



**Independent Review of the
Creative Industries**

Sir Peter Bazalgette
September 2017

“Don't know if you clocked,
but times have changed”

'La La La' – Chipmunk

“The creative economy is not only one of the most rapidly growing sectors of the world economy, but also a highly transformative one in terms of income-generation, job creation and export earnings...when the creative sector becomes part of an overall development and growth strategy, it can contribute to the revitalization of the national economy where hybrid and dynamic economic and cultural exchanges occur and innovation is nurtured. But that is not all. Investing in culture and the creative sector as a driver of social development can also lead to results that contribute to the overall wellbeing of communities, individual self-esteem and quality of life, dialogue and cohesion”

UN Report on Creative Economy 2013

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Executive Summary

“Move fast, don't stop, you got things to do”
'The Beigeness' – Kate Tempest

Context

Looking forward fifteen or twenty years to what our future economy could be like, in every scenario the Creative Industries are of central importance to the UK's productivity and global success. We have two great assets: the English language and our national capacity for creativity. But the skills and business models of this sector and of the wider creative economy are those which many experts judge to be of increasing importance: blended technical and creative skills; collaborative interdisciplinary working; entrepreneurialism and enterprise.¹ Not only are the Creative Industries themselves likely to grow as a proportion of our economy, other industries rely on creative disciplines – such as Design and Advertising – to thrive. The cultural and creative sectors are the engine of the UK's international image and soft power. This report recommends ways of maximising the potential of this crucial sector. I am proposing simple ideas which I'd like to see become part of the government's developing Industrial Strategy.

The consistently strong growth across the UK's Creative Industries is well-documented (at more than twice the rate of the overall economy), but we cannot be complacent about such success.

- Economies around the world are emulating our approach, recognising the broad economic and cultural benefits that a strong creative sector can bring, whether through export and domestic growth, enhanced soft power, local regeneration or benefits to the wider creative economy. We have the seeds of world-class Creative Clusters spread around the UK but need to extend growth in our nations and regions to keep at least one step ahead. The positive story of the UK

¹ https://www.oitcenterfor.org/sites/default/files/file_publicacion/thefutureofwork.pdf



Creative Industries to date has been achieved despite unequal distribution of opportunities, skills, finance and knowledge; with around half of the growth and jobs in the sector centred in London and the South East. This should be celebrated. It is not that London is too big but that other centres are too small. We are failing to harness the creative talents of all our communities.

- It is human creativity that drives the success of this sector. In music we are one of the few net exporters.² Our video games grip the imagination of the world. We own half the international trade in TV formats. However, this creative strength cannot be taken for granted as if it were an endless natural resource: it needs to be nurtured through our education and skills systems else we risk falling back as countries such as China move forward.
- The digital era, often referred to as the Fourth Industrial Revolution, represents an enormously exciting opportunity for a further wave of growth and innovation. But we will need to work hard to harness the value of the IP in these sectors and invest in R&D to secure our reputation as the most innovative place to make creative content. We need to exploit technologies such as Virtual and Augmented Reality, 5G, 3D printing and other new techniques to keep innovation strong. We need to reimagine this as a 'creative-tech' sector. The value that they bring is not only to the Creative Industries themselves but also as enablers to the wider economy.

The Industrial Strategy and accompanying Sector Deals come at the right time for our Creative Industries. I urge government to ensure the final strategy is based on a fundamental understanding of what these industries — as a growth sector of the future — need to thrive. This goes beyond special pleading: creative occupations, which make up a high proportion of Creative Industries jobs, are highly resistant to automation with 87% of creative workers in the UK at low or no risk, meaning their share of the workforce is likely to rise steadily in coming years.³

Furthermore, the percentage of self-employed, micro-enterprises and SMEs in the Creative Industries themselves is higher than in most other parts of the economy adding urgency to this agenda. Addressing issues faced by the Creative Industries could provide solutions for many other sectors where the number of SME is going to grow.

Finally, this sector is highly mobile, representing both a risk and an opportunity. With the right policy, regulatory and immigration regime we can accelerate growth and our reputation as leaders in this field. Get it wrong and this opportunity will slip through our fingers; swathes of this highly internationalised workforce will relocate to Canada, the US and Germany, whose governments are working hard to create attractive conditions for growth.

My brief

In the Industrial Strategy Green Paper I was commissioned by the Business and Culture Secretaries to conduct an independent review into *'how the UK's Creative Industries can help underpin our future prosperity, focussed on developing new technology, capitalising on intellectual property rights and growing talent pipelines.'* With this focused brief, I was asked to set out areas where I thought government and industry should work together to develop a Sector Deal for the Creative Industries. I have sought to focus on issues where I believe there is a clear case for action to address particular barriers to growth in these industries. I will leave more cross-cutting challenges such as digital infrastructure to others.

I have also sought to work closely with industry, particularly the Creative Industries Council and Creative Industries Federation. Ideas from these bodies rightly feature heavily in my report, demonstrating the single voice with which this sector now speaks.

² *Measuring Music* (UK Music, 2017)

³ Bakhshi, H. Frey, C.B. Osborne, M. *Creativity vs. Robots – The Creative Economy and the Future of Employment*, 6. (Nesta, 2015)

Themes for a Sector Deal

If government and industry prioritise working in partnership in the way I have recommended, we will unlock growth and productivity for the long-term.

- **My key recommendation is that support for regional growth is prioritised through an approach based on the City Deal model, supported by a £500 million Creative Clusters Fund. This will be awarded to clusters that compete for status and support on merit to be a 'Key Creative Cluster'. I believe strongly that if government can get the leadership, financial, advisory and skills support right for creative clusters then they will deliver a model that solves problems for other significant parts of the economy. For instance, the wider tech sector shares many of the same features as large parts of the Creative Industries: highly mobile, with a large percentage of SMEs and micros and highly innovative. I am recommending a bottom-up process which allows localities, which often have a firmer grasp of their growth potential and needs than central government, to direct policy development. This will also solve the problem government has engaging with fragmented sectors. Linked to this I have proposals to ensure the cultivation of entrepreneurial leadership so vital to the development of creative clusters.**

My other recommendations focus on the following themes:

- **Innovation.** The Creative Industries are highly active in Research and Development (R&D) but such activity is not fully or formally recognised, meaning direct investment into Creative Industries R&D projects is too low. Industry and government need to work together to ensure that this trend is reversed and that the contribution of creative disciplines to R&D is properly valued.
- **Intellectual Property.** Although significant challenges exist for ensuring content creators are fairly remunerated for their IP, overall the UK has a respected and robust IP framework. However, I highlight what more can be done to realise the value of intangible IP by exploring valuation methods and developing innovative approaches to data transparency across the digital value chain.
- **Access to finance.** Some creative micro-enterprises and SMEs are disadvantaged compared to small businesses in other sectors when seeking growth capital. This should be addressed through a 'ladder of growth' approach that works for businesses of different sizes.
- **Talent.** An attraction strategy is needed to inform and excite young people, their teachers and parents about careers in the Creative Industries. Government and industry should ensure approaches to apprenticeships are optimised for individuals and employers.
- **Screen industries.** The screen industries operate within a fiercely competitive international environment, one in which Virtual, Augmented and Mixed Reality are presenting manifold new possibilities. Government should ensure the UK builds a reputation as the most highly skilled nation to produce screen-based content that exploits these technologies. This includes direct investment into VR/AR research and extending the highly successful UK Games Fund.
- **International.** The Creative Industries should be allowed to establish a new, bespoke International Trade Board in partnership with the Department for International Trade (DIT). The UK should also create a new Creative Industries Observatory to cement our international position as a leading authority on the strategy, policy and measurement of this sector.



Conclusion

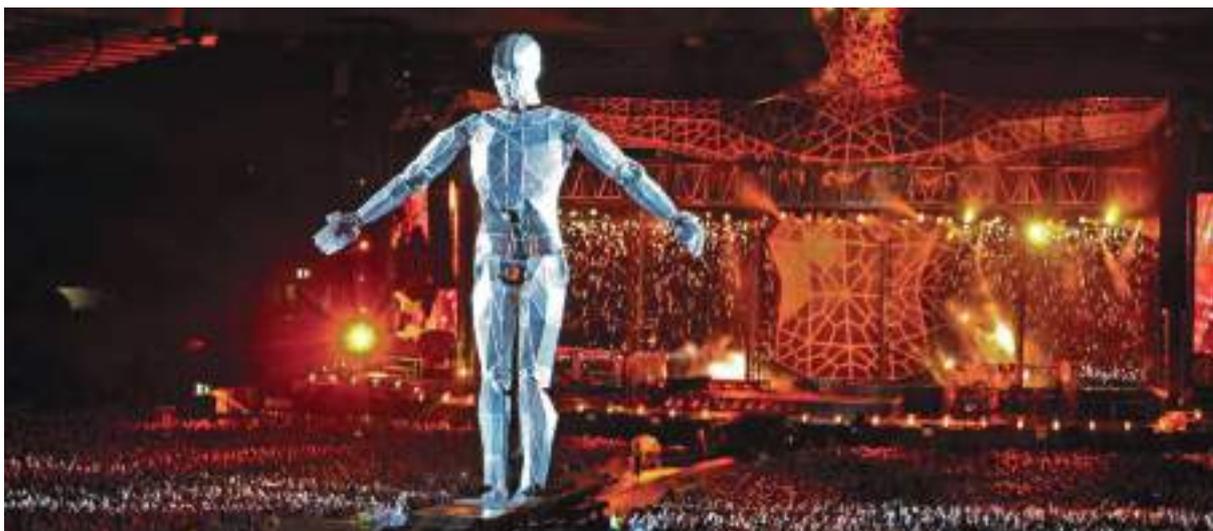
My discussions with industry, including the Creative Industries Council and Creative Industries Federation, together with my analysis of written responses to the Industrial Strategy Green Paper, have confirmed to me that this is a sector with high levels of innovation, that is well organised and which understands the importance of a 'deal' between government and industry.

If this Sector Deal is done then the outlook suggests the UK could:

- **Sustain growth: we forecast the Gross Value Added by the Creative Industries to be £128.4bn by 2025 (3.9% year-on-year increase).**
- **Boost job creation: projecting forward the higher than average growth rate of the sector would imply roughly one million new creative jobs by 2030.**
- **Provide a more consistent national spread of Creative Industries (GVA and jobs): narrowing the gap between the South-East of England and the rest of the UK.**
- **Ensure the Creative Industries are more representative of UK society: attractive and accessible to a diverse range of people.**

The ideas in this report are neither exclusive nor exhaustive. The industry is not short of ideas or ambition; the prize will be to execute on the best and galvanise activity across the sector and around the country over the long term.

This is an exciting agenda and this report is just a first step. I hope government and industry will take it forward with enthusiasm.



Summary of Recommendations

Creative Clusters

1. **Using the model of City Deals, government should launch a 'Key Creative Clusters' competition, supported by a new five-year £500 million Creative Clusters Fund, to accelerate regional growth and create models that can be passed on to other creative clusters and sectors.**
2. **Industry should work with a small number of universities and existing creative clusters on a flexible, modular 'Creative Leaders' scheme to cultivate a network of highly skilled cluster leaders around the UK.**

Innovation

3. **Industry and government should develop a joint plan to increase take-up of existing R&D tax credits by eligible Creative Industries businesses.**
4. **Government should lead a new review looking at whether the definition of the R&D tax credit captures legitimate R&D activity within the Creative Industries. This work should closely involve industry.**
5. **Government and industry should work closely to significantly increase the percentage of Innovate UK's funding going to projects that involve the Creative Industries from the current low level of 2%.**

IP

6. **Government should increase the support offered to businesses to protect and exploit intangible IP. As part of this, the Intellectual Property Office should digitise its *IP Finance Toolkit* and work with industry to publicise it further with businesses of all sizes and across the UK, agreeing an annual target for the number of UK firms using it.**

7. **Government and industry should conduct a comprehensive joint work programme on IP valuation to: a) increase awareness of the availability of IP valuation resources, b) map the market and identify barriers to investment, and c) take bold action to address any market failures.**
8. **Government and industry should develop a joint strategy to improve data transparency around creative content and thus unlock new revenues and business models. The music industry, tech industry and government should develop a proof of concept at pace. Given the ambitious, novel nature of this work, government should ensure innovation funding is available to support this and develop further stages for other digital content sectors such as film.**

Access to Finance

9. **Investment from the British Business Bank into the Creative Industries should be significantly increased and matched with private investment to deliver a 'ladder of growth' investment scheme that is regionally-focused and meets the scale-up needs of the Creative Industries.**
10. **Leaders of Creative Clusters should improve signposting to business support and investment via 'speed dating' events to match investors and companies.**



Talent Pipeline

11. Industry should develop a new careers 'attraction strategy' including a communications campaign, supporting online advice and information centre, and curriculum materials to broaden and deepen the talent pipeline that starts at school.
12. Higher and Further Education providers should work with industry and the Saturday Club Trust to expand the network of Saturday Clubs – inspiring creativity in 13-16 year olds – from its current level of approximately 50 to 250 within five years.
13. Government should approve a national 3-year pilot of modifications to the Apprenticeship Levy as proposed by the Creative Industries Council.

Screen Industries

14. Within six months, the film industry should set out firm commitments for how it will support delivery of the BFI's Future Film Skills strategy.
15. Government should invest £23.7 million over five years to extend the highly successful and innovative UK Games Fund and Transfuser graduate development programme.
16. Within six months, government should confirm it will make innovation investment available for cutting-edge, business-led research and innovation projects in immersive reality to ensure the UK takes a global leadership role in developing commercial, cultural and production applications for these technologies.

