

Creative

FOSE

North East



Project Report 2019



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Foreword



The UK's Creative Industries are booming. They are one of the fastest growing sectors in the national economy – 7.1% in 2016–17 with an overall increase of 53.1% from 2010 to 2017 – and the third most valuable creative sector behind the US and China.

The latest DCMS statistics estimate its Gross Value Added at £101.5bn for 2017, employing three million people: that's 1 in 10 jobs categorised as within the creative economy. Based on current trends, the Creative Industries could deliver nearly £130bn GVA by 2025 and create nearly 1m new jobs by 2030. It is a sector, too, much less at risk from automation than others. Sir Peter Balzagate's independent review, published for the government just over a year ago, underlined the importance of a Sector Deal for the Creative Industries and why they need to be at the core of the Industrial Strategy.

Having served for six years as Minister for Culture and the Digital Economy, I have seen the benefits of strong creative, digital and IT (CDIT) industries at first hand. But of course creative arts and technologies have a much wider value than purely economic impact within the CDIT sector. Ideas and approaches from creative practice stimulate innovation in many other sectors, from health and wellbeing to smart data, from automotive engineering to future cities. And then there are the more intangible benefits: the vital way that creativity can enrich our quality of life, stimulating a sense of place, identity and wellbeing and supporting social cohesion.

Over the last 30 months Creative Fuse North East has been exploring some of these issues through its focus on the 'fusion' of creativity, culture and digital technology in North East England, building on the work of its predecessors, Brighton Fuse and London Fusion. This comes at a time when the concept of the Northern Powerhouse is still being developed and NewcastleGateshead has just played host to the Great Exhibition of the North, highlighting the region's huge contribution to innovation, arts and design. I am delighted to have been closely involved as Chair of this important project and look forward to developing its influence as a lasting legacy for the sector, both within the region and nationally.

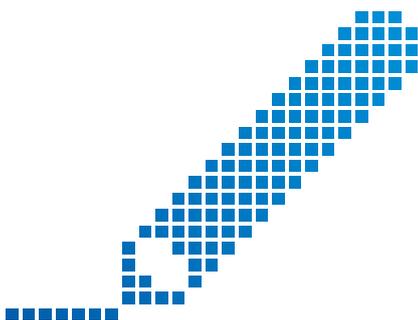
RT Hon Ed Vaizey MP
Chair of Advisory Board



Creative Industries could create nearly 1,000,000 new jobs by 2030

Executive summary

At a time when the creative industries are booming nationally, contributing over £100bn in GVA to the UK economy in 2017, the third most valuable creative sector in the world behind the US and China, this report on the Creative, Digital and IT (CDIT) sector in the North East of England is very timely. The government's new Industrial Strategy has recognised the significance of the creative industries through its Sector Deal, while the two regional Local Enterprise Partnerships have both acknowledged the importance of the sector.



Creative Fuse North East Introduction

Drawing on the combined expertise of all five regional universities, Creative Fuse North East has set out firstly to map the CDIT sector in the North East and then to catalyse new ways of working between businesses, freelancers and academics. This has been approached through 30 innovation pilots, funded by the Arts & Humanities Research Council, a range of ERDF and Arts Council-funded business support activities, including innovation workshops and student placements, and then over 25 monthly CAKE (Collaboration and Knowledge Exchange) events bringing together a diverse range of businesses, freelancers and academics. The core of the project has been to explore the concept of Fusion – the combination of ideas and skills from creative, design and technology disciplines – to provide businesses with a potent mix that can support growth in terms of staff, products and sustainability.

Breadth and reach

A key facet of Creative Fuse has been its breadth of partners and multiple strands of activities. While the primary focus has been the CDIT sector, it has also explored spillover into other sectors, driving collaboration between creative and digital SMEs into emerging areas across manufacturing, data and health. This range is apparent from the scope of the innovation pilots, which cover Building Social Change; CDIT, Health & Wellbeing; Digital Heritage; Digital (R)evolution; Future Cities; Immersive Innovation; and Smart Data Innovation.

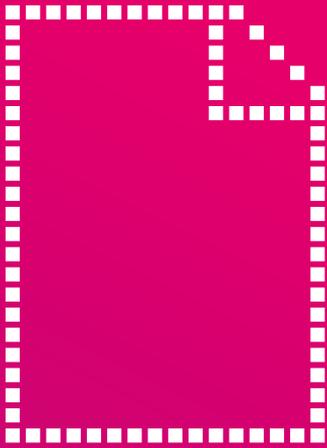
The project's reach can be seen through social media: over 1,700 Twitter followers, 330 Facebook followers and nearly 55,000 website views in a year. 1,751 people signed up to our mailing list to hear about upcoming CAKE events and other opportunities: 83% of these are based in the North East LEP region, with just over 6% in the Tees Valley region; the remaining 11% are from elsewhere in the UK or international. 12% of those registered are from a research background, 49% working for an SME and 23% freelancers or creative practitioners.

The project has supported, including direct financial investment, 277 businesses in 40 different cities, towns and villages across the region, 220 (90%) with fewer than 10 employees. 60% of these micro-businesses had only one employee. 48% of businesses were creative industries defined as 'Music, performing and visual arts' and 'IT, software and computer services'. 73% of academics came from the expected areas of arts and humanities, design, business, computing and IT, but 27% came from other areas, ranging from Construction to Law.

So, what have we discovered? Key features and learning points of Creative Fuse include:

- A multidisciplinary approach drawing on expertise in design, interactive media, computing, coding, arts and humanities, and business and management.
- Supporting spillover from creative and cultural SMEs into other sectors to maximise growth potential by unlocking partnership knowledge and networks.
- Linking ERDF and ACE-funded business support activities with AHRC-funded research to develop new approaches to innovation. More explicit join-up between the two strands of activity from the inception of the project might have made this even more effective.
- Bringing together academics, micro-businesses, freelancers and larger cultural/creative organisations through a triple/quadruple helix collaborative model.
- Business feedback has stressed the benefit of space and expertise to develop more strategic approaches to innovation.
- For many microbusinesses, success should not be measured in terms of job creation but by increased procurement of services, stability, wellbeing and creative confidence.
- The nature of the regional CDIT sector, with its rich array of micro- and sole-traders, makes its needs less easily identified using high-level surveys than on-the-ground and often co-developed research.
- Student placements, although sometimes difficult to align with particular businesses through different timelines and focusses, have nevertheless often been very successful. Businesses have generally welcomed fresh approaches from young, innovative thinkers, and students have gained real understanding of the work environment. In a number of cases placements have developed into permanent job opportunities.
- Conflicting demands on individual academics and changes in their workloads and priorities have created problems in a handful of projects. As a result, the academic input into a few pilots has been uneven.
- Research skills and outputs in a project like Creative Fuse are very different from those of conventional academic research. This can be challenging in matching the needs of businesses with the skills of academics pre-costed into a project, and many pilots only worked because the individuals involved were willing to be flexible. 'Indeed, the project benefited enormously from the breadth of academic disciplines covered, representing a broad canvas of expertise.'
- Universities' structures and processes are often inflexible and not geared up to collaborative approaches across institutions and businesses. Long delays in payment to microbusinesses, even where sums are very small, can be extremely problematic.
- Many businesses had never engaged with academics, often because they did not know how to identify appropriate expertise. Some businesses described the experience as 'transformative'.

Creative Fuse has been a slow-burn project, and it was, predictably, not until the second phase of business support and innovation pilot activities that it became real to many businesses in the sector. Since then, awareness and appreciation of Creative Fuse has accelerated markedly. It is therefore vital, now that effective networks have been created, partnerships brokered and trust established, that the project does not suddenly stop. We want to build on the brand awareness within the sector and the new approaches and skills engendered within the five universities. This powerful regional consortium, unique within Higher Education, has huge potential to continue and build on the work of Creative Fuse. We are currently exploring further ERDF funding and, with support from the Advisory Board, are in discussions with funding bodies including AHRC and ACE. We hope that this first incarnation of Creative Fuse is just the beginning of a new partnership between the universities and the region's CDIT sector that will exploit the innovative opportunities that this rich sector offers across the North East of England.



Policy environment then and now

The early, formative thinking that led to Creative Fuse North East – long before a name and a project had been established – came during 2014, although collaboration across the five North East universities had pre-existed under the Universities for the North East partnership.¹ Since this ‘design’ phase there has been a significant shift in policy, both at a regional and a national level.

In 2014, the new Strategic Economic Plans for the two Local Enterprises Partnerships,² highlighted the contribution and growth potential of the creative and digital sectors:

‘The North East has a very strong cultural and creative base and technology, media and telecoms companies are well represented... The NELEP’s research around Smart Specialisation has generated a significant evidence base about opportunities for high value jobs and growth through a number of the area’s industrial concentrations including: Creative, digital, software and technology-based services – capitalising on dynamic SMEs and start-ups, and key enabling technologies.’³

And:

‘Digital/creative is a growing Key Sector within Tees Valley, with over 9,000 people employed. Significant growth has occurred in our digital and engineering design industries and combines with our cultural and heritage assets to attract investment, businesses, learners and visitors to Tees Valley.’⁴

This recognition of the sector’s potential at a regional level shaped the early thinking for Creative Fuse. From a policy perspective, the growing role of innovation in economic development provided the context for the action research. Importantly, this was not only about making an impact at a regional level – the project also challenged itself to be ‘nationally relevant’.

The policy environment had seen a broadening of the debate around the Creative, Digital and IT sectors.⁵ At a national level:

- The government had recently published its UK Information Economy strategy,⁶ which encouraged ‘UK businesses across the economy making smart use of information technology and extracting knowledge and value from data.’
- The Department for Business’s Innovation Report⁷ had stated that although the UK’s ranking on international indices of innovation performance was generally respectable, one of the weaknesses was the relatively small proportion of firms engaged in innovative activity, a concern given that firms that persistently invest in R&D have higher productivity and better value added per employee.
- NESTA, following on from their Creative Clusters and Innovation report,⁸ had developed their approach to sector policy and influence through a succession of reports, in turn advocating for more joined up sector development⁹ and positioning the case for the sector’s growing influence and contribution to maximising UK innovation potential.¹⁰

A consistent feature of policy setting has been the issue of UK productivity that continues to lag behind other major economies. Furthermore, disparities continue to grow across the UK, in particular between the North and the Greater South East.

In January 2017, the UK Government produced its green paper 'Building our Industrial Strategy',¹¹ which led to the launch of its Industrial Strategy white paper 'Building a Britain fit for the future'.¹² This keynote statement highlighted the digital and creative industries as a sector where the UK has developed a global reputation. Within this context, Creative Fuse is timely, underlining the importance of the CDIT sector to the North East economy and identifying some of the challenges and opportunities it offers.

