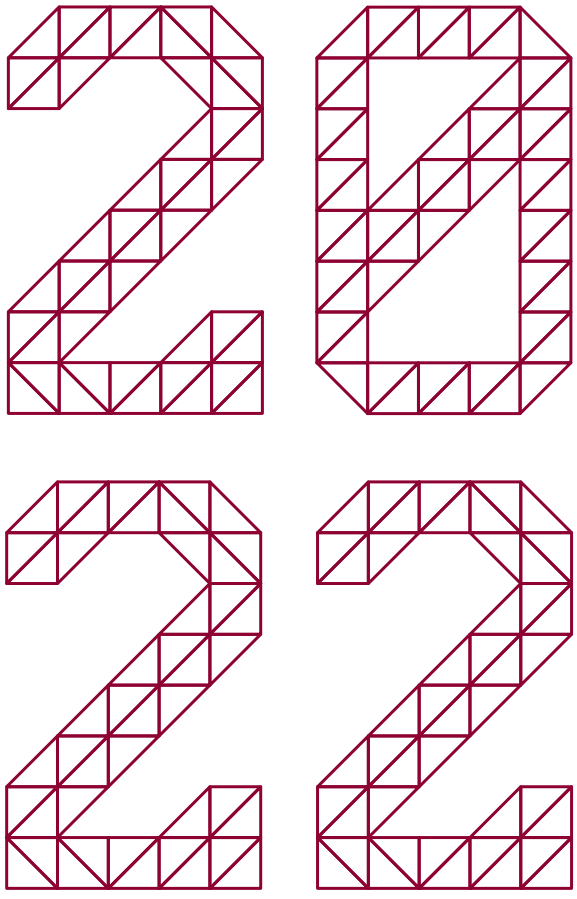
CATAPULT Digital

Annual Engagement and Impact Report

2021-2022

Digital Catapult is the UK authority on advanced digital technology.



potentially half a page to add on gender pay gap reporting

Contents

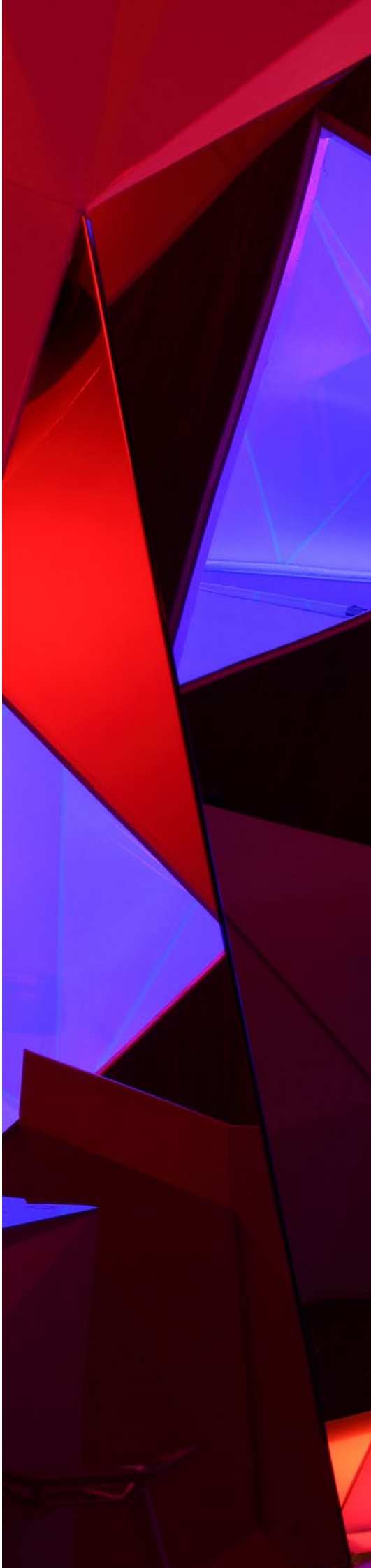
At a glance

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 expert and enterprising communities 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, increasing productivity, 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.



£577m

investment raised by 259 startups after engaging with Digital Catapult in five years

£208m

raised by startups in FY 21/22

22

academic collaborative R&D engagements in FY 21/22

34

new industrial collaborations in FY 21/22

20

advanced digital technology facilities nationwide

25%

people growth year on year (Sept '21 - Sept '22)

70+

active projects

61%

year on year increase in collaborative R&D and commercial income

2,473

company engagements in five years

About us and what we do

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

New facilities

We identify the need, 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 the Virtual Production Test Stage – the first facility in the UK created specifically for research and development of virtual media production techniques – to SONIC Labs, a commercially neutral 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 support from FutureScope offers a next level support system for the UK's leading tech innovators and businesses. Providing access to investment, business, ethics, and tech expertise, mentorship and collaboration, FutureScope advances the companies and solutions that will accelerate the digital future.

For industry

We focus on specific sub-sectors of the UK's major industries where we can work with early adopters to educate and inform, develop and experiment. We ultimately drive application of emerging technologies to solve real-world problems, either through commercial or collaborative research and development work.

Collaborative research & development

We convene and collaborate on research and development to trial and explore the mid-term potential for advanced digital technologies, building confidence, creating demand, and opening up new markets for suppliers.

Working across the technology ecosystem

We work with early stage technology businesses, corporate adopters and trade bodies, government, universities and other research organisations, and investors across the UK. We are part of the Government's Telecoms Supply Chain Diversification (TSCD) Advisory Council and the National Infrastructure Commission's NIA2 expert advisory panels.

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

What our impact looks like:

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

Market defined application areas

We are increasingly focused on looking more broadly at market defined application areas where a combination of technologies can have tangible benefits in the real world:

- **Digital Infrastructure** – we are supporting the development of open and interoperable digital infrastructure as the framework for connecting the digital and physical worlds – read more on pages 32 to 35.
- **Digital Supply Chains** – we are working with a wide range of partners to develop transparent supply chains to drive the positive impact of digitalisation – read more on pages 36 to 39.
- **Virtualisation** – we are playing a critical role in the development of cross-sector national capability in virtual production facilities and digital twins – read more on pages 40 to 43.

CEO statement

In 2022, the green digital transition emerged clearly as the heart of Digital Catapult's mission. Whether in early stage innovation businesses or in multinationals, Digital Catapult focuses on helping companies achieve their green digital goals, by reducing the risks in accelerating the early adoption of advanced digital technologies. Doing so helps industry increase its global competitiveness, introduce new exciting products and services, and find new partnerships for societal and economic benefit.

There can now be no doubt that replacing old inefficient industrial processes with fast, flexible digital solutions makes businesses more productive and reduces carbon emissions. This is a world of opportunity for early stage companies as well as established businesses.

Although we continually develop teams of deep tech experts in individual areas such as 5G and machine learning, our approach to achieving the transformation of companies in industry has shifted from a single technology approach to working in more market-defined application areas where a combination of technologies brings real-world benefits. We have identified three such areas in which UK strengths can combine with global opportunity to create real investment focus in a new advanced digital technology stack. These three application areas are: Digital Infrastructure, Digital Supply Chains, and Virtualisation.

Underpinning all this, we maintain our commitment to providing the best deep tech support for the startup ecosystem through our FutureScope acceleration framework that provides focussed support at every step of the scaling and growth journey.

Our commitment continues to grow our regional presence across the UK; since inception, we have been active in the North East of England and Northern Ireland. This year we have invested heavily in Digital Catapult NI, with support from the NI Department for the Economy and important industrial partners like Seagate. The global strategic importance of the Smart Nano Manufacturing programme, which we're collaborating on, is helping ensure that Western countries remain in control of the future manufacturing of hard disk drives – the cornerstone of data centres – worldwide.


BETA58A

We continue to deliver projects integral to supporting and growing the companies and industries which underpin local and regional economies. Our work with Sellafield Ltd in Cumbria has demonstrated the potential for emerging technology to solve major decommissioning challenges at the site; the West-Midlands based 5PRING programme has helped local businesses to experiment and develop new connectivity solutions; and our work in the North East, such as the Digital Pathfinders and ImmexCity programmes, is helping local businesses and individuals become more successful and resilient.

Along with others in the Catapult Network, we are supporting a number of projects to help reduce carbon emissions from industrial processes. The carbon footprint calculator, the Eco-meter, developed as part of the DETI project in the South West of England, and the Net Zero FutureScope cohort are two examples of innovative projects designed to change behaviours and implement environment friendly solutions across industries.

We value the diverse range of people that make Digital Catapult such a dynamic and vibrant place to work. Striving to achieve greater equality, diversity and inclusion are deeply ingrained in our culture. Our Employee Voice Network, established and led by people from across Digital Catapult has helped to mark important events, from Pride to Black History Month, and ongoing initiatives led by the People team continue to evolve our internal culture and educate our staff.

Our recently published Gender Pay Gap report shows that our efforts to reduce the gender pay gap are working and provides insight to where we need to focus our efforts. In addition, our engagement with organisations including SheCanCode is helping to attract more women into our business, and the most recent intake of apprentices demonstrates our renewed commitment to investing in long term skills development.

