative of UK society overall. We recognise that, in building a truly diverse and inclusive team, we achieve more as an organisation through harnessing and maximising the rich, differing perspectives and ideas our team brings together – more than 41 nationalities are represented at Digital Catapult.

Of the 75 new people who joined us in the previous year, 50% were women, and our overall gender balance shifted by 3% towards 50:50 gender representation, from 57% men and 43% women in 2022, to 54% men and 46% women in 2023, with less than 1% of people who identify as non-binary. As we continue to grow, we will review all aspects of our people data in order to inform the plans we are making, the initiatives we run and how we are building our teams.

Gender Pay Gap (GPG)

On 5 April 2023 (when the GPG reporting was undertaken), Digital Catapult had 255 employees; these relevant employees were used to measure the gender bonus gap using bonus data from the previous 12 months. In accordance with the legislation, only employees who received their full pay during the pay period that includes 5 April 2023 were used to measure the gender pay gap and pay quarter data. This meant that three women were excluded because they were on reduced-pay leave. Of the remaining 252 full-pay relevant employees, 137 were men and 115 were women, giving a gender balance of 54:46. This is a year-on-year increase in our workforce of over 20% with a 3% greater shift toward 50:50 gender representation.

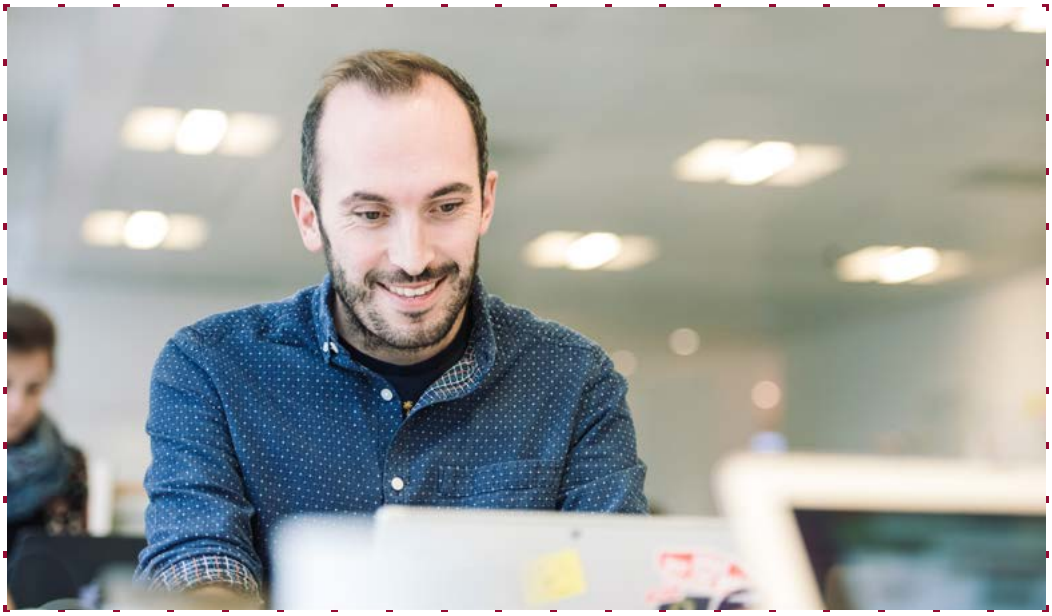
The full gender pay gap report can be read at
www.digicatapult.org.uk/expertise/publications/post/digital-catapult-gender-pay-gap-report-2023

Skills & Equality, Diversity and Inclusion

This year, we have renewed our commitment to investing in skills development. By the end of 2023, around 5% of our team will be pursuing apprenticeships at either higher or degree level. Additionally, we have been building our partnership with Ada, the National College for Technical Skills, offering work experience placements and mentoring opportunities, and we are excited to engage with the College and its highly talented students. We are continuing to explore other new initiatives that we can champion, which support communities local to our office locations in terms of supporting social mobility.