The Industrial Strategy also highlights the importance of 'digital' in the UK and global economy, 'The world is undergoing a technological revolution... This fourth industrial revolution is of a scale, speed and complexity that is unprecedented... This fourth revolution is characterised by a fusion of technologies that is blurring the lines between the physical, digital and biological worlds. It will disrupt nearly every sector in every country, creating new opportunities and challenges for people, places and businesses to which we must respond'. The Industrial Strategy asserted that:

- **'We must become a more innovative economy and do more to commercialise our world leading science base to drive growth across the UK.'**
- **'Supporting businesses to start and grow – we must ensure that businesses across the UK can access... the management skills they need to grow.'**
- **'Creating the right institutions to bring together sectors and places... In some places and sectors there may be missing institutions which we could create, or existing ones we could strengthen.'**

In late March 2018, the UK Government published the long awaited 'Creative Industries Sector Deal'¹³ as part of the Industrial Strategy, recognising that the sector is 'at the heart of the nation's competitive advantage' and that 'joint action by industry and government could unlock further growth, particularly outside the sector's biggest existing concentration of strength in London and the South East.' Specific mention is made of recent research from NESTA¹⁴ which identifies that the 'priority for the sector is scale: helping the SMEs and entrepreneurs that overwhelmingly make up the sector to grow, in order to raise productivity.' The Sector Deal is clear in its ambition of putting the UK in a globally leading position:



'Together we can build on the UK's position as a global leader and strengthen its advantage as a creative nation by increasing the number of opportunities and jobs in the creative industries across the country, improving their productivity, and enabling us to greatly expand our trading ambitions abroad.'

Working in tandem with businesses, stakeholders and practitioners across the CDIT sector, Creative Fuse has researched the 'fusion' of creativity, culture, digital and technology at a time when 'we are at the start of a business revolution across all industrial sectors that is powered by communication technologies, social networks, big data, creativity, and the application of design'.¹⁵ This has particular relevance, for example, for the Tees Valley Combined Authority (TVCA), which has identified Culture as one of the six core strategic priorities in its Strategic Economic Plan. The Fuse vision to harness growth in the creative and cultural sectors and the wider creative economy through interdisciplinary research and innovation in the design and application of digital technologies aligns with the TVCA priorities to grow the cultural and creative infrastructure and capacity in the Tees Valley.

As recently as December 2018, in a report titled 'Growing the UK's Creative Industries' from the Creative Industries Federation, public-private collaboration to stimulate and drive growth is stated unambiguously:

'To a greater extent than in any other sector, commercial businesses, publicly-funded organisations, and freelancers work hand in hand both across supply chains and internationally to produce the creative services and products that deliver this economic, social and cultural success. Without one part of the creative industries, others would fail.'¹⁶

Footnotes

- 1 <http://www.unis4ne.ac.uk/>
- 2 North East Local Enterprise Partnership and what was then Tees Valley Unlimited (superseded in April 2016 by the Tees Valley Combined Authority).
- 3 North East Strategic Economic Plan, 2014
- 4 Tees Valley Strategic Economic Plan, 2013
- 5 <http://www.brightonfuse.com/>
- 6 <https://www.gov.uk/government/publications/information-economy-strategy>
- 7 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/293635/bis-14-p188-innovation-report-2014-revised.pdf
- 8 <https://www.nesta.org.uk/report/creative-clusters-and-innovation-report/>
- 9 <https://www.nesta.org.uk/report/a-manifesto-for-the-creative-economy/>
- 10 <https://www.nesta.org.uk/report/creativity-cites-and-innovation-evidence-from-uk-smes/>
- 11 <https://www.gov.uk/government/consultations/building-our-industrial-strategy>
- 12 <https://www.gov.uk/government/publications/industrial-strategy-building-a-britain-fit-for-the-future>
- 13 https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/695097/creative-industries-sector-deal-print.pdf
- 14 NESTA - Creative Nation, 2018: <https://www.nesta.org.uk/publications/creative-nation> - see later section for further details.
- 15 <http://www.ncub.co.uk/what-we-do/fuse.html>
- 16 Creative Industries Federation, 2018 - <https://www.creativeindustriesfederation.com/publications/growing-uks-creative-industries>

Importance of innovation and the contribution of universities



University of
Sunderland



Northumbria
University
NEWCASTLE



Teesside
University



Durham
University

In mid-2015, while Creative Fuse was still crystallising, Professor Dame Ann Dowling published a review of business–university collaborations.¹⁷ The review recommended that relationships between UK businesses and university researchers should be less complex, with greater government support, particularly for smaller firms looking to innovate. It concluded that there was an ongoing challenge to engage those companies that had never previously participated in collaborations, whether through lack of funding or the difficulty in identifying and accessing support. This has been recognised more recently, where industry and support organisations have challenged universities to work collaboratively, in particular where this addresses the issue which SMEs face where ‘universities can appear complex, and even impenetrable’¹⁸ – small firms, which of course make up the vast majority of the creative and digital sector, ‘do not have the time, or the resources to navigate their way through’.

A significant body of research and analysis exists¹⁹ on the importance of innovation and the role that universities, individually and collectively, can play in this arena, benefitting both regional economies and supporting new approaches. Innovation is one of two key areas for the National Centre for Universities and Business (NCUB), who have worked closely with the Arts and Humanities Research Council (AHRC) on the national Fuse agenda and were instrumental in helping to shape Creative Fuse. For NCUB, universities’ contribution to innovation means making the expertise, ideas and research that can achieve commercial value for the UK accessible to business, alongside nurturing the development of talent that the UK needs from higher education into the workplace and into leadership roles.

One of the issues for universities is that innovation is still largely associated with science and engineering, and support structures focus on spin-out companies and collaborations with large, often multinational organisations. Creative Fuse has embraced a broad canvas of academics working across disciplines, in particular encouraging the engagement of arts and humanities researchers and microbusinesses for which new approaches have been required. One of the headline findings of Brighton Fuse was that nearly half of the entrepreneurs in the Brighton cluster had an arts and humanities background, and the findings of Creative Fuse similarly underline the importance of those creative skills that, when mixed with cutting edge digital technologies, provide a potent environment for innovation, whether within overtly creative and cultural businesses or ‘spilling over’ into other sectors.



Footnotes

17 <https://www.gov.uk/government/publications/business-university-research-collaborations-dowling-review-final-report>

18 <https://www.universitiesuk.ac.uk/blog/Pages/How-can-universities-better-support-local-and-regional-businesses.aspx>

19 E.g. <https://www.weforum.org/agenda/2018/01/4-ways-universities-are-driving-innovation/>

About Creative Fuse North East

Creative Fuse North East is a three-year project researching the 'fusion' of creativity, culture and digital technology in North East England. Delivered by the five North East universities – Durham, Northumbria, Sunderland, Teesside, and led by Newcastle University under the auspices of the North East Culture Partnership – it is funded by the Arts and Humanities Research Council (AHRC) along with the five universities, the European Regional Development Fund (ERDF) and Arts Council England (ACE). It works with a wide range of businesses, stakeholders and practitioners across the Creative, Digital and IT (CDIT) sector.

Building on the methodologies of its AHRC-funded predecessor Brighton Fuse, the first year of the project focused on a mapping exercise with the largest single survey ever undertaken of the CDIT sector in the North East of England covering over 500 businesses and freelancers. It identified distinctive aspects of the sector's geography, its economic performance, barriers to growth, and the importance of creative-digital fusion.²⁰ Headline findings from the survey, which included comparison to the Brighton research, comprised:

- 67% of CDIT businesses in the North East regarded themselves as 'fused', i.e. regularly drawing on the interdisciplinary combination of ideas from creative design and technology, with 35% 'superfused', i.e. drawing strongly on this combination. This was slightly higher than in Brighton, though proportions were lower with freelancers.
- Quality of life is a major asset for the North East: 84% of businesses and 87% of freelancers saw this as an advantage, although attraction of talent to the region is a challenge.
- Compared with other UK regions, the North East has the second highest proportion of charitable organisations in the CDIT sector, including three of the top 12 organisations turning over more than £10m.
- There are mixed signals on skills, but 30% of businesses consider access to appropriately skilled labour to be a problem.
- Distance from London is perceived as a disadvantage for 51% of businesses and 54% of freelancers, a clear contrast with Brighton, while transport links are expensive and often problematic.

The second phase of the project comprised two main strands: a group of 30 innovation pilots, identified through a competitive process, which explored new ways of working between businesses (from microbusinesses to large cultural and commercial organisations), freelancers and academics; and a range of business support activities, funded through the ERDF and ACE grants, including innovation workshops and student placements, supporting economic growth through innovation of new products, processes and services. In addition to its focus on the CDIT sector, the project also explored cross-sectoral spillovers in areas such as manufacturing, big data and health. It fostered new networks through its monthly CAKE (Collaboration and Knowledge Exchange) events, which bring together a diverse range of individuals from different backgrounds and sectors around a selected theme. Importantly, Creative Fuse sought to align multiple funding streams together as part of a single support offer to regional businesses who could engage more effectively as a result of all five regional universities working together.

Creative Fuse has established ways in which the CDIT sector can grow and contribute greater impact to the regional economy, developing new 'fused' ways of working collaboratively between businesses and academics; between microbusinesses, freelancers and larger organisations; between creative and digital skills and between the five universities themselves.

Footnotes

²⁰ Creative Fuse's initial report on the survey, published in June 2017, is at <http://www.creativefusene.org.uk/wp-content/uploads/2017/06/Creative-Fuse-North-East-Initial-Report-22062017.pdf>

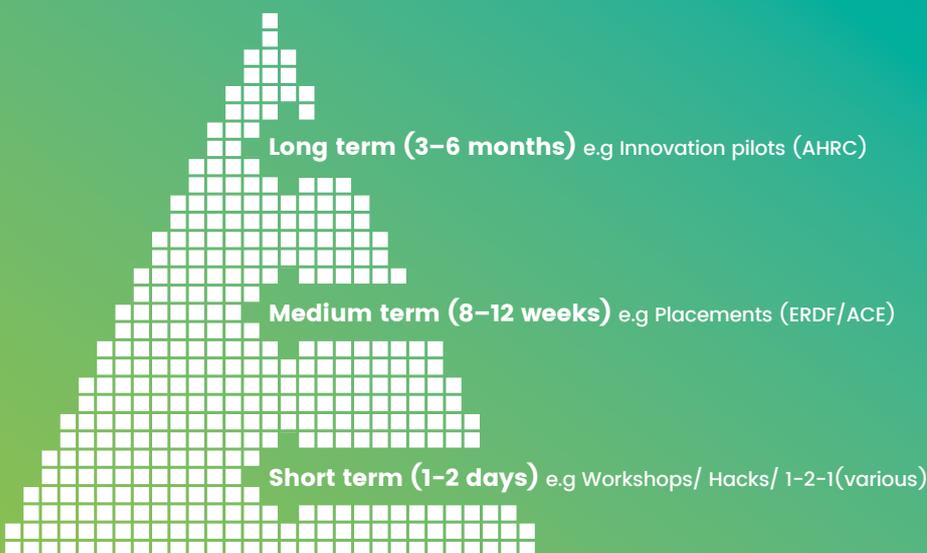
Fusion

The Oxford English Dictionary defines 'Fusion' as 'The union or blending together of different things (whether material or immaterial) as if by melting, so as to form one whole'. For Creative Fuse, a clear and relatively simple demonstration of this has, of course, been the bringing together of the five university partners, a collaboration that has been received very positively by the CDIT sector.