Continued growth and impact in 2022

Supply chain shocks, the lingering effects of the pandemic, and the wider geo-political events have reverberated throughout 2022. Combined with inflation, the economic headwinds facing industry are making innovation harder.

These kinds of adverse conditions make the contribution of Digital Catapult more important than ever. We continue our commitment to support small businesses in their scaling journeys.

Over the last five years, we have supported almost 2,500 startups, which have raised over £577 million in early stage private investment. Many of these companies will have raised a few hundred thousand, but others such as GreyParrot and Climate X have secured significant multimillion pound investments, whilst others have grown their headcount or closed deals with multinationals, as a result of our support.

We have increasingly earned our place as a trusted partner to industry and government. And with that we are undertaking some very significant projects of strategic importance, such as the £16 million SONIC Labs programme with Ofcom funded by DCMS, the £25 million Made Smarter Digital Supply Chain Hub funded by industry and InnovateUK, and the £10 million UK Telecoms Innovation Network project (UKTIN, also funded by DCMS). Each of these projects enable us to support individual businesses and industrial sectors, often leveraging public funding to encourage greater levels of private investment.

Focus on 2023

Throughout 2022 our scope of work has broadened into exploring the potential of the Metaverse, to examining quantum computing technologies, and rolling out major programmes that demonstrate the benefits of disruptive business models like servitisation and the use of blockchain.

What does 2023 look like? The scope of our challenge only grows with every year and as the world faces increased uncertainty, a consistent focus remains the best strategy. Having said that, we continue to open new ground and it seems certain that we will extend our work into some key new areas of vital importance to the future economy, such as applications for cyber/physical interfaces, modernisation of energy power grids, and the use of AI in creative industries. And who knows, as we continue our journey towards new digital frontiers, perhaps next year's annual report will be available as a super-extensible, interplanetary, non-fungible token, on a device near you.

Dr. Jeremy Silver
CEO of Digital Catapult

Chair statement

With a renewed focus and energy on addressing major global issues – from climate change, sustainability and the race to net zero, and ensuring responsible development and adoption of advanced technologies – Digital Catapult remains a critical part of the UK innovation landscape.

I am a passionate advocate for the potential of innovation to help businesses grow, create jobs, become more competitive, enrich local communities, and boost the economy.

Sustainability and responsible development of technology remains front of mind across all of our work, more now than ever. We're making important interventions in a wide range of projects to look at carbon accounting, the circular economy and the energy transition, as well as undertaking a detailed analysis of our own carbon impact. I was pleased to see the Catapult Network sign a joint charter for inclusion and applaud the steps made internally to advance this work, fostering an inclusive culture that ensures our core values of optimism, ambition, openness and curiosity are expressed in everything that we do.

We were proud to support Samsung for the second year on its flagship Solve for Tomorrow programme, an initiative supporting the leaders of the future and celebrating the achievements of young people who have an idea for how technology could be used to solve some of society's biggest issues. From encouraging repair and reuse of electronic gadgets to making cancer treatment less frightening for young people, the ideas on show from this talented group of 16-25 years old was outstanding and humbling.

The winner, Ramneek Kaur Ahluwalia, will work with Samsung and Digital Catapult to continue work on developing her project 'MyVision', a tech-forward mobility aid that allows users to navigate their surroundings via Ai, LiDAR and GPS technology. The groundbreaking mobile device was created as an advancement of the white cane. This is just the beginning of the journey for these inspiring young people and we can't wait to see what they do next.

The Digital Catapult Awards returned this year to celebrate the world class technology startups that have achieved the most market traction, secured the most investment and have produced the best new product or service ideas to accelerate the digital future. From the 540 startups that we worked with in the last year, six ambitious “ones to watch” were named winners. These exciting small companies are having a positive, ethical and sustainable impact on their respective fields, and lead the way in the development and application of advanced digital technologies, with innovations spanning AI-powered technology to optimise recycling processes, to fully immersive, workplace collaboration tools. Congratulations to Ascalia, Greyparrot, Keyless Technologies, Fracture Reality, Charisma, and Forest Tribe. The Awards are a reminder that success is a collaborative effort, and we were also thrilled to have been joined by eminent industry experts from the Royal Academy of Engineering, The Economist, HS2, Festival UK 2022, Siemens and the Centre for Data Ethics & Innovation, investors and previous Digital Catapult Awards winners.

Finally, we welcomed Digital Catapult’s Chief Technology Officer Joe Butler to the Digital Catapult Board this year. As we grow and scale the organisation, Joe’s rich expertise is an important addition, helping the Board maximise the opportunities for the businesses we work with.

Digital Catapult is a major player on the UK innovation stage. Our work in communities up and down the UK continues to be recognised as being vitally important to the long term economic success of the UK, and highlights the critical role that advanced and emerging technologies can have on creating sustainable, resilient long-term change for our major industries, and providing a critical backbone for brand new ones.

Juergen Maier
Chair of Digital Catapult

Working with industry

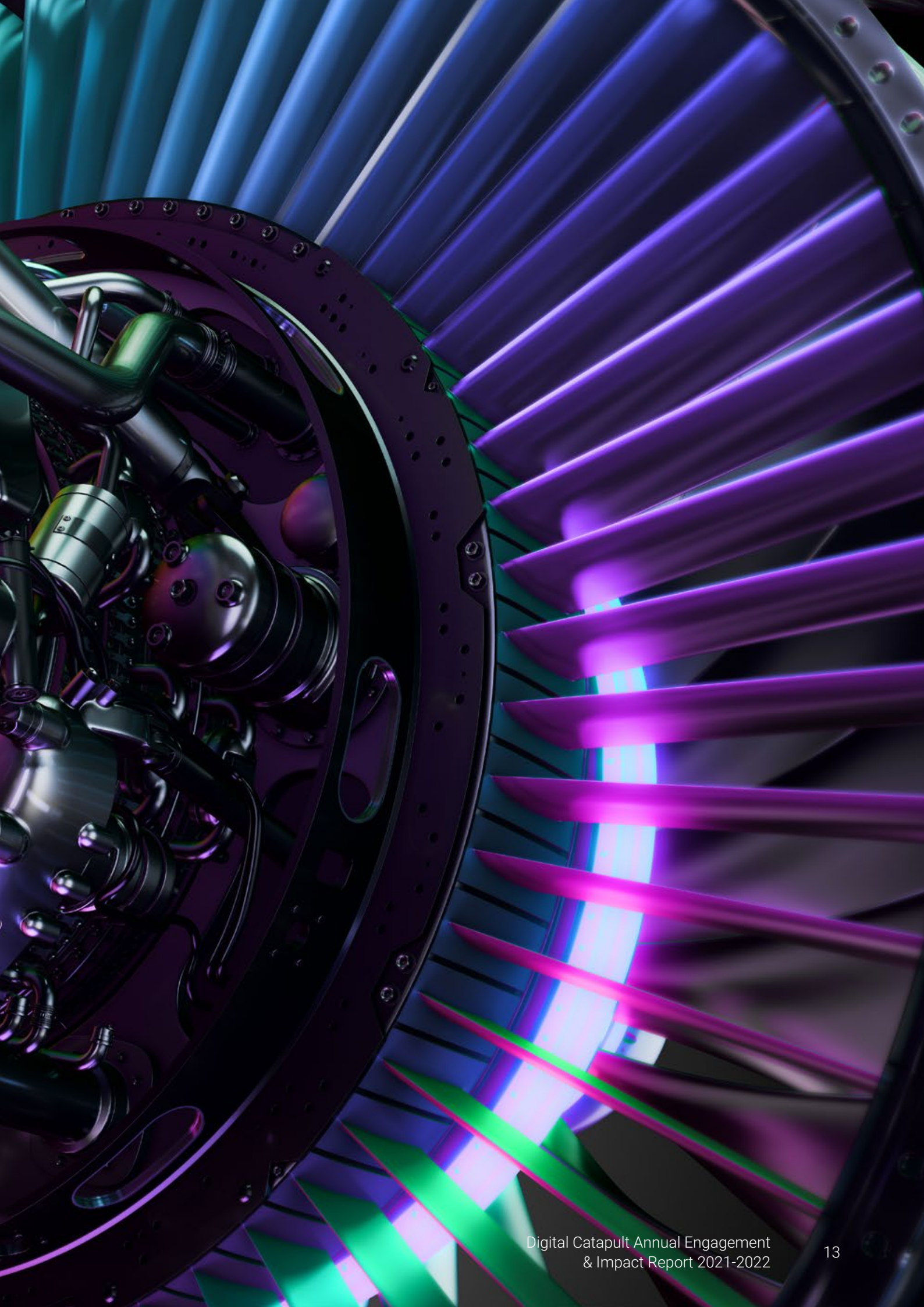
Digital Catapult focuses on specific sub sectors of the UK's major industries where we can work with early adopters to educate and inform, develop and experiment, and ultimately drive application of emerging technologies to solve real world problems either through commercial, or collaborative research and development work.

