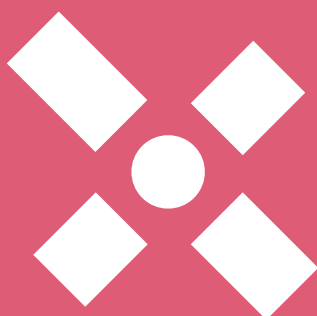
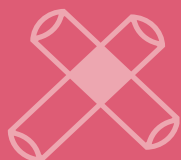


Creative Industries Clusters Programme

The Creative Industries Clusters Programme The Story So Far





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Introduction

When the Arts and Humanities Research Council (AHRC) and its partners in [UK Research and Innovation](#) (UKRI) launched the [Creative Industries Cluster Programme](#) in 2018, we were confident that our £80 million investment could act as a catalyst, driving innovation and growth across the UK's creative industries. But we were also well aware that this was an experiment, an effort to encourage a new type of applied research aiming to create value for the Creative Industries.

Twelve months later our confidence is already being rewarded. The programme has grown significantly through the commitment of significant resources from industry partners in addition to our funding. Each of the nine clusters has been hard at work, bringing together some of the finest creatives in fashion, film and television, informatics, design, computer games, performance and immersive technology – from startups to global businesses – and linking them with the brightest academic minds.

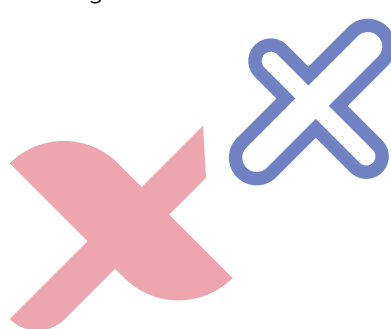
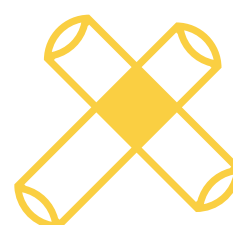
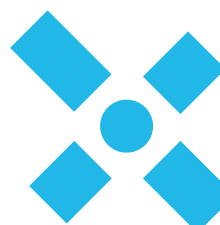
Together, they are redefining the way in which industry and researchers across a range of disciplines from the arts to engineering can collaborate to develop new products and experiences across the creative sector. From virtual reality that brings 16th century art to life to the adoption of sustainable plant fibres across the fashion value chain, from exploring how AI can help journalists in an age of fake news to experiments in innovation between large companies and SMEs, the first projects underway are already showing the potential to transform this sector. They promise to create a pipeline of new products and services, and the talent to deliver them, for years to come.

What's more, our original investments are starting to unlock significant additional funding from other sources both public and private; early proof that this area of applied creative research is a rich seam to be mined. The Clusters Programme and [Audience of the Future Challenge](#), delivered through Innovate UK, mark a step change in support for innovation in our world leading Creative Industries.

As you will see across the following pages, this unique investment is already transforming the prospects for our creative industries right across the Nations and regions of the UK. And we're only one year in. Imagine what the next four will bring.



Professor Andrew Chitty
Challenge Director,
Creative Industries Clusters and
Audience of the Future Programmes





Highlights

- Supported first V&A Dundee games commission. The game has since received funding from Creative Scotland for commercial development.
- Launch of pilot R&D voucher scheme. Independent assessment of projects due late 2019/early 2020.
- Keynote speech delivered at China Cultural Industry Association's Cultural Industry Parks forum to 250 officials leading to an application for new AHRC funding to strengthen transnational ties.

“The clusters programme has allowed us to formalise a relationship that has existed between industry and academia in Dundee for years. In the past those collaborations might have happened by chance. Now we’re making them more systematic.”



Sean Taylor
Director

About

InGAME is driving innovation across the Dundee games sector, aiming to provide a model for the UK-wide games industry. It is a £11.5 million collaboration led by [Abertay University](#), in partnership with the [University of Dundee](#), the [University of St Andrews](#) and local and international industry partners.

The story so far

Over its first year, InGAME launched a pilot for its R&D voucher scheme, a programme to support the development of proofs of concept, prototypes and new business models. Nine expressions of interest were generated via one-to-one discussions with cluster colleagues and by word of mouth. The projects are now being workshopped and then independently assessed.

Broader applications for gaming

More broadly, the cluster supported [V&A Dundee](#) on its first video game commission that has since received funding from [Creative Scotland](#) for commercial development. Plaything was created by two first-time collaborators, filmmaker Will Anderson and gamemaker Niall Tessier-Lavigne, for the museum's Videogames: Design/Play/Disrupt exhibition. Two thirds of all games studios in Dundee are small (four people or less), so the risks associated with scaling up represent a real challenge. InGAME's help was valuable in enabling the co-creators to de-risk the production process.

Sprinting to success

The cluster held two Innovation Sprints (collaborative workshops), addressing diversity in the games industry

and games tech in healthcare. It also ran its first applied Innovation Sprint with Women in Games, exploring disruptive solutions to issues of equality, diversity and inclusivity within the games sector. One idea – a gamified patronage model – has since made a successful application to InGAME's funding programme.

Meanwhile, the cluster held a pilot experimental Game Lab with [Beano Studios](#), giving 57 students from Abertay's Professional Masters in Games Development course the chance to work to an industry brief. Participants explored ways in which game makers can 'Think More Kid' through experimental game controllers.

The cluster presented at a series of international events, including a keynote speech to 250 Chinese officials at the China Cultural Industry Association's Cultural Industry Parks forum and then meeting with other games and interactive entertainment companies. InGame has since responded to a new AHRC UK-China research-industry creative partnerships call. If successful, the cluster hopes to establish an R&D presence in China for the duration of the programme and to work with Chinese partners to create a long-term transnational collaboration.