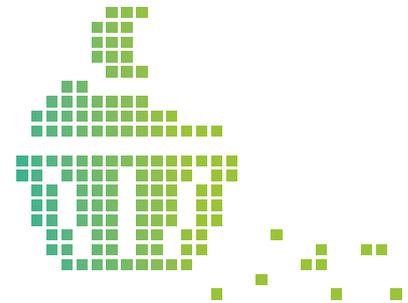
One of the original key lines of enquiry set for Creative Fuse focussed on testing the observations from the Brighton Fuse report: that businesses which adopt 'fusion' – the combination of ideas and skills from creative, design and technology disciplines – typically enjoy business performance three times greater than those that specialise. These businesses saw this unique combination of skills as a key differentiator and the Brighton research demonstrated that this 'Superfusion' was responsible for driving significantly higher growth and sustainability in the longer term. As stated, the initial survey that Creative Fuse undertook pointed to strong awareness of this in the North East, with many businesses and organisations self-identifying as having fused characteristics and levels of fusion slightly exceed the findings of Brighton Fuse.

Yet Creative Fuse has also attempted to go beyond this core definition of fusion. The range of activities delivered through the project has also sought to fuse complementary organisational cultures and, therefore, to open up, whether via soft curation or direct facilitation, the scope to fuse processes that could lead to new ideas and ventures being developed or explored.

It was important, therefore, for Creative Fuse to provide for different levels of engagement and support – a range of 'entry points' or a funnel to engage large and small organisations, freelancers and practitioners alike, in fusion.



CAKE



Creative Fuse has successfully delivered a range of events, workshops, placements and grants to facilitate fusion in businesses across the North East. These have ranged in value and intensity but all have increased collaboration and provided support to the CDIT sector in the region.

One of the key tools to enable this activity has been monthly, free-to-attend, networking 'Collaboration and Knowledge Exchange' events, or CAKE for short. CAKE has been attended by over 2,000 participants over the last two years, with an average of 80 people engaging with each event. Each month the event has a different theme and is held in a different location, but always follows the same format - three to four speakers deliver short (10-15 minute) presentations followed by a Q&A and then networking over actual cake.

This concept, brought to Newcastle by Professor Richard Clay, started here in June 2016 with the theme of 'CDIT and Health', and meaningful discussion has continued over Victoria sponge once a month since. The events generate debate, explorative discussion and stimulate new innovative ideas by looking at each event's theme from a variety of different perspectives. As part of Creative Fuse, Ulrike Thomas and Dr Jill Clark from the Research Centre for Learning and Teaching at Newcastle University have undertaken an evaluation of these events from CAKE 11 (August 2017) to CAKE 18 (February 2018). Some of their findings are summarised here:

Themes and format

- The variety of themes have been very successful with survey data showing that 81% of people found them to be of direct interest; it was this general interest that influenced people's attendance rather than being directly relevant to their own specific line of work.
- The format emphasises networking and in many cases this was praised; however, some people would prefer more targeted or structured networking, for example 'speed-dating'.

Attendance and attendees

- Events in Newcastle had the highest number of attendees and the biggest turnouts where business partners helped to advertise the event, enabling a new audience to be reached.
- Importantly the audience is hugely diverse with attendees from a wide range of sectors, some unexpected (such as representatives from the NHS, Northumbria Police and Northumbrian Water). The diversity in attendees is the key to its success, allowing cross-sector collaboration and sharing of ideas. Julie Anderson, Research and Innovation Manager at the Great North Children's Hospital and a regular attendee, stated:

'CAKE has opened doors that wouldn't have otherwise been available, making links with people I wouldn't have otherwise met; this has led to lots of exciting and innovative collaborations that could improve the health and wellbeing of our patients and their families.'

- There were challenges in who could attend events during the working day. Those employed either as academics or others in the public sector could take time out of their day to attend. However, freelancers and creative practitioners would be losing money by attending.

Venue and location

- Limited budget meant that central university based locations were preferable. However, this was not always the case and working with collaborators led to a broader range of venues and themes. For example CAKE 24 was held at The Sill in Northumberland and was delivered in partnership with Newcastle University's Economic and Social Research Council (ESRC) Impact Acceleration Account.
- The majority of people surveyed were happy to travel to locations if the theme was interesting and relevant.

Impact of CAKE

'It's all about collaborating, creating networks, sharing knowledge about how to do different things or access different equipment.'

Carl Gregg, Fab Lab Sunderland

- The overarching aim of CAKE was to provide a space that would enable people from different sectors who do not typically meet to engage and possibly collaborate in the future. There was a particular focus in the early CAKEs on enabling collaborations that would then lead to applications for the Creative Fuse Innovation Pilot funding.

- Data shows that the networking did encourage making new contacts, with 78% of responses stating that this was the case and 40% then following up these new contacts.

The data has evidenced that CAKE has been very successful in promoting Collaboration and Knowledge Exchange. However, it is important to note that organising and marketing the events, and finding monthly speakers and venues, is labour intensive, and the lack of directly allocated funding for CAKE has meant that the ideal of holding events across the region in a range of venues, located in both urban and rural settings, has not been possible. The core project team roles of Events Coordinator and Network and Communications Coordinator have been critical to the success of CAKE and are deemed vital if the events are to continue to play their part in the region as a means of enabling the universities and CDIT sector 'to network, share knowledge and form unique working relationships'.

CAKE – a recipe for innovation

The Noize Choir innovation pilot, using the human voice free of the traditional restraints of typical choral settings, language or musical notation, was a collaboration between freelance creative artists Lindsay Duncanson and Marek Gabrysch, Northumbria University, Newcastle University, the University of Sunderland and Prosoftware, an SME that has developed a collaborative platform to support customer relationship management. This collaboration all started at CAKE 9: Smart Data Innovation.

Dr Petia Sice, Reader in Wellbeing Informatics at Northumbria University, describes that original meeting: 'We met with Lindsay and Marek at one of the CAKE events. We were already looking at music listening but music vocalising is very powerful and potentially, we don't know, more powerful than music listening. So we established a kind of link and thought okay we actually want to work together.'

The objective was to turn anecdotal evidence that participation in Noize Choir positively impacted on wellbeing, into hard evidence collected via heart rate monitoring before and after choir sessions. The application for innovation pilot funding of £5,000 was successful and enabled the collaborators to undertake this initial small-scale research project.

'It's opened up for more things than I ever imagined it would, the depth of some of the questions being asked now is far more than I thought it would be, which is great. It's totally inspiring.'

Marek Gabrysch



Supporting regional businesses – innovation workstreams

A key facet of Creative Fuse North East is its breadth of partners and multiple strands of activity. For regional businesses, this offered many ways to get involved, whether by accessing funding or by receiving business innovation support, engaging with specialist advice and knowledge exchange, often working alongside peers.

Creative, cultural and digital SMEs are typically agile and adaptive but are often constrained by their relative scale and resources – something that provided the basis for the original funding applications. From the outset, the guiding principle of the funding was to utilise the collective expertise from the universities to embed innovation potential, processes and know-how within North East CDIT SMEs, enabling growth and fostering best practice. Additionally, Creative Fuse also sought to exploit the potential for creative and innovation spillover, driving collaboration between creative and digital SMEs into emerging areas across manufacturing, data and health. It was also important that Creative Fuse opened up to bring in sector and industry expertise to deliver support alongside academics – a two-way process that was intended to share knowledge and fuse practice, ultimately to the benefit of those supported.

The project's mix of funding underpinned the delivery of a mixed portfolio of support that could be accessed according to the needs of the business. It also meant that tactically the funding streams could be combined to generate better impact and reach (for example, matching Arts Council funding with ERDF investment), or could also be used on its own where there was a better fit with the intended approach and the need to trial interventions (for example, AHRC funding to support the innovation pilots).

By working collectively, all five North East universities have provided a 'one-door' approach for businesses and practitioners. Through the collaborative networks and resources of the universities, regional businesses have had access to previously unfulfilled innovation opportunities, with this shared capacity providing greater impact and reach than would otherwise have been achieved individually. Creative Fuse therefore has tried to be defined by the following principles:

- **Multi-disciplinary** – aligning expertise from a range of specialisms including design, interactive media, computing, arts, culture and heritage, business and management, to uniquely frame innovation challenges and solutions through multiple perspectives that deliver new value propositions.
- **Spillover** – supporting knowledge and skills spillover from creative and cultural SMEs to other sectors to maximise growth potential by unlocking partnership knowledge and networks with key sectors (e.g. manufacturing and health).
- **Research informed** – dovetailing live findings derived from the AHRC-funded research into the delivery of business support and innovation activity across the partnership, producing real-time application of research findings.
- **Iterative project model** – agile learning informing fresh iterations of the delivery model relevant to emerging industry needs.
- **Triple/quadruple-helix model** – bringing together SMEs, academics and major cultural/creative organisations alongside policy stakeholders in a collaboration that sought to test new approaches to combining strategic funding streams for wider impact and benefit.

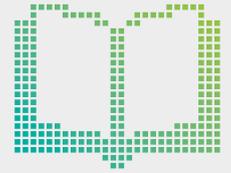
The benefit of these types of activities has been felt by the universities and the businesses: a student who participated in the placement scheme at the University of Sunderland has just graduated with a Masters of Design and is now beginning her role as an Academic Tutor. She said 'Having no previous professional experience in design, the programme run by Creative Fuse helped me gain the necessary experience I need to get the design job I have always wanted.'

The company she worked with was just as positive about the placement:

'[she] integrated herself as a well-respected member of the team. Through applying her excellent graphic design skills, she specifically helped deliver three key projects which have resulted in commercial success...'

While this report cannot do justice to the full reach and impact of Creative Fuse, the following selection of case studies gives a sense of the breadth and richness of both the activities and their beneficiaries.

Case studies



Get Ready to Innovate

Who was involved?

21 SMEs and registered sole traders including a legal aid charity, fashion and textiles businesses, a development fund-management company, DJs, theatre makers and other social enterprises. Delivered by Northumbria University School of Design.

What did they do?

Four intensive, action-focused sessions offered in a one-to-one and one-to-many, developing innovation potential and overcoming barriers to creativity.

Freelance theatre maker Ruth Mary Johnson commented on the confidence the support had given her to **'value my worth as an experienced practitioner... [and] assess my practice in relation toward my goals'**. Crucially, innovation was now accessible to her as she had the 'tools to look at all the different opportunities I have and felt really bolstered in the work I was doing but also in the work I'm pursuing'.

Sewing and pattern cutting business Centre Front Studio was paired in a workshop with their own team of facilitators as they worked alongside other businesses. They valued the opportunity to assess which skills and activities were core to their business, **'recognising elements of the business which were 'time sucks' ... recognising that the skills we have are valuable and giving us the confidence to go after bigger jobs'**.