We do this in three ways:

- **Managing risk and resilience**: we help companies throughout many complex and interconnected supply chains understand and adopt advanced digital technologies to become more efficient, resilient and sustainable.
- **Collaboration**: we work hand in hand with organisations at every stage of their digital journey, from early stage education and exploration, through to developing proof of value solutions and implementation of emerging technologies, We have a network of thousands of innovative small businesses who provide the disruptive energy to help unlock new approaches that can benefit large, traditional businesses.
- **Improving sustainability and productivity**: we support major industry players to understand and use digital technologies to improve sustainability. From energy to rail, our commercial work is helping guide industry on the journey to net zero.

Digital Catapult is exploring how new business models - such as servitisation, the use of blockchain, and digital twins - help reduce costs, create new opportunities, and improve efficiency and productivity.

We are proud to be part of the **Infrastructure Industry Innovation Partnership (i3P)** to drive the future transformation of the infrastructure and construction industries, and the **Tech Zero** community of technology companies working to fight climate change and make faster progress towards net zero.



Energy and Utilites

The energy sector has a significant impact on sustainability for the UK's industrial sectors, 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, Ofgem and government Departments, to accelerate the sector on its journey to net zero.

CASE STUDY:
National Grid 5G

We partnered with National Grid Electricity Transmission (NGET) and National Grid Gas Transmission (NGGT) to deliver the UK's first techno-economic feasibility study to assess the opportunity for adoption of 5G within the UK's electricity and gas transmission networks, setting the foundations for potential follow-up trials and rollout of applications into operations that can support the UK's net zero ambitions. This project investigated the opportunities for 5G in the provision of high-speed and reliable wireless communications, to enable the digitalisation of operational processes and applications ranging from digital image inspection, and condition and health monitoring of high-value assets, to field force enablement via the provision of improved connectivity and applications for operational staff across National Grid's network.

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. Digital Catapult's work with HS2 is developing an innovation legacy for the UK that will exist long after the construction phase of the railway has been completed.

Our work in the transport and infrastructure sectors focuses on helping to develop new digital infrastructure 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 a transport themed cohort as part of the 5PRING programme in partnership with HS2, Transport for West Midlands and the Port of Tyne looking at 5G solutions to enhance and encourage sector growth, and our work with Sunderland City Council to reduce building carbon emissions and develop a more sustainable transport network in the city.

CASE STUDY:

HS2

Digital Catapult and HS2 collaborated to identify and secure the potential offered by emerging technologies such as 5G and machine learning as part of a three-year framework agreement.

HS2 was keen to use Digital Catapult's expertise to harness opportunities to develop, run and maintain Britain's new high speed rail network by assessing the feasibility of using advanced digital technologies to manage assets during the construction of the railway, to help predict maintenance requirements during its operation, and create a long lasting innovation legacy.

Together, we explored how 5G technology could help monitor HS2 infrastructure such as bridges and tunnels; by replacing fixed cabled equipment it could potentially enable flexible, easy and fast deployment of monitoring systems anywhere along the 170 mile route. This work is helping to reduce infrastructure monitoring costs, predict maintenance requirements and reduce environmental damage.

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, while 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, easy-to-use way, delivered at scale and pace.

CASE STUDY:

Thales

Digital Catapult was commissioned by Thales, one of the world's biggest digital identity & security, defence & security, aerospace & space companies, to produce a report that investigated artificial intelligence (AI) in the real world; the current state of play for the technology and real-world applications, commercial trends, challenges for integrating AI into existing systems, and the overall policy environment.

The report identified a number of organisations across the UK developing AI-powered solutions suitable for C4ISR (Command, Control, Communications, Computers (C4), Intelligence, Surveillance and Reconnaissance (ISR)), designed to accelerate design making processes and help increase the scope and efficiency of logistics, as well as major trends around automation, training and translation. The report presented the hurdles faced by businesses looking to adopt AI solutions, whilst also highlighting examples from across the ADS sector where advanced digital technology solutions are being successfully implemented and separating hype from practical tech adoption and implementation.

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.

Whilst new concepts like NFTs and the metaverse are creating a lot of hype globally, they are also creating a lot of confusion among various stakeholders, and the sector is going through an unprecedented period of navigating the complex intersection of new business models and technologies. We are working to convene key stakeholders to develop a sustainable and ethical metaverse. By working with platform partners, such as Niantic, we are enabling new creative experiences to be designed, developed and delivered in the UK.

CASE STUDY:

Building a real world metaverse with Niantic

We have partnered with Niantic, the technology company behind Pokemon Go, on the Niantic Lightship Augmented Reality (AR) Accelerator programme, giving UK startups up to £100,000 to develop game-changing immersive experiences as part of Niantic's mission to create a real-world metaverse. The accelerator programme involved global children's brand Cartoon Network and internationally renowned choreographer Studio Wayne McGregor, providing additional funding for the startups and immersive studios to create groundbreaking AR experiences for their brands.

We are in the early stages of understanding what the metaverse means for organisations and society at large, so this project will explore how AR can define a real world metaverse, becoming a new platform for social interactions, enriching human experiences, and bringing people closer together.

Eight immersive studios were selected to develop and pitch experiences to support Niantic's aims for a real-world metaverse, ultimately creating a demonstrator of a socially engaging AR experience that uses Niantic's Lightship Augmented Reality Developer Kit (ARDK).

FutureScope

Digital Catapult is proud to support the next generation of startups and scaleups through its 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.

From Europe's first marketplace for remanufactured goods, to end-to-end predictive maintenance tools, our recent Industrial Net Zero cohort supported 32 investment ready businesses representing the future of low carbon innovation to cut across multiple sectors, technologies and applications.

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

More than 145 startups have participated in our flagship artificial intelligence and machine learning programme Machine Intelligence Garage, resulting in over £52 million of investment. And in total, more than 2,300 startups have benefitted from our acceleration activities since 2017, raising more than £577 million of early stage funding.

In addition to tailored FutureScope programmes with Niantic, and as part of Smart Nano NI, we have supported startups in a first-of-a-kind international programme, and established our first cohorts specifically focused on tackling net zero challenges.

FutureScope Build UK-India

The Build UK-India programme partnered cutting-edge UK tech startups developing net zero solutions for industry with leading Indian corporations Tata Steel, Johnson Matthey and Godrej Aerospace. The programme is funded by UK Research and Innovation (UKRI), and supported by the UK Government's Foreign, Commonwealth & Development Office (FCDO) Science & Innovation Network (SIN).

Machine Intelligence Garage

This year's cohorts are focused on solving urgent challenges in the manufacturing, engineering and agriculture sectors, from reducing manufacturing material wastage and cutting emissions, to providing powerful image recognition that helps farmers identify crop disease and use land and resources more sustainably.

Industrial Net Zero

Our combined Industrial Net Zero cohort supported early stage startups to hone business acumen, validate product market fit and provide valuable business and investment support. We also supported companies approaching Series A+ stage of funding to develop a strong ecosystem of support, scale operationally and commercially, and secure higher investment rounds, as part of this net zero focussed programme.

145

startups on Machine Intelligence Garage

Supported over

1,700

companies on our accelerator programmes

Raised

£52m

in investment

32

net zero focused small businesses

Digital Catapult Awards 2021

Celebrating the startups that have achieved the most traction, the most investment and the best new product or service ideas set to accelerate the digital future.

The 2021 Awards celebrated the stars of Digital Catapult's programmes; from over 540 companies considered for the Digital Catapult Awards, a shortlist of more than 60 was formed. 15 finalists were selected for this year's cohort, with six winners chosen from that select group.

These six ambitious startups – located across the UK from Brighton to Oxford, London to Nantwich – are having a positive, ethical and sustainable impact on the economy and wider society, and we are proud to have been a part of their growth journey.

DIGITAL CATAPULT AWARDS


DIGITAL CATAPULT AWARDS
The stars of Digital Catapult's programmes
WINNER
awards.digicatapult.org.uk
#DigiCatAwards
TO WATCH

From Idea to Reality

WINNER:

Ascalia

Ascalia

Ascalia is using artificial intelligence (AI) and Internet of Things (IoT) to help factories improve their efficiency – reducing resources and energy waste. Its AI-enabled quality control capabilities are improving overall quality inspection in the food industry, streamlining safety inspections.

£860,000

investment raised

7

new employees hired

"Digital Catapult's Made Smarter Technology Accelerator has been a fantastic support for us, and as a business we've come on an exciting journey from just an idea, to landing a major, multi-million pound commercial contract. It's brilliant to get a nod from Digital Catapult in the shape of this award and reflect on how far we've come."

Marin Bek
CEO, Ascalia

From Growth to Scale

WINNER:

greyparrot

Greyparrot

Greyparrot is moving us towards a circular economy by transforming the way we manage waste at scale. Its technology automates and optimises recycling processes using AI-powered computer vision to rapidly recognise, audit and sort large waste flows at scale, unlocking the financial value of waste.