Next milestones

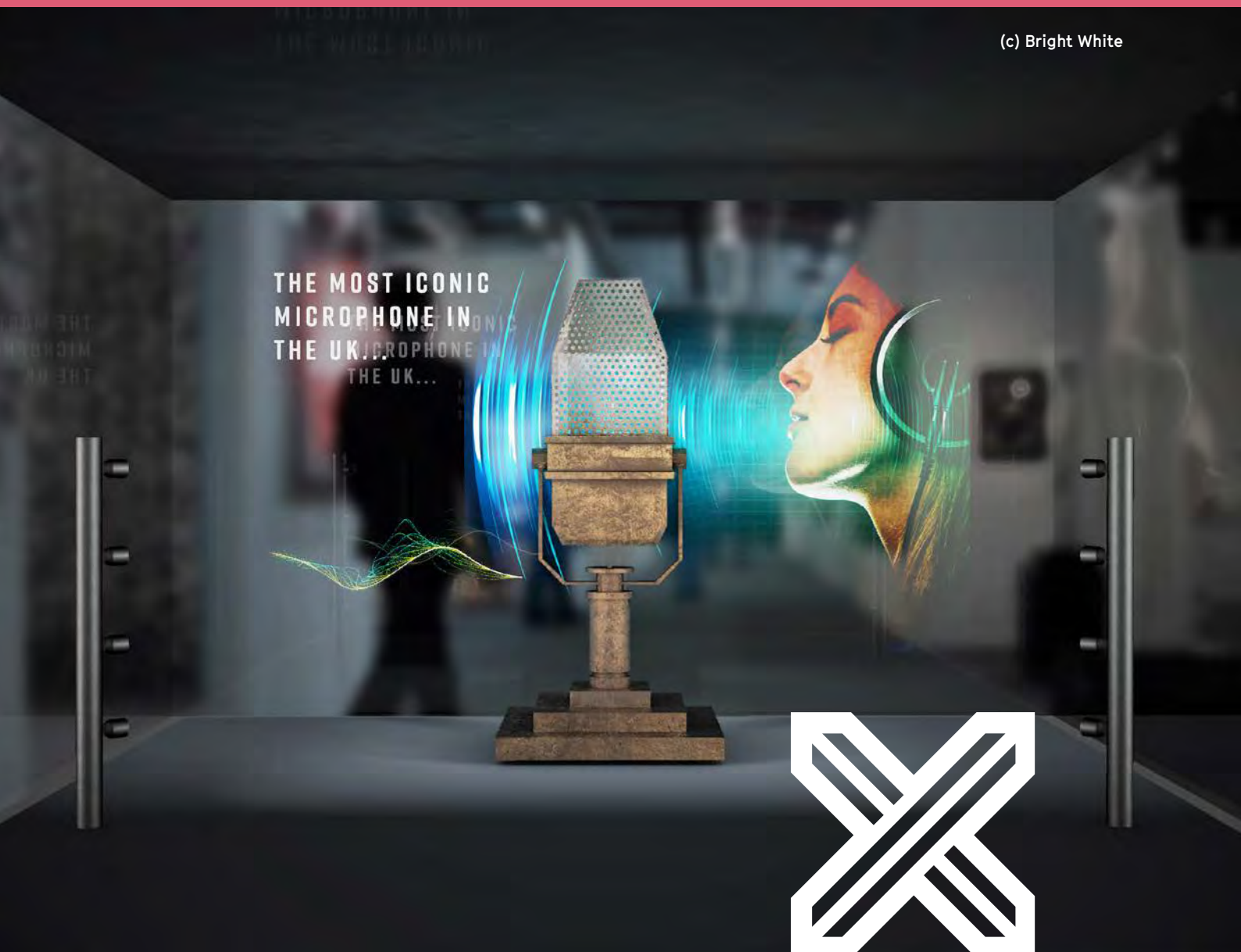
- 10 new R&D Voucher projects to be chosen from quarterly open calls.
- Run next 4 innovation labs.
- 4 cross-sector engagement events, including a collaboration with Creative Dundee.
- 2 immersive economy workshops and 3 experimental game design workshops.
- Develop a baseline evidence and evaluation report for the cluster.

12 R&D collaborations launched.

21 leverage funding partners, with £70,000 leveraged to date.

22 companies engaged across a range of workshops and events.

57 students gained valuable experience working to an industry brief as part of the Beano Studios experimental Game Jam.



Highlights

- 18 projects funded to date supporting the creative screen industries.
- Partnerships built with key regional cultural institutions including Opera North, the National Railway Museum and the National Science & Media Museum.
- Live Cinema UK and the University of Leeds developing an immersive showcase and industry-leading practice for 360° interactive content and live performance.

“Being part of the wider cluster programme gives us the unique opportunity to engage right across the creative industries and create economic benefit. That is not something I’ve come across in this sector in all my time working in universities.”



Emma Brown
Programme
Manager

About

[XR Stories](#) is a £15 million arts investment programme providing R&D funding to push forward the potential of immersive and interactive technologies for digital storytelling in the Yorkshire and the Humber regions. The cluster brings together a partnership between [the University of York](#), the [British Film Institute](#) and [Screen Yorkshire](#).

The story so far

XR Stories launched with 3 pilot R&D projects exploring interactive film narrative and production techniques, cinematic VR, and research into commissioning interactive second screen experiences. To date 18 projects have been funded, reflecting the diversity of this geographically dispersed cluster and involving collaborations between organisations from traditional screen industries companies, performing arts companies, museums, and creative digital agencies.

Since launch XR Stories has also established five Masters by Research projects and approved its first strategic R&D grant – a longer-term fund of up to £100k grants to support later stage R&D for economic growth. A PhD studentship with the BBC and an international internship have also been established.