Digital Literature

Who was involved?

15 writers and SMEs. Professional development commissioned by Northumbria University and developed and delivered by New Writing North.

What did they do?

Activities across three months included workshops, creating a resources bank, intensive one-to-one mentoring and training for each participant towards the development of a new website (promoting newly focussed/re-focussed services) and practical resources for website development such as films and photography. Participants highlighted the way this unique combination of support helped them explore new aspects of their practice and showcase them better on their new websites in creative and professional ways. Most emphasised the value of meeting other writers in what can be a solitary profession, and found the one-to-one mentoring a source of support and personal growth. For example, Hazel Osmond said: **'I was paired with just the right person for me and it has transformed how I see myself as a writer and increased my self-confidence.'**





MIMA Collections

Who was involved?

Teesside University worked with local artists, designer makers and cultural/creative practitioners. They explored how arts and heritage collections held at Middlesbrough Institute of Modern Art (MIMA) might inspire them to develop new creative products and artefacts that could potentially be for sale or exhibition within the University and museum.

What did they do?

This project included two consecutive workshop days plus an additional call back or pitch workshop. Within the workshop sessions, businesses made use of diagnostic tools and a variety of business models to align their creative practice, including concepts and techniques such as storyboarding, use of metaphor and mind mapping. The workshops also showcased examples of innovative thinking that has led to the creation of new products and services that have enabled creative entrepreneurs to grow their businesses.

Beneficiaries then drafted a plan for their business progression, and were then invited to make a professional pitch to MIMA.

What next?

The project enabled artists to gain additional skills and insight into how to best meet buyers' needs and make effective pitches, in addition to helping to develop and grow confidence in their practice and products. Furthermore this has enabled MIMA to complete a wider programme as part of the Innovate Tees Valley project.

Creative Connections

Who was involved?

24 sole traders, micro-businesses, and creative and cultural SMEs, engaging with support delivered by Newcastle University Business School.

What did they do?

Three different activity strands gave the time, tools and guidance beneficiaries needed to reflect on their business needs and build an action plan:

- **B2B Connect & Innovate** – enabled business managers from large regional organisations to work with small creative businesses over two days alongside the Creative Connections Team. Using a range of business tools, creative businesses explored innovative solutions for driving their businesses forward.
- **Createathon Workshops** – intensive two-day events bringing together postgraduate students and the Newcastle University Business School team to work with businesses on their current challenges and opportunities – ‘an intense hack-style event where the output is information’.
- **Student Placement Scheme** – short-term placements which paired up postgraduates from the Business School with creative or cultural businesses to work on a defined growth or innovation project.

As one of those supported, Paul Mingard, Co-founder of Hawthorn Cottage Industry, stated: **‘You need to trust others to look at your business, to see the value, and advise objectively in a way that is non-threatening and impartial – the university environment lends itself to trust.’**

Special iApps Placement

Who was involved?

Special iApps is a small multi-award-winning developer of educational apps for teaching and assessing children with autism, Down syndrome, cerebral palsy and other learning disabilities, and to a lesser extent adults with similar special needs. Rebecca Whitcombe, a BA graduate in Photography, Video & Digital Imaging and a Master's graduate in Curating, undertook a 12-week placement through the University of Sunderland supported by Jenny Wotherspoon from the University's Social Media Management programme.

What did they do?

Rebecca planned, developed and implemented the company's digital marketing strategy.

What next?

Since completion of the placement Rebecca has taken up a permanent position with Special iApps. During this time, it was also pleasing to see Beverly Dean, Director of Special iApps, receive an MBE for her contribution to SEN learning. Digital and Social Media Coordinator.



Bespoke Support for Micro Creatives

Who was involved?

Durham University developed in-house and delivered a bespoke programme of over 100 hours of ERDF sponsored workshops and support for 81 creative North East businesses.

What did they do?

Through action-research scoping activities, the team developed a programme around themes that mattered to creative businesses: new product development and idea generation (Inspire-a-Thon); digital and social media skills improvement (Digital Developer); arts and crafts workshop planning, development and delivery (Teach Your Art); a workshop and hack event aimed at securing funding and a two-day programme bringing together local creatives with the University's heritage collections and retail staff to develop products for sale in the University's museum and retail shops (Art in Museums). The team also delivered one-to-one support to SMEs and arranged a series of follow-on activities that exposed both the wider public and University staff and students to Creative Fuse North East, the creative economy, and local creative businesses within the region. As one workshop participant put it, **'you guys have given me confidence to stand up there and say this is what I do. And that's huge. It may be quickly said but it's huge.'**

What next?

Participants have pursued new collaborations with other creatives and researchers, diversifying from providing creative products to delivering creative services, and gaining new funding and tendering opportunities.

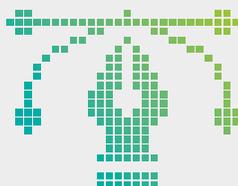
Teach Your Art

Who was involved?

The Durham University Creative Fuse team delivered the 'Teach Your Art' programme which empowered 28 creatives from micro- and sole-trading creative businesses to expand their business models through developing and teaching their own arts, crafts or digitally creative workshops.

What did they do?

The participants took part in a training day and then tested their new workshop skills first on a focus group of Durham University students and staff and then through a celebratory 'Make in Durham' day involving over 400 members of the public. These activities not only enabled the businesses to expand into new areas of practice but also provided them with important exposure to new markets, including within the University itself. As one participant put it, **'it's made me more confident about what I'm doing so it's made me put myself out there a bit more and actually be more proactive about it.'**



Colliderscope

Who was involved?

Teesside University and 11 creative, cultural or digital businesses and sole traders working in the Tees Valley Region.

What did they do?

Participants were invited to an initial session to describe what support they needed and how to secure a place for further support, workshops and bespoke mentoring. Artists and curators with experience in presenting work in the public realm and non-gallery spaces, and the joys and pitfalls of working in an industrial context, shared their knowledge through workshops and mentoring. They also received insights to develop their practice around materials and fabrication with support from experts in the field of materials research, engineering and manufacturing. In total they received 8 hours of mentoring to develop ideas, products and creative practice from creative industry experts.

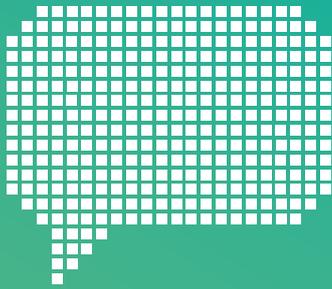
Participants also had the opportunity to take part in and shape an Artist Innovation Workshop, which discussed: meeting commissioner's needs, making effective pitches, promotion, protecting ideas and costing and pricing work. This allowed participants to get to grips with the shared learning from commissions. Whilst some participants did not go forward in the subsequent Colliderscope project after pitches, they took part in further mentoring to help develop their project ideas.



Through multiple and diverse strands of activity across the region we have demonstrated a need for fusion and a hunger for involvement.



Engagement



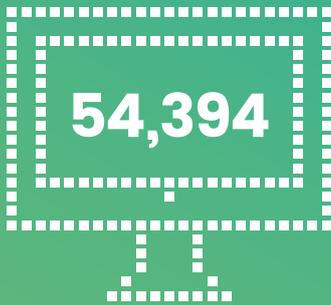
Over
2,000
social media
followers on



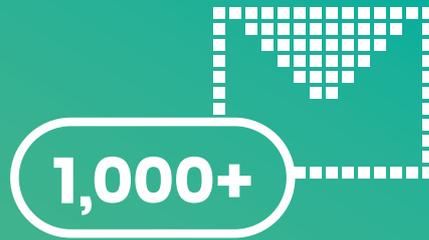
Facebook
Followers: **> 350**



Twitter
Followers: **1,787**



(149 views a day)
web page views



people receive our
monthly newsletter

Events

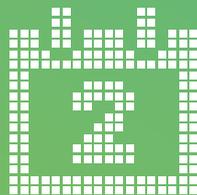
26

CAKE events
(Collaboration and
Knowledge Exchange)

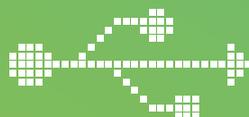


340

registrations at our
2 day conference



Over
2,000
attendees at our
networking events



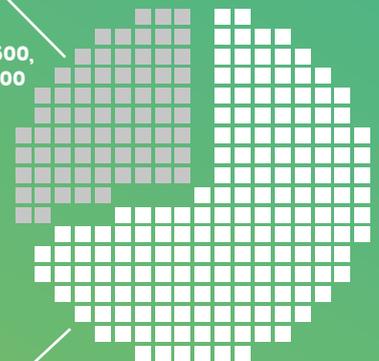
Financial support

£483,940

direct cash granted to small
businesses in the region

£142,800 granted
for placements

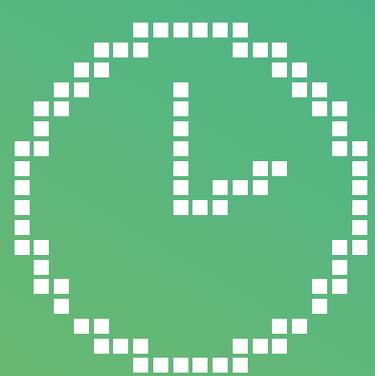
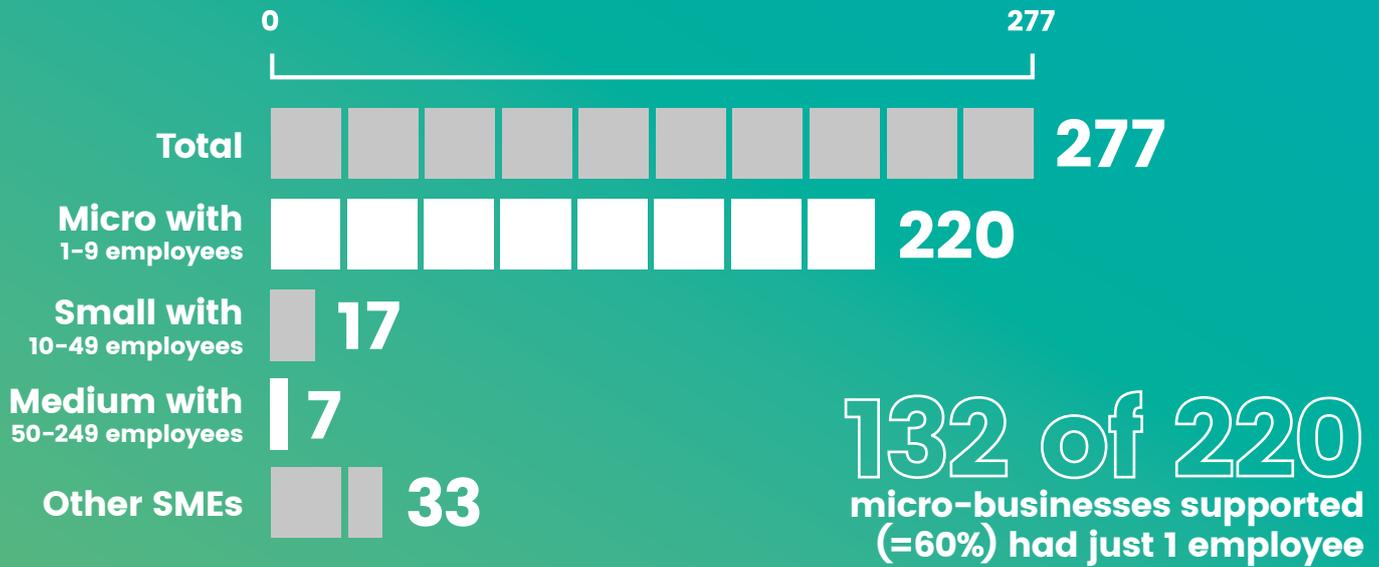
Average (mean) grant £3,500,
ranging from £2,000 - £8,000