$650,000

in government funding

£8.9m

Series A funding

"Digital Catapult has been a huge part of our careers, driving invaluable leads for us that have helped facilitate our success – so it's a pleasure to receive this award. We're now present in 10 countries, and looking forward to putting our foot to the pedal to accelerate our growth even further on a global scale."

Alisa Pritchard
Head Of Marketing and Operations, Greyparrot

Game Changing Application

WINNER:

KEYLESS

Keyless Technologies

Keyless offer unmatched device security while reducing risk. Its technology enhances the security of organisations through a personal identity management platform that combines multi-modal biometrics and advanced cryptography.

$9.2m

raised from several rounds of funding

30

new employees hired

"Digital Catapult is extremely well-connected and has been supportive in making introductions, sharing content, round tables and providing activities we could attend. It's brilliant to be recognised by them as part of their awards! We're looking forward to continuing to disrupt the market with our biometric authentication solutions as we aim to make passwords a thing of the past."

Fabian Eberle,
COO and Co-Founder,
Keyless Technologies

Transforming Industry

WINNER:

FRACTURE REALITY

Fracture Reality

Fracture Reality is encouraging more widespread use of mixed reality by building collaboration tools. Its solutions leverage virtual reality (VR) and AR for teamwork across enterprises. Its virtual meeting platform, JoinXR, lets non-expert users browse, manipulate and discuss data such as building plans, product designs or 3D scans.

One of the youngest businesses to have Gold status as a Microsoft technology partner

Profitable from day one

"Fracture Reality is thrilled to have received this award from Digital Catapult, which plays a key role in connecting large organisations in the UK, with small, nimble, technology-driven startups like ours. Small organisations want to get their technology into large user bases, but often the people who work in small startups haven't spent any time in large organisations, and vice versa, so the two can often speak a completely different language. Digital Catapult has been invaluable in speaking both languages to help us bridge that gap."

Rob Minson
CTO, Fracture Reality

Responsible And Ethical Tech Pioneer

WINNER:

Charisma

Charisma AI is leading the way in interactive storytelling, bringing audiences and characters closer together than ever. With the latest natural language processing technology, it uses the language of storytelling, with built-in features like emotion, memory, scenes and subplots to bring stories to life.

Named as a Createch Ones to Watch (DIT Power of Ten) and winners of the XR Stories competition (WarnerMedia)

New consumer facing model in testing

"We're so pleased with this recognition from Digital Catapult. Walking shoulder to shoulder with them into larger-scale opportunities is of significant value to us. We're going from strength to strength – now working with companies like Warner Brothers and creating our own mind blowing, immersive experiences across TV and gaming – and can't wait to continue on this journey."

Rianna Dearden
Writing Lead, Charisma AI

CEO Award

WINNER:

Forest Tribe

Forest Tribe uses AR, 5G, haptics and AI to create bespoke immersive entertainment for live events that is inclusive, diverse and supports health and wellbeing. Its approach is purely artistic-led to create risk-taking and disruptive immersive experiences for new audiences, particularly those with complex learning needs.

7

new employees hired

Funding from Arts Council England

"It's an honour to receive the CEO award from Jeremy – and a total surprise! Looking forward, we're taking another step towards creating a diverse and inclusive entertainment platform, and we thank Digital Catapult for helping us pivot our work."

Debbie Bandara
CEO, Forest Tribe

Working with investors

Digital Catapult helps the investment community connect with high-calibre startups and scaleups that have 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 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;
- Our knowledge of the UK, EU and international collaborative R&D helps to de-risk innovation for our investor partners.

ESG

Environmental, Social and Governance (ESG) is a hot topic amongst investors, who are increasingly applying these non-financial measures to decision making.

We recently partnered with Social Value Portal, Beringea and Talis Capital to deliver a crash course session on ESG for startups, focused specifically on how founders can start to use the ESG_VC framework. Designed by a group of venture capital (VC) funds in the UK, to start measuring impact, the framework provides an entry to ESG scoring, the framework can be easily implemented from Seed to Growth stage, resulting in a tangible ESG score and a list of key areas to address to improve ESG performance. The framework asks questions based on environmental factors, diversity of the workforce, staff well-being and corporate policy to provide guidance to companies, and a common benchmarking of early stage companies credentials.

"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."

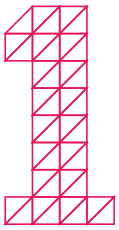
Priya Guha
Digital Catapult non-executive director & Venture Partner at Merian Ventures

Key future technology trends

As new areas of technology emerge, Digital Catapult maintains a range of horizon scanning activities to assess potential opportunities, the UK's aptitude for applying them, the timeliness of market development and the capability and capacity of Digital Catapult to enhance these new technologies - from emerging supply chains for hydrogen, small modular reactors and batteries, to quantum computing, and the development of new sustainable materials.

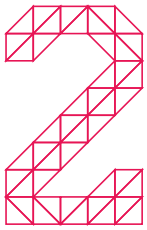
Digital Catapult's technologists are recognised as experts in their respective fields, and contribute to discussions (via papers, conferences and other events) to ensure widespread inputs, including experimentation using emerging technologies, demonstrate the maturity of new forms of technology and see beyond the hype.

From device evolution and mass market adoption of augmented reality, to open standards in telecommunications, and human centric technology and design, our diverse range of private and public sector partners allows us to stay ahead of the curve in understanding which technologies and opportunities are most likely to be adopted commercially in the near term.



Hardware, software and device evolution

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.

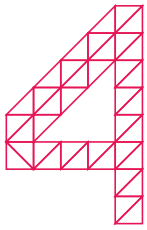


Quantum

Our quantum computing team is working with industrial partners to separate the opportunities from the hype, and understand the specific problems that may be best solved on a quantum computer in the near future. We help our partners become “quantum ready” to reap the benefits of quantum computing, with future use cases including optimisation, simulation of physical systems, machine learning, and discussions around quantum breaking encryption. Our first project - the £9m Quantum Data Centre of the Future - led by Orca Computing, will explore how quantum systems can help manage and secure increasingly complex data, and develop quantum-safe communications solutions for modern data centres that enable users to securely and remotely access data, developing a future-proof system that is secured against both conventional and quantum computing attacks.

New industrial and sustainable materials

Materials (such as steel, concrete, and chemicals) are incredibly energy intensive and account for significant greenhouse gas emissions at the start of supply chains. Digital Catapult is developing carbon accounting systems to manage embodied emissions throughout supply chains and will develop infrastructure to improve the energy efficiency of materials production, reducing waste through digital transformation by linking traditional manufacturers with agile startups to create value in the UK and abroad.



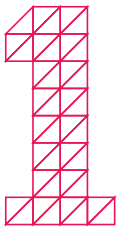
Emerging supply chains

Hydrogen, batteries and small modular reactors (SMRs) are new sources of power that will underpin future industry, and there are already efforts in the UK in these areas to establish businesses that can compete in new global industries. As supply chains grow to support these fast-developing sectors, Digital Catapult will help to ensure that they are digitally enabled and to bring new opportunities to UK supply chains - for new and existing companies - to address the gap created by closure of outdated supply chains, for example manufactures of combustion engines, and navigate the new world of future supply chains.

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.



SONIC Labs

SONIC (SmartRAN Open Network Interoperability Centre) Labs is a two year programme from Digital Catapult and Ofcom, funded by DCMS, to allow new solution providers to enter the telecoms supply chain in the UK.

The £15m programme will drive forward the rollout of a new wireless communication technology known as Open Radio Access Networks (Open RAN), which enables mobile networks to be built using a variety of different equipment suppliers, as part of delivering on the 5G Supply Chain Diversification Strategy to create a more open, competitive and diverse telecommunications supply market in the UK.