In September 2019, XR Stories launched the Facilities Fund, to help Yorkshire and Humber companies hire industry-standard equipment and production space through the University of York. An internship scheme was also established providing student support to regional companies for XR activities and development work.

In December 2019, the Young XR Fund was launched, aimed at addressing the relative scarcity of immersive and interactive content for younger audiences.

Key R&D projects

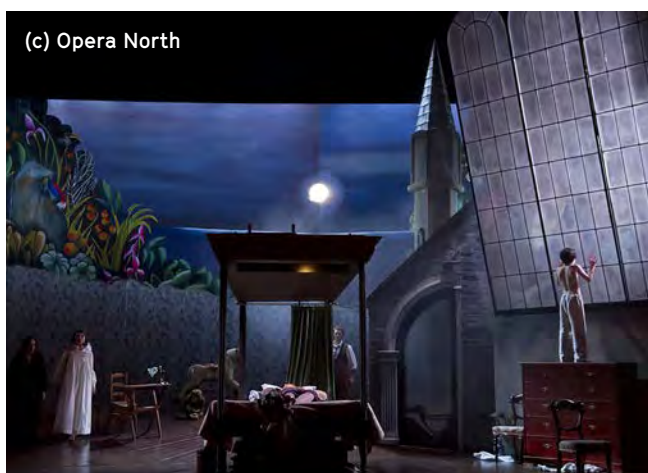
Surround Stories: Immersive Screens for Cultural Exhibition is a collaboration between experimental cinema events organisation [Live Cinema UK](#) and the University of Leeds to develop a new and original immersive showcase. The work will help Live Cinema develop industry-leading practice for 360° interactive content and live performance in cultural and entertainment venues.

Ghosts sees the University of York's Audiolab working with creative studio Lusion and [Opera North](#) on an interactive trailer for a touring production of Benjamin Britten's *The Turn of the Screw*, aiming to engage new audiences with opera. The project brings together spatial recordings made on location at [Yorkshire Sculpture Park](#), with visuals produced using the latest web generative graphics technology.

Projects such as these have the potential to transform aspects of the screen industries, as well as driving positive change economically, culturally and socially across the region.

Next milestones

- Select and launch second full slate of R&D projects for 2020.
- Support the profile of the region's screen industries talent internationally.
- Roll out an internships programme to support students from all the region's universities.



(c) Opera North

18 projects funded in first year.

100+ organisations engaged.

5 Masters by Research projects launched.

One PhD studentship with BBC R&D.



“The highlight for me is the sheer diversity of the 23 projects in our first funded cohort. The interest we received clearly showed that there is no shortage of ambition in this part of the world and a real hunger for this funding and the opportunity to develop new ideas.”



Sara Pepper
Chief Operating
Officer

Highlights

- 23 R&D projects selected for funding in first open call – including National Dance Company Wales, Gorilla TV and Film Hub Wales. Projects were chosen from 134 expressions of interest.
- First £1 million Clwstwr funding matched by a further £1 million from successful applicants.
- Far-reaching industry engagement programme, including more than 200 one-to-one meetings with businesses and a baseline survey of 180 cluster companies to measure the programme's impact.

Held 12 launch events with 500+ attendees covering the future of news and academia's role in screen industry innovations and much more.

Engaged with 250+ companies.

Conducted 200+ one-to-one meetings with stakeholders such as creative businesses, freelancers and academics.

Survey of 180 screen companies in the cluster to set a baseline from which to measure the programme's impact in areas such as finance and innovation skills.

1,000+ followers across social media platforms.

About

The ambitious [Clwstwr Creadigol](#) programme links academia, industry and government to create new products, services and experiences in the screen and news sectors. Based in Cardiff, Clwstwr is creating a platform for small media businesses and freelancers to compete against the highly integrated global players.

The story so far

Over Clwstwr's first year the team were busy spreading the word about the programme and its first funding call. They held more than 200 one-to-one meetings and conducted a survey of 180 cluster companies to set baselines to measure the programme's future impact in areas such as finance and innovation skills. Clwstwr also hosted a series of events that drew more than 500 attendees across the Cardiff city region.

Initial funding successfully matched

Clwstwr's first funding call received plenty of attention with 134 expressions of interest, representing an £8 million ask from industry. In all, 23 companies were chosen to receive the cluster's first £1 million, including [National Dance Company Wales](#), [Gorilla TV](#) and Film Hub Wales. That funding was matched by a further £1 million from successful applicants.

The funded projects are wide-ranging from a news service for school children, to the use of 'layered reality' immersive technology to transform the way people make and experience dance. Plan V is a project developing a low cost, virtual reality, bespoke studio environment that could help small visual effects design studios compete with bigger players by increasing efficiency.

Meanwhile in the news sector, [AMPLIFY](#) – tipped to become Wales's first unicorn – will give journalists greater accuracy and clarity of information from online search by enhancing existing AI functionality. Stepping beyond the creative industries Rescape Innovation are combining expertise in virtual reality technology with its experience of working with midwives to create and test specific therapies to help women in childbirth.

Many of these projects have the potential to create and develop intellectual property that is made in and based in Wales – crucial if the region is to make its highly-respected screen industry credentials more sustainable.

Next milestones

- Launch of new seed funding call for freelancers and micro businesses.
- Development of new challenge funding with industry partners including Transport for Wales and National Trust Wales.
- Second open call for R&D projects.



StoryFutures



“We combine outstanding research and the talent of local creative companies, delivering immersive innovations to world-leading institutions like The National Gallery and Heathrow in a way that has never been done before. It’s exciting to be at the forefront of that.”



James Bennett
Director



Highlights

- StoryFutures co-created The National Gallery’s first ever VR and AR experience: Virtual Veronese, an immersive prototype allowing visitors to experience a 16th century painting in its original home.
- Partnered with Heathrow’s Centre of Excellence in Sustainability to create Cupsy, the augmented reality recycling bin, increasing Terminal 5 coffee cup recycling rates by 130%.
- Supported Figment Productions in winning a £1 million project with the Royal Opera House to test new business models and audience experiences in immersive opera.

