

Institution: University of Sussex		
Unit of Assessment: 17 – Business and Management Studies		
Title of case study: Boosting the economic impact of the creative industries		
Period when the underpinning research was undertaken: 2011 – 2020		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	Role(s) (e.g. job title):	Period(s) employed by submitting HEI:
Roberto Camerani	Senior Lecturer	2012 – present
Josh Siepel	Senior Lecturer	2006 – present
Monica Masucci	Lecturer	2011 – present
Paul Nightingale	Professor	1996 – present
Alex Coad	Senior Research Fellow	2010 – 2015
Period when the claimed impact occurred: 2013 – 2020		
Is this case study continued from a case study submitted in 2014? N		
1. Summary of the impact <p>A series of projects by Sussex researchers have enhanced policymakers' understanding of the importance of creativity to economic competitiveness. Locally, the research led directly to the creation of a hub – 'FuseBox' – that has supported hundreds of businesses and boosted skills. The research also underpinned Brighton & Hove City Council's successful case for the Greater Brighton City Deal, which is delivering £170m in investment to support the city's businesses. Nationally, the research findings have transformed key policy and funding actors' understanding of the economic impact of combining arts and humanities with science, technology, engineering and mathematics (STEM) skills. Examples include influencing the Arts and Humanities Research Council's £80m Creative Industries Clusters Programme, and the recommendations in a report commissioned by the Department for Digital, Culture, Media and Sport (DCMS) to invest a further £500m in creative industry clusters.</p>		
2. Underpinning research <p>The UK's rapidly-growing creative industries employ more than two million people, making an increasingly important contribution to the UK economy. Although it has been long understood that creative industries tend to cluster in particular locations, there was previously a lack of robust evidence about the economic impact – or the drivers of growth – of these clusters.</p> <p>Brighton Fuse [R1] was a two-year research project (2011-2013) funded by the Arts and Humanities Research Council (AHRC) – carried out by the Universities of Sussex and Brighton, in collaboration with industry partner Wired Sussex – to provide deep understanding of the factors shaping the development of creative industry clusters. Based on a large-scale survey of almost 500 firms, led by the University of Sussex, and interviews with 77 local entrepreneurs, artists, academics and stakeholders, the project studied the creative, digital, and IT (CDIT) industry cluster in Brighton & Hove, analysing its economic contribution, measuring its performance in terms of growth and innovation, and identifying opportunities and challenges. The objective of the study was to inform strategies to make the cluster more competitive and to provide a blueprint for high-growth, creative digital businesses on both local and national scales.</p> <p>One of the most important findings was the significance of creative skills for innovation and growth. The survey found that 45% of entrepreneurs in CDIT firms in Brighton and Hove had an arts and humanities background. Most importantly, the combination – or 'fusion' – of artistic and creative skills with technical expertise was found to be a major factor in business success. The project identified two types of businesses – '<i>fused</i>' and '<i>superfused</i>' companies – which combined arts and humanities skills with STEM skills to a certain or a great extent, respectively.</p>		

These firms performed strongly, growing at more than twice the speed of 'unfused' firms and ten times faster than the UK economy overall. They also continuously innovated their business models, services and products.

These findings have been verified and expanded upon by two other projects. **Brighton Fuse 2 [R2]**, also funded by the AHRC, examined the contribution of individual CDIT freelancers through a series of 32 in-depth interviews and two focus groups. It found that – like the firms studied in **R1** – many freelancers working in the creative industries combine creative and technical skills in their work, demonstrating that the concept of 'fusion' can be applied at an individual as well as a group level.

The 2014-16 **Fusion Effect** project, commissioned by UK innovation foundation Nesta, analysed the arts and science 'fusion' effect at a national level and beyond the creative industries [**R3**, **R4**]. Using official UK data on innovation and firm capability, the researchers studied companies across the UK which used both arts and science skills. The report provides evidence that 'fused' firms play a major role in the UK economy. These firms make up only 11% of non-micro firms, but generate 22% of employment and 22% of turnover. Importantly, companies that harnessed both arts and science skills were found to outperform their competitors. Other things being equal, they grow 6% faster in terms of employment, demonstrate 8% higher sales growth than STEM-only firms, and are 3% more likely to bring radical innovations to market.