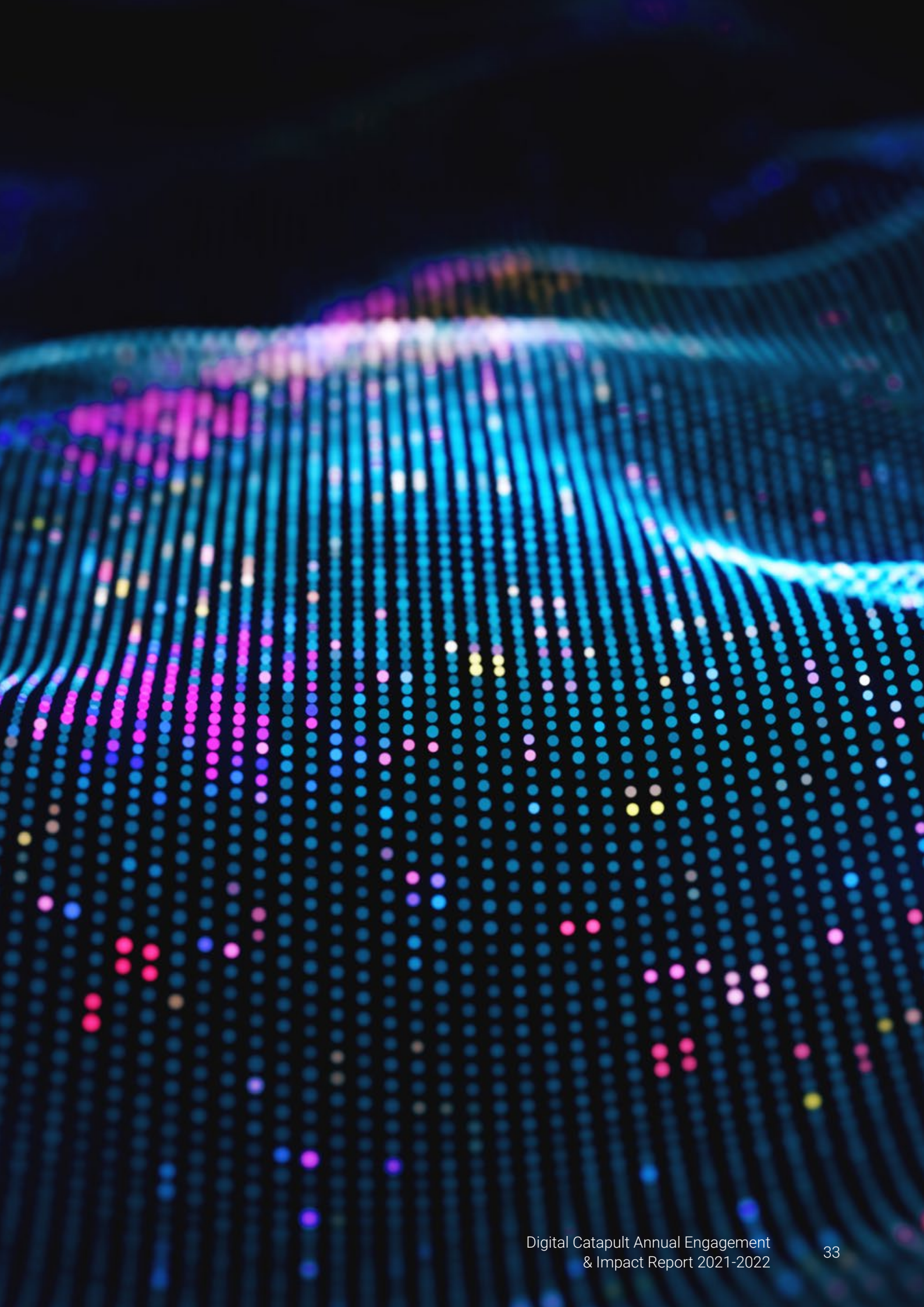
SONIC Labs is a real-world testing facility, and brings together a set of suppliers deploying products for the first time in the UK including Accelleran, Mavenir, Radisys, Benetel, Phluido, Druid and Effnet.

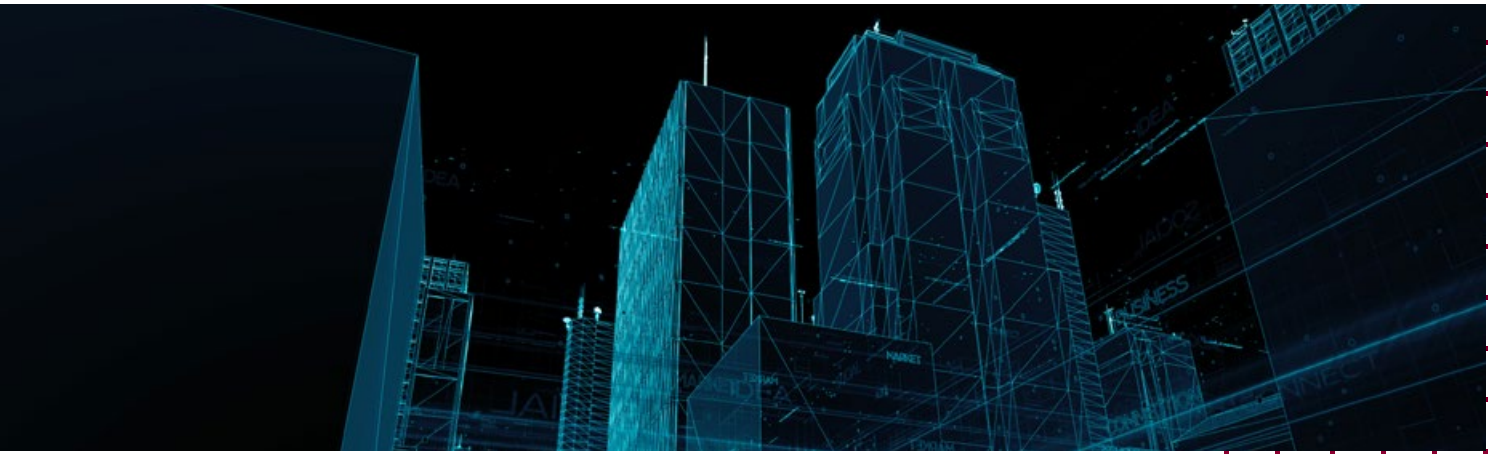
£15m

UK Government investment in SONIC Labs

7

companies in the first SONIC Labs cohort





Digital Twin for the UK's energy networks

Digital Catapult, Scottish Power Energy Networks, the University of Strathclyde and National Grid ESO received funding from the Ofgem Strategic Innovation Fund (SIF) to explore how an innovative, open and interoperable digital twin of the UK's electricity transmission and distribution networks can aid decision making when managing and balancing energy resources and assets.

The project aimed to determine the "art of the possible" based on currently available technologies, as well as use cases for a digital twin of the electricity transmission and distribution networks. In addition, the development of a digital twin of the electricity transmission and distribution network will allow the partners to understand the complete system in real time, providing the ability to visualise – and simulate – how and when the electricity transmission and distribution network is being used, in order to balance the system in the most optimal, safe, and cost-effective way. This work will help improve understanding of the potential role of advanced digital technologies in achieving the UK's net zero targets.

Made Smarter Servitisation with Baxi

Digital Catapult worked with Baxi Heating on a project to develop a Digital Servitisation Demonstrator using IoT to create a digital model of Baxi's manufacturing and heating business, helping Baxi to develop and deliver "Heat as a Service".

The digital model will be converted to a digital platform with the potential to be used as a wider, all-industry adaptable servitisation model that will help a range of manufacturers - in sectors as diverse as food, health and advisory services - to use digital technologies to manage contracts, supply chains, customer contacts and all aspects of their business.

Digital Catapult developed a use case around Heat as a Service, demonstrating an end-to-end solution with real-time data that we developed within a couple of months. This work showed how quickly a variety of technologies worked together in harmony to achieve a business success story, with real-time, live view, and the ability to interact live with the data.

This solution could be extended across the manufacturing sectors and into sustainable supply chain, data governance, smart legal contracts, and security.

£1.7m

funding for the Baxi Digital Servitisation Demonstrator

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 new £25 million UK-wide initiative to tackle challenges faced by the UK's manufacturing supply chains in the wake of the pandemic.

A combination of £15 million funding from UKRI and the Made Smarter Innovation programme alongside £10 million investment from the private sector, the Digital Supply Chain Hub will accelerate commercial integration of advanced digital technologies across manufacturing supply chains in the aerospace & defence, pharmaceutical, fabrication and logistics sectors, over the next four years, showing the tangible impact of emerging digital technologies on mitigating against the kinds of component shortages experienced during the pandemic, improving efficiency, reducing waste, and supporting some of the UK's most important industrial sectors through fostering a culture of innovation.

The partners – led by Digital Catapult, with the High Value Manufacturing (HVM) Catapult, National Physical Laboratory (NPL) and TWI, are working with an array of UK stakeholders to develop a globally competitive, resilient and sustainable digitally enabled ecosystem. Flagship projects will enhance existing expertise, create regional centres of excellence and complement ongoing efforts to accelerate commercial integration of industrial digital technologies to explore resource management infrastructure to tackle the "last mile" of delivery; digitally enabled manufacturing sourcing to increase capacity and flexible production; develop new supply chain models to support clinical trials; and create a collaborative and ultra-secure digital testbed that maximises innovation for the Connected Tempest defence programme.

Smart Nano Northern Ireland

Smart Nano NI, a flagship initiative for Digital Catapult Northern Ireland, launched its first open call to manufacturing companies earlier this year, kicking off a five year journey for the programme as it looks to unlock local economic growth and accelerate the development of transformative advanced prototyping and smart manufacturing methods in Northern Ireland.

With its proud manufacturing heritage, this programme is pivotal in helping Northern Ireland stand out as a frontrunner to maximise the opportunities presented by Industry 4.0. Smart Nano NI will develop game-changing advanced prototyping and smart manufacturing methods to deliver new technologies, supporting innovation-led economic growth, both in the area and nationally, as well as enhancing local research and innovation collaborations, and growing the nascent photonics and nano-manufacturing supply chains across the local area.

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 Northern Ireland, 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.