About

[StoryFutures](#) is a research and development collaboration looking at the future of story forms. The cluster is working to support and fund innovation in next generation storytelling formats and technologies.

The story so far

Since launch, StoryFutures has run two StoryLab commissions, linking SMEs with professional producers, story-consultants, business modelling experts and an audience insight team to help embryonic ideas grow into effective new story-led experiences for audiences.

StoryLab's first commission was to design a first of its kind R&D immersive prototype for [The National Gallery](#) in London. In partnership with Focal Point VR, Virtual Veronese allowed more than 700 gallery visitors to 'experience' Paolo Veronese's painting 'The Consecration of Saint Nicholas' in its original 16th century Italian home.

Reimagining recycling

The second commission was the Heathrow-Costa StoryLab challenge – a project at Terminal 5 aiming to increase cup recycling rates amongst customers. The immersive

experience with a simple, positive and playful message was co-created by [Surround Vision](#) (an award-winning AR/VR production agency) a research team that fuses multisensory perception, storytelling, behavioural psychology and social science audience insight. The partnership, brought together by StoryFutures, led to cup recycling more than doubling.

A third project, 'AI6' launched at Broadgate, London, invited audiences to face questioning by an AI interviewer from a fictional espionage agency. It explored the interplay between AI, emotion and decision making and was a collaboration with creative tech company [To Play For](#) using their ground-breaking artificial intelligence platform Charisma.ai.

All projects have given public audiences access to technologies not normally seen outside of technology festivals and delivered insights into the ways in which people use them. One key finding was that enjoyment is not driven by the technology itself, but the quality of the storytelling and the degree of presence that can be generated.

Forging links between business and academia

StoryFutures has linked 108 SMEs to university expertise, setting in motion small-scale projects that will help grow immersive and next generation technologies. The cluster is also helping to unlock further funding; it supported digital media company [Figment Productions](#) in winning a £1 million project with the [Royal Opera House](#) to test new business models and audience experiences in immersive opera.

Meanwhile, the cluster is in the process of launching undergraduate degrees in Video Games, Art & Design, as well as new Masters degrees that link media arts and electronic engineering to deliver an MA/MSc in Immersive Storytelling/Technologies to build a long-term talent pipeline.

108 different
companies engaged.

19 collaborations
between higher
education institutions
and creative industries.

£1 million+ in
additional leveraged
funding.

29 jobs created or
saved – against a first-
year target of 14.

Next milestones

- Next three StoryLab innovation projects, reaching an audience of 10,000+ people.
 - The launch of a creative practitioner in residence programme.
 - Development of its first creative data wireframe prototypes.
 - First trade mission.
-





Highlights

- Partnership with the World Building Institute in Los Angeles, led by future technologist Alex McDowell looking at widening participation in the creative industries.
- Development of The Infinite Hotel, nominated for Best Immersive Game at 2019 Raindance Film Festival.
- Secured £38 million via the Belfast Region City Deal to create Northern Ireland's first screen and media innovation lab.

“Future Screens NI has provided the space and stimulus for innovation within the creative industries. The talent was always there, but we’re providing the resources and infrastructure to secure long-term strategic change across the sector.”



**Professor
Paul Moore**
Director

About

[Future Screens NI](#) are delivering expert technical skills, opportunity and growth across film and broadcast, animation, games and immersive technologies and industries in Northern Ireland. The cluster is a £13 million R&D partnership between [Ulster University](#), [Queen's University Belfast](#) and key industrial partners.

The story so far

In its first year, Future Screens NI (FSNI) invested £190k in 14 live projects, with matched funding of £750k from industry partnerships. One project, an immersive game called The Infinite Hotel developed by game studio [Italic Pig](#) was nominated for Best Immersive Game at the 2019 Raindance Film Festival. Italic Pig was also voted Northern Ireland's Game Studio of the Year.

Immersive and gaming technology in action

Other collaborations include: The Hearios, an animation developed with [Alt Animation](#) to help develop listening skills and musicality in pre-school children; an initiative with [Farset Labs](#) that has designed a new virtual reality music environment capturing physical gesture information from disabled musicians; and Real-Time Digital Humanoids, a virtual reality experience led by Retinize Ltd that will gather and demonstrate the latest techniques and costs involved in the capture and animation of photorealistic humans.

Meanwhile, more than 200 industry leaders attended the cluster's Lead2Grow conference in February 2019.

Non-profit enterprise agency, [Enterprise Causeway](#) is now leading a bespoke leadership training and mentoring programme for micro creative entrepreneurs called Lead2Grow for Creative Entrepreneurs.

Future Screens NI is world building

FSNI has formed an international collaboration with the [World Building Institute](#) (WBI) in Los Angeles. WBI's director is Alex McDowell, best known as creative director on the 2002 film Minority Report. FSNI has commissioned WBI to develop a future-focused research and development stream, connecting industry partners and disenfranchised groups and using R&D technology to create a new future narrative for Northern Ireland with the potential to grow regional creative industries.

FSNI is also leading Belfast's City Deal initiative, a capital programme that will provide new space and facilities. This includes a bespoke £38 million screen and media innovation lab. And in October 2019, it launched several initiatives, including its Future Fellowships programme.

Next milestones

- FSNI project showcase planned for 2020.
- Launch of a Future Belfast project with Alex McDowell and the WBI.
- First cohort of Future Fellowships to be announced.
- New R&D open call supporting at least 20 projects.



200+ companies active within the cluster.

14 live projects, with £190k committed so far and a further £750k leveraged from industry partners.

Thousands of people reached over a series of stakeholder days and other events, such as the Belfast Media Festival.