£341,140 granted
to innovation pilots

Average (mean) grant £12,000,
ranging from £5,000 - £30,000

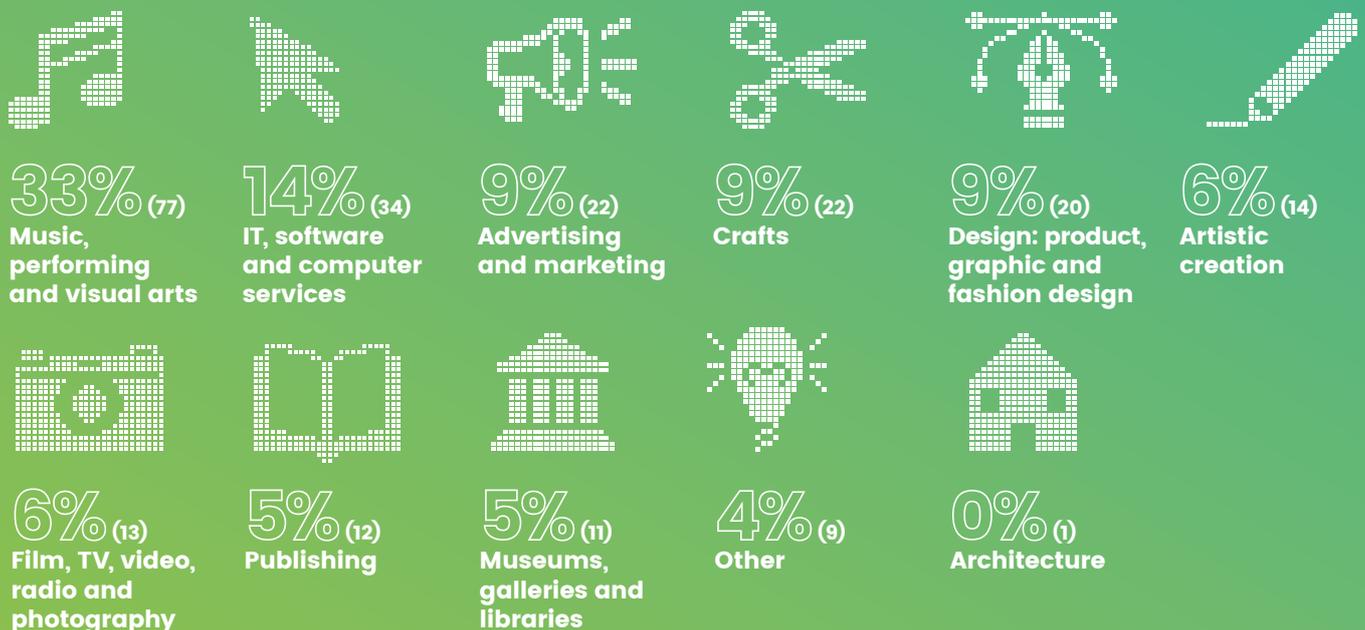
Business Support



over
21,000

hours of direct support delivered.
All businesses received a minimum of 12 hours with the average (mean) amount of support at 83 hours each.

Sectors



Location of supported businesses

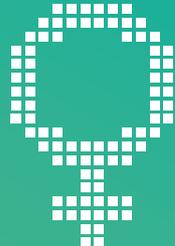
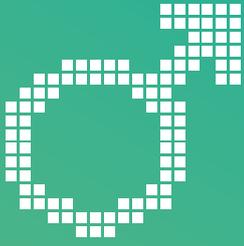


Number of businesses supported by area:

Newcastle upon Tyne	88
Sunderland	23
Durham	22
Middlesbrough	15
Darlington	10
North Shields	10
Gateshead	8
Whitley Bay	8
Hartlepool	7
Saltburn-by-the-Sea	6
Bishop Auckland	5
Jarrow	5
Stockton-on-Tees	5
Barnard Castle	4
Chester-le-Street	4
Hexham	4
Morpeth	4
South Shields	4
Billingham	3
Cramlington	3
Ferryhill	3
Houghton-le-Spring	3
Peterlee	3
Spennymoor	3
Washington	3
Alnwick	2
Blyth	2
Newton Aycliffe	2
Ryton	2
Seaham	2
Stocksfield	2
Ashington	1
Bamburgh	1
Blaydon	1
Choppington	1
Crook	1
Hebburn	1
Redcar	1
Stanley	1
Wallsend	1

Academic involvement

Gender split



58%

Male

42%

Female

Career stage

28% Senior Lecturer /
Principal Research Associate

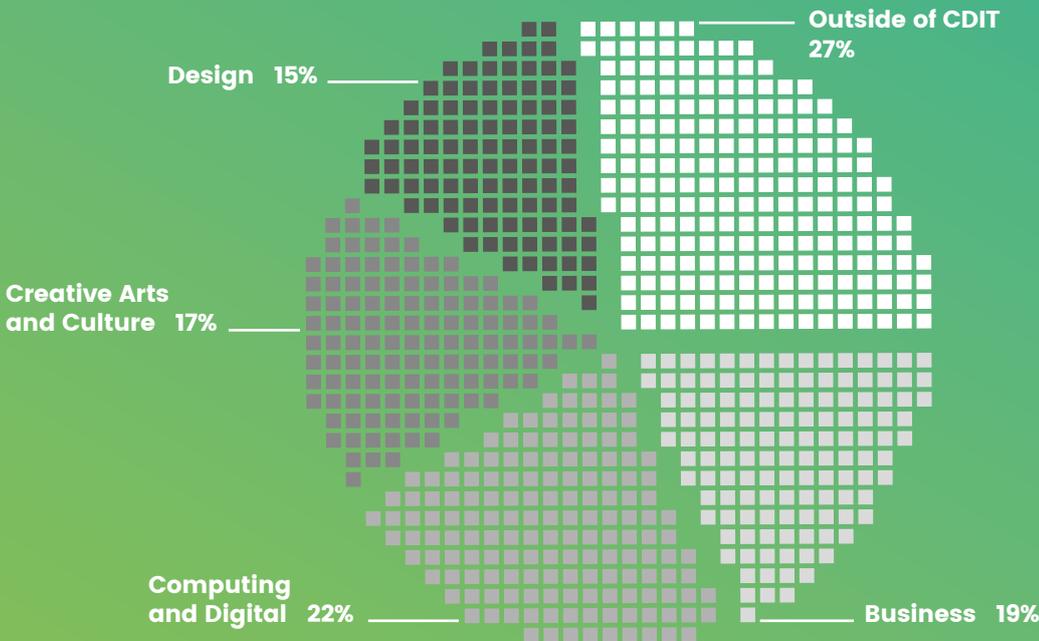
27% Lecturer / Research Assistant / Associate

21% Reader

18% Professor

6% Lecturer / Senior Research Associate

Departments



Over $\frac{1}{4}$
of academic activity
came from outside the
expected CDIT areas:

- Academic Enterprise
- Agriculture, Construction & Engineering
- Built Environment
- English Literature, Language & Linguistics and Communication
- Environmental Science
- Health Sciences
- Journalism and PR
- Law
- Sociology
- Tourism Hospitality Events
- Urban and Regional Development Studies

Who have we reached?

Creative Fuse has established a strong brand and effectively engaged with a cross-sector audience. These were two of the findings of an independent review carried out by Urban Foresight in March 2018. We have had the challenging task of reaching people across a diverse geography and from a range backgrounds in terms of working environments, chosen professions and stages of career.

Throughout the project we have honed a streamlined message to ensure maximum impact and visibility; the success of this can be seen through social media, with over 1,700 Twitter followers and 330 Facebook followers (data correct as of November 2018). In the year to 1st October 2018 the Creative Fuse website (<http://www.creativefusene.org.uk/>) had nearly 55,000 views, with an average of 149 pages viewed each day. This online presence has been backed up by successful and diverse events, with 1,751 people signed up to our mailing list to hear about upcoming CAKE events and other opportunities. Of those signed up to hear more about the project and its activities, 89% are based in the North and Tees Valley LEP regions, although more could be done to increase reach into the latter. The remaining 11% are from elsewhere in the UK or international. Importantly this information goes out beyond the immediate networks of academics, with 12% of those registered reporting they are from a research background and 72% describing themselves as from an SME, a freelancer or a creative practitioner.

This social reach has been an incredible springboard for our work with businesses, which has reflected some of the unique aspects of the region and the diversity of our engagement. Across the lifetime of the project we have supported 277 businesses, 220 (90%) of which have fewer than 10 employees making them micro-businesses by definition. Importantly 60% of these micro-businesses had only one employee. We reached businesses from 40 different cities, towns and villages across the region.

We worked with a broad cross-sector of businesses, 48% into the Creative Industries Groupings definitions of 'Music, performing and visual arts' and 'IT, software and computer services'. However we had a broad spread in different areas including Architecture and Publishing. The same was seen through the academics who engaged with and supported the businesses: 73% came from the expected areas of arts and humanities, design, business, and computing and IT, but notably 27% of the academic engagement came from other areas, ranging from Construction to Law.

At its heart Creative Fuse was established to support the CDIT sector, but the diversity in who we actually reached reflects the make-up of the region and supports the notion of spillover into other more 'traditional' areas, demonstrating a new kind of fusion.

Innovation pilots

Creative Fuse North East offered grants for businesses to team up with academic researchers around a specific challenge or barrier to growth. The aim was to encourage small companies and freelancers to work with academics and larger organisations to address industrial, commercial and social challenges, thereby supporting economic growth and addressing pressing social needs in the region.

Over £340,000 was granted to 30 distinct pilots.

This investment supported businesses across a wide range of sectors, from creative arts and culture, design and digital heritage to sports, health and wellbeing, social justice and smart data. Each pilot was mandated to include at least two universities for greater fusion, along with a digital specialist if this expertise was not already held within the lead business. Several of our stakeholders have described the interaction with academics as 'transformational', and a number have enhanced their economic models as well as generating new external funding applications as a result.