Intelligent trusted supply chains

INtelligent TrustEd SuppLy ChaIn (INTELI), led by BAE Systems and including Digital Catapult, Maher and Accenture, Intellium AI, Codegate and the MTC, is looking at how to achieve a 20% reduction in supply chain costs through improved efficiencies using DLT, IoT and AI to improve additive manufacturing processes for high value aerospace components.

First and foremost INTELI is about understanding the real world value of DLT and how it can have tangible impact and benefits in a highly regulated supply chain. It will allow decision making in real-time and provide a network operating system so that multiple parties in the supply chain can access the data they need, where all interactions between parties are trusted, transparent, verified and – importantly – because they sit on a distributed ledger, unchangeable.

INTELI is building on a previous project Digital Catapult undertook within the aerospace sector called VITALam. The output from VITALam is providing the basic distributed ledger and distributed filestore infrastructure for INTELI – we're now extending the functionality of this solution for additive manufacturing in aerospace. At the end of the INTELI project the product will be made to be open source so anyone can use it.

Virtualisation

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 discovery of new hybrid experiences.

Creating the virtual production facilities of the future

Digital Catapult develops new cutting edge studio facilities providing independent media production companies with equipment, space and technology that they would otherwise not be able to access.

Dimension Studio, co-founded by Digital Catapult, Dimension and Microsoft Mixed Reality Capture Studio, is a state-of-the-art volumetric video and 3D capture studio for the next generation of immersive content. Using 106 cameras, Dimension captures life in volumetric detail, providing a step-change in the realism that can be achieved for the creation of virtual humans and environments, and injecting new life into stories, games and experiences for both immersive and 2D media.

Our Virtual Production Test Stage (VPTS), in partnership with Target3D, is enabling hands-on experimentation, training and skills development to address gaps that exist today in the creative industries. Equipped with a state-of-the-art LED screen, camera tracking and motion capture infrastructure, the 5G-enabled VPTS is an environment where companies can get hands on with equipment, experiment with and learn about advanced digital production technologies in a live environment, develop new products and services, gain commercial advantage, and upskill and train their teams.

The VPTS, in addition to our PROTO facility in Gateshead, is contributing to creating the world's first fully functioning virtual production research facility to anchor the UK's leading expertise: StudiosUK.

21

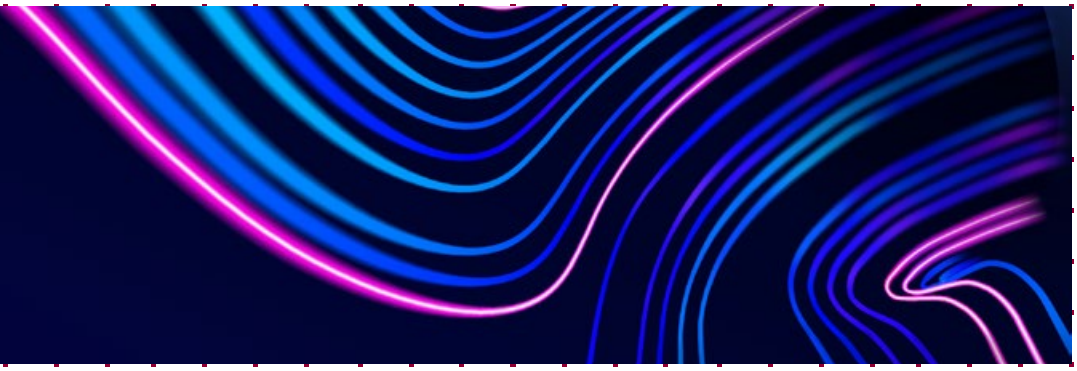
artists performed at 5G Festival live showcase event

9

partners on 5G VISTA

2

virtual production facilities as part of StudiosUK



The DT Hub: supporting the UK's national digital twin capability

Digital Catapult is working with Connected Places Catapult on the Digital Twin (DT) Hub – a community bringing together industry and academia to explore the use of digital twins across industry and help shape the future of the built environment in the UK. While challenges of interoperability, security and connectivity remain, the UK's strong performance in many technology areas and impressive levels of investment means the critical building blocks are already in place for taking digital twin technology to the next level.

The DT Hub was created by the Centre for Digital Britain at the University of Cambridge as part of the UK government's National Digital Twin programme, and in 2022, the DT Hub became hosted by the Connected Places Catapult.

With more than 3,500 individual members representing more than 1,600 Organisations from nearly 80 countries, the DT Hub provides a voice for the supply and demand of digital twins to foster collaboration, interoperability, adoption and innovation. It aims to drive a global outlook for digital twin capabilities linked to national activities for cyber physical infrastructure in collaboration with the National Digital Twin programme.

Digital twins are significant tools for tackling pandemics, climate change and supply chain resilience - they are key enablers for ensuring better outcomes for people and nature through aiding a collaborative and co-ordinated approach to problem-solving.

Trialling audience experiences of the future: 5G Festival and VISTA

2022 saw the conclusion of two unique creative projects that were part of the £200 million DCMS 5G Testbeds & Trials Programme: 5G VISTA and 5G Festival.

5G VISTA tested and demonstrated the potential of further-evolved multimedia Broadcast and Multicast service (FeMBMS) technology to deliver new and exciting digital experiences to spectators at live events. FeMBMS is an efficient and environmentally low-impact solution, particularly suited to live sports and music events where the connectivity demand is higher and the mobile network can be overloaded and congested.

The project was a consortium of organisations from across the mobile media ecosystem, from devices to networks, broadcast to content and venues led by DTG: Ateme, Digital Catapult, Virgin Media O2, GWS, Imaginary Pictures, Rohde & Schwarz, Ori Industries, and the University of Surrey's 5GIC. Digital Catapult played an integral role providing the 5G testbed network, validating new business cases and assessing further applications and market verticals for the project. By providing live, multi-angle HD video streams and interactive content direct to devices in stadiums and across the UK, 5G VISTA can enhance the customer experience and increase engagement for live sport.

5G Festival was the world's first live immersive hybrid concert, creating an exciting new business model for music professionals, live venues and artists. Led by Digital Catapult alongside a collaboration of some of the leading names in technology, music and arts in the UK, this £5 million, two-year technology collaboration saw 21 artists perform together across three UK venues, successfully demonstrating how 5G connectivity and immersive technologies can deliver to seamlessly connect artists and audiences in real time, anywhere in the world.

5G Festival aimed to create a more diverse, sustainable live music industry and reach new audiences, as well as allowing physically separate music professionals to produce, collaborate and perform in real time, without restrictions on travel, location and availability. This pioneering live event was delivered using the latest advances in 5G (Stand-alone, Mobile Edge Compute) and immersive technology (virtual and augmented reality). The core 5G infrastructure was based on Digital Catapult's 5G testbed network, linked with Virgin Media O2's public 5G network.

Investing for growth in our regional centres

Digital Catapult drives regional and national economic growth. Since we were founded 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.

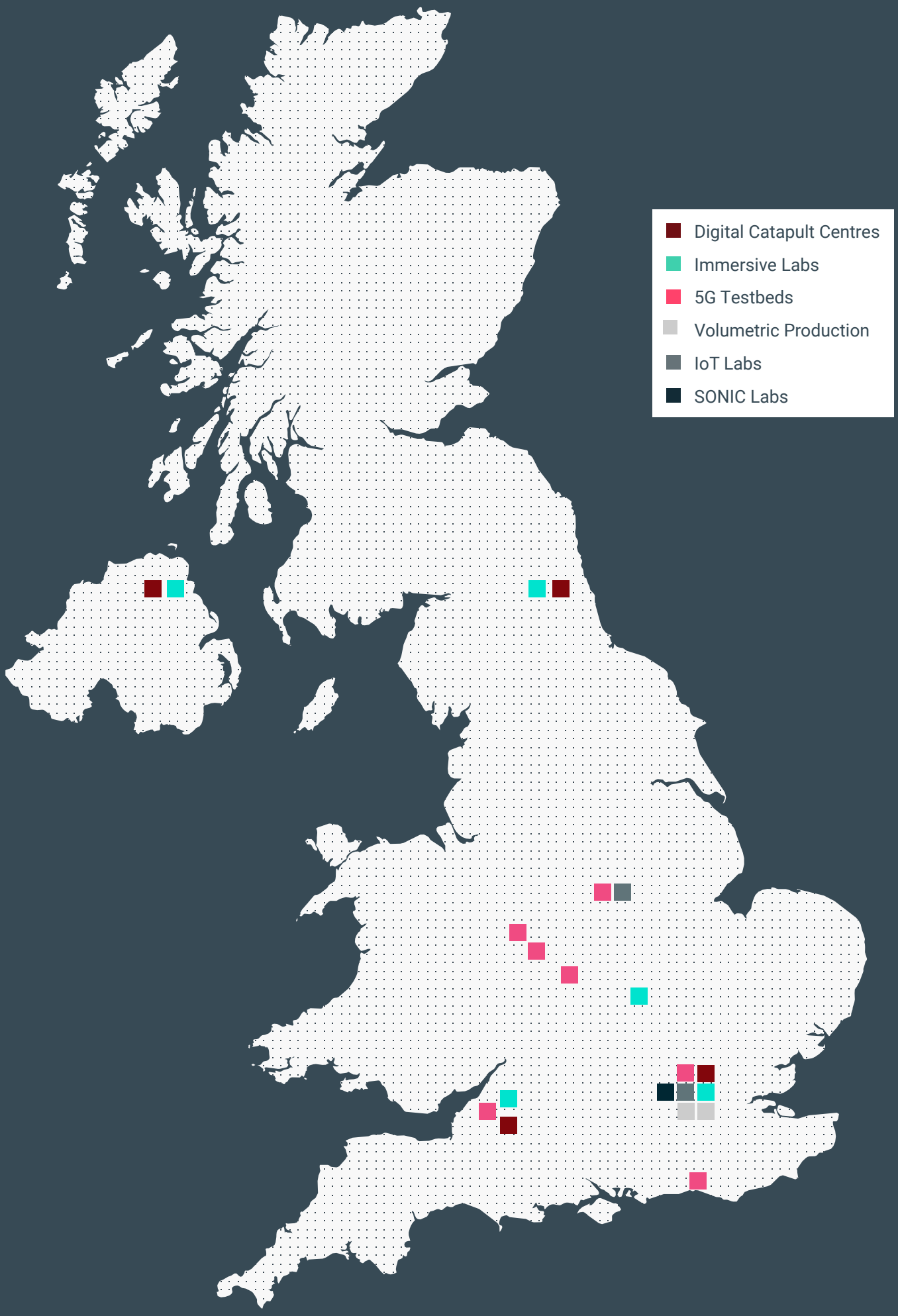
Digital Catapult is helping level-up the UK in partnership, by building on the ingenuity unleashed when industry, academia, local leadership and government work together.