(c) Shamphat Photography

Highlights

- 8 research fellows recruited for Digital Placemaking, a project about enhancing the public experience of workplace alongside industrial partners BBC R&D, Stride Treglowan, City ID and Niantic.
- £600k secured from the West of England Combined Authority for a Creative Workforce of the Future Programme, in partnership with Channel Four.
- First Digital Placemaking funding call launched for SMEs looking to create prototypes to help understand the role of emerging technologies and creativity in the lived experience of future cities.

“We want our inclusion programme to address the cultural geography of the creative industries that exist in our region, to make them more visible and inclusive for young people from disadvantaged backgrounds.”



**Professor
Jonathan Dovey**
Director

About

[Bristol+Bath Creative R+D](#) is a £6.8 million collaboration between digital creativity centre [Watershed](#) and four regional universities. Together they are working with creative industry partners to better understand the way in which users engage with new platforms.

The story so far

Bristol+Bath launched the first of five Pathfinder projects, a series of themed R&D investment packages. The first is called [Digital Placemaking](#) and looks how technology and creativity might work together to enhance the way people experience place. The programme has secured partnerships with BBC R&D, Stride Treglown, City ID and Niantic.

The Digital Placemaking Pathfinder is also commissioning two grants, of up to £100k, to produce prototypes that demonstrate the potential of new technologies and the future internet to shape our understanding of digital placemaking. [The University of Bristol Smart Internet Lab](#) will support the commissions and provide four months of 5G network access. The Digital Placemaking Pathfinder culminates in a public season of work in May 2020.

Focus on inclusion

The cluster secured £600k from the West of England Combined Authority for its B+B Creative R+D Creative Workforce of the Future Programme in association with Channel Four. This will support BAME and other socially excluded 18-24-year olds in a placement programme working with regional screen industries. Eight Digital Placemaking research fellows have been appointed to study the way in which architecture and data can work together to create welcoming, playful spaces. Two fellows are specifically exploring the role that social inclusion plays in engaging new audiences and developing diverse talent.

Fellows get to work

The eight research fellows are already engaged in several projects. Researcher Stephen Hilton ran a 5G smart tourism workshop for tourism, creative and civic community stakeholders in Bath, while Paul Clarke worked with the Simple Things festival to create a multi-user augmented reality live music experience with musical artist Aisha Devi.

Shawn Sobers' early research into the role of obsolete automated technology in placemaking is helping the programme consider the way in which technologies can support the concept of safe spaces. He is also conducting workshops with the Bath Ethnic Minority Senior Citizens Association. Other programme activities include a workshop with Audible to explore collaboration opportunities and presentations at both Niantic's Augmenting the City conference and Nesta's Creative Economy symposium.

70+ business engaged.

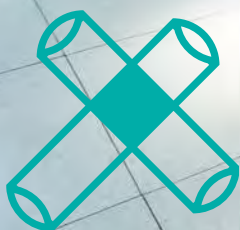
8 Digital Placemaking fellows selected from 42 applications.

Prototype products and services to be created in the Digital Placemaking Pathfinder.



Next milestones

- Commission the winning Digital Placemaking bids.
- A month-long Digital Placemaking public showcase in May 2020
- Call for fellows for the second Pathfinder theme – [Expanded Performance](#).
- Launch the Bristol+Bath Creative R&D Creative Workforce of the Future programme.
- Set up programme to ensure every piece of cluster work reaches as wide an audience as possible.



Highlights

- 8 minimum viable products already developed in the Creative Bridge accelerator programme.
- Edinburgh Festival Fringe Society, The List, Edinburgh UNESCO City of Literature Trust and New Media Scotland announced as first 4 Challenge Holders.
- 9 Resident Entrepreneurs projects selected to receive £12k each to develop new products or services using data or data-driven technologies.

“Edinburgh is a Goldilocks city – it’s just big enough to be a major international centre while small enough to find the people you need to work with. I think the cluster gives us the opportunity to create a real sense of community.”



Nicola Osborne
Programme
Manager

£70k in-kind contributions from creative industries partners and stakeholders.

500+ participants in 9 Creative Informatics Labs and Studios.

300+ engagements with local creative enterprises.

9 Resident Entrepreneur projects supported.



About

Edinburgh-based [Creative Informatics](#) is an R&D cluster focused on data-driven innovation. The programme aims to bring together the city's world-class creative industries and tech sector, providing funding and development opportunities.

The story so far

In its first year, Creative Informatics introduced three of its five key funding programmes – Creative Bridge, Challenge Projects and Resident Entrepreneurs.

[Creative Bridge](#) is a 10-week pre-accelerator programme to help creatives learn best-practice in digital product business, and is delivered by technology incubator [CodeBase](#). The pilot led to the creation of a new company, Mindful Spaces, which will redesign corporate break rooms to support good mental health. The founders – a visual artist and an entrepreneur with data analysis and product management experience – met on Creative Bridge. Eight minimum viable products, including a platform to develop and improve singing skills, were also developed during the programme's pilot run and first cohort.

[Challenge Projects](#) offer local individuals and SMEs the chance to access up to £20k of funding to respond to a data-driven challenge set by a creative or cultural organisation. For example, [Edinburgh Festival Fringe Society](#) is looking at ways in which audience and show data could reduce 'choice paralysis' among Fringe visitors. The Fringe Society is one of the first four Creative Informatics Challenge Holders, alongside [New Media Scotland](#), [The List](#) and [Edinburgh UNESCO City of Literature Trust](#).

The [Resident Entrepreneurs](#) programme provides funding up to £12k and placement with a host organisation for individuals or small teams looking to develop new products or services using data or data-driven technologies. The first nine projects include Statements, a search engine for ethical fashion and beauty consumers, and AI software that detects unconscious bias in language called BiaScan.