Pilots were funded under seven themes, reflecting the diversity of the CDIT sector within the region and the requirement for spillover into different areas:

1. Building Social Change
2. CDIT, Health & Wellbeing
3. Digital Heritage
4. Digital (R)evolution
5. Future Cities
6. Immersive Innovation
7. Smart Data Innovation



Benefits

It is clear from the feedback we have received and evaluations that have been carried out that funding, even though often small, was the stimulus for Fusion; most businesses stated they would not have engaged otherwise. The brokerage role played by the core Creative Fuse team was key to many of the successful relationships fostered. These meaningful collaborations provided stakeholders with access to different networks and opportunities. A number of pilot participants cited that Creative Fuse input facilitated participation in significant regional events including the Great Exhibition of the North and the associated Business Forum.

Academic involvement was seen by many as absolutely fundamental to their project's successful outcome. In several projects academic input was seen to develop a more strategic view of the business. This was highlighted in reports from Full Blown Studios on their pilot to develop systems for the passive management of building environments and Wordnerds, who are developing systems to use AI and linguistics to automate text understanding.

'...the participation of the universities has been a key driving force in the project's progression. Their role has helped to shape the project on a conceptual level.'

Full Blown Studios

'It [academic input] accelerated Wordnerds' product immeasurably... It was a complex, messy and challenging experience, but at the end of the project, the team have delivered... a proof of concept of something we didn't even think possible at the outset of project.'

Wordnerds

The importance of academic input was felt not only in product development but also in strengthening commercial viability. Shoes2Run, who are developing a novel wearable technology sock for runners, stated 'working with two universities will give us the credibility when we take the product to market'.

Student involvement was also an important factor for success in some pilots. For example, a pilot with Northumbria Police looking into tackling cybercrime benefitted from the input of Masters' students, who were seen as 'creative catalysts' and particularly valuable in affording the project both reach and volume in terms of research investigation and creative idea generation.

Across the programme there was a feeling that unconventional ideas that would not be considered by traditional funders would be looked upon openly by the Creative Fuse team.



Challenges

While the vast majority of businesses involved in pilots have regarded the process as beneficial, it is important to acknowledge the challenges in creating these fused projects. The biggest of these was perhaps the difference in working cultures and practices between the academic institutions and businesses involved, which manifested in a number of different ways.

The most commonly cited problem was around cash flow issues and delays to payments made to SMEs, something exacerbated by universities having different financial processes. While these were often small sums, for microbusinesses this was nevertheless significant, as was the issue of intellectual property (IP), which caused delays for some pilots, with the need for greater clarity around these processes.

Managing collaborations across multiple universities also provided some challenges. For one pilot, one academic left their post and others had less engagement than originally planned. Sometimes a lack of academic engagement was down to competing demands for time, due to new unpredictable opportunities or changes in university priorities.

Outcomes

The innovation pilot funding catalysed new collaborations and enabled existing ones to develop ideas and relationships. Although partnerships resulted in different levels of engagement, none of the outcomes could have been achieved by one organisation on its own. Each partner brought unique perspectives and expertise to discussions ensuring greater clarity and understanding.

Creative Fuse encouraged out of the box thinking throughout the process leading to a huge variety of outcomes including, in some cases, lessons derived from failure. Some projects in the end failed to achieve their original aims, some far exceeded them, and some led to entirely unexpected conclusions.

An important outcome for a number of projects was the opportunity to apply for further external funding, often on a larger scale. For example, Deep Learning for the Classification & Clustering of Museum Collections and the Virtual ADR platform are applying to Innovate, while Multiverse Arcade (Unfolding Theatre) successfully received funding from The Virgin Money Foundation Big Lottery Fund to tour the installation to areas of socioeconomic deprivation in the North East. Skillsmatch has just been awarded a six-figure grant from a major funder to enlarge their digital work with refugees and asylum seekers. Others have been able to make significant steps forward in their businesses, taking on new team members (Wordnerds recruiting a PhD student) and filing patents (Shoes2Run).

It is important to note that success has gone beyond the region, with a number of projects having an impact internationally. For example, Adabee was built around an international consortium, while Deep Learning for the Classification & Clustering of Museum Collections has been working with UNESCO, INTERPOL and ICOM. Furthermore, Full Blown Studios have been introduced to German collaborators which might lead to an application for European Research Funding. Germany featured again as a result of a writer and videographer attending Durham's 'Digital Developer' day, enabling the opportunity to subsequently collaborate on a Sherlock Holmes musical produced by a theatre in Cologne (thesherlockmusical.com). David Reay, Chair of the Northern Clothing & Textiles Network, was invited to present the outcomes of the innovation pilot 'Applying Digital Technologies to Create New Ways of Designing, Manufacturing and Selling Clothing' at the Mercedes-Benz Fashion Week 2018 in Sri Lanka, which brought together people from all over the world and has led to very positive discussions about working with partners in these markets.

Even where the success has been less tangible, such as with Cyberwellbeing, academic research has captured the processes and relationships involved and been published in order that the lessons learned can have impact outside the project and region.

Case studies



NE Culture is Digital

Who was involved?

Sage Gateshead, Theatre Hullabaloo, Festival of Thrift, University of Sunderland and Teesside University

What did they do?

This pilot developed a multi-phase process that enabled partners to engage with both universities and SMEs to explore common overarching challenges; it involved co-designing and testing a creative and digital tender brief articulating a perceived innovation challenge with regional SMEs. The project explored a novel process to support commissioning and procuring of creative and digital services and products between the regional arts and cultural sector and locally based CDIT SMEs.

Calm Digital, an SME who won one of three tenders developed through the co-design process, said: **'The event allowed the companies planning to post the tender to discuss their aims with the creative and digital sector in more detail, which in turn allowed them to be more focused when writing their tender documents - and for those attending to understanding the requirements in more depth. This event was both a positive experience and beneficial for Calm Digital in understanding the creative sector's varied needs.'**

Carl Thom, Business Development

Digital (R)evolution

Shoes2Run

Who was involved?

Shoes2Run, Northumbria University, University of Sunderland

What did they do?

This innovation pilot enabled Shoes2Run to further develop a wearable technology sock called 'Mymo'. Developing the product involved product design, Artificial Intelligence (AI) algorithm development, smartphone technology and big data analysis. Academic involvement helped develop and test the AI algorithm, giving the product much more credibility when taken to market. Mymo is a platform which helps runners to choose the correct type of running shoe but also informs them of new shoe releases and helps them to connect with other similar runners by creating a community forum to discuss specific shoe types, brands and recommendations.

What next?

Shoes2Run intend to continue the Creative Fuse collaboration by working with both Northumbria and Sunderland Universities for further AI development and big data analysis, and has been further supported through next stage product development by the Centre for Process Innovation (CPI) and RTC North.

Smart Data

Intogral Ltd: Deep Learning AI for the Classification & Clustering of Museum Collections

Who was involved?

Intogral Ltd, Durham University, Newcastle University

What did they do?

This pilot conducted a proof of concept project to determine if Artificial Intelligence Deep Learning could be applied to cultural and fine art artefacts to support the classification and clustering of museum collections. The work involved the collation of sample images from museums, establishment of Deep Learning architecture, training and visualisation techniques. After testing, there were demonstrations to stakeholders including UNESCO, INTERPOL, ICOM, and also commercial / private sector auction houses and private collectors.

What next?

Intogral Ltd are planning to apply for an Innovate UK R&D grant to continue this work in conjunction with academic collections from across the North East and Europe.

Digital Heritage



Democratising Creative Processes in Theatre

Who was involved?

Unfolding Theatre, Teesside University, Durham University, Northumbria University with additional contributions from Manchester International Festival, Young Writers' City, New Writing North and Queen's Hall Youth Theatre in Hexham.

What did they do?

This pilot enabled Unfolding Theatre to develop a mechanism to amplify and capture young people's voices. Inspired by a question asked to pupils at Eton College 'What are you going to do when you're in charge?'. Unfolding Theatre believe all young people should be asked this question.

With support from the innovation pilot team and in collaboration with 51 young people, Unfolding Theatre created interactive arcade machines and recording booths, capturing and sharing the ideas of young people. Triggered by motion senses, booths recorded young people's responses to the question 'what change would you like to make?'. This generated a print-out of their sound wave, and a code to find their recording uploaded onto Instagram (@multiverse_arcade).

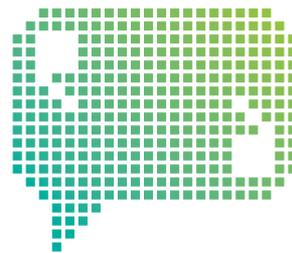
'Coming from a point of having few relationships with North East universities, the Creative Fuse North East Innovation Pilot connected us with amazing academics who inspired and enabled us to build digital tools, which supported us to reach more audiences than ever before!'

Annie Rigby, Artistic Director, Unfolding Theatre

What next?

The pilot has had a transformative impact on the way that Unfolding Theatre use technology to create work. It has helped them to expand their reach and deepen participation through digital engagement in their performance and community projects. It supported the creation of a new post, Multiverse Arcade Production Assistant, which enabled Unfolding Theatre to employ two interns, one of whom has a new permanent job as Associate Artist Digital.

Social Change



West End Refugee Service Skillsmatch

Who was involved?

West End Refugee Service, Newcastle University, Teesside University

What did they do?

This pilot allowed the West End Refugee Service in Newcastle to create their skillsmatch programme. The funding was sought to develop an existing Crowdskills model into a website that could match the skills and interests of asylum seekers and refugees with volunteering opportunities out in the community. The innovation pilot allowed for consultation workshops, identifying the needs of asylum seekers and refugees and informing the development and design of a web platform. The platform is currently live and has led to a number of successful volunteer opportunities being filled; WERS continues to engage with a wide variety of local organisations to ensure positions are available on the site.

What next?

The skillsmatch project is now an integral part of WERS' Volunteer Project. WERS has just received a six-figure grant from a major funder to enlarge its digital work with refugees and asylum seekers – a huge boost for the organisation's future and only possible because of Creative Fuse.

'Without the Creative Fuse project it is very unlikely that WERS would have been in a position to develop the website, having neither spare funding to pay for it nor the technical skills amongst its staff team. WERS is now in a position to apply to different funding bodies whose grant criteria WERS' core activities would otherwise not have met.'

WERS

Building Social Change



Full Blown Metal

Who was involved?

Full Blown Studios, Newcastle University, Northumbria University

What did they do?

This pilot allowed Full Blown Studios to explore the potential of their approach to energy saving cladding systems for buildings through thorough market research and developing and testing the concept. The academic input was crucial to understanding the thermodynamic potential of the product and together an expandable spiral heat transfer module inserted in between flat sheets of metal was developed. This could be a revolutionary technique, providing affordable, energy efficient and design forward cladding for buildings.

What next?

This innovation pilot has taken an idea beyond proof concept and Full Blown are now signed up to a 'scale up programme' managed by RTC to secure funding and assistance in developing products for production and scaling up for manufacturing. Further collaborators have joined the original group and are scoping a possible application for a European Commission Research Grant.