International

17. We should create a new model for a Creative Industries Trade Board that gives industry greater control over how and in what markets public export budgets are spent. Industry should commit to at least match-fund government investment.
18. Every Creative Industries sub-sector should commit to specific, ambitious support to drive up the number of exporting companies via measures such as business mentoring schemes, export masterclasses and networking events.
19. Government, academia and industry should establish a Global Creative Industries Observatory within the UK to cement our position as the leading international authority on Creative Industries strategy and policy for, and measurement of, this sector.



Chapter 1

Sector Overview

“Give me time, and I’ll give you a revolution”

Alexander McQueen

The Creative Industries are growing strongly and will become increasingly important in the years to come....

1. The Creative Industries comprise nine sub-sectors and are part of a much wider creative economy.⁴ DCMS defines the Creative Industries as ‘those industries which have their origin in individual creativity, skill and talent and which have the potential for wealth and job creation through the generation and exploitation of intellectual property.’⁵
2. The Creative Industries are a success story, playing a key role in the UK’s economic recovery. They contributed £87.4bn in GVA in 2015, 5.3% of the UK economy (comparable to the Construction or Information sectors) and between 2010 and 2015 grew by 34% – faster than any other sector. They have also outperformed other sectors in terms of employment growth: between 2011 and 2016, employment in the sector increased by 25.4% (circa 400,000 jobs) compared to 7.6% average across the wider UK. The sector is also a net exporter of services (£11.3bn surplus in 2015).⁶
3. Based on current trends, the Creative Industries could deliver close to £130bn GVA by 2025 and approximately one million new jobs could be created by 2030.^{7,8} Jobs in the creative category are highly resistant to automation, with 87% of workers in the UK at low or no risk.⁹ This will

⁴ Advertising and marketing; Architecture; Crafts; Design; Film, TV and Radio; IT, Software and Computer services; Museums, Galleries and Libraries; Music, Performing and Visual Arts; Publishing.

⁵ *Creative Industries Mapping Documents* (DCMS, 2001)

⁶ *DCMS Sector Economic Estimates 2017* (DCMS, 2017)

⁷ Linear forecast based on DCMS Economic Estimates, 2016

⁸ Linear forecast of job growth from ONS labour statistics, 2016

⁹ Bakhshi, H. Frey, C.B. Osborne, M. *Creativity vs. Robots – The Creative Economy and the Future of Employment*, 6 (Nesta, 2015)

mean the share of the UK economy and workforce that this sector represents is likely to rise steadily in coming years. While many in the next generation will be employed in jobs that do not exist yet, we do know that the kinds of occupations that will grow in importance include creative and digital roles. We need to start planning for that future now.

4. The Creative Industries are also enablers to other industries. Government has clearly prioritised investment in innovation, particularly through raising investment in research and development. Yet the link between innovation and creativity, and therefore the argument for ensuring this investment reaches the Creative Industries, has yet to be robustly made. Not only is there is significant overlap between the creative and digital sectors (for instance the IT, software and games sub-sector contributes almost 40% of the GVA of the Creative Industries) but the wider creative economy – industries which include creative roles – also has a far larger footprint. For example 3D modelling – a technology pioneered in the video games sector – is helping Rolls Royce to develop their understanding of engines, improve their efficiency and enhance performance in their manufacture.
5. Alongside the Creative Industries' irrefutable economic contribution sit a number of intangible benefits: its outputs, particularly in our cultural sector, enrich the lives of UK citizens, and promote Britain around the world. As a result, the UK's cultural influence on soft power is second only to the US.¹⁰ There is evidence of a direct relationship between cultural assets and economic impact, with cultural investment creating an ecosystem of impacts. This needs to be fostered and further studied.
6. In summary therefore, the importance of this sector is underscored when looked at through a number of lenses: the Creative Industries will grow as a proportion of the economy in decades to come; creative occupations foster growth and greater productivity in other economic sectors; and these industries deliver additional cultural benefits both at home and abroad.



¹⁰ *The Soft Power 30* (Portland Communications, 2017)



....but other economies are investing seriously in their creative sectors...

7. Other countries have sought to emulate the UK's success and have developed their own Creative Industries strategies. Not only does the UK face intense competition from both North America and Europe (both long-standing exporters of creative content), but economies in Asia, Central and South America and Africa are also now making the Creative Industries a target for growth through sustained investment. For instance, the British Council's Creative Economy team is active in developing markets such as Brazil, Mexico, Kenya, China, Vietnam, Japan, Korea, Nigeria, South Africa, Egypt and Turkey. China's Five Year Plan has as a central theme the need to move from 'Made in China' to 'Designed in China'.
8. As part of this review, the Boston Consulting Group (BCG) conducted desk research looking at international government interventions in the Creative Industries, focusing specifically on the audiovisual, music and video games sectors. Their findings, summarised alongside this report in Annex B, confirm that competition is mounting and illustrates how local and national governments around the world are taking the Creative Industries seriously and employing a range of strategic policy interventions, many of which the UK can learn from.
9. Across the economies and genres that the BCG report examined there is clear evidence that these markets are targeting the same Foreign Direct Investment, overseas talent and export markets as UK businesses. This demonstrates the need for the UK government and Creative Industries to continue to distinguish our offer as world-beating if we are not to lose out to both mature and developing competitors.

...and there are some clear challenges that need to be addressed urgently if we are to retain our world-class reputation...

10. Productivity within this diverse sector is not well-understood and generalisation would be unwise. Frontier Economics' Absorptive Capacity report argues that 'when disaggregating by firm size, the Creative Industries are more productive than the rest of the economy. This is true universally across the firm size categories, and nearly so among the various Creative Industries sub-sectors.'¹¹ However, another report claims labour productivity in the UK Creative Industries was slightly below the UK's 2014 average of £43.4k per hour at £43k per hour.¹² There is certainly significant variation between sub-sectors — ranging from £14k for creative arts and entertainment to £138k per hour for programming and broadcasting activities — suggesting that many Creative Industries do not lend themselves to accurate productivity measurement.
11. However, what is clear is that the sector comprises higher-than-average numbers of self-employed, micros and SMEs. 90% of creative businesses have no more than five employees, 80% no more than two, 60% just one. The comparative figures for the UK economy are, respectively, ten, five and two.¹³ These companies are largely project- and client-focused, which acts as a natural barrier to undertaking activities known to improve productivity, such as enhancing management skills, investing in R&D or seeking out business advice that goes beyond the transactional and leads to growth and greater efficiency.
12. In particular, and relative to the national picture, the geographic spread of the Creative Industries is a concern; they are one of the most unevenly spread sectors, behind only agriculture, finance and insurance.¹⁴ There is significant concentration of creative sector jobs in

¹¹ http://www.frontier-economics.com/documents/2016/07/absorptive-capacity_frontier-report.pdf

¹² *Understanding the Future of Productivity in the Creative Industries* (SQW, 2016)

¹³ Op.Cit Frontier Economics

¹⁴ Mateos-Garcia, J. Bakhshi, H. *Geography of Creativity in UK* (Nesta, 2016)



London and the South East (46.7%). Outside of these regions, activity is generally grouped in urban areas, with about half of jobs are in clusters based in Bristol, Manchester, Edinburgh and Cardiff. Relatively fewer Creative Industries employees are based in the Nations: 117,000 people in Scotland (6.3%), 53,000 in Wales (2.8%) and 26,000 in Northern Ireland (1.3%). Encouragingly, however, not only do we have good data on where creative and digital clusters are and their relative strengths (thanks to detailed mapping undertaken by Nesta), it is also clear that we have clusters around the UK with the potential to reach world-class status, with many more middle-ranking clusters besides. The challenge is for local partnerships of councils, LEAs, higher education and business to develop long-term strategies which merit and receive tailored support from government and national agencies. This will unlock strong further growth in the sector. Government support will need to be classified as either capital or revenue spend, or both. I note that Scotland, Wales and Northern Ireland can currently only receive capital support from central government.

13. Measures proposed in this report are designed to tackle many of the known barriers to productivity, not least because having a focus on regional clusters will tackle regional inequalities and seek to address the barriers that prevent small businesses accessing business support and investment to grow.
14. Besides sector structure and geography, there are challenges related to investment and business support, support for innovation, skills, IP exploitation, and export growth. The subsequent chapters discuss each of these and recommend ways in which the government and industry can come together to effect change.



Chapter 2

Building world-class clusters

“Round my hometown – the people I’ve met –
are the wonders of my world”

‘Hometown Glory’ – Adele

Relevance to the Creative Industries

1. The importance of regional growth, led by sectoral or specialist clusters, has been recognised by government for many years, with initiatives such as Growth Hubs, Enterprise Zones, Local Enterprise Partnerships and Combined Authorities supporting this ambition. Creative companies benefit from – and deliver benefits through – clustering for a number of reasons. Given that the average firm size in the Creative Industries in 2014 was 3.3 FTE (15% smaller than in 2007), clustering helps these predominantly micro-enterprises address informational asymmetry and allows more efficient provision of business support services. However, in addition to these general benefits of a cluster-led approach, there is evidence suggesting that the cultural sector and Creative Industries contribute unique benefits associated with the fusion of skills they foster alongside economic and social spillovers. These are explored below and are reasons why regional growth strategies should, wherever possible, be rooted in an approach that fosters these institutions and industries.
2. First, there is evidence that ‘fused’ companies, i.e. those that bring together creative and STEM (Science, Technology, Engineering and Maths) skills, are more productive and have higher growth rates.¹⁵ The Creative Industries have a high concentration of such firms, and they contribute disproportionately to the sector’s growth. Official data suggests that (in 2014) 27.3% of creative workers fell into this category yet produced 43.5% of Creative Industries GVA.¹⁶

¹⁵ *The Fusion Effect: how firms gain from combining arts and science skills* (Nesta, 2016)

¹⁶ Createch Report, Creative Industries Council (2017)

The Brighton Fuse report observed that fused businesses grew faster than their non-fused equivalents (18% versus 7% growth) and were more likely to innovate (32% versus 13%).¹⁷ Clustering can accelerate this process by co-locating creative and technical talent. Nesta research indicates that the fusion and co-location that characterise Creative Clusters could also have spillover benefits for the wider economy through the knowledge, products and networks they generate.¹⁸

3. Second, emerging evidence from place-shaping research indicates that growth in Creative Industries is enhanced when an area has a strong cultural, heritage and sporting offer, enhancing the attractiveness of locations to live and work and acting as an accelerator for regeneration. A focus on cultural activity and Creative Industries therefore supports not just economic improvements but also delivers social benefits, such as participation and wellbeing, at a local level.¹⁹ Given that there is research showing a positive correlation between wellbeing and productivity²⁰, a place-based focus on the cultural and creative sectors should be a key element in the government's overall approach. This is how to deliver a truly innovative and modern Industrial Strategy.
4. Finally, in addition to these particular factors, Creative Industries are an excellent starting point to target regional support because sophisticated methods for mapping clusters and studying their ecosystems are already in place. Nesta's work in this area combines official and big data sources to identify 47 Creative Clusters around the UK and will launch a new report 'Creative Nation' by the end of 2017 that will provide greater granularity of data and map the skills present within the sector. This, combined with work by the AHRC and British Council, gives industry, academia and policymakers a rich evidence base from which to devise a new, ambitious programme of support for Creative Clusters.
5. Taken together, and given the government's strategic focus on devolution and proposals for regional Sector Deals within the Conservative Manifesto, these are compelling reasons for developing a programme of work to support Creative Clusters via the Sector Deal. Outlined below is the menu of options that should be made available to clusters through a competitive process of bidding for 'Key Creative Cluster' status.

Defining Creative Clusters

A Creative Cluster is defined by Nesta as a geographic concentration of creative businesses and workers, often linked to similar value chains, that collaborate and compete with each other.²¹ Clusters can often include other institutions linked to the value chain such as higher education institutions (HEIs), cultural institutions, trade associations and government bodies which support the cluster in a number of ways. Creative Clusters come in different sizes and configurations and can have a broad array of individual features which facilitate inter-organisational collaboration, including incubators, accelerators, shared hub space and studios.

¹⁷ Sapsed, J. Nightingale, P. *The Brighton Fuse Report* (2016)

¹⁸ *Creative Clusters and Innovation* (Nesta, 2010)

¹⁹ Markusen, A. Gadwa, A. *Creative Placemaking* (2010)

²⁰ *Why Invest in Employee Wellbeing?* (What Works Wellbeing, 2017)

²¹ Bakhshi, H. *Putting Creativity on the Map* – Keynote Speech, Cardiff (Dec 2016)



Background and Key Challenges

6. Small and micro-enterprises, which make up a disproportionate percentage of the Creative Industries, lack the information and many of the corporate functions of larger firms (e.g. legal IP advice, HR support, marketing). Knowledge is often circulated through personal networks, or when individuals move between companies, or start new ones. They tend for various reasons to do this within the same location, as long as there are the opportunities for them to do so.
7. In addition, a critical mass of companies within an industry tends to attract skilled labour, as well as specialist suppliers and investors. This means that focusing intervention on existing Creative Clusters is likely to have a higher impact than national programmes that may not reach many of these smaller firms.
8. The prize for supporting clusters is threefold:
 - a. Improved productivity, be it through the agglomeration of creative businesses (empirical estimates imply that doubling the density of businesses in an area increases productivity by around 2-4%),²² or larger rewards from growing micro-enterprises into small enterprises, through better commercial practices.
 - b. A stimulus to the regional growth that the government desires, especially if clusters emerge/expand to deprived areas or bring more diverse creative talent to the sector.
 - c. An opportunity to tailor the talent pipeline for local areas, by forging stronger links between education providers and local industry.