Together, the researchers' insights have brought new subtleties to the knowledge and skills agenda, which can often be oversimplified by focusing on the need for more STEM graduates.

Research into the UK's creative industries is ongoing. The University of Sussex is a partner in the Creative Industries Policy and Evidence Centre (PEC) and is leading the work strand on innovation and creative clusters. The flagship data collection initiative of the PEC, Creative Radar, is based on an extended version of the Brighton Fuse methodology and questionnaire. The first Creative Radar report explored the phenomenon of creative micro-clusters [**R5**], drawing on the insights from the Brighton Fuse report. At time of writing [February 2021], a follow-up of the Creative Radar survey is in the field looking at creative businesses' response to the Covid-19 pandemic.

3. References to the research

R1 Nightingale, P., Sapsed, J., Camerani, R., Coad, A., et al. 'The Brighton Fuse' final report (10/2013). Available from: <http://www.brightonfuse.com/wp-content/uploads/2013/10/The-Brighton-Fuse-Final-Report.pdf> including separate Summary and Policy Recommendations document: <http://www.brightonfuse.com/wp-content/uploads/2013/10/The-Brighton-Fuse-Summary-and-Policy-Recommendations.1.pdf> and animated video: https://youtu.be/GgFI_R_sANw.

R2 Sapsed, J., Camerani, R., Masucci, M., et al. 'Brighton Fuse 2: Freelancers in the Creative Digital IT Economy' final report (01/2015). Available from: http://www.brightonfuse.com/wp-content/uploads/2015/01/brighton_fuse2_online.pdf

R3 Siepel, J., Camerani, R., Pellegrino, G., Masucci, M., 'The Fusion Effect: The economic returns to combining arts and science skills'. Nesta (06/2016). <http://www.nesta.org.uk/publications/fusion-effect-economic-returns-combining-arts-and-science-skills> [this report underwent a rigorous internal peer review process at Nesta]

R4 Siepel, J., Camerani, R., Masucci, M. Skills combinations and firm performance. *Small Business Economics* (2019). <https://doi.org/10.1007/s11187-019-00249-3>

R5 Siepel, J., Camerani, R., Masucci, M., Velez Ospina, J., Casadei, P., Bloom, M. 'Creative Industries Radar: Mapping the UK's creative clusters and microclusters' Report. (November 2020) <https://www.pec.ac.uk/assets/publications/PEC-Creative-Radar-report-November-2020.pdf>

Grants:

G1 Nightingale, Paul (PI). 'Enhancing the Creative, Digital and Information Technology industries: "The Brighton Fuse"'. Funded by AHRC (bid number 163918). June 2011 – June

2013. Award value (Sussex): £249,898 (Total awarded to project: £919,192). Other partners: University of Brighton, Wired Sussex, Council for Industry and Higher Education.

G2 Camerani, Roberto (PI). 'Brighton Fuse 2'. Funded by AHRC ([AH/L504026/1](#)). August 2013 – January 2015. Award value (Sussex): £119,858 (Total awarded to project: £217,765). Other partners: University of Brighton, Wired Sussex.

G3 Siepel, Josh (PI). 'A study of innovation and growth in the UK creative industries', culminating in the 'Fusion Effect' report. Funded by Nesta (ref PR300). March – August 2014 – August 2016. Award value: £9,999.

G4 Siepel, Josh (PI), Camerani, Roberto (Co-I), Masucci, Monica (Co-I). Workstrand 1 (Creative Clusters) – Centre of Excellence for Policy and Evidence in the Creative Industries. Funded by AHRC ([AH/S001298/1](#)), led by Nesta. September 2018 – May 2023. Award value (Sussex) £550,607 (Total awarded to project: £6,137,268).