Throughout the year, Creative Informatics ran eight CI Labs to connect creative people across the cluster and hosted three CI Studios providing hands-on opportunities for participants to try out new technologies and approaches. The CI team also sponsored and participated in Creative Edinburgh events, including twice-monthly Creative Circles meet ups and the Creative Edinburgh Awards.

Some of the first projects selected for the Resident Entrepreneurs programme are specifically interested in issues around ethics, environment and labour in terms of data collection and use. To start addressing these issues, the cluster wrote guidance outlining its approach to the ethical use of data and its expectations of cluster partners.

Next milestones

- Launch of Connected Innovators programme in 2020. The programme will help emerging leaders within the creative industries take time out to conduct their own R&D to advance their careers and businesses.
- Call opens for Horizon Projects programme in 2020, exploring the potential of emerging technologies to create new opportunities for the creative industries.



“The overall programme is about more than developing a fashion, textiles and technology network. It’s about establishing a sustainable ecosystem for the wider industry as a whole.”



**Professor
Jane Harris**
Director



Piñatex® is an innovative natural textile made from pineapple leaf fibre. (c) Ananas Anam

Highlights

- 10 companies awarded £1.2 million in first round of SME R&D support programme.
- Projects include the development of a sustainable textile made from pineapple leaf fibre and a process turning waste into fashion products rather than landfill.
- 800+ responses to major national survey of the fashion and textiles industry.

Reached 2,500+ organisations via partner network.

10 researchers at postdoctoral level or equivalent working within the SME support programme by 2020.

Around 80 expressions of interest for first SME R&D Programme funding call.



About

[The Business of Fashion, Textiles & Technology](#) is an R&D partnership delivering innovation within the entire fashion and textile creative production and supply chain. It aims to help businesses of all sizes grow and has a special emphasis on developing sustainable materials, processes and business models.

The story so far

The Business of Fashion, Textiles & Technology (BFTT) is addressing seven industry challenges, with help from industry partners including [ASOS](#), [Clarks](#) and [John Smedley](#), six university research partners, and the [V&A museum](#). The challenge areas are designed to look across the industry's entire supply chain from agriculture to advertising.

Understanding the ecosystem

The first challenge set about mapping the lay of the land. The team asked fashion and textiles business owners, founders and chief executives across the UK supply chain to complete an ecosystem survey. The aim was to inform the wider R&D programme, but also for findings to shape future policy to support global competitiveness in UK fashion and textiles. To date, the survey has received over 800 responses from across the country.

The second challenge was kicking off the SME R&D Support Programme in May 2019. The cluster launched a funding call to their partners' pipeline of more than 200 businesses. Following the call, in November 2019, BFTT awarded £1.2 million to 10 companies. The funding, support and expertise on offer is designed to help SMEs turn design- and technology-related business concepts into viable and sustainable commercial propositions.

Supporting fashion of the future

R&D Projects funded so far include [Ananas Anam](#) which is developing a natural textile made from pineapple leaf fibre – currently a by-product of existing agricultural processes.

[Away to Mars](#) is working on a co-creation platform to help aspiring fashion, textiles, product and graphic designers around the world access novel creative opportunities. Meanwhile [Chip\[s\] Board](#) is upscaling a process to turn food waste into bioplastics. In a similar vein [Elvis & Kresse](#) are turning challenging material forms of waste that would otherwise go to landfill into fashion-related products.

The BFTT academic community has been busy too, conducting around 100 fashion, textiles, business and technology lectures during its first year. Specialist workshops for SMEs have been run on issues such as circular design, emerging trends in retail technology, and Brexit's potential impact on the sector.

Next milestones

- Establish the Institute of Fashion, Textiles and Technology at UAL to strengthen research and innovation partnerships across industry, government and higher education.
- Launch a second SME support programme funding call, with a focus on the sciences, computing and materials engineering.
- Publish a report based on nationwide survey.
- Publish a roadmap addressing synthetic and semi-synthetic material challenges in the fashion and textiles industry.



“We want to equip students with the latest thinking in design and textiles manufacturing so that they can start influencing design houses as soon as they graduate and help preserve the traditional skills that give the UK its rich textile heritage.”



Sue Rainton
Programme
Manager

Highlights

- First funding call awarded £231k to 9 different projects.
- An additional 179% in matched funding took total R&D investment to £645k.
- AW Hainsworth and Yorkshire Textiles digitised patterns from traditional jacquard loom punch cards to create a 'new heritage' cloth.

About

[Future Fashion Factory](#) is a £5.4 million R&D partnership between industry and researchers at three academic centres – [University of Leeds](#), [University of Huddersfield](#) and the [Royal College of Art](#) – exploring and developing new digital and advanced textile technologies.

The story so far

Following discussions with industry partners, Future Fashion Factory split its research into five core themes, including ‘sustainability and circular economies’, ‘late-stage customisation’ and ‘data-driven design’. Its first funding call awarded a total of £645k to 9 projects with investment coming from the cluster alongside matched funds from other private and academic sources.

New technology unlocks heritage design

One project – a collaboration between textile specialist [AW Hainsworth](#) and [Yorkshire Textiles](#) – has already created a ‘new heritage’ cloth, thanks to the digitisation of traditional jacquard loom punch cards (credited as one of the earliest forms of coding) held at Leeds Industrial Museum. The project also gave AW Hainsworth the chance to test the production process of designer-led, short-run bespoke cloth.

A second project from [Deluxe Beds](#) won £56k to prototype its modular mattress. Featuring interlocking sections that can be configured to an individual’s specific needs, the mattress offers unique customisation and can help reduce both manufacturing and end-of-life waste.

Other projects include market research by luxury brand [Joshua Ellis](#) into customer demand for a new product using recycled cashmere, and the development of a new digital fabric evaluation system from textile testing equipment manufacturer Roaches International. This has the potential to reduce the need for excessive, wasteful sampling.