Research suggests that the development of clusters on the whole is not an exact science and there is rarely a one-size-fits-all approach.²³ Set out below are the key drivers of growth for Creative Clusters and indications of where government and industry can work better together to accelerate growth.

²² *Productivity and Density of Human Capital* (Federal Reserve Bank of New York Staff Reports, 2011)

²³ Various definitions and interventions observed between Porters (1990), Pinch et al (2001) and Florida (2012)

Leveraging existing assets

9. Research shows that it is more effective to build on existing strengths and activity rather than attempt to build brand new clusters in cold spots.²⁴ Existing assets could be as diverse as a regional forte in a creative sub-sector; strong “institutions” like museums or HEIs; the fragmentation of a large creative company into a community of SMEs; or even the perception that an area is a fashionable place to be.
10. Not only do we have excellent data on the location and nature of Creative Clusters, the Arts and Humanities Research Council (AHRC) has been allocated a £39 million Industrial Strategy Challenge Fund (ISCF) grant as part of an £80 million Creative Industries Clusters Programme aimed at enhancing the connections between creative businesses and HEIs. The Programme includes funding for up to eight Creative R&D Partnerships to boost long term strategic R&D activity between businesses and HEIs across the UK and the establishment of a UK Policy and Evidence Centre for the Creative Industries. Amongst other objectives the Programme will encourage the development, commercialisation and protection of the UK’s creative assets, drive up employment and create new categories of jobs as well as helping to expand international trade for the Creative Industries across the whole of the UK. These R&D initiatives will be awarded through a rigorous process led by the AHRC and will act as focal points for work to grow and strengthen the creative economy wherever they are located. I strongly endorse the pioneering of this approach.

Effective Leadership

11. Effective leadership runs through many successful creative clusters. For example, the development of Brighton Fuse (Brighton), Production Park (Wakefield) and The National Glass Centre (Sunderland) – case studies discussed at Annex A – have all been driven by leaders with a combination of clarity of vision and business expertise plus the ability to leverage the support of local communities and government. I have heard evidence from a number of contributors as to how leadership drives successful shared workspaces, broader clusters and local authority policy.
12. A development programme for professional, entrepreneurial leaders within creative clusters would be an innovative way of deepening expertise and thereby prolonging and extending the impact of local and national interventions. Such a programme should be comprised of flexible, practical and theoretical modules covering areas such as generic business skills, policy skills, opportunities to shadow in successful creative companies and mentoring and peer support systems to build a network of leadership excellence across clusters that share learning and expertise. The agenda for this work should be set by local leaders and industry experts working with a small number of Higher Education Institutions with existing links into creative clusters. One university has already expressed interest in scoping out this programme. The model here is the Clore Leadership Programme which, for thirteen years now, has been delivering high calibre individuals to the arts and cultural sector, demonstrating it can be done. I note that the new Director of Tate, Maria Balshaw, was part of the very first Clore course.

Tailored, community-based approaches for closing skills gaps and improving access to finance

13. The success of clusters relies on their ability to create deep, often bespoke networks and programmes. These usually involve local stakeholders, including providing future skills and labour via effective links and outreach work between schools, FE colleges and HEIs, and leveraging financial resources from the British Business Bank, local banks and private investors.

²⁴ Van Der Lind, C. *The Demography of Clusters – Findings from the Cluster Meta-Study* (2003)

Strong local networks help overcome problems of information asymmetry, one of the disparities between creative businesses in London and the rest of the UK. Both these aspects are discussed later in the report (Access to Finance in Chapter 5 and Skills in Chapter 6).

14. A best in class international example of this is the Sweden Game Arena, established in conjunction with Skövde University in 2004. This collaboration between academic, industry and government stakeholders now houses over 30 game studios, 500+ students and 50 academics. For ten years, the government-funded Game Incubator has consolidated its position as a national games hub and international seedbed for games companies in Sweden.²⁵

Physical infrastructure

15. Superfast broadband connectivity and flexible, low-cost workspace are consistently identified as basic infrastructure required for growth. Studies have shown a clear link between broadband connectivity and productivity.²⁶ Overarching broadband coverage and capability is in a good place; the Government and industry have made progress rolling out broadband nationally and supporting businesses with installation. I have highlighted that a strong digital thread runs through the Creative Industries; it should come as no surprise that fast, ubiquitous and reliable connectivity is of great importance to the sector.²⁷ In particular, sub-sectors including Architecture and Visual Effects have high bandwidth requirements, sending terabytes of raw uncompressed data (a requirement demanded by few other industries)²⁸ while other services depend on “always-on” connectivity and cloud based-services (e.g. video-on-demand, music-streaming). The spread of immersive technology and real-time broadcasting is likely to test the limitations of the UK’s broadband connectivity.
16. To compete and collaborate globally, our Creative Industries must adopt the latest technology and digital infrastructure. Creative clusters should put themselves forward as testing grounds for ultrafast connections and 5G rollout within national plans. LEPs and local councils must treat connectivity as a key factor, shaping where businesses choose to locate, and ensure businesses benefit from the most attractive connectivity offers to support future growth. There are plans to establish a ‘Business Connectivity Forum’ (chaired by DCMS) that brings together business organisations, local authorities and communications providers to develop specific solutions to the issues faced by businesses in accessing fast, affordable, reliable broadband.²⁹ It is vital that the Creative Industries make their voices heard at this forum.
17. With so many small businesses in the sector, high degrees of project-based working and unconventional working hours, traditional landlord/tenant relationships don’t necessarily suit Creative Industries workers.³⁰ Furthermore, the right curation of workspace has benefits that link back to the importance of fostering the creative and tech “fusion” referenced at the start of this chapter. It’s not just about finding space, but how that space is used to maximise the benefits of having a range of small businesses working at close quarters.
18. In some instances, the challenge of finding workspace has led to developers offering more flexible use of space (e.g. The Trampery’s East London-based Fashion Incubator, or Kings Cross’ Tileyard Studios’ focus on Music and Tech) to respond to tenants’ budgets and requirements.

²⁵ <http://swedengamearena.com/>

²⁶ Fornefeld, M. Delaunay, G. Elixmann D. *The Impact of Broadband on Growth and Productivity* (MICUS on European Commission, 2008)

²⁷ <http://thecreativeindustries.co.uk/>

²⁸ Double Negative case study

²⁹ UK Digital Strategy 2017

³⁰ http://creativeskillset.org/who_we_help/young_creative_talent/career_navigator/career_resources/487_what_s_it_like_to_work_in_the_creative_industries

However, The Trampery has been forced to move due to Hackney rent increases. Philanthropy and private investment often aren't enough to sustain these arrangements.³¹ There are opportunities to address the shortage in creative workspace through flexible application of business rates, public procurement of facilities or repurposing existing cultural assets. The Canadian Government has been particularly effective at building, subsidising and converting space for the use of creative businesses.^{32 33}

19. Local and national government should consider what flexibilities it could offer those Creative Clusters that can demonstrate robust cases for, for example, business rates relief to support the establishment of collaborative work spaces. Large-scale Creative Industries anchoring tenants in an area should also consider how they could offer workspace to support local start-ups.
20. Shortage of appropriate workspace is not restricted to the Creative Industries, but the *definition* of workspace differs between sectors and can be overlooked by local decision-makers. For example, the music industry relies on grassroots venues and production facilities as testing grounds for new artists and technicians. Grassroots venues are also the lifeblood of music tourism, a sector that generates £4 billion GVA per year, not to mention its participation benefits.³⁴ Unfortunately these spaces are disappearing due to, amongst other factors, a lack of investment and rising business rates.³⁵ In an attempt to de-risk these types of ventures, the French Government have introduced tax credits for small-to-medium sized as concert and record companies.³⁶ It is crucial that Local Government factors the nature of creative industry workspaces into local development plans. This is not always easy to grasp; industry has a responsibility to map out the critical infrastructure it requires and develop the business case for development and regeneration.

The Mayor of London's Creative Land Trust

Within his manifesto, the Mayor of London referenced the issue of high rents and business rates pricing out the Creative Industries.³⁷

The Creative Land Trust is an innovative solution to finance affordable creative workspace in London. The Artists' Workspace Study, commissioned in 2014, predicted the loss of 30% of artists' workspace in London by 2019, leaving some 3,500 creatives without workspace in the capital. The booming residential market and liberalisation of planning regulations have resulted in hundreds of artists forced out of their workspaces and many out of the city.

The aim of the Creative Land Trust is to enable access to finance and soft loans to secure ownership for permanent creative workspace; keeping rents for creative workspace affordable in the long term. Firstly, there would be a loan fund to acquire workspace and secondly, the trust would look to protect buildings in perpetuity for use as affordable workspace. The trust aims combine public funds, philanthropy and social impact investment.

³¹ <https://www.thememo.com/2015/07/27/the-trampery-london-fields-fashion-incubator-close-rent/>

³² <http://transmediazone.ca/musicden/>

³³ <http://bciif.ca/about-bciif/overview/>

³⁴ Wish You Were Here Report (UK Music, 2017)

³⁵ Nordicity Analysis of the impact of business rates revaluation on grassroots music venues in London (2017)

³⁶ <https://www.service-public.fr/professionnels-entreprises/vosdroits/F33651>

³⁷ http://www.sadiq.london/making_the_most_of_arts_culture_and_creativity

The Mayor's move is not without precedent. Similar models exist in cities overseas, notably San Francisco, where the Community Arts Stabilization Trust (CAST) has begun to change the city's cultural landscape. CAST builds the capacity of arts and cultural organisations in San Francisco to acquire affordable properties, offering access to funding or affordable rents.

Business advisory support

21. Many would-be creative clusters face issues linked to business size. They lack modern leadership, commercial confidence and acumen to realise their growth potential so that they can take on more lucrative ventures, including exports. This capability – absorptive capacity – may be challenged by the structure and nature of the Creative Industries; companies of a few people, dedicated to a creative specialism are unlikely to have finance, HR or commercial expertise or have a “department” they can call for support. A frequently-cited example is that in small businesses the most common source of advice outside of family, friends and peers was a private accountant.³⁸
22. These issues are not unique to the Creative Industries but, given the overwhelming proportion micro and small-to-medium enterprises in the sector, Creative Industries represent a testing ground for ideas that could boost the ambition and productivity of all small businesses. Frontier Economics research calculated the productivity of Creative Industry micro-enterprises (0-10 employees) at around £43k GVA per worker, but small enterprises (10-50) closer to £70k. The growth and/or merging of micro-enterprises could boost their overall GVA contribution significantly.

New York City Mayor's Office of Media & Entertainment (MOME)

New York City provides a best in class example of providing business advice and support. The 'Mayor's Office of Media & Entertainment' covers filmed entertainment, broadcasting and publishing. It offers training initiatives and advice to drive business growth (Strategic Steps for Growth programme), free marketing support for creative content produced domestically ('Made in New York' campaign), and even a programme to secure personal assistants from the local employment pool.³⁹

In 2014-2015, MOME invested \$1 million in scholarships and \$500,000 for creative grants and marketing to the Barry R. Feirstein Graduate School of Cinema, the nation's only public film school housed on working film lot. The City's overall contribution includes \$4.7 million for construction, \$2 million for scholarships, \$1 million for curriculum and programming, and \$500,000 for creative grants and marketing, totaling \$8.2 million.

The supported sectors have contributed an additional \$1.6 billion between 2011-14.

New York City's media and entertainment industry has also grown twice as fast (gaining an extra 25k full-time employees, 10% increase) as the the US average for the sector and rest of the city's economy (both 5% over the same period).⁴⁰

³⁸ Open University Quarterly Survey of Small Business in Britain Special topic: business advice and information Q3, 2013

³⁹ <http://www1.nyc.gov/site/mome/initiatives/initiatives.page>

⁴⁰ *The Media and Entertainment Industry in NYC: Trends and Recommendations for the Future* (Boston Consulting Group, 2015)



23. It is therefore imperative that clusters competing for 'Key Creative Cluster' status can offer the support small businesses need. In the case of these industries, business mentoring and skills support, advice on IP exploitation and protection, and exporting and marketing are all important for helping these companies scale up and become more productive.
- a. Nesta's Creative Business Mentor Network that supported business leaders and entrepreneurs support was a fully evaluated programme that demonstrated a net additional increase in turnover across the businesses of £1.3m directly attributable to mentoring. Industry should look to replicate and extend this within clusters;
 - b. A proportion of the businesses in this sector are driven by "creative success" (i.e. a passion for creating the service/product) that is not complemented by a drive for "commercial success" (i.e. profitability and business growth). Clusters should ensure access to both central government and locally-tailored business skills advice. For example, Google are delivering regional drop-in centres to promote business skills to small businesses in Cardiff, Birmingham and Glasgow, as part of their Digital Garage service. Arts Council England also have fifteen 'pre-accelerator programmes' across the regions to help arts and cultural organisations develop their business skills and diversify their revenue streams;

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- c. On IP advice, recommendations in Chapter 4 of this report call for more visible direct support from the IPO and greater joint working between industry and government to publicise the IPO's toolkit;
 - d. On exports, recommendations in Chapter 8 call for industry to build up business mentoring schemes, export masterclasses and networking events;
 - e. On marketing and advertising, the Advertising Association has offered to establish around 3-7 regional 'one-stop shops' to support SMEs looking to invest in advertising. These hubs would provide information on marketing tools and associated costs, best practice on design and implementation and provide an exchange for SMEs to search for service providers. Beginning with a pilot in a Creative Cluster, local media and advertising services companies based in the regions would play a central role, building on the deep connections they have in servicing their communities. Clusters themselves could also be offered branding support to highlight their strengths as creative centres of expertise to global audiences. Industry would work with government to select the regions to be targeted. Hubs could be built in coordination with the Federation of Small Businesses, Chambers of Commerce, and Local Enterprise Partnerships as part of wider SME and local industry development efforts.

'Key Creative Clusters' competition

- 24. Taken together, this provides a menu of targeted activities that could help Creative Clusters grow. However, to support accelerated growth and secure the best, most ambitious bids from clusters, government needs to create a new Creative Clusters Fund into which clusters can bid. This fund should be available to support a range of activities, from projects to regenerate space for creative workplaces and extend the impact of cultural institutions, to knowledge exchange, export and investment promotion, business mentoring and skills support. This approach would be in-line with the Green Paper commitment to 'create competitive new funding streams to back the clusters of innovative businesses across the country'.
- 25. Within the 47 Creative Clusters identified by Nesta, London is already arguably a world-leader with several others such as Manchester, Glasgow, Bristol and Leamington Spa demonstrating the potential to achieve this kind of recognition in the short to medium term. In addition there are many other clusters with particular strengths and visionary leadership that could grow quickly with the right support. The illustrative list at Figure 1 is non-exhaustive: there are undoubtedly other clusters running excellent, well-evidenced interventions. For this reason it is important that this approach is 'bottom up' rather than 'top down', focusing on a cluster's potential rate of growth rather than simply cementing the position of mature clusters. The best ideas and most innovative approaches will only come to the fore if the field is not unduly limited. The winning bids must be based on merit. The story behind several of the Creative Clusters can be found at Annex A.

Figure 1: Examples of UK Creative Clusters

Creative Cluster TTWA	Example CI Specialisms	Notable Areas/Projects	Creative Industries Statistics	Catalyst, Anchors	Example Cluster Interventions
London	Multiple (Advertising, Designer Fashion, Radio, Film, TV, Publishing)	King's Cross Creative Quarter, Soho, East London Fashion Hub, Makersversity, Playhubs	81.7k businesses 442k employees 5.4 avg. firm size £41.8bn GVA	Creative institutions, accessibility, supply of creative businesses, High levels of networking.	Leadership Intervention: Appointing London Night Tsar to promote 24hr culture. Affordable Workspace: Regeneration of King's Cross (£500m of Government finance). Piloting 'Creative Enterprise Zone' with co-located affordable housing.
Manchester	Advertising, TV	Media City, Sharp Project, Northern Quarter	8.2k businesses 43k employees 5.2 avg. firm size £2.3bn GVA	Long standing cultural institutes. High-regional consumption/celebration of content. Universities geared to Cls.	Relocating BBC & ITV to Salford. Space Repurposing: Council & private investment in old office refurbishment to house Sharp Project.
Glasgow	Film, TV & Music Production	Creative Clyde Enterprise Zone, Film City Glasgow, MANY Studios, Wasps Studios	3.2k businesses 19k employees 5.8 avg. firm size £1bn GVA	Filming locations (space & architecture). Universities geared to Cls.	Strength Mapping: Glasgow Council commissioned research from Oxford University. Designation: Culture Capital, Glasgow Film Festival, UNESCO City of Music status. Affordable Workspace: Creative Clyde Enterprise Zone. Space Repurposing: Wardpark Studios - converted electronics factory.
Bristol	Film & TV, Music	BTQEZ, Watershed, Spike Island	4k businesses 14.5k employees 3.6 avg. firm size £780m GVA	TV (BBC Bristol), film and animation firms (Aardman). Musical heritage.	Stakeholder Networks: 'Bristol Cultural Development Partnership' between industries, HEIs and Local Government. 'Bristol Media' network across multiple Cl sectors.
Belfast	Film, TV, Architecture	Blick Studios, Harbour Studios Eighty81 Titanic Quarter/Studios	1.6k businesses 11.5k employees 7 avg. firm size £433m GVA	Cultural heritage. Long standing Film industry (Hurst and MacQuitty).	Designation: City of Culture Status 2013 Space Repurposing: Refurbishment and expansion of Paint Hall Studios to form Titanic Studios.
Brighton	Software/Video Games, Publishing	Fuse Box	3k businesses 7.7k employees 2.6 avg. firm size £581m GVA	Universities Black Rock game studio closure (talent dispersion).	Stakeholder Networks: Brighton Fuse, research project bringing together creative & digital sectors, HEIs, AHRC.

Creative Cluster TTWA	Example CI Specialisms	Notable Areas/Projects	Creative Industries Statistics	Catalyst, Anchors	Example Cluster Interventions
Leamington Spa	Video games	Arch Creatives, Leamington Spa Creative Quarter (planning stage), 'Silicon Spa' - Natural agglomeration of circa 30 games companies in area	1.5k businesses 7k employees 4.7 avg firm size £418m GVA	Long standing video games heritage (Codemasters est. 1986).	Branding/Designation: Self-titled 'Silicon Spa', area well known in the video game industry. Stakeholder networks and local planning: Ukie (video games trade body and LEP developing 'A Blueprint for Growth' strategy document).
Cardiff	Media Production	GloWorks, Tec Marina	1.8k businesses 6.9k employees 3.9 avg. firm size £300m GVA	Large media centre (major TV broadcasters).	Stakeholder networks: TV production and digital media companies strong knowledge and technology exchange. Infrastructure: Broadband investment through city deal.
Liverpool	Arts, Design, Music	Baltic Triangle/ Creative CIC	1.8k businesses 5.6k employees 3.1 avg. firm size £300m GVA	Arts & Musical heritage Tate Liverpool.	Designation: 'Capital of Culture' status Stakeholder networks: 'City of Sound' festival and industry conference.

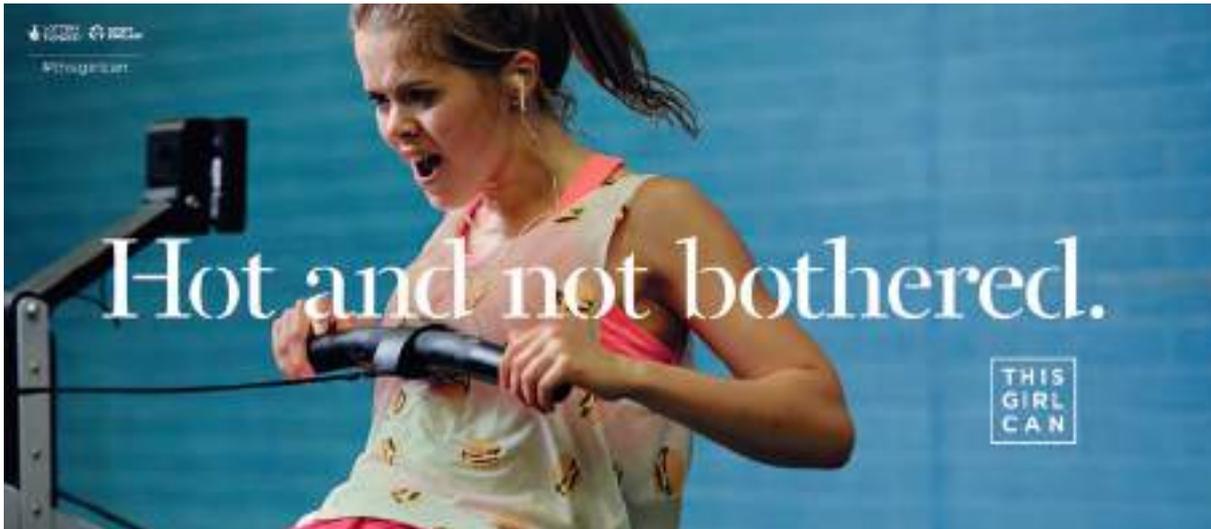


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26. A competition for 'Key Creative Cluster' status and associated support needs to be driven by a cluster's ability to demonstrate local commitment, leadership and vision, a clear analysis of what is needed to grow and proposed strategy to deliver this, and a commitment to evaluate projects and share learning widely with other clusters. Government and industry should develop a menu of options for support, as outlined in this chapter, that can be supplemented with local initiatives and delivered over a five-year period. In addition to business support, clusters should be encouraged to consider how the funding could be used to support cultural activity that will deliver cultural regeneration, local engagement or innovative partnerships and projects between public cultural institutions and private businesses resulting in social and economic benefits.
 27. A £500 million fund should be made available. Clusters would be invited to bid into it and use awards to leverage in additional public and private investment from business, Local Enterprise Partnerships, the Lottery etc. Successful bids should be on merit, but government should ensure that over time these cover all Creative Industries sub-sectors. Government should use its convening power to guide clusters to national funders with complementary strategies such as UKRI and the Arts Councils. This is also important for R&D, as we explain below. The fund could be formed from regional growth funding (which some clusters have been funded from historically) or any successor schemes that replace them.
 28. Based on the level of investment seen on cluster development projects through the City Deals and Regional Growth Fund, £500m could support up to 30-35 Creative Clusters,⁴¹ with a broad split between those that are mature and emerging. Although government should not premeditate the exact locations or types of clusters, over time we believe it is likely to be possible to cover all different sub-sectors of the Creative Industries. For example, Nottingham's Creative Quarter (a large Creative Cluster project) was granted £25m of Government finance through City Deals. Smaller Creative Cluster projects (e.g. Hartlepool, Leamington Spa creative quarters) have sought public funding of around £5m, through the Regional Growth Fund.
 29. As a proxy for success, since the Regional Growth Fund started, it has invested £2.6bn into 402 projects and programmes. On average, for every £1 invested through the RGF, the private sector has put in £5.50 with the total investment of private sector support expected to be £16 billion. 187,000 jobs have already been created and a total of 557,000 are expected by the mid-2020s.

Recommendations

- **Using the model of City Deals, government should launch a 'Key Creative Clusters' competition, supported by a new five-year £500 million Creative Clusters Fund, to accelerate regional growth and create models that can be passed on to other creative clusters and sectors.**
- **Industry should work with a small number of universities and existing creative clusters on a flexible, modular 'Creative Leaders' scheme to cultivate a network of highly-skilled cluster leaders around the UK.**

⁴¹ Regional Growth Fund Annual Monitoring Report (BEIS, 2015)



Chapter 3

An innovative approach to innovation

“You start off with a little spark and it’s whether or not you nurture that spark”

Ed Sheeran

Relevance to the Creative Industries

1. The Industrial Strategy Green Paper acknowledges the importance of R&D to economic growth and has set an ambitious target of increasing public support for R&D by 20% for 2020-21.⁴² In order to maximise this investment, government needs to ensure that its definitions of what constitutes R&D and the way it incentivises innovation reflect the realities of the 21st century business landscape.
2. The impressive growth of the Creative Industries is built upon a commitment to continual innovation: research conducted by the Enterprise Research Centre for Nesta suggests that the Creative Industries are as likely as manufacturing firms to conduct in-house and external R&D and be far more likely than services firms to do so.⁴³ Organisations such as the AHRC have a long history of financing innovative academic-led R&D projects in the arts and Creative Industries. A PWC analysis of the AHRC’s research efforts found that for every £1 spent on research by the AHRC, the nation may derive as much as £10 of immediate benefit and another £15-£20 of long-term benefits.⁴⁴

⁴² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/611705/building-our-industrial-strategy-green-paper.pdf, p.29

⁴³ <http://www.thecreativeindustries.co.uk/media/420381/cic-industrial-strategy-response.pdf>, p.5

⁴⁴ <http://www.ahrc.ac.uk/documents/publications/leading-the-world/>

3. But while the Creative Industries are highly innovative, they are characterised by an abundance of SMEs, micro-businesses and individuals spread across the arts, design, cultural, digital, entertainment and media sectors. As a consequence, they lack the capacity for strategic, cross-sectoral R&D which, if properly recognised and supported, could propel growth. Sir Charlie Mayfield's productivity review highlighted how creative businesses face challenges because their outputs are primarily intangible, and in many cases unique. Though knowledge-intensive, they do not always meet the traditional requirements expected for government R&D support.⁴⁵ Individual creative sectors can also be held back by the nature of high-risk, project-based content production, wherein financial survival is prioritised over long-term investment in R&D and innovation. In particular a thriving R&D culture requires investment and the consolidation of networks of expertise.
4. The challenge and reward here is to corral and thus maximise the economic and cultural benefits flowing from the range of institutions all working with aligned objectives, such as our national museums, Arts Councils, the BBC, AHRC and the digital catapults, not to mention Higher Education Institutions. National agencies such as Arts Council England and UKRI have complementary policy objectives, while the new BBC Charter requires it to work collaboratively and seek to enter into partnerships with organisations, particularly in the creative economy. Ensuring our approach to R&D reflects the realities of the modern UK economy is crucial to maximising the potential effectiveness of these national bodies in partnership with the private sector.

Background and Key Challenges

5. The challenge in this area for the Creative Industries is twofold: whether the creative sector is accessing and able to access an equitable level of tax relief on the R&D it undertakes under the current definitions of R&D; and whether there are barriers to Creative Industries accessing direct public investment in R&D in the same way as other sectors such as Science and Engineering.
6. Government operates two R&D tax relief schemes that target large and small organisations respectively. It is unclear, however, based on statistics published by HMRC, which activities qualify in the Creative Industries qualifies under R&D tax credit, and whether or not the Creative Industries are missing out on support for their efforts. Government guidance to SMEs wishing to claim relief states that "science doesn't include work in the arts, humanities and social sciences"; with such messaging it can be difficult to ascertain what creative R&D, if any, is eligible for support.⁴⁶ Even in software and video games, which typically claims more R&D relief than any other creative industry, there is little visibility regarding which firms are claiming R&D support and under what circumstances.
7. Stakeholders in the Creative Industries, including the CIC, Nesta, AHRC and arts organisations, have argued that a redefinition of R&D is required to draw out legitimate practice in these excluded areas and encourage R&D across the Creative Industries. There is an urgent need to devise methods for measuring and evaluating the value of R&D in the arts, humanities and social sciences which reflects those used to evaluate science and technology R&D (such as the potential for spillover effects). An accurate assessment of the value of creative industry R&D would allow policymakers more clearly to examine the case for expanding the definition of R&D to explicitly include the Creative Industries.
8. Second, the Industrial Strategy Challenge Fund is a good example of where good quality creative projects must not be accidentally excluded. The Creative Industries were rightly highlighted as a potential area for ISCF investment in the government's Industrial Strategy Green

⁴⁵ <https://howgoodisyourbusinessreally.co.uk/downloads/reports/how-good-is-your-business-really.pdf>

⁴⁶ <https://www.gov.uk/guidance/corporation-tax-creative-industry-tax-reliefs>

Paper, and the AHRC were awarded Wave 1 funding to build on the success of their Knowledge Exchange Hub programme and develop a series of industry-focussed R&D Partnerships (as referenced earlier in this report). Whilst this award is extremely welcome, we need to ensure that the Creative Industries continue to be supported in future rounds of ISCF funding, and that where there is public support for R&D, that Creative Industries innovation is recognised.

9. For example, Innovate UK's first year of foundation calls operated over 2016/17 allocated a pot of £150m across five areas: open calls; 'emerging and enabling'; 'materials and manufacturing'; 'infrastructure systems' and 'health and life sciences'.^{47 48} Whilst Innovate UK have funded a number of innovative creative projects (an example of which is detailed below), a review of the first year of foundation calls suggests only 2% of the total awards allocated went to creative projects. There are a variety of reasons why creative projects were underserved in this area (for example, SMEs are often unfamiliar and inexperienced with grant bidding processes). But more should be done to ensure the creative sector can and does bid for support and that this percentage rises dramatically in future years both from the ISCF and from wider Innovate UK funds. This could be via proactive calls either for creative-led projects. Examples would be rendering techniques for games or performance capture tools for film, or for projects involving collaboration between more conventionally R&D-oriented sectors and Creative Industries such as Design. It is worth observing that industrial digitisation, which is being reviewed for a Sector Deal in parallel to this review, has significant read-across for areas such as design, fashion and textiles and digital enablers in the architecture and construction industries.



⁴⁷ *Delivery Plan 2016-17*, Innovate UK. <https://www.gov.uk/government/publications/innovate-uk-delivery-plan-2016-to-2017>

⁴⁸ Ten rounds of £15m were announced in the delivery plan, however the actual amount awarded was greater than the published figure.

ASAP – A Scalable Architecture for Cross Media Virtual Production

(involving Double Negative, FilmLight, The Foundry, Ncam, Rebellion)

Leading production and games companies came together to develop new tools and processes for rendering and reviewing computer generated and live video-based media. The objective was to better enable the creation and reuse of assets for film, TV and games – compressing the traditional stages of pre-production, production and post-production to save time and costs. The project eliminated the need to repeatedly create from scratch the same asset for use at different stages of the production pipeline. As part of this, a number of technical challenges had to be addressed: scalable dynamic rendering and shading, on-set visualisation and real-time lighting combining 2D and 3D assets from both live and computer generated sources.

The outcomes from the project have already been impressive, with a range of new tools, applications, software and production services. This has resulted in significant efficiency savings for industrial partners as well as new licensing opportunities. The project has also highlighted how under an Innovate UK collaborative framework, different sectors can be encouraged to work together to tackle similar problems via unification of media processing pipelines.⁴⁹

10. The Government has clearly made progress in this area – organisations such as Innovate UK, the Digital Catapult and the work of the AHRC, EPSRC and Nesta are examples of where engagement with innovation in the Creative Industries is starting to bear fruit. But more can and should be done to foster creativity and amplify innovation in the creative sector, and to strategically encourage and support collaborative R&D.

Recommendations

- **Industry and government should develop a joint plan to increase take-up of existing R&D tax credits by eligible Creative Industries businesses.**
- **Government should lead a new review looking at whether the definition of the R&D tax credit captures legitimate R&D activity within the Creative Industries. This work should closely involve industry.**
- **Government and industry should work closely to significantly increase the percentage of Innovate UK’s funding going to projects that involve the Creative Industries from the current low level of 2%.**

⁴⁹Internal document, Innovate UK



Chapter 4

Capitalising on our Intellectual Property

“Hey Mr English guy! I think your egg is hatching”

‘Fantastic Beasts and Where To Find Them’ – J.K. Rowling

Relevance to the Creative Industries

1. Intellectual Property is at the core of the Creative Industries and its protection is paramount. The sector is at the forefront of the UK’s growing IP economy. We know that the legal system underpinning the creation and protection of IP in the UK is world-class.⁵⁰ But the environment is constantly changing as new technologies are developed so vigilance is essential. The ongoing work to strengthen the IP framework, including the recent review of enforcement set out in the UK’s IP Enforcement Strategy, is key to this. So too is academic research and exploration such as that led by the Research Council UK-sponsored Centre for Copyright and New Business Models in the Creative Economy (CREATe).
2. The UK’s strong copyright framework is valued by all levels of the creative industries, but Government needs to ensure that this framework remains at least as strong after we leave the EU. In partnership with industry it needs to build upon the momentum achieved in recent years, including the progress made by both rights-holders and search engines in collaboratively agreeing a new code of conduct for how creative content is treated online. The Government’s digital charter is another opportunity to ensure that the creative industries have the tools they need to thrive and grow in the digital age, and Government needs to be willing to look closely at the ways creators are remunerated by digital ecosystems and online methods of content delivery.

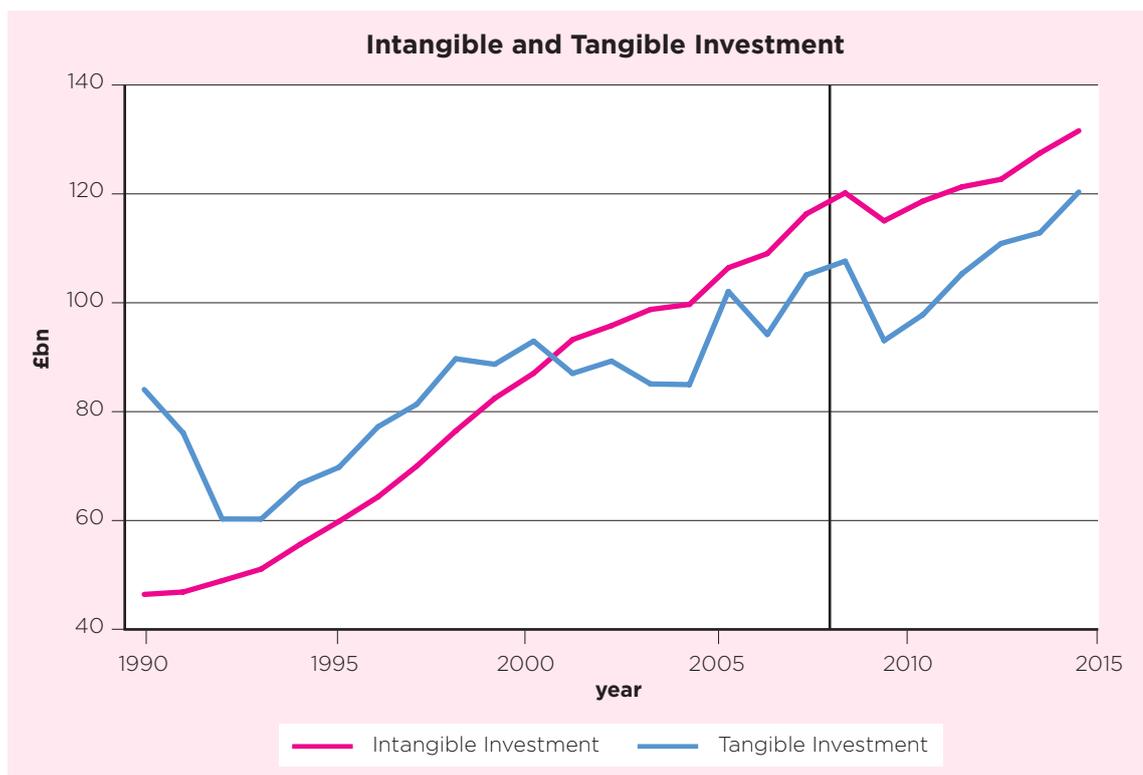
⁵⁰ *Global Intellectual Property Index: The 5th Report*, (Taylor Wessing, 2016)

3. Exploiting intellectual property is a key challenge for the Creative Industries. Due to lack of knowledge and legal expertise, micro-enterprises are particularly vulnerable to losing control of their creative content. They are therefore less willing to share their ideas with other stakeholders. Creating, valuing, protecting and exploiting intellectual property remains the foremost issue for the creative sector's long term health. In addition, digital technology has created significant problems for some parts of the Creative Industries as value leaks away through piracy – Ofcom and IPO research shows that almost seven million people in the UK consumed at least one item of online content illegally in a quarter of 2016. This is an area where government and industry partnership remains imperative.⁵¹ Brexit may mean losing some European protections but it's also an opportunity to strengthen our IP regime.

Background and Key Challenges

4. UK investment in intangible or knowledge assets has been greater than that for tangible assets since the early 2000s. In 2014 it stood at £133bn, as opposed to £121bn tangible investment. UK investment in intangible assets protected by Intellectual Property rose from £46.9 billion in 2000 to £70.4 billion in 2014; a 50% increase.⁵² This demonstrates the importance of our growing IP economy.

Market sector tangible and intangible investment, £bn, 1990-2014



Source: ONS data for tangibles, this paper for intangibles. All data in current prices.

5. It has been estimated that 70% of a company's value lies in intangible assets: its intellectual property.⁵³ For the Creative Industries, defined by their generation and exploitation of IP, that percentage is likely to be significantly greater.

⁵¹ *Create Together* (Creative Industries Council, 2015)

⁵² https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/561709/Estimating-UK-Investment-intangible-assets-IP-Rights.pdf

⁵³ Gowers Review of Intellectual Property (2006) https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/228849/0118404830.pdf



6. Overall, there is little evidence that the UK does not create enough IP, but industry and government need to work together to do more to increase the commercialisation of our creative IP through focusing on investor readiness, IP valuation and the data management infrastructure that supports IP products and services. Many small companies do not always realise that they have exploitable IP as they are often fully occupied executing commissions for clients.

Investor Readiness

7. Despite the increase in IP investment, it is estimated that less than 10% of companies have carried out assessments of the value of the IP they hold.⁵⁴ The IPO's 2013 report *Banking on IP? The role of intellectual property and intangible assets* found that the lack of IP understanding within businesses meant they are not in a strong position to articulate any value that might be contained within the IP they own. So in turn investors would not be able to readily gain information needed to make informed investment decisions.⁵⁵
8. Government has put together a comprehensive set of guidance on this issue and developed an IP Finance toolkit.⁵⁶ The IPO is engaged in ongoing work with financial institutions to raise the profile of the value of intangible assets, and the Creative Industries have themselves drawn together some resources and are engaged in dialogue with banks and equity financiers. The toolkit helps lenders and businesses speak a common language around IP and help businesses to develop more effective IP management and commercialisation strategies. It is designed to help businesses to map their IP, understand and articulate its value to clients. It also outlines a range of options for financing IP, from grant funding to angel investment, and guides business through the process of documenting IP ahead of an application for finance. The key challenge is to make this tool better understood and used by industry.

IP Valuation

9. With an increase in IP assets held by businesses, IP valuation mechanisms are increasing in importance. Transactions such as raising finance, negotiating licensing agreements, structuring collaborations and buying and selling IP assets all rely on being able to value the IP in question. IP valuation is itself an emerging market in the UK, and the approach to date has been to see how it develops.
10. There are a number of ways to value IP rights (IPR), all of which have their limitations. There are no universal applications. The stage of development of the IPR, the availability of information and the aim of the valuation all have a bearing on the method used. The most common are:
- **The cost method** – based on the costs incurred developing or creating an IPR asset. It also values what it might cost to recreate or develop a similar product or service.
 - **The market value method** determines the value of the product based on its recent track record in the market place.
 - **The income or economic benefit method** focuses on the net revenue IPR may generate for a business in the future. It considers both the future income, which a right may generate during its economic life, and the costs of generating that income.
11. Other jurisdictions take different approaches to that of the UK in this field, including government-underwritten loans based upon standardised IP valuation reports. There may be

⁵⁴ IP Awareness Survey 2015 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/500211/IP_awareness_survey_2015.pdf

⁵⁵ <https://www.gov.uk/government/publications/banking-on-ip>

⁵⁶ <https://www.gov.uk/government/publications/banking-on-intellectual-property-ip-finance-toolkit>



opportunities to learn from the experiences of our international partners. For example, the South Korean Intellectual Property Office (KIPO) and the Korean Development Bank (KDB) work together on initiatives to value and fund IP for SMEs. KIPO provides a valuation service for IP, and the KDB puts up guarantees for others to lend. Similar arrangements could work in the UK, helping to finance risky IP ventures and keeping investment in this country. A formal valuation service could also help bridge the gap between R&D funding for new creative products and the necessary investment to commercialise these products.

12. The IPO is due to publish research into the emerging IP valuation market. This aims to identify the structure, behavioural drivers and barriers to the efficient functioning of the valuation market. In truth we don't yet know enough about how well these approaches have functioned and what an appropriate intervention might be. It is clear that the Government and the sector need to work with industry to improve companies' understanding of IP valuation. It also needs to assess what more could be done in this area to bring down barriers to investment.

Data management

13. The data infrastructure for creative content is not harmonised. Artists are finding ever more innovative and creative ways of getting digital content to their fan base and new formats and streaming services continue to come online to distribute this content. But whilst there has never been so much choice at all levels of the value chain, the growth in new streaming services and platforms, each with their own methods of managing data, means that there is a potential for error and conflict and a growing threat to an artist's ability to gain attribution and remuneration for their works. In order to develop the right environment for the market to create new and sustainable business models, we need data to be robust, reliable, transparent and accessible. In many parts of the Creative Industries, in particular the Music industry, this is not currently the case.
14. Industry bodies are working to address this issue, in particular PRS for Music and PPL have embarked on a joint initiative to link their extensive databases and improve identification of

sound recordings, musical works and the links between them.⁵⁷ Government and industry need to work towards transparency, interoperability and standardisation of the data underpinning the delivery of creative content today, so as to ensure creators are fairly remunerated and attributed for their creative endeavours. Data increasingly has a value in its own right, and by creating interoperable systems, new and exciting business models may arise to exploit secondary markets in IP data. For example datasets detailing listening habits can be used to create tailored, curated music content for the end-user and a new way to monetise content.

15. This is a big, complex challenge. There have been multiple attempts to build a largescale rights database, most recently the Global Repertoire Database (GRD) which saw organisations as diverse as Universal, Apple, Amazon, PRS for Music and European Collecting collaborating on its creation. This initiative was put aside in 2014 due to a withdrawal of funding and disputes over who would have overall control.⁵⁸ We need to build on the quality of UK data and consider how, through new technological solutions, we can develop systems to allow these data collections to talk to each other, to build capacity and trust in a way that does not fall foul of Competition Law. The prize for getting this right is innovative new business models and greater remuneration for creators. This would be important for any country, but crucial for one which produces so much audio and video entertainment.
16. Government needs to bring the whole of the value chain along, working with industry to understand the nature of the problem and to develop solutions. The IPO has developed the Music 2025 initiative, bringing together stakeholders from across the music industry, who have collectively identified that improvements in data capture and accessibility are key to future success. In order to fix this, we need to identify what and where the problems are. The IPO, in partnership with PRS for Music and PPL, are commissioning independent research to bottom this out. This is a vital step before moving to proof of concept and the development of exciting new technological solutions, such as blockchain, that have the potential to revolutionise the creative value chain. If this can be shown to work for the Music industry, it naturally points the way to further work in other digital content sectors. This initiative is therefore an opportunity to build on that reputation, to be a global leader and to set the standards for data collection internationally.

Recommendations

- **Government should increase the support offered to businesses to protect and exploit intangible IP. As part of this, the Intellectual Property Office should digitise its IP Finance Toolkit and work with industry to publicise it further with businesses of all sizes and across the UK, agreeing an annual target for the number of UK firms using it.**
- **Government and industry should conduct a comprehensive joint work programme on IP valuation to: a) increase awareness of the availability of IP valuation resources, b) map the market and identify barriers to investment and c) take bold action to address any market failures.**
- **Government and industry should develop a joint strategy to improve data transparency around creative content and thus unlock new revenues and business models. The music industry, tech industry and government should develop a proof of concept at pace. Given the ambitious, novel nature of this work, government should ensure innovation funding is available to support this and develop further stages for other digital content sectors such as film.**

⁵⁷ <https://www.prsformusic.com/press/2017/prs-for-music-and-ppl-launch-joint-initiative-to-link-data-sets>

⁵⁸ <http://www.thembj.org/2015/08/grds-failure/>



Chapter 5

Access to finance

“I have a cunning plan”
‘Blackadder’ – Sir Richard Curtis and Ben Elton

Relevance to the Creative Industries

1. The right financial and business support is critical to growth in all sectors. But a number of reports highlight how there is a particular problem of both how risk is assessed and how readily accessible finance is for firms in the Creative Industries.⁵⁹ Government analysis carried out by BIS and DCMS in 2011 suggests market failures concerning access to finance are especially acute for some creative sectors.⁶⁰ With this in mind, there’s also evidence provided later in this chapter regarding the dearth of suitable finance (particularly outside of London). So we should ensure financial and business support schemes are tailored to the needs of the sector.
2. The BIS/DCMS report *Access to Finance for Creative Industry Businesses* (2011) found that software and ‘other’ creative content sectors (comprising Publishing; Video, Film and Photography; and Radio and TV) were more likely than other businesses with similar risk profiles to have their funding applications rejected by finance providers.⁶¹ The report hypothesised that this could be due to the nature of their output, which is primarily intangible and non-comparable and therefore often difficult to value, or due to a mismatch between business owners’ primary objective being the creative output and finance providers’ commercial motivations to maximise returns. However, the above-footnoted report from Demos evaluated how genuinely risky Creative Industries investments are compared to the rest of the economy. They found no actual difference, but rather a perception of difference.

⁵⁹ <http://www.thecreativeindustries.co.uk/media/367095/final-version-july-5.pdf>
http://www.thecreativeindustries.co.uk/media/243587/cic_report_final-hi-res-.pdf
Imagi-Nation: The Business of Creativity, a review (Livingstone, I. & PWC, 2015)
https://www.demos.co.uk/files/Risky_business_-_web.pdf?1320841913

⁶⁰ *Access to Finance for Creative Industry Business, Final Report* (BIS & DCMS, 2011)

⁶¹ Publishing; Video, Film and Photography; Radio and TV



3. The report observed that this trend continues for 'discouraged borrowers'. These firms need external finance but do not apply for a bank loan because they fear that their application will be rejected. Secondly, businesses in the category of 'other' creative content sectors were more likely to feel discouraged from applying and had worse perceptions of the conditions in the loan market compared to non-creative sector companies with similar risk profiles. Thirdly, qualitative analysis within the study found that creative businesses were more likely to turn down loan offers due to the terms of the offer (including requests for personal security).
4. All of this demonstrates that, for a variety of reasons, routes to accessing finance are not optimised for this sector. Government has an opportunity to improve growth and productivity by addressing this. 12% of all creative industry businesses say they will require finance over the next 12 months but currently face barriers accessing it.⁶² 86% of creative businesses in the 2016 Scale-Up survey agree they would be able to grow their company faster if they had better access to growth capital finance. This must be tackled.

Background and Key Challenges

5. As outlined above, there is evidence that creative firms in some sub-sectors are less likely to access the finance they need to grow. Viable SMEs with high growth potential can also experience problems in raising equity finance. SMEs can lack knowledge of how to market themselves, as well as information on how equity finance works and where to access it. In addition, the costs and complexity associated with obtaining information about businesses' investment prospects and the misalignment between the private returns of investors and wider societal benefits are structural market failures that contribute to many SMEs lack of investment-readiness. The resultant 'thin market' means that investors and companies have difficulty finding each other.⁶³
6. The type of finance and business support is also crucial. Although only a small proportion of SMEs currently seek equity finance,⁶⁴ it is an important funding source for young high growth-potential businesses. Early stage venture capital funding has increased in recent years, in part facilitated by interventions from the British Business Bank. Estimates for the size of the overall equity gap when compared to the US ranges between £3bn and £6bn per year⁶⁵ and, in the early stage, affects businesses seeking between £250k to £2m-5m.
7. Since 2006, the Bank has delivered the Enterprise Capital Fund programme directly targeting this gap and has made equity investments from as little as £10,000 up to £7 million with an average deal size of around £1 million.⁶⁶ The ECF programme has made 13 investments in Creative Industries companies through its funds, and on average each company has received £1.6 million.
8. In addition, investment and support by business angels has grown strongly in recent years, with high volumes of capital raised and the development of different investment structures such as co-investments and angel syndicates. The fact that business angels tend to make smaller investments and so target the lower end of the equity gap not served by venture capitalists makes them a good potential source of finance for creative businesses seeking these smaller sums.

⁶² SME Finance Monitor Creative Analysis 2016

⁶³ *From Funding Gaps to Thin Markets: UK Government Support for Early Stage Venture Capital*, (Nesta, 2009)

⁶⁴ Estimated by the British Business Bank to be 1-2% of SMEs seeking finance from a range of surveys like the BIS Barometer and 2009 SME Finance Survey

⁶⁵ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/642456/financing_growth_in_innovative_firms_consultation_web.pdf

⁶⁶ To date the ECF programme has facilitated £433 million, and an interim review of the programme found ECFs have been effective at facilitating equity investments to SMEs in this range, although the overall size of the gap means more financing could be made available.



9. There are currently no comprehensive data on overall market size or level of investment by business angels. However, data from the Seed Enterprise Investment Scheme (SEIS) and Enterprise Investment Scheme (EIS)⁶⁷ give a picture of overall size – the majority of Business Angels use these tax relief programmes to make equity investments⁶⁸. Analysis of data from disclosed deals in some areas of the creative sector in the UK show that investments in Creative Industries by angels peaked in 2015 investing around \$45m (£38m) across 12 deals, representing more than twice the average annual investment from previous years⁶⁹. The British Business Bank Angel CoFund programme has around 20% of all portfolio investments in creative companies, with each company receiving £2.4 million on average. The Creative Industries need to harness this, ensuring business angels are linked up effectively with businesses seeking investment.
10. Finally, funding for companies outside of London is scarcer. 37% of all businesses in the Creative Industries are based in London and research on investment suggests that 60.4% of businesses in the sector that received equity investment were London based.^{70 71} The new tech sector venture capital investor Accelerated Digital Ventures (ADV) estimates that there is overall a 'venture gap' of £3.9bn nationwide of which £3.33bn is outside London and the South East. Anecdotally businesses outside of London support the conclusion that there is an under-supply of investment for regional companies such as those in the creative-tech sector.

⁶⁷ <https://www.gov.uk/government/statistics/enterprise-and-seed-enterprise-investment-schemes-april-2017>

⁶⁸ The *Nation of Angels* report confirms that 90% of angels in the visible market are using the EIS/SEIS scheme for 79% of their deals

⁶⁹ <https://Pitchbook.com>

⁷⁰ Mateos-Garcia, J. Bakhshi, H. *Geography of Creativity in UK* (Nesta, 2016)

⁷¹ <https://about.beauhurst.com>

11. Whilst other types of funding (particularly EU funding but also central UK government support) is not lacking outside London, it is generally spent on buildings and institutions. Government should therefore work with industry to design support schemes that increase as well as redistribute investment into creative businesses to address these gaps and missed opportunities. There is an opportunity created by Brexit to fundamentally to re-examine how we structure business investment and create a system that aligns with the requirements of future growth such as Creative Industries. This opportunity must not be missed.
12. The Creative Industries Council, led by Creative England, has a proposal that seeks to address these concerns through a 'ladder of growth' involving roughly matched industry and public investment into a £500 million fund. Government should look to support this or a similar proposal that recognises the needs of companies in this sectors and ensures investment is distributed into clusters to drive regional growth.

Creative Industries Council 'ladder of growth' proposal

The Creative Industries Council have developed a proposal for a £500 million joint public / private funding envelope to support creative businesses at all stages of their development. Key features of the scheme are:

- a. Step-Up Finance. Loans and equity investments of £50,000 to £250,000 to address the identified gap at this level. A total fund of £125m could be raised by requiring match private funding to be secured by each business against each investment and would deliver approximately 1500 investments over 5 years.
- b. Angel Co-Investment fund. Providing equity finance for creative industry SMEs with high growth potential to give them the capital they need to develop further. This proposal is looking to secure a total fund of £30m from government and £70m from the private sector (business angels) over 5 years.⁷²
- c. Debt and equity growth finance. Providing higher level funding for larger, more established businesses of between £500,000 and £2m. A total fund of £150m: £75m from Government, £75m from private investors, making investments in 100 businesses over 5 years with average investments per business of £1.5m

The Creative Industries Council estimates that the step up finance alone, modelled on similar but much smaller schemes, could deliver 11,363 jobs over 5 years (80% at NVQ level 3 or above) and an increase in business turnover of £380m.

13. The solution needs to include more, smaller deal sizes (around £250,000) and should seek to increase the role the business angel community plays in growing this sector. The Patient Capital Review, Entrepreneurship Review and Scale-Up Taskforce should inform analysis of the impacts of government schemes offered and taken up by the Creative Industries and ensure available funds are accessible at the lower levels of investment for truly innovative companies.
14. Finally, industry and government already has a range of business support, advice and networking services, including regionally-led initiatives. However, they must jointly ensure that resources that are tailored to the needs of the Creative Industries are readily accessible and widely known.⁷³

⁷² The estimate of private sector finance share is taken from the historical average investment through the ACF programme, and is indicative only.

⁷³ <http://www.icaew.com/-/media/corporate/files/technical/corporate-finance/corporate-finance-faculty/creative-industries-routes-to-finance.ashx>



Anecdotally there is evidence that matches between potential angel investors and businesses happen far too often by chance or via personal networks. This is inefficient and bad for diversity. To tackle this, creative cluster leaders need to work to bring investors in and match them with growth-ready companies in their area. A travelling investment roadshow that offers financial speed-dating of this sort would address this. We can envisage it visiting Key Creative Clusters annually.

Recommendations

- **Investment from the British Business Bank into the Creative Industries should be significantly increased and matched with private investment to deliver a 'ladder of growth' investment scheme that is regionally-focused and meets the scale-up needs of the Creative Industries.**
- **Leaders of creative clusters should improve signposting to business support and investment via regular 'speed dating' events to match investors and companies.**



Chapter 6

Growing the talent pipeline

“People, even children, aren’t really afraid of change. They’re afraid of not being prepared for change”

Sir Paul Smith

Relevance to the Creative Industries

1. Identifying and addressing skills gaps is an issue for almost every sector of the economy and acts as a common barrier to productivity. This was recognised in the Industrial Strategy Green Paper where skills were identified as a key pillar. The Department for Education is delivering a range of major skills reforms including the new Apprenticeship Levy and T-Levels. It is also in the process of developing Lifelong Learning Pilots and the manifesto commitment on a national retraining scheme. Nevertheless, there are strong arguments for tackling some of the issues facing the Creative Industries via the Sector Deal process.
2. As already highlighted in this report, creative jobs will become a significantly higher percentage of the overall employment landscape by 2030, given their resistance to automation. It is imperative that government commits to designing the education and skills frameworks to support sectors where the jobs of the future are going to be found. This is not currently happening and as a result skills gaps are opening up in many parts of this sector. Related to this, the structure of the Creative Industries means that 34% of workers are self-employed (more than double the national average) and 94.7% of businesses employ fewer than 10 people.⁷⁴ This individual-centric, project-based working pattern is an important feature of the modern workforce. But it should not be confused with the ‘gig economy’: freelancing in the Creative Industries is more often than not a means to a highly-skilled, professional project-based career.

⁷⁴ DCMS Economic Estimates 2016, pg 17

3. Recent research by Nesta shows that the combination of arts and science skills within businesses, a key feature of many parts of the Creative Industries, is linked to 6% higher employment growth and 8% higher sales growth. They are also 10% more productive than the average firm, although somewhat less productive than science skills-only firms. The report finds evidence that the broader the set of skills a firm uses, the higher its level of innovative performance and future growth.⁷⁵ The World Economic Forum has also undertaken research into the skills that will grow in importance as global economies mature. It lists ten key skills that will be required by 2020, one of which is creative thinking with others including 'softer' skills such as emotional intelligence and people management.⁷⁶ Taken together, this evidence suggests that getting the approach right for Creative Industries will significantly help in creating a stronger, more resilient and competitive workforce.
4. The Creative Industries are trying to solve these problems for themselves, including generating better data than most sectors when it comes to measuring skills demands. Nesta has taken an innovative approach by analysing online job adverts to understand what combinations of skills are in demand, showing that creative and design skills are most often demanded in combination with tech support and teaching skills.⁷⁷ In addition, the Creative Industries Council is commissioning an employer skills survey to better understand the landscape.

Background and Key challenges

5. Growth and greater productivity in the talent pipeline for these industries are held back by two main factors: social and informational barriers to entry; and quality, consistency and availability of post-secondary education and training, which includes further and higher education, and continuing development.

Social and informational barriers to entry

6. A recent skills audit of UK film and screen industries identified a number of barriers to accessing job and careers opportunities, including financial barriers, lack of networks, knowledge and information barriers, geographic barriers, and attitudinal barriers⁷⁸. As a result, ethnic minorities, women (particularly those with caring responsibilities), those with disabilities, and people from less advantaged backgrounds are seen to face the biggest challenges to entering and progressing in creative industry sectors. Statistics show that 92% of creative industry jobs are occupied by the more advantaged groups of the workforce and across the sector social mobility is a challenge. 11.4% of creative industry roles were held by BAME employees, which is higher than the industry average, but below the BAME proportion of the UK population, and this is particularly noticeable in London where the BAME proportion is higher.⁷⁹
7. Besides moral and legal arguments for targeting barriers to recruiting and retaining a diverse workforce, there is a strong economic case. A diverse workforce is pivotal to the innovative and creative processes that give the UK Creative Industries their global competitive advantage. Moreover, under-represented groups constitute an untapped domestic pool of raw talent that, if provided with the relevant skills, could be used to fill the skills gaps facing the Creative Industries. At a strategic level, industry recognises the importance of addressing its diversity challenges but coordinated employer-led action is difficult where so many businesses are micro or SME. And low levels of voluntary reporting hamper the collection of accurate employment statistics.

⁷⁵ *The Fusion Effect: how firms gain from combining arts and science skills.* (Nesta, 2016)

⁷⁶ *The Future of Jobs* (World Economic Forum, 2016)

⁷⁷ *A Closer Look at Creatives* (Nesta, 2017)

⁷⁸ *Future Film Skills, An Action Plan* (Work Foundation & BFI, 2017)

⁷⁹ *Create Together strategy* (CIC, 2015)

8. Entry into the sector is also impeded by poor understanding amongst pupils, teachers and parents of the kinds of careers that are available, with a perception amongst many that jobs are poorly paid, insecure or not open to those without existing links into industry. There may also be a limited understanding of the fact that areas of the Creative Industries involve specialised and technical skills – for example in the video games and visual effects sectors – as well as skills that are transferable to other valuable and interesting areas of the economy. Employers report job deficiencies also in the supportive rather than the “visible” roles, with shortages in non-creative skills, such as management, HR, finance, digital, and marketing skills.
9. Research carried out by the Work Foundation on the film sector showed these challenges begin in schools, with a lack of understanding of the opportunities in the sector and a lack of visible role models.⁸⁰ Provision of information about the industry is highly fragmented, and people from under-represented groups and from areas outside London in particular think the industry does not offer a viable career path for them.
10. It is clear that employers alone will not solve this problem: the industry needs an ‘attraction strategy’ to communicate what is on offer and correct misconceptions about the nature of these careers, as well as helping teachers in the classroom bring alive the opportunities available in the sector. This must be aimed at parents as well as pupils to win the hearts and minds of both. The Creative Industries Council and Creative Industries Federation have proposals to tackle this. As outlined below, they represent a creative, industry-led solution to this problem that government should support. The CIC and CIF are willing to lead the design and dissemination of these materials.



⁸⁰ *Future Film Skills, An Action Plan* (Work Foundation & BFI, 2017)

Creative Industries Council and Creative Industries Federation proposals for creative learning and careers

The CIC and CIF propose a range of new interventions aimed at transforming access to careers advice, support and information for young people, their parents/carers and careers advisors, and providing creative learning opportunities to school pupils. The main elements of these proposals are:

- A creative careers campaign to improve the public's perception of creative careers and inspire people across the UK to pursue employment in the Creative Industries. This would aim to increase awareness of creative sector careers and provide information on how to pursue them. It will also address common misconceptions about working in the sector. The campaign will primarily be targeted at young people, but would also reach those considering a career change in later life. The hope would be to model the campaign on Sport England's This Girl Can campaign, which encouraged 150,000 women to take up sports.
- An online Creative Careers gateway providing a single access point to existing and new material from across the creative sectors, showcasing the breadth of opportunities and paths of entry.
- A new industry-led online one stop shop for schools, bringing together and disseminating relevant creative teaching material and careers information, and underpinned by a business-led outreach programme, match-funded by industry and Government, to support both curricular and extracurricular activities.

11. In addition to the new activity proposed by the CIC and CIF, industry should consider which existing extra-curricular initiatives are effective at engaging, inspiring and informing young people about career opportunities in the Creative Industries. The Sorrell Foundation and Saturday Club Trust Saturday Clubs are one such example of a national scheme that offers free Saturday classes to 13-16 year olds to develop creative talent, confidence and knowledge. Having started with Art and Design clubs, these have now expanded to cover Science and Engineering, Writing and Talking, and Fashion and Business, with the aim of reaching 2,500 young people by 2018. Currently operational over fifty sites, this should be subject to five-fold expansion, with two hundred and fifty clubs around the country, engaging many thousands of young people in a variety of creative and creative-tech learning opportunities. This expansion should be led by FE and HE colleges, with funding coming from HE outreach budgets. Resource and support might also come from local creative businesses and successful Key Creative Cluster bids. A good bid for key cluster status may well have a proposal for new Saturday Clubs as part of their local strategy for unlocking talent. If this demand is demonstrated, government should provide a proportion of the additional funding for expansion of the co-ordinating team at the Saturday Club Trust.⁸¹

⁸¹ Significant expansion in the network would also require growth of the co-ordinating team at the Saturday Club Trust, as well as additional funding to cover the increased costs of scaling up the national elements of the programme.

The National Saturday Club⁸²

Established in 2009 as a pilot over four sites, Saturday Clubs give children aged 13-16 the opportunity to participate in regular, practical Saturday classes often based at local Further and Higher Education Institutes. Not only do teenagers get to learn about and explore areas of Science and Engineering, Art and Design, Fashion and Business or Writing and Talking, it is also an opportunity to gain an insight into college life and routes into employment via further and higher education. An evaluation report from 2014 on the impacts of Saturday Clubs notes that half of the clubs operated in some of the UK's most deprived areas and as such *'the programme works to inspire students from non-traditional backgrounds, and to provide them with greater access to, and experience of, art and design.'*⁸³

The same report goes on: 'annual reports suggest that almost a third of club members go on to enroll in Diploma, Foundation or Undergraduate courses, and that students' self-esteem and aspirations are greatly improved by the scheme. Indeed, the 2012/13 National Art & Design Saturday Club Annual Review, clearly outlines the positive impact the clubs have had in terms of boosting young people's confidence, and their enjoyment of art design, as well as their educational and career ambitions.'

Quality, consistency and availability of post-secondary education and training

12. The quality, consistency and availability of post-secondary education and training is an area where government intervention is undergoing significant reform, with moves towards employer-led skills approaches and a greater emphasis on regional strategies. In the Creative Industries, employers already work together to deliver a range of excellent specialist training centres and industry-led initiatives that tackle particular skills gaps. Examples include:
 - a. The National College for Creative and Cultural Industries, managed by Creative & Cultural Skills on behalf of a consortium of employers and industry organisations;
 - b. The industry-led Next Gen Skills Academy for games, animation and visual effects;
 - c. The government-funded BRIT School of Performing Arts and Technology sponsored by the British Recording Industry Trust;
 - d. The Global Academy that partners with the University of the Arts, London to focus on broadcast and digital media skills;
13. Despite these examples of excellence, quality and consistency for learners remains an issue across this sector, not least because it has such a high percentage of micro enterprise and SME employers for whom a coordinated employer-led approach is challenging. In addition to these examples of specialist colleges, many employers and representative organisations (including Creative Skillset, Pact, the Chartered Institute of Marketing, and the National Council for Training of Journalists) have developed accreditation models to tackle the issue of consistency and ensure graduates enter the labour market job-ready. Such certifications have the added benefits of signposting to students the educational and training routes into creative industry professions, as well as providing

⁸² The Saturday Club Trust is a charity and Saturday Clubs are funded through a blend of funds from government, via the Department for Education's Cultural Education Programme and Arts Council England, and charitable donations. Individual clubs are supported by FE and HEIs.

⁸³ http://www.creativeworkslondon.org.uk/wp-content/uploads/2013/11/Creativeworks_Researcher_in_Residence_Sorrell_Foundation_Kingston_Report.pdf



confidence to employers. The Creative Industries Council is developing proposals to create a single system of accreditation based on direct and licensed accreditation that can be rolled out across HE and FE providers and government should work constructively to support this.

14. The Apprenticeship Levy is one of the government's flagship policies to strengthen the talent pipeline into all industries and as such should be welcomed, although important reforms are required if it is to work effectively for this sector. The Creative Industries have welcomed the opportunity that the government's new approach to apprenticeships offers to bring new talent into the industry. But it has advanced compelling arguments as to how and why it is highly unlikely to be optimised for this sector. It is crucial that government recognises the risks that badly designed or overly burdensome regulation represents to sectors that are often highly mobile such as the Creative Industries. Unlike other more traditional sectors that have far higher barriers to relocation, high-value firms in the Creative Industries such as the video games sector can relocate to countries with more favourable regimes. The Creative Industries Council has developed a proposal to pilot modifications, which merits serious consideration by government, as highlighted below. If proven to work, the approach may well benefit wider tech industries too.

The Apprenticeship Levy

From April 2017, all employers with a paybill of over £3m must pay 0.5% of this into the apprenticeship levy. Organisations can draw on these funds to pay for the training and assessment of apprentices. The levy is thus designed to provide employers with a stake in improving the number and quality of apprenticeships, thereby strengthening vocational routes into professions.

The Creative Industries sector has a high level of SMEs and micro-businesses, as well as short term project-based working and freelancing. This means that they likely have substantially fewer employees who are eligible to be apprentices. Apprenticeship Training Agencies (ATAs) will employ and train apprentices for those SME and micros who cannot commit to the length of time an apprenticeship requires. However, these agencies are not widespread and employers will only be able to transfer up to 10% of levy funds to them beginning in 2018.

The new apprenticeships will be delivered against industry-led standards, ensuring they meet the needs of employers and are of high quality. Although the sector has welcomed the focus on the employer, small organisations in the Creative Industries report that they lack the capacity or expertise to develop standards.

The Creative Industries Council has therefore proposed a national three-year pilot for this sector, to ensure that the £75 million of levy contributions from Creative Industries employers, can be effectively reinvested in additional jobs in the sector rather than either resulting in a reduction in opportunities or displacement of current employer-funded training schemes. The pilot would allow unlimited transfer of levy funds to ATAs and placement of apprentices in supply chain businesses, as well as the use of these funds to invest in the development of standards and for data collection for evaluation purposes.

Matthew Taylor's recently-published review of modern working practices shows that the Creative Industries are not alone in pointing out the inability of atypical workers and lower-paying employers to take advantage of the apprenticeship levy and the report recommends that government should consider making levy funds available for training other than apprenticeships.⁸⁴ The Creative Industries' pilot could therefore produce outcomes that would be of interest to the wider economy.

15. In addition to national sectoral approaches, the government's move towards strengthening place-based skills strategies is a further opportunity for the Creative Industries, particularly if supported through an intensive new cluster-focused strategy as outlined in this report. The Department for Education is already delivering a skills strategy that focuses on local solutions, and identifies place-based outcomes as the measures of success. Examples include multi-academy trusts, the Strategic School Improvement Fund, and the anticipated Skills Advisory Panels.
16. Similarly, imaginative and dynamic relations within creative clusters have been forged between local employers, HE Institutions, schools and cultural institutions at the municipal, local, and regional levels. For example:
 - a. in Wakefield, the Backstage Academy is a production rehearsal arena that – in partnership with University of Bolton and industry – provides students with the training necessary to enter the backstage entertainment industry;
 - b. Ukie is partnering with the Coventry and Warwickshire LEP and the West Midlands Combined Authority, as well as university and colleges in the region, to provide support to local games businesses for skills; and
 - c. in Sunderland, the University of Sunderland has partnered with the City Council to set up a trust that operates the major cultural institutions in Sunderland, and which is raising the cultural profile of the city.

⁸⁴ *Employment Practices in the Modern Economy* (Matthew Taylor, 2017)

These place-based initiatives are all characterised by strong accountability, high levels of collaboration, collective local leadership, and robust governance. However, the wider sector would benefit from a rigorous approach to monitoring and evaluation plus dissemination of best practice to ensure government and industry build up a consistent body of evidence as to what works. As part of the competition for 'Key Creative Cluster' status outlined in Chapter 2, clusters should demonstrate how they will grow and evaluate innovative and ambitious place-based skills development projects.

Recommendations

- **Industry should develop a national careers 'attraction strategy', including a communications campaign, supporting online advice and information centre and curriculum materials to broaden and deepen the talent pipeline that starts at school.**
- **Higher and Further Education providers should work with industry and the Saturday Club Trust to expand the network of Saturday Clubs – inspiring creativity in 13-16 year olds – from its current level of approximately fifty to two hundred and fifty within five years. Others should feel free to borrow the model.**
- **Government should approve a national 3-year pilot of modifications to the Apprenticeship Levy as proposed by the Creative Industries Council.**



Chapter 7:

A new era of opportunity for screen industries

“We’re going to catch a big one.
We’re not scared”

‘We’re Going on a Bear Hunt’ – Michael Rosen

1. The UK is one of the best places in the world to make screen content, whether TV, film or video games. In total these three sectors contributed £13.2 billion in GVA and 158,000 jobs.⁸⁵ These industries have notable areas of overlap in the skills, talent and studio space required for their activities. In particular, the UK is recognised for the quality and creativity of its screen content – the ability to tell stories and create compelling, groundbreaking material.
2. The creative and technical skills developed in these sectors have applications far beyond the screen industries as we currently know them. We can harness them to master immersive technologies, to translate learning into other significant areas of the economy including healthcare, defence and construction. At the same time, businesses in these industries are highly mobile and there is fierce international competition for their work. Government and industry need to come together to support a long-term package of proposals rooted in innovation, investment and skills to ensure that the UK remains the most innovative, exciting and accessible place to develop new material for screen.

⁸⁵ DCMS Sectors Economic Estimates, GVA Sub-sectors (Nov 2016)

Background and Key Challenges

3. Film, high-end television (HETV),⁸⁶ children's TV, animation and video games are supported by an effective suite of targeted tax reliefs. In HETV the UK has seen a production boom worth £1.5 billion since a dedicated tax relief was introduced in 2013. In film, the UK attracted £1 billion in inward investment last year alone, and nearly £9 billion since the tax relief was introduced in 2007. The stable and attractive tax relief regime has also encouraged £425 million of commercial infrastructure investment in the same period, supporting the UK production of globally successful franchises such as Harry Potter, Game of Thrones and Star Wars. In video games, the relief – introduced in 2014 – has supported UK expenditure of £690 million.⁸⁷
4. These reliefs remain crucial to the success of these industries, particularly in light of the sector's openness to disruption by fluctuations in exchange rates and international competition for business. Last year the US State of Georgia set a new record by spending \$606 million on its incentive programme – the largest amount spent by any jurisdiction in the US or Europe on a film tax relief programme in a single year. China is becoming increasingly active in international film production, and Canada has seen great success in attracting Visual Effects work through offering double tax reliefs i.e. at both provincial and federal levels. However, it is not just our tax reliefs that attract business: in film and TV our world-class production facilities and crews make the UK a highly attractive destination, while in video games it is primarily our talent and its reputation for innovation and creativity that draw companies here.

Film and Television

5. The UK's TV industry has seen growth of 39% over 7 years, underpinned by a successful long-term regulatory regime. The sector benefits from a unique and mixed broadcasting ecology, which combines investment from the Public Service Broadcasters with a growing commercial TV sector including both satellite and cable platforms. And our independent production sector was worth £3bn in 2016. UK TV content is also highly sought after around the world with sales for annual UK TV exports rising to more than £1.3bn in 2015/16 – a 10% increase from £1.2bn in 2014/15.

The BBC's 'object-based media' project

Recently the BBC has been developing new broadcast-over-TV IP techniques through their work on 'object-based media'. Using innovative image capture and production processes, they have enabled content to be manipulated in a range of different ways without increasing the cost of filming. For instance, content can be condensed, reordered or reformatted depending on a viewer's preference. The BBC describes this as having the potential to make media content in the way video games work, and being an enabler for augmented and virtual reality (AR and VR). This summer, the BBC will be launching a VR studio.

By basing technologies like object-based media on open standards, the BBC is enabling others to innovate off them and build new commercial products and services. There is the potential to leverage greater value from this investment by supplementing it with further innovation funding, for instance via the Industrial Strategy Challenge Fund, and by working with the BBC to structure 5G trials such that this technology can be tested and further developed.

⁸⁶ HETV is defined as those productions costing more than £1m per broadcast hour for the purpose of current tax relief

⁸⁷ https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/630501/July_2017_Commentary_Creative_Industries_Statistics2.pdf



6. In film, support for the UK film sector is delivered through the British Film Institute (BFI), with the British Film Commission and other key national and regional partners. They work to encourage the production of international feature films and television programmes in the UK by offering guidance on our tax reliefs and assistance with sourcing key crew, talent, facilities and locations. This is a highly lucrative industry exporting almost £2 billion worth of services in 2015, with a trade surplus of over £1.2 billion.
7. Despite the UK's success in attracting international productions in HETV and film, evidence is emerging to suggest that the supply of both modern studio space and skilled crews is not fully in-step with demand. As a result, the UK risks losing out on significant investment to territories including North America and Eastern Europe. However, investment in studio space is regarded as high-risk by the commercial sector as its success is dependent on a number of variables including a guaranteed content pipeline. Where studio space is available, limitations around provision of the local crew base can have an important influence on investment decisions.
8. Industry has recognised and responded to this shortage of studio space. For instance, significant expansions are underway and planned over the next decade at Warner Bros. Leavesden Studios, and Pinewood Studios, as well as at the addition of purpose-built and converted stages across the nations and regions. Examples are Wardpark Studios near Glasgow, Church Fenton Studios in Yorkshire, Bottle Yard Studios in Bristol, and Belfast Harbour Studios in Northern Ireland. In collaboration with local partners, the Mayor of London is currently exploring the feasibility of developing a 17-acre site in Dagenham East.
9. However, it is unclear whether these initiatives will be enough to satisfy future demand. For studio operators in the UK (whether incumbent or new) to be able to respond to global demand, as well as to attract more big-budget projects to the UK, there is a need to remove barriers to the expansion and conversion of space, and to consider whether regulatory or fiscal levers are required to make the business model of running studios more sustainable. Current barriers to investment include the lack of tax efficient schemes to support infrastructure investment, high business rates when filming in non-purpose-built spaces, and planning policies and legislation which are largely incompatible with the needs of screen production.
10. Insufficient supply of skilled crews is not only a barrier to inward investment from the major studios, it also drives up costs which exert additional budgetary pressures, making production more difficult, particularly for independent filmmakers. The BFI recently launched their strategy 'Future Film Skills' with a ten-point action plan which looks to tackle this in close partnership with industry. In particular, the BFI are developing proposals for Centres of Excellence for Craft and Technical Skills, as well as initiatives to futureproof the industry through a bespoke mentoring programme for new entrants and returnees. In addition to this, they plan to pilot a new, national Academy of Storytelling.
11. As emphasised in the BFI's 'Future Film Skills' strategy, this is a plan which absolutely depends on commitment, collaboration and proactivity from both industry and Government. Opportunity is rife within the screen sectors, but it can only be embraced with a diverse and inclusive workforce that is able to meet present and future skills needs. The strategy is an important basis on which the screen industries can build to address critical skills issues, complemented by further skills-related initiatives across industry and government. Its success depends on the full involvement of industry, and it is critical that industry make firm commitments (which may be in-kind or financial) to support the strategy.

BFI Academy of Storytelling and Centres of Excellence for Craft and Technical Skills

To elevate further the UK's reputation for telling engaging stories that resonate at home and abroad, the BFI are developing proposals to pilot a national Academy of Storytelling in a regional creative cluster. It would seek to boost the plurality and quality of stories being told in the UK in order to meet the increasing demand for non-traditional content across different platforms. Indeed, this form of intellectual property is crucial for driving growth in our screen industries. The Academy would be part of a broader agenda of building on the UK's competitive advantage in this field to seize opportunities presented by emergent and new types of technology, such as immersive.

Accompanying this is a need to address the dearth of certain craft and technical skills, particularly in regional hubs, as identified in the BFI's Future Film Skills report. World-class centres of excellence for screen-related craft and technical skills, delivered in partnership with HE institutions and the new Institutes of Technology, will train and develop future 3D model makers, costume designers, gaffers, carpenters and other currently underrepresented screen professions.

Video games

12. The rapidly growing international market for video games offers substantial expansion potential for our games producers. Global revenues for video games software and hardware are forecast to be \$150bn in 2017 and to reach some \$200bn by 2021, with a compound annual growth rate of 7.9%.⁸⁸ Supporting the games industry in the UK means investing in future skills, techniques and technologies such as simulation and modelling, as well as data analytics that can accelerate innovation in sectors far beyond the entertainment sphere. We should move quickly to ensure we are able to fully exploit the video games sector's huge potential, building on its trailblazing qualities, transferable skills and ability to create compelling (including educational and narrative-driven) content for a growing global audience.
13. The games production sector in the UK comprises a constellation of micro-enterprises and SMEs (a large proportion set up in the last few years and often focussed on mobile games) alongside a handful of larger studios with typically several hundred employees. Many of the latter are owned by major inward investors who have often also chosen to locate their European corporate HQs and games publishing divisions here. As noted earlier, games production is highly mobile and the UK faces stiff competition for this investment from overseas. Most famously, in just ten years Canada took its games sector from obscurity to become the third largest in the world after the US and Japan by offering targeted, generous support.
14. There is an ongoing discussion in the industry about supporting the creation of British intellectual property in this field and recognising games as a cultural and artistic force in society. Initiatives such as the BAFTA Games Awards and awareness raising by trade bodies Ukie and TIGA and others have helped our understanding of the economic and cultural value – and further potential – of the sector. More recently a number of figures in the industry have proposed an equivalent of the BFI for video games, to promote British games and deliver targeted support. Certainly in the longer term, government should take a more strategic approach to fostering growth in the video games industry and highlighting its cultural impacts.

⁸⁸ Digi-Capital Games Report and Database 2017



15. Whilst the industry benefits from the Video Games Tax Relief, the dedicated public funding is far lower than for TV or film, mostly comprising the £4.2 million that the UK Games Fund was awarded for the period 2015-2019 to support prototype-stage development. This is helping to stimulate the production of original British IP but there is an urgent need to continue to strengthen the industry – increasing the volume and range of new games creation, improving the investment potential of businesses and fully exploiting the potential to broaden the impacts across the creative sectors. The UK Games Fund has developed a proposal to develop the Fund further, proposing that an investment of £23.7 million would deliver GVA of around £106 million. Government should extend its support for the video games industry through such a scheme.

The UK Games Fund

The UK Games Fund was set up to promote a vibrant business environment for games development, addressing problems in attracting micro business and SME early-stage financing (deterred for example by asymmetrical information). Through its Tranzfuser programme the Fund also helps to grow the talent pipeline by nurturing high-potential graduates into self-enterprise, giving them real-world games development experience working on their own IP. The Fund is therefore already designed around a 'deal' between government and industry with the former providing investment and the latter maximising the economic returns through taking on and scaling up the prototype games and fostering the pipeline of talent that Tranzfuser delivers.

Since its launch in 2015, it has supported more than 60 businesses around the UK, with 85% of spend outside of London. The Tranzfuser talent programme has worked with 41 teams of graduates, supported in 12 regional centres (typically universities or incubators)

that have signed up to help. The UK Games Fund and Tranzfuser are also being used as test-beds for developing innovative business models for creative digital IP development, including smart contracts with a blockchain digital share registry for creative IP. An independent mid-term evaluation of the UK Games Fund/Tranzfuser undertaken by EKOS Consultants Ltd, demonstrates the high impact and ongoing potential of the initiative.

Whilst the Games Fund/Tranzfuser has been extremely well received and highly successful in terms of impacting on early-stage games businesses, under its current funding constraints and the operating model agreed with government the Fund has to turn down many good quality applications and is also unable to address some additional ongoing funding problems in games development :

- Trade bodies Ukie, Tiga plus