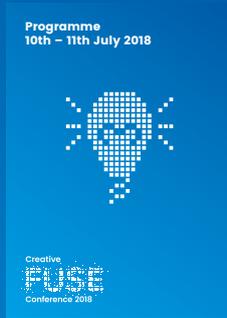
Future Cities

Creative Fuse North East Conference



Creative Fuse is not a virtual network, it is a diverse community that has grown throughout the project; this is clear from the attendance and feedback on all events. The flagship conference held on 10–11 July 2018 at Newcastle's Discovery Museum was attended by over 250 people. It was a celebration of the creative and cultural sector in the North East but reached an audience far beyond that. Keynote speakers included Zoe Laughlin from the Institute of Making and Jo Lansdowne from the Watershed, Bristol, as well as notable appearances from Darren Henley (Chief Executive, Arts Council England) Alan Welby (NELEP) and Solomon Nwabueze (Creative England). The event encompassed the spirit of Fuse with a series of workshops and 'fireside chats' covering everything from financing your business plan to Augmented Reality.

The conference was not only an opportunity to showcase fusions across the region but also to put it into direct practice: opportunities were given to local small businesses to provide goods and services alongside university providers, including conference materials (provided by Altogether), live streaming (provided by GetFilm) and social media (provided by Cambie & Co).



Creative Fuse North East Ethnography: Knowledge production, interdisciplinarity and innovation

Creative Fuse is a highly complex action research project involving multiple disciplines, academics and partners from varied sectors and locations. One of the key strands of Creative Fuse research has been to ethnographically document the project to critically understand the nature of knowledge (co-)production within this interdisciplinary and cross-sector context. This involved looking at the processes, practices, networks and narratives of the project at two levels: localised engagements between the multiple academic disciplines, institutions and cross-sector interests, and the sociocultural applications and logics of interdisciplinarity and innovation. There were three interrelated strands of inquiry:

- i) The social, political and institutional contexts of Creative Fuse;
- ii) The existing and emerging frameworks, networks and meanings underpinning the project;
- iii) The processes, approaches and methods of Creative Fuse that facilitated interdisciplinary collaboration and the generation of innovation.

Focussing on AHRC-funded activity and covering the period between the initial phase of the project through to the early stages of business engagement, but in advance of final delivery and outcomes, the prime purpose was firstly to contribute to the growing body of literature on interdisciplinarity as an increasingly common and required but messy, non-linear and epistemologically fraught practice within academia; and secondly, to examine cross-sectoral partnerships, articulated by the so-called Triple or Quadruple Helix model and the idea of the 'entrepreneurial university', identifying patterns and questions around the nature of knowledge production, the practices of interdisciplinarity and the generation of innovation.

The key research findings can be summarised under a range of broad headings including:

1. Defining and establishing Creative Fuse ²¹

The first half of the project presented a particular challenge: while the fuse agenda sought to address the supposed 'inaccessibility' of universities – the 'ivory tower' with a 'silo' approach to fragmented disciplines the initial focus on the mapping exercise made it difficult to create meaningful conversations with the extensive stakeholder groups and multiple interests involved (regional CDIT businesses, public organisations, and businesses and policy makers). In the words of an Advisory Board member, it felt 'a bit like jelly' in its lack of definition. This was also a challenge for the teams within each of the partner institutions. These issues:

- i) underline tensions between the ideals of action research and the need for clarity around core concepts such as innovation,
- ii) highlight the necessity for strong leadership steers and management approaches in projects of this scale despite the desire not to be proscriptive, and
- iii) hint at the importance of time (and competing temporal frames) within the project.

2. Communications

The challenges of presenting the project were hindered by:

- i) perceived linguistic differences between academic and business communities and
- ii) the lack of personnel to act as centralised points of contact for the project's external stakeholders due to the delayed approval of ERDF funding, as well as the absence of a specific budget to support CAKE events (which were a last-minute addition to the project and therefore not costed in). Use of appropriate language, avoiding academic jargon in favour of 'business-friendly language' and using 'hooks', stories, anecdotes and case studies, was seen as important in trying to develop a 'brand awareness'. Thus translation was a key task: not only rendering words and ideas easily accessible between two distinct social groups, but also shaping the 'rules of engagement' to align interests with other actors within the project's networks.

Footnotes

²¹ The full ethnographic report by Dr Cathrine Degnen and Dr Audrey Verma of Newcastle University's School of Geography, Politics and Sociology can be found on the Creative Fuse website.



3. Bringing businesses on board

Creative Fuse involves a complex balance of multiple cross-sector and cross-disciplinary interests throughout the project, and bringing businesses to the table was viewed as a primary challenge. While the initial lack of business interest in the first year was viewed primarily as a communications deficit, other possible reasons included:

- i) lack of tangible incentives for businesses to collaborate with universities,
- ii) differences in motivations, and
- iii) incompatible schedules/response times.

Considerable strides were made in bringing businesses on board for the project's second phase:

- by couching the project as a platform for universities to add value to the region's CDIT sector by responding to its needs articulated in the survey,
- by using the core team and research associates to mobilise networks, and
- because pilot funding and business support/placement programmes proved to be tangible, low risk and quick draws. The concept of value was a recurring one, with different definitions from different stakeholders and competition between cultural and economic value.

4. Advantages and barriers to collaboration

The two rounds of calls for pilot funding garnered 102 applications ranging from cybercrime and health to music, education and data. Feedback from the businesses involved was largely positive, with smaller businesses and creative practitioners appearing to benefit most from the collaborations. Advantages cited include:

- i) easy access to the currently fragmented expertise within universities;
- ii) the opportunity to undertake research-based activities they would normally not have the resources for or could not take risks on, to extend their current remit or practices. In the words of one company: 'It was a research process [that gave] us that freedom and space to research things properly and go through a process of challenge and rigour'; and
- iii) facilitating new practices and ideas that could be leveraged on for further funding or competitive advantage.

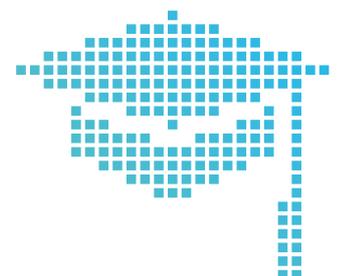
There was little criticism from external partners, but one recurring issue concerned delays in payments from the universities, which was more acutely a problem for smaller organisations.

5. The role and participation of academics

While the focus on business and external partners paid off, a less articulated challenge began to show more acutely during the second round of Innovation Pilots. Participation of academics in these collaborations tended to be secondary rather than equal, with many academics occupying roles akin to consultants or evaluators as opposed to partners co-shaping the Pilots. This was at least partly due to quick turnovers for submission of applications to the funding call, coupled with the difficulty of aligning precisely available academics with the requirements of the businesses involved and the various pressures on academics of teaching and research.

These perspectives suggested three main points of disjunction. First, current higher education drivers incentivise specific forms of knowledge production (e.g. publications and quantifiable outputs). Second, there exists a tension between the desire to collaborate across institutions, disciplines and sectors, and practical barriers (e.g. saturated workloads). Third, academic research and businesses operate on different timeframes, the former often taking long-term strategic perspectives while businesses are often required to be fleet of foot.

Another key issue was around which academics engaged most with the project. Those most engaged tended to be senior academics in secure roles or fixed-term research associates whose contracts were tied exclusively to the project and may be often responsible for activities such as marketing and workshop organisation rather than focussing on the more conventional academic activities such as writing research publications (though the project has provided early career researchers with the opportunity to present and write papers too). This kind of project can thus widen existing gaps between more securely employed academics and early career researchers on precarious short-term contracts.



6. Academic interdisciplinarity and cross-university collaboration

Some participants indicated that Creative Fuse created valuable, and in some cases unprecedented, interdisciplinary working, often between academics who had never met before, not least since interdisciplinary work tends to be disincentivised in formal academic settings. There was nevertheless a dominance of particular disciplinary approaches (for example, business and design thinking) in the project.

The partnership between the five universities was lauded as a unique selling point to industry and policymakers, while the scale and complexity of working across multiple processes and structures was in many ways uncharted terrain. Nevertheless, while all pilots involved academics from at least two institutions, the individual projects did not always have parity in terms of institutional involvement as one institution may have taken the lead in the co-production observed. This may have been caused by practical factors such as the challenge of multiple systems and processes (e.g. 'none of the budgets speak to each other'), reiterating the central role of finance in the project and the lack established support mechanisms for this type of collaborative project. Problems were also created in several cases when academics left or changed roles.

At a day-to-day level, two key factors shaped cross-university collaboration, emphasising the centrality of time and the importance of staffing and communications within the project: first the regular changes of personnel in project, and second the challenge of internal communications over the five partner universities, especially in the project's first year. There were also differences across the mix of Russell Group and Post-92 universities around the largely applied remit of Creative Fuse, which was often perceived as being at odds with fundamentally research-based work.

7. Space, place and geography

While Creative Fuse's roots lie in similar projects in London and Brighton, the project was very much shaped by its geography and the socio-cultural specificities of the North East. Recurring place-based themes included:

- i) The contributions of all five universities to the economic and social life of the region within the shared idea of the 'civic university'.
- ii) The relationship between the North East and London, coloured by a sense of identity emerging from being the smallest English region in terms of size and distance from Westminster and London.
- iii) Intra-regional fragmentation and inequalities across a large highly differentiated region presented conceptual challenges, especially the danger of imbalance between the north and south.

8. Diversity and inclusion

The question of whose definitions, ideas and voices were reflected by Creative Fuse also played out in relation to the diversity of participants in the project. At earlier stages in the project the core team was disproportionately male, partly due to the unpredictability of staffing changes, though gender parity on the Advisory Board, Steering Group and selection panels was more within the project's control. The project raises the pertinent issue of which groups were excluded from its benefits, both in terms of ethnic and gender diversity (a challenging problem for the creative industries sector as a whole) but also how many lead businesses and partners were already known to the universities. Could more be done to include a higher number of hard-to-reach businesses and individuals?

Some of these important issues will be expanded in a series of forthcoming academic articles, particularly: i) the implications of new forms of university-business collaborations for knowledge production, academic labour and the university of the future; ii) the differing notions of time within various sectors in multi-organisation projects; and iii) the practices and tensions of creative digital sector work in the context of labour relations in post-industrial North East UK.



Lessons Learned

Creative Fuse has broken new ground in many ways. It was the first time the five universities had come together to support the region's creative economy in a major project spanning not only the CDIT sector but spilling into other sectors; thus, the key learning points identified by the five lead organisations are predictably wide-ranging and varied. Nevertheless, some key themes have emerged:

Working with micro-businesses

- Successful support of creative micro-businesses should not be measured in terms of job creation alone, but by increased procurement of services. Durham noted that, while none of the businesses engaged has so far employed additional people as a direct result of the project interventions, they have procured additional services from other creatives (e.g. professional support for social media after attending a Digital Developer workshop). Success is also best measured in terms of stability, wellbeing and confidence. For many businesses, aligning their personal values with business ambitions was more important than mere growth, and they placed considerable store in the prestige gained by working directly with a university.
- The region enjoys not only a robust CDIT sector but also a rich array of micro- and sole-trading arts and crafts practitioners who work and live across the wider region. Their presence and needs may be less readily identified using high-level surveys than through on-the-ground and co-developed research approaches.
- Further research in relation to the contribution of micro-businesses, both direct and indirect to the regional economy, should be undertaken.