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.

"Northern Ireland is Digital Catapult's first regional-at-scale endeavour, offering a best practice example towards further regional scaling by leveraging the geographical and economic integration of the region. Our initial successes in Northern Ireland were in no small way due to the direct personal connections into the N.I. innovation and business ecosystem which has led to significant opportunities, notably the Smart Nano NI project anchored by Seagate, a global technology player. Building on this success, the opportunity to realise another £40m project in digital twins technology with Thales, NATs, Spirit Aerospace and Artemis is cementing Digital Catapult as a key innovation and consortium partner in Northern Ireland."

William Revels
Managing Director, Digital Catapult Northern Ireland


Digital Catapult Centres
Immersive Labs
5G Testbeds
Volumetric Production
IoT Labs
SONIC Labs

Northern Ireland

Digital Catapult Northern Ireland has continued to grow as the authority on advanced technology and a driver of innovation and collaboration throughout the region.

Working closely with businesses of all sizes across Northern Ireland, we have run innovation programmes supporting SMEs and organisations including the Agri-Food & Biosciences Institute, Northern Ireland Space Office, Queen's University Belfast, Northern Ireland Electricity Networks and Innovate EDGE, and fostered new relationships with a broad range of organisations including the Department of Agriculture & Rural Affairs, Belfast Harbour, and Weavers Cross consortium.

We partnered with NI Screen on the inaugural "XRX" programme, a £100,000 initiative for companies developing XR ideas and solutions including the Ulster Touring Opera (UTO) which used our Belfast Immersive Lab to develop a volumetric augmented reality opera of Don Giovanni that premiered at SXSW.

We continued our support for Small Business Research Initiative (SBRI) opportunities, linking government challenges from the Department for Infrastructure and the Agri-Food & Biosciences Institute with innovative technology-led solutions, supporting the development of a predictive analytics tool for highway maintenance, remote condition monitoring of flood defences and real time soil health monitoring solutions.

Our continued support for the creative industries in the region resulted in £2 million funding for XR studio Retinize and its 'Animotive' VR production tool. We worked with neurotechnology business Invisiv to successfully deploy its MovIR VR app to the Meta Store, resulting in tens of thousands of downloads and involvement in a worldwide Meta Quest 2 promo campaign featuring the company across Facebook, Instagram and online.

North East Tees Valley

Our work in the North East Tees Valley focuses on supporting small businesses with adoption and application of immersive technologies, skills development and training opportunities for SMEs, charities and social enterprises across Newcastle, North Tyneside and Northumberland, and sustainability and net zero focused innovation activities.

During 2021, Digital Catapult North East Tees Valley has worked closely with Sunderland City Council to identify business challenges to help reduce the carbon footprint of buildings owned by the Council, and helping the Council shape sustainable transport modes across the city. The two £10,000 challenges asked small businesses to develop a proof of concept with the opportunity to trial the winning solution in the city – one of the challenge winners is now working with the Council to find carbon savings across its real estate, while the other is planning a large-scale second pilot.

Our work on the Digital Pathfinders programme across the region is helping organisations of all types to become more successful and resilient by adopting digital technology, helping mitigate the risks of adopting new technologies. In its first year, Digital Pathfinders has supported over 110 SMEs and nearly 50 charities.

In the immersive technology space, our work on the ImmexCity programme, funded through Community Renewal funding, supports businesses by:

- Helping organisations in Gateshead to develop an innovation plan mapping their immersive technology adoption pathway, overcoming barriers to adoption and gaining a comprehensive understanding of return on investment;
- Upskilling Gateshead residents, empowering them to find employment within the immersive technologies sector, or establish an immersive technology startup business;
- Running a pilot immersive demonstrator for businesses or cultural organisations with a compelling concept and use case for using immersive tech to support Covid 19 recovery. This pilot will help inform the business case for a permanent immersive experience centre in Gateshead as part of the NCIT programme and Gateshead Quays development.

The programme builds upon existing local sector strengths and assets including PROTO, Digital Catapult's immersive facility in Gateshead.

Sustainability

Sustainability is quickly becoming deeply 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 also continue to support startups and scaleups working in climate tech and on specific sustainability R&D and commercial innovation programmes through our deep tech FutureScope programme and our knowledge of industry needs.

Digital Catapult is working with companies across multiple sectors to make positive environmental changes in domestic and industrial settings, including our work with Baxi Boilers on the Made Smarter Servitisation Demonstrator for the decarbonisation of home fuels and the LoCo4Farm project that monitors soil health, animal feed and air quality. Digital Catapult's work on the DLT4EU project and the IoT4LA programme aims to make changes to society and supply chains on an international scale.

Circular economy

New business models based on data prevent waste and drive a circular economy infrastructure.
Digital Engineering Technology & Innovation (DETI) is a two-year, research and development initiative in the West of England, delivered by the National Composites Centre, in partnership with the Centre for Modelling & Simulation, Digital Catapult, the University of the West of England, the University of Bristol, and the University of Bath. Bringing together advanced engineering companies such as Airbus, GKN Aerospace and Rolls-Royce with digital technology pioneers and universities, DETI has pushed the boundaries of digital engineering to help UK businesses maintain engineering leadership.

Digital Catapult produced a report examining the benefits of a servitisation based business model, exploring the business case for servitisation to UK industry, and the current challenges. Alongside this, we developed the Eco-meter, a tool for companies to monitor and analyse data from energy usage and convert it into a carbon footprint, providing a measurement from which to monitor carbon emissions from the entire supply chain.

The energy transition

Supporting the digitalisation of existing energy networks and development of clean fuels, such as wind, solar and hydrogen.
Digital Catapult is part of a cross-Catapult collaboration called the Hydrogen Innovation Initiative (HII), bringing together strengths and capabilities from across the Catapult Network and multiple other partners to accelerate innovation, develop growth in the UK hydrogen supply chain and overcome technology and integration challenges to establish an effective UK hydrogen economy. Advances in hydrogen technology will play a critical role in delivering net zero, and the UK is well positioned to become a leader in the development and deployment of hydrogen technology. The HII programme will build on multiple projects already underway across the Catapult Network to help secure UK capabilities, knowledge and assets to capture global investment in hydrogen innovation.

Decarbonising supply chains

Developing efficient carbon accounting practices to better understand scope 3 emissions, and incentivise supply chain partners to make sustainable choices and investments.
As part of the Digital Supply Chain Hub programme, we are working with innovative startups and industry partners, including BAE Systems, Nissan and Schneider Electrics, to explore mainstreaming the measurement of scope 3 emissions across end-to-end supply chains and developing a tool powered by emerging technologies to do so at scale.

"The focus that the UK's industrial players are placing on environmental sustainability is very encouraging, as businesses realise that being environmentally responsible is not only good for the planet, but good for the bottom line as well. Digital Catapult is supporting businesses to deliver on their environmental pledges, by providing that essential 'how to' through their expertise and by leveraging the latest technological advances. Digital Catapult is seeing demand for our services in this area increase considerably as companies navigate the complexities of operationalising their decarbonisation strategies. Sustainability is no longer about words, it's about action."

Jill Ridley-Smith
Digital Catapult non-executive director & ESG/sustainability business advisor

Our people and values

Digital Catapult is a thriving, dynamically expanding organisation.

Our team has grown by 25% in the last year, with 80 new people joining our diverse team. Not only have we grown our London based team, we have hired a team in Bristol and seen our Belfast team double in size this year due to the Smart Nano NI programme.

We pride ourselves on the wide range of skilled and talented people from a variety of backgrounds that we successfully attract to join us. Furthermore, 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 35 nationalities are represented at Digital Catapult.

Of the 80 new people who joined us over the last 12 months, 34 were women and 45 men. Our overall gender balance remains relatively unchanged since 2021 with 57% men, 43% women, and 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.


STAFF

Gender Pay Gap

As a company of around 215 employees (as of September 2022), we are still in a position where the rapidly shifting nature of our headcount, our ongoing scaling efforts and the relatively small size of the organisation means our gender pay gap should not be reviewed in isolation from the overall experience of those who work with us. We have seen a reduction in our gap from a mean in 2021 of 19.37% to 17.85% in 2022, and a reduction in the median gap from 21.67% in 2021 to 18.47% in 2022.

While we are pleased to see that our efforts to reduce these gaps are working, given the size of the organisation, we recognise that even small changes in our headcount across our pay quartiles may cause large swings to our GPG at this point. To understand where we must continue to focus our efforts, we are taking into consideration our pay quartiles at this point as much as our gender pay gap.

Skills

As a technology innovation organisation, we employ skilled individuals across our pay quartiles. We have been highly successful in attracting women to the organisation at more junior levels and it is our ambition to support these, typically, early career professionals to grow with us and take on greater responsibility and seniority. This year, we have introduced and published our new promotions and career development framework to ensure there is fairness and consistency in how we support people across all of our teams to develop and grow with us. Since April 2022, the number of promotions awarded in the organisation is slightly in favour of women. In the immediate future, we equally recognise that as we develop talent at Digital Catapult over the longer term, this will have a knock on positive impact on the wider technology industry, inspiring and enabling the women who work with us to be well-prepared and equipped to take up roles in other organisations as part of their onward career journeys.

The upper quarter is a key area of focus for us and it continues to be a challenge to identify and attract senior, experienced women to some of our technology teams. Many roles that fall into our upper quarter are in our technology teams and some may describe this ongoing issue as a “talent gap”. Competition for technology skills remains very high in the UK job market and there is an overall shortage of talent, both men and women. We continue to make concerted and creative efforts to improve the attraction of women to our organisation at senior levels and to

bring greater gender balance within our technology function. This year, we have built new partnerships with organisations such as SheCanCode and the Women Engineering Society, and we are excited about the opportunities these will bring to reach their communities.

This year, we have renewed our commitment to investing in skills development. By the end of this calendar year, around 5% of our team will be pursuing apprenticeships at either the 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.

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.

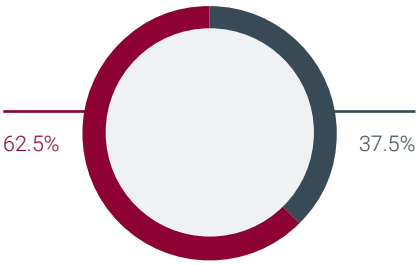
Working on the biggest challenges and juggling multiple projects, we take on work that pushes the boundaries of technology. We know that only by promoting and embracing diversity and inclusion in all we do can we truly inspire success in ourselves and in others.

optimism

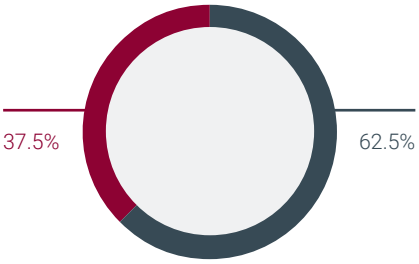
We strive to make a positive impact.

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.

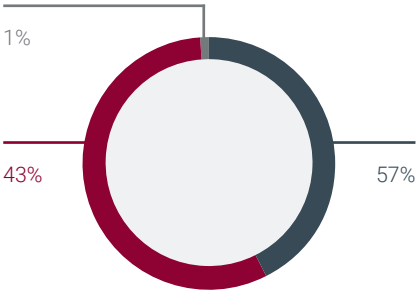
Management team



Non executive board



Team split



Women Men Non-binary

25%

people growth year on year (Sept 21 - Sept 22)

35

nationalities

5%

of the team undertaking an apprenticeship

Financial highlights

For the year ended 31 March 2022

Turnover

	2022 £'000's	2021 £'000's
Core grant	**12,064,614**	12,706,367
Collaborative R&D and other income	**9,097,800**	5,663,079
Digital Catapult Services fees receivable	**4,239,514**	3,350,013
	25,401,929	21,719,459

Consolidated balance sheet

	2022 £'000's	2021 £'000's
Fixed Assets	**2,964,737**	3,625,480
Net Current Assets	**3,785,707**	3,539,156
Creditors amounts falling greater than one year	**(5,709,208)**	(6,536,412)
Net Assets	**1,041,236**	628,225
Capital and Reserves	**1,041,236**	628,225

* Draft accounts.

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The production of this report supports the work of the Woodland Trust, the UK's leading woodland conservation charity. Each tree planted will grow into a vital carbon store, helping to reduce environmental impact as well as creating natural havens for wildlife and people.

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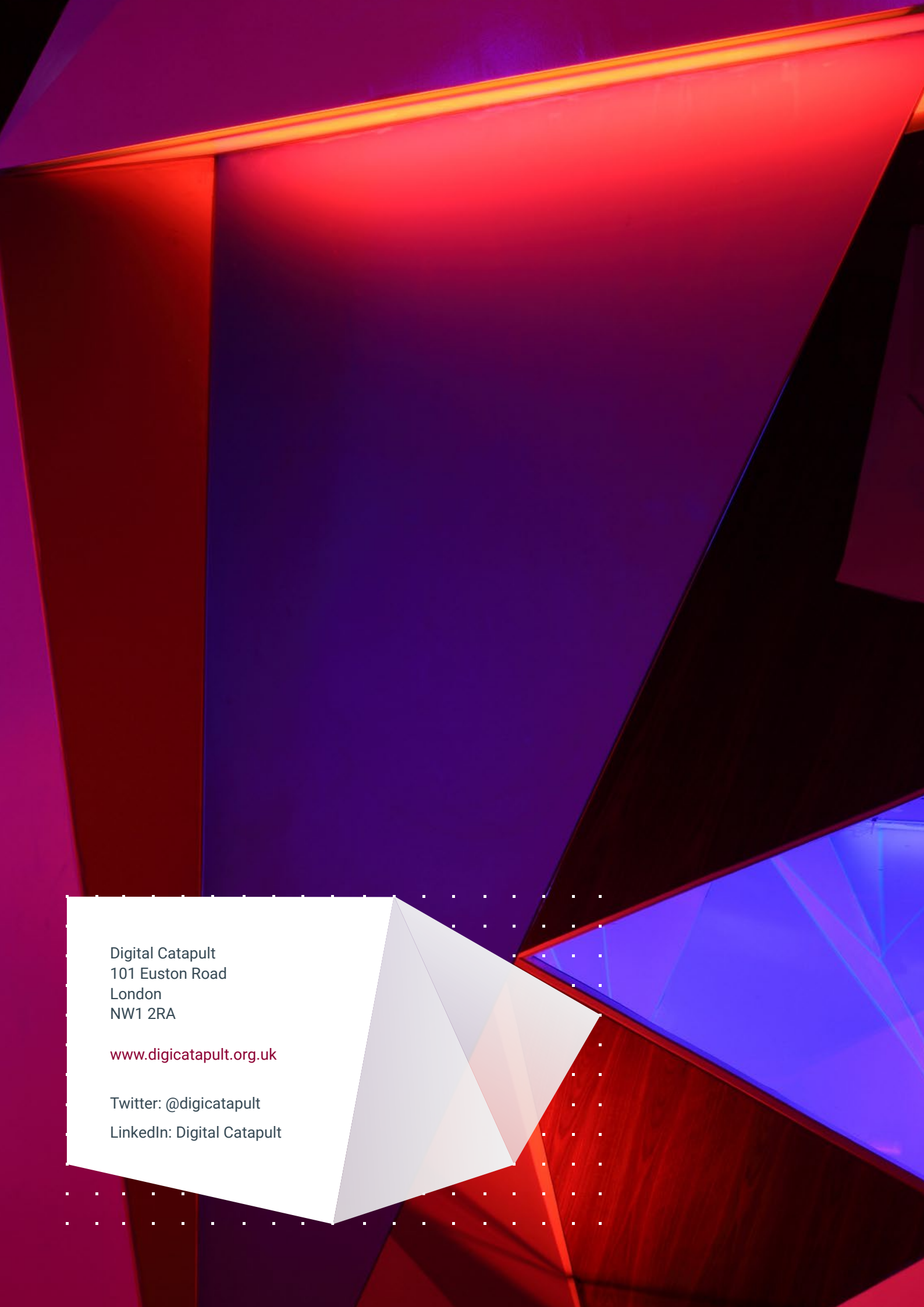

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