In 2023, Digital Catapult was certified as a Great Place to Work and listed amongst the Best Places to Work in Tech 2023.

We recognise the huge opportunity we have as Digital Catapult to continue to lead and inspire with the programmes and initiatives we run in support of building an equal, diverse and inclusive workplace. Through our EDI Advisory council, our Employee Voice Network and our other internal affinity groups, as well as through the partnerships we have in place with Inclusive Employers and the Living Wage Foundation, the commitment to be seen as role models in this field is one that runs throughout our organisation, the work we do and the people who work with us. We know we can, and we will, continue to do more.



Ambition

What are we capable of together?

We value people's ambitions for their own careers, for the development of advanced digital technology and for the startups, corporates and other organisations with whom we partner. We help channel the ambition of UK startups into traditional industries and focus the growth of exciting new products and services.

Curiosity

Working at the forefront of advanced digital technology often means taking a leap of faith.

Alongside many of the UK's leading universities and research organisations, we're working with a range of people who are truly curious, who take risks and push boundaries to see what's possible and how to drive it towards commercial reality.

Openness

True inspiration comes from collaboration.

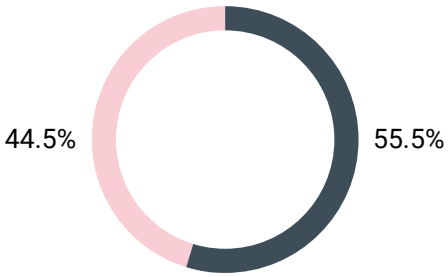
Working on the biggest challenges and juggling multiple projects, we take on work that pushes the boundaries of technology. We know that only by promoting and embracing diversity and inclusion in all we do can we truly inspire success in ourselves and in others.

Optimism

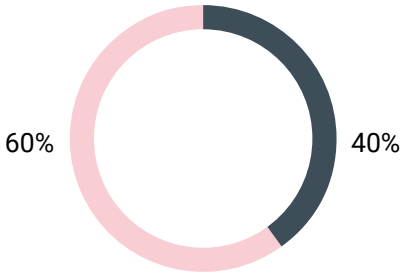
We strive to make a positive impact.

Whether it's unlocking the potential of the technologies we work with, understanding what traditional businesses and industries are capable of and are willing to change, or developing our personal potential, we'll always take an optimistic approach to the challenges we take on.

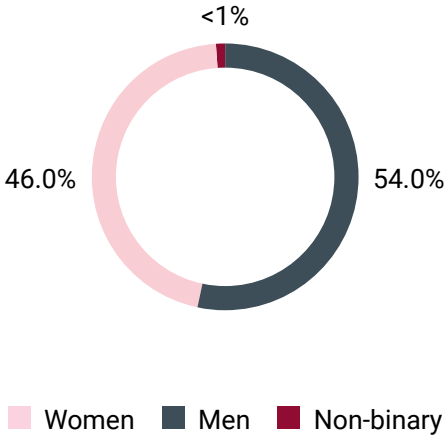
Management team



Non-Executive Board



Team split



30%

people growth year on year
(Sept 22–Sept 23)

41

nationalities

5%

of the team undertaking
an apprenticeship

Financial highlights

FOR THE YEAR ENDED 31 MARCH 2023

Turnover

	2023 £'s	2022 £'s
Core Grant	**15,789,057**	12,064,414
Collaborative R&D and other income	**14,186,757**	9,122,721
Digital Catapult Services fees receivable	**2,474,604**	4,239,514
	32,450,418	25,426,649

Consolidated balance sheet

	2023 £'s	2022 £'s
Fixed Assets	**6,999,167**	2,976,505
Net Current (Liabilities)/Assets	**(5,189)**	4,351,181
Creditors amounts falling greater than one year	**(5,849,096)**	(6,201,375)
Net Assets	**1,144,882**	1,126,311
Capital and Reserves	**1,144,882**	1,126,311

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This report has been printed on Essential offset,
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