Next generation of skills

To support long-term sustainability within the fashion and textiles industry, Future Fashion Factory’s fifth research theme concentrates on skills and education at a range of academic levels. [The University of Leeds](#) is working with cluster industry partner [Bombyx PLM](#) to introduce product lifecycle management to the curriculum, helping students develop invaluable industrial skills before entering the world of work.

Meanwhile, the cluster is conducting a skills audit amongst industrial partners to uncover issues around recruitment

and skills shortages. Insights will be used to inform a new apprenticeship module that Future Fashion Factory is developing in partnership with the Textile Centre of Excellence in Huddersfield.

Next milestones

- Selection of winning bids in second funding call. Third funding call opens spring 2020.
- Preparation for AHRC funding call looking at knowledge transfer between designers in the UK and China on end-of-life and recycling options in the fashion industry.
- Sharing findings of current research with industry partners.

140+ industry partners on board in the first year, including Burberry, British Fashion Council and Yorkshire Textiles.

9 projects launched in first call, representing £645k in R&D investment.

5 core research themes developed with industry partners.





“A big part of our strategy is taking professionals who already have proven storytelling expertise in adjacent areas and helping them find ways to collaborate with their counterparts in the immersive sector.”



Rebecca Gregory-Clarke
Head of Immersive

Highlights

- 300 + people reached through StoryLab Academy activities to date at 18 months.
- Leveraged additional £100k for East City 'Common Ground' documentary, later selected for Tribeca, Sheffield DocFest and Sandbox.
- Creative director Steve Shannon became the first of nine creatives to take up a funded work placement in 2019, helping to create a 360° experience for Top Gear audience members to be a stunt driver for the day.

About

[StoryFutures Academy](#) is the UK's National Centre for Immersive Storytelling run by the [National Film and Television School \(NFTS\)](#) and [Royal Holloway, University of London](#). The Academy provides the UK screen sector with the tools, space and creative freedom to unlock the creative and commercial potential of immersive production.

The story so far

StoryFutures Academy established two immersive labs as spaces to run a range of activities where creative industry professionals can learn about the potential of immersive technologies, experiment and collaborate, and develop new skills. Activities have to date included 23 introductory and experimental labs and bootcamps reaching more than 300 professionals. Attendees included Oscar/BAFTA-winning director Asif Kapadia, Turner Prize-winning conceptual artist Gillian Wearing



OBE, Channel 4 Documentaries commissioning editor Fozia Khan and Ben Robert.

The Academy also ran four writers rooms to help writers explore the storytelling possibilities of immersive technologies. One session, run in conjunction with studio [Maze Theory](#), featured a Peaky Blinders brief and led to a writing placement for one writer at the studio. A second, held in partnership with [To Play For](#), received more than 100 applications and now has successfully completed placements for four writers.

Freelance creative director, Steve Shannon (Sky, MTV, Samsung, Adidas) was the first of nine creatives to take up a StoryFutures-funded placement in 2019. Using his live experience, he worked with REWIND to create a 360° experience for Top Gear audience members to be a stunt driver for the day. Meanwhile, script development executive Sam Hoyle (Dr Who and Broadchurch) secured a placement with Passion Pictures following participation on a bootcamp. She is also now working with Maze Theory to run an in-house writers' room for their team.

StoryFutures Academy co-funded [East City Film's](#) Common Ground VR documentary, leveraging £100k of additional funding. The documentary was selected for Tribeca Film Festival, Sheffield Doc/Fest and Sandbox Immersive Festival. The Academy is now working with [BBC Three](#) on its first co-production challenge, looking at innovative ways to create late night 'wind-down' content for 16-34-year-olds using immersive technologies.

Finally, the Academy collaborated on the first cross-sector trade body skills review for immersive experience production, launching a report with Sir Peter Bazalgette in January 2020.

10 Experimental
Labs and Bootcamps
attended by
200+ industry
professionals.

**4 Writers' Rooms,
with 60+
participants.**

**44% female and 25%
BAME participants in
the Academy.**

25 undergraduate and
MA courses engaged
at Royal Holloway and
the National Film and
Television School.

Next milestones

- Collaborations with BBC3, Magic Leap and the BFI.
 - Launch new development funding initiatives to support creative practitioners taking first steps into immersive.
 - Launch of a creative mentoring scheme, in collaboration with Lucasfilm's immersive entertainment studio, ILMxLAB, with an open call to all CICIP award holders.
 - Work with CICIP clusters InGAME to run an immersive game lab and Bristol+Bath to run a regional writers room.
-

About

The Creative Industries Policy and Evidence Centre (PEC) provides independent research and authoritative recommendations to aid the development of policies for the UK's creative industries. It is led by Nesta and involves a UK-wide consortium of 10 universities.

The story so far

Alongside discussion and industry insight papers and numerous blog posts, the PEC published four major research reports during its first year. The centre's first piece of research analysed more than 35 million job adverts published between 2013-17, looking at the use of the word 'creativity'. The study found that creativity is consistently identified as the most significant predictor for growth for an occupation between now and 2030. This was based on 39 transferable skills and reinforced findings from previous research that policymakers should invest in the UK workforce's creative skills. The research was cited by Fiona Hyslop MSP at a conference on future skills in February 2019.

Studying gender bias in media

Its second study, conducted in partnership with Nesta, explored gender imbalances in the media's creative pages by analysing more than half a million articles from 2000-2018 and using data from The Guardian's open API. The research, called She Said More, found a substantial rise in references to women – albeit from a low base – and noted differences in the way men and

women are described in print. The study's data visualisation has received more than 3,500 unique views and been shortlisted for the Kantar Information is Beautiful Awards 2019. The research has also been cited by Ed Vaisey MP who chairs a new cross-party group of MPs to support diversity in the arts.