4. Details of the impact

4.1 Supporting and growing the creative industries in Brighton & Hove

As a result of recommendations from the Brighton Fuse research [R1], the Arts and Humanities Research Council (AHRC) supported a pilot programme – 'FuseBox' [S1] – a Brighton-based innovation centre that provides digital, creative and tech entrepreneurs with access to spaces, facilities, opportunities and expertise. The pilot led to the creation of ten new businesses [S1] and FuseBox is now an established hub in the city. Led by the Wired Sussex regional network, it provides support for hundreds of individual entrepreneurs, small and medium enterprises, and large corporations including Legal & General and American Express, helping to mitigate the skills barriers highlighted by the Fuse projects. Phil Jones, Managing Director of Wired Sussex, explains the importance of the research in the development of FuseBox and the organisation's other projects:

"The research provided us with a detailed in-depth understanding of the way that technology companies use creativity to generate added value. For us, the most important direct impact of the research has been the development of the FuseBox. As its name suggests, the FuseBox is a conscious attempt to turn the research into a highly impactful and value-generating business entity. Very overtly building on the insights from the Brighton Fuse research, the FuseBox underpins access to state-of-the-art technology with a highly developed creatively-driven culture." [S2]

Jones goes on to state that the research "has provided the framework to much of the activity that Wired Sussex undertakes to support digital, media and technology businesses both locally and nationally" and that it was "undoubtedly the genesis for several significant projects delivered by FuseBox".

These projects include the **Brighton Digital Catapult Centre** – one of four regional centres established to help innovators bring digital services and products to market, in order to make UK businesses more competitive and productive. Jones explains that "the successful proposal to host a regional centre used the Brighton Fuse research as its evidence base" [S2]. The Brighton Digital Catapult Centre is led by the Coast to Capital Local Enterprise Partnership, which has also been strongly influenced by the Brighton Fuse research, as outlined in its Strategic Economic Plan 2014: "We will build on the recent Brighton Fuse report to address skills development in the CDIT sector." [S3]

Other successful projects stemming from FuseBox include:

- The Brighton Immersive Lab, which offers access to mixed reality testing and showcasing spaces and has helped accelerate the growth of the regional VR/AR sector. Jones states that the Lab "embodies the Fuse approach by applying creative practices to a range of emerging technologies".
- The ESRC-funded FuseBox 5G testbed project – the first in the UK designed to be used by SMEs – became the model used by the DCMS to establish its national Testbeds and Trials Programme.

- A joint DCMS-funded project with partners including Brighton Dome, that is working with the music industry to explore how to use emerging technologies to create, produce and experience musical content in innovative ways.

As Jones explains, “the success of the FuseBox has also inspired other organisations to apply the Brighton Fuse research in their activity”. For example, Chelsea Football Club’s Chelsea Entrepreneur Programme uses the Fuse-derived model developed at the FuseBox to help jobseekers start their own business, while American Express (one of the early supporters of FuseBox) introduced retail developer Redevco to ideas from the Fuse research as part of a ‘store of the future’ project, which looked at how technology will disrupt the physical retail sector. The relationship subsequently led to Redevco investing in and redeveloping part of the Lanes shopping area in Brighton. [S2]

The Brighton Fuse project was also used extensively to support Brighton & Hove City Council’s successful City Deal bid, “providing the underpinning evidence for Brighton and Hove’s £170m City Deal in 2014” [S1]. Through the City Deal, the UK government provided £170 million to create 8,500 jobs and grow technology businesses. The government’s policy paper on the City Deal acknowledges the significant influence of the Brighton Fuse research:

“Brighton’s creative-tech cluster has emerged from nothing over the past decade and now boasts over 1,500 high-value businesses... The Brighton Fuse research highlighted this sector’s outstanding performance and held up Brighton as a new model for developing “superfused” businesses.” [S4]

The paper also highlights the wider influence of Brighton’s City Deal, stating that it “will share knowledge and intelligence about supporting creative-tech business, based on its Fuse model growth, with government departments and other local authorities.” [S4]

4.2 Inspiring national policy and investment in creative industries

As well as having a direct impact on business success, the research has influenced funding decisions for the creative industries by inspiring policymakers, at both a local and national level. Speaking in support of the Brighton Fuse project at the project findings event in 2013, the Rt Hon Ed Vaizey, then Parliamentary Under Secretary of State for Culture and Creative Industries, set out his ambition to replicate the success of the Brighton creative cluster across the country:

“The Brighton CDIT cluster is clearly a great success story and I welcome this study that looks at the factors underpinning its success. We are living in an increasingly convergent world where the earlier distinctions between arts and digital technologies are blurring. The creative industries have always been early adopters of new technologies and I want to see similar clusters thrive right across the UK.” [S5]

In March 2014, the AHRC exhibited the Brighton Fuse project as an example of high-quality research in its Creative Economy Showcase. In his keynote address at the event, the Rt Hon David Willetts MP (then Minister of State for Universities and Science) emphasised the significance of the project, stating: “The fascinating Brighton Fuse project... has a very important lesson for us”. He went on to describe how the project’s identification of the success of superfused businesses was providing inspiration for government policy:

“This [superfused business] is a business that brings together technology, business acumen and of course creative and artistic activity creating content. If we can bring all that together, you clearly do have quite extraordinarily successful companies and organisations growing more rapidly than other companies across the country, and even more rapidly than other companies in the creative industries... Here in the UK we are very good at combining innovative IT with new creative content. And I think that is the future and it’s something that we want to promote.” [S6]

AHRC’s 2017 report highlights the influence of Brighton Fuse on the development of similar regional projects (Bristol and Bath By Design, and Creative Fuse North East) and states that “the legacy of the AHRC’s ground-breaking Brighton Fuse project (2011-2013) continues to be felt” [S6].

Building on this momentum, the Business and Culture Secretaries commissioned Sir Peter Bazalgette to conduct an independent review into how the UK's creative industries can underpin future prosperity. Bazalgette's 2017 report [S7] sets out areas where, as part of the Industrial Strategy, government and industry should work together to develop a Sector Deal for the Creative Industries. Citing evidence from both the Brighton Fuse and Fusion Effect research [R1 and R3], the report's key recommendation was to adopt a regional cluster-led approach to support creative industries, supported by a £500 million Creative Clusters Fund. This recommendation was taken up in the Creative Industries Sector Deal, which included an £80m Creative Industries Clusters Programme to support arts and humanities-led research and innovation in UK creative clusters. [S8]

5. Sources to corroborate the impact

- S1** The Impact of AHRC Research April 2015-March 2016
<https://ahrc.ukri.org/newsevents/publications/impactreports/> (p 10)
- S2** Statement from Phil Jones, Managing Director of Wired Sussex
- S3** Coast to Capital LEP Strategic Economic Plan
https://www.coast2capital.org.uk/storage/downloads/strategic_economic_plan_2014_without_annexes_-1475571650.pdf (pp 65, 184)
- S4** 'City Deal: Greater Brighton', UK Government Policy Paper
<https://www.gov.uk/government/publications/city-deal-greater-brighton> (pp 1, 6, 7, 8, 11)
- S5** Statement of support from Ed Vaizey at the project findings event
https://www.slideshare.net/wired_sussex/holding-slide-27288869
- S6** Keynote address from The Rt Hon David Willetts at the AHRC Creative Economy Showcase, London <https://youtu.be/DDTIR6su6d4?t=5m15s> (5m15s – 7m40s)
- S7** Independent Review of the Creative Industries
<https://www.gov.uk/government/publications/independent-review-of-the-creative-industries>
(pp 8 & 26; 15-18, 24, 63)
- S8** 'Creative Industries: Sector Deal' Policy Paper. Department for Business, Energy & Industrial Strategy and Department for Digital, Culture, Media & Sport. March 2018.
<https://www.gov.uk/government/publications/creative-industries-sector-deal>