A 'slow-burn' project

- For a variety of reasons, not least the complex nature of the project, the fact that it necessarily began with a survey, and that the core team was appointed late due to funding delays, the first 12 to 18 months were problematic in projecting an understanding of what Creative Fuse was all about – not only outwards to the CDIT sector but also within the universities themselves. This also impacted on getting initial buy-in to the survey, which failed to capture a wholly representative understanding of freelancers working in the region, specifically younger, recent graduates. Nonetheless, the survey of the CDIT sector was still the widest the region has ever seen.
- Elements of the project could, with hindsight, have been integrated more closely. Many innovation pilots would have gained from an ERDF-funded 'get ready to innovate' phase prior to applying for funding, giving them a chance to develop their ideas and understand what expertise they needed to engage with. Again, delays in funding approval and implementation contributed.
- With more or better deployed capacity, the project could have undertaken further sharing of on-going developing knowledge and practice across the teams and institutions involved in the Pilots and ERDF delivery, including assumptions about what innovation is and how it is stimulated, encouraged and nurtured.

Student placements

- A challenge faced by the Durham University team was developing and launching its student placement scheme. This did not in the end move ahead due to the tight timeframes and the novel nature of the tripartite agreements required. Lessons learned have been applied to future placement work across the University.
- For Sunderland, placements were the most effective assist given to business, with significant interest in 12-week graduate placements from SMEs in both the CDIT sector and those in other sectors applying CDIT skills and approaches. Challenges in recruiting graduates and academics related primarily to timing, demonstrating the need to align placement activity to the academic year. It is important that student placements are properly funded and that no student is expected to offer a significant time commitment without due recompense.

University capacity and appetite for business support

- Universities, especially those in the Russell Group, often do not prioritise business support, particularly within the arts and humanities. The main institutional drivers – such as student recruitment, the Research Excellence Framework, promotions criteria, etc. – all prioritise other activities, so when the project was put together, it was difficult to include staff beyond those who had already directly experienced the often less tangible rewards of working in this space. Nevertheless, during the second phase of Creative Fuse, many staff not originally written into the bid came forward; this really worked best when their involvement matched personal and institutional incentives, particularly research agendas. Durham, for example, really embraced the new opportunities, involving over 15 internal staff, both academic and professional, offering hands-on, business-facing delivery.
- Creative Fuse fashioned a dedicated and skilled team of staff across the five universities, particularly of young research associates at an early stage in their careers, who faced the challenge of developing more conventional career paths through academic publications alongside managing and delivering ERDF-funded activity. The project was hugely fortunate in its enthusiastic staff who committed their time and energy, and the team spirit across the five institutions – and indeed with key sector stakeholders too – has been one of the most positive and encouraging features of the work. However, with the usual curse of project funding, as the project nears its end, several key players have already left for other jobs. Universities need to find ways of avoiding this loss of talent and experience; this is much harder within the arts, humanities and social sciences, where there is little tradition of pools of research associates who move from one project to the next underpinned by institutional bridge funding.
- The complexities of such an ambitious project involving all five universities and funded by three key stakeholders resulted in significant administrative challenges, especially in areas such as finance and legal requirements, since each university has its own processes and procedures. The clash of timeframes, too, both across the five organisations but particularly with swifter moving SMEs, was a regular challenge.

Co-production

- The most successful pilots tended to be those which were genuinely co-produced between academics and SMEs rather than those primarily driven by a single party.
- For Teesside, projects focussing on culture have been especially successful as this reflects the particular interests of several academics from Teesside, Sunderland and Durham as well as partner organisations, and it is also one of six core themes in the Tees Valley Combined Authority Strategic Economic Plan. The important role of culture in creating economic prosperity, social cohesion, health and wellbeing and place-making has generated real regional momentum in this area, from which the project has undoubtedly benefited.
- Many participants found significant benefit through cross-institutional and cross-faculty collaborations; connecting a variety of academics from multiple disciplines sometimes led to unexpected positive results, both for the academics and for businesses.
- One of the project's fundamental strengths lay in the genuine spirit of co-production and collaboration across the five universities and with key organisations and gate-keepers across the sector. This was largely down to shared values and trust between the key individuals 'leading the project', particularly the core project team and the institutional leads. While the mix of funding with very different drivers created major administrative headaches and very different outputs and objectives, it also enabled a mix of activities that drew in very different participants and created some serendipitous yet potent collaborations.

- Once the initial mapping exercise was complete, more frequent research meetings would have encouraged a stronger sense of direction and collaboration in the project's later stages. This was partly the result of the enormous effort focussed on the ERDF delivery and associated paperwork and maybe the assumption that, being in the same region, academics would meet each other anyway.

A distinctive region?

- Many businesses we worked with indicated that growth in confidence was a major component in the success of the programme. This was manifest in both creative industries businesses who reported growth as more confident creatives, and traditionally 'non-creative' businesses that reported becoming creatively confident. Some businesses seemed to lack creative confidence, wanted to please everyone all of all the time, and under-valued their worth. More research is required to understand whether this is a regional trait, and, if so, what can be done about it?
- While the project explored distinctive regional issues, the strength and national profile of the Advisory Board undoubtedly strengthened the project's vision and impact.



Reflections from Eric Cross

The process of putting together this final report has served to underline to all of us in the core team the richness of Creative Fuse. Like many research projects, it has started slowly and then gradually accelerated.



**Professor Eric Cross,
Principal Investigator**

While the initial year of mapping the CDIT sector in the North East laid vital groundwork for the second phase of the project, it inevitably delayed our hands-on engagement with businesses and freelancers. Once the second phase kicked in, with its 30 innovation pilots and its wealth of ERDF and Arts Council-funded activities, our exploration of the concept of fusion really took off and the project has captured the imagination of many of our stakeholders and collaborators as well as becoming much more tangible for academic colleagues.

When we were originally conceiving the project, one of our aims was to take risks and push the boundaries of what we might expect would be successful.

Here I would like to record our thanks, particularly to the AHRC who of course initiated the project, but also to ACE and the five universities, not only for their generous funding but also for their willingness to take measured risks with their money. AHRC allowed us to earmark £400,000 for an unspecified number of innovation pilots that were completely undefined.

While this idea was incomprehensible to at least one of the project's peer reviewers, used to the traditional research project with clear parameters and specific outcomes, it enabled us to respond directly to new ideas from outside academia, as well as to put some of our funding directly into businesses and freelancers. The direct results are evaluated in the section above on the innovation pilots and include the development of new jobs and new products – from running shoes and metal heating components to participatory theatre pieces and a website supporting refugees and asylum seekers – but, perhaps most importantly, new understanding about the importance of innovation and new ongoing partnerships with academics from across the region, something also generated by the ERDF-funded activities. None of us could have predicted that we would have ended up working with Northumbria Police, UNESCO and INTERPOL, or that one of the pilots would have successfully generated a six-figure grant for further development.

For me, as the Principal Investigator for Creative Fuse, this has been an incredible journey, and I am acutely aware that the project's success is not only the result of the foresight of its funders but of the skills of key personnel. We have been blessed with a powerful Advisory Board, expertly chaired by Ed Vaizey, which has asked lots of difficult questions when they needed to be asked, and by a strongly supportive Steering Group which has helped ensure that the project has been fully rooted within the region.

The Operations Group has met every three weeks throughout the project, and it has been a real pleasure to work with a committed group of fellow academics and administrators who have constantly put the opportunities of cross-institutional collaboration and the needs of businesses above the parochial interests of any individual university. Creative Fuse has also been incredibly fortunate in the knowledge and skills of its core staff. I would particularly like to thank Frances Hardcastle and Faye Harland for their support of communications and events, our Project Administrator Tamara Gilbert, Project Managers Helen Ross and Libby Wood (and Jenny Allinson for the work she did in putting the original application together), and our Project Directors Jason Legget and Mark Adamson. They have been a great team!

Looking to the future, it is important that the achievements and regional recognition that Creative Fuse has generated over nearly three years, evidenced in the various external evaluations we have commissioned, are not lost. We are currently looking at future funding, and the recent extension of the project till 31 March 2019 has given us a window in which to develop various options. In the current uncertain political climate, the concept of fusion and its contribution to the health of the creative industries and the wider CDIT sector, indeed the broader economy, is all the more important to UK plc, and we intend to ensure that the North East and the powerful consortium of its five universities continue to play a leading role in this agenda.



Thanks

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Image credits and acknowledgements

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1. Still from video 'Innovation Pilots' produced by Superkrush – available in full here: <https://vimeo.com/279014735>
2. Image from video 'Creative Catalysts' a programme run through Northumbria University, video produced by Superkrush and available in full here: <https://vimeo.com/299251001>
3. Durham University students and staff participating in a therapeutic art workshop developed by artist Stella Rose Bell in Arty Crafty, part of the Teach Your Art programme. Source: Tom Patrick, Graphite Panda
4. Image from video 'Creative Catalysts' a programme run through Northumbria University, video produced by Superkrush and available in full here: <https://vimeo.com/299251001>
5. One of the arcade machines from the Multiverse Arcade in action – photo provided by Unfolding Theatre.
6. Fullblown Metal – and example from Full Blown Studios
7. Still from 'Northern Dance' video – a collaboration between Northumbria University and Northern Dance – video produced by Superkrush and available in full here: <https://vimeo.com/283689603>

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Students at Creatathon delivered by Newcastle University Business School

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Durham University students and staff participating in a therapeutic art workshop developed by artist Stella Rose Bell in Arty Crafty, part of the Teach Your Art programme. Source: Tom Patrick, Graphite Panda.

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Demonstrating VR/AR at Hedgehog Lab, images from video 'Innovation Pilots' produced by Superkrush and available in full here: <https://vimeo.com/279014735>

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The Shoes2Run team demonstrating Mymo, images from video 'Innovation Pilots' produced by Superkrush and available in full here: <https://vimeo.com/279014735>

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Top: One of the arcade machines from the Multiverse Arcade (Unfolding Theatre) in action – Image from video 'Innovation Pilots', produced by Superkrush, available in full here: <https://vimeo.com/279014735>

Bottom: Work being carried out at Fullblown Studios, image from video 'Innovation Pilots' produced by Superkrush and available in full here: <https://vimeo.com/279014735>

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Images sourced from the Creative Fuse team attending the conference. Conference branding and merchandise designed by Altogether. Videos from the day produced by Get Film and available here: <https://vimeo.com/cfne>

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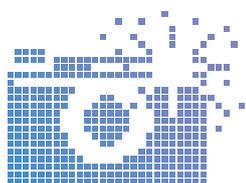
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Creative



North East

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