Championing the power of research

The centre recruited its first 55 Industry Champions, including Nia Williams, director of learning and engagement at National Museum Wales, Inua Ellams, poet, playwright and graphic artist and Lyndsey Jackson, deputy chief executive at the Edinburgh Fringe Festival Society. In July 2019, some of the group convened to discuss the issues they face in recruiting talent from post-18 higher and further education. The discussion was informed by a rapid evidence review carried out by the PEC and key insights were published in October 2019.

The PEC has also worked with the British Council to form an International Council comprising 11 leading policy and creative economy practitioners, representing 11 countries. The group shares global creative economy policy intelligence and research opportunities and acts as critical friends to the PEC.



“To be successful we need to be agile and relevant; our research questions have to be addressing the needs of the creative industries today.”



Hasan Bakhshi
Director

Highlights

- Recruited 55 Industry Champions, including freelance sculptor and disability consultant Tony Heaton, artistic director at Phoenix Dance Theatre Sharon Watson, and director at Bradford Literature Festival Syima Aslan.
- Collaborated with the British Council to form an International Council comprising leading policy and creative economy practitioners, representing 11 countries.
- Data visualisation exploring gender imbalances in the media has been shortlisted for the Kantar Information is Beautiful Awards.





Next milestones

- Selection of research proposals from the PEC's first research commissioning call.
- Recruitment of second group of Industry Champions.
- Longitudinal data initiative to map UK creative clusters and understand the dynamics, characteristics and challenges of UK creative businesses and regions.
- The PEC's International Council will continue work on international models for post-school creative arts education and global trends in the creative industries.

Held 7 consultation events, three seminars, and attended 80+ meetings with policymakers.

Held 2 researcher networking days for 40 PEC researchers from 10 UK universities.

Received 63 pieces of media coverage, including 6 op-eds.

Audience of the Future



Immersive technologies such as virtual, augmented and mixed reality are changing how we experience the world around us, in art, entertainment, classrooms, museums, on our streets and beyond. There are huge opportunities for UK based creative businesses, researchers and technologists to work together to make sure that the nation is at the forefront of this new medium, creating the experiences that will captivate the audience of the future and ensure that the UK is a global leader in immersive production and IP creation.

Launched in 2017, the [Audience of the Future programme](#) (AotF) recognises the UK's potential, supporting our great storytellers to explore how to create engaging immersive experiences for large-scale audiences. The programme has invested £33m in a series of innovation, demonstration and investment programmes:

- [The Demonstrator Programme](#) supports four of the most ambitious immersive projects in the world in Moving Image, Visitor Experience, Performance and Sports. Each Demonstrator is delivered by a multidisciplinary consortium creating a ground-breaking immersive experience and testing it with a public audience.
- The Collaborative R&D Programmes encourage the UK's creative technology companies to work together to develop the new immersive products, services and experiences that will generate the revenue streams of the future. [Design Foundations](#) focuses on understanding the future consumer, delivering insights into audience perceptions and behaviours, Production Innovation in Immersive Content aims to make immersive content production faster and more efficient while the Investment Accelerator brings private capital alongside the innovation funding to grow businesses.

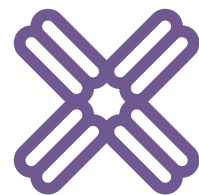
- [StoryFutures Academy](#) (see pages 22-3) is the major skills intervention, preparing the UK's world class games, film and TV businesses for the immersive future.

The demonstrators have already conducted small-scale public trials with Skepta giving a glimpse of the mixed reality rave of the future at the Manchester International Festival in July 2019, with [Dystopia987](#). In 2019 the esports Demonstrator, [Weavr](#) brought its first generation AI-driven application to [live esports](#) events in Birmingham and Hamburg.

2020 will be the year that the programme really opens up its R&D projects to the public. The AotF programme wants 500,000 users to experience the Audience of the Future with projects as diverse as Factory 42s [Dinosaurs and Robots](#), which will bring mixed reality adventures to shopping centres across the UK as well as the Science and Natural History Museums in London, while [The Big Fix Up](#) will allow anyone to work for the new Wallace & Gromit company via Augmented Reality in their mobile phone, and the Royal Shakespeare Company and its performance futures partnership will launch Dream 2020 online and in the real world

In March 2020, a curated selection of projects from the AotF Programme will take part in Audience of the Future Live at the technology, music and film [SXSW](#) festival in Austin, Texas. This features numerous speakers from organisations involved in the programme, plus the Immersive Futures Lab, a physical showcase of VR / AR / XR / MR early-stage projects that demonstrate innovative ideas, new types of content and novel use of technologies.

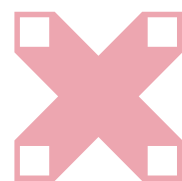
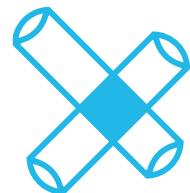
www.ukri.org/audience-future



The Arts and Humanities Research Council

The Arts and Humanities Research Council (AHRC) funds world-class, independent researchers in a wide range of subjects from history and archaeology to philosophy and languages. With a portfolio that extends across design, heritage, the performing arts, digital content, the impact of artificial intelligence and the cultural and creative economy, AHRC plays a pivotal role in supporting research about, with and for the Creative Industries. AHRC represents UK Research and Innovation on the UK Creative Industries Council.

<https://ahrc.ukri.org>



UK Research & Innovation

UK Research and Innovation is the new organisation that brings together the UK Research Councils (including The Arts and Humanities Research Council (AHRC)), Innovate UK and Research England into a single organisation to create the best environment for research and innovation to flourish. The vision is to ensure the UK maintains its world-leading position in research and innovation.

<https://www.ukri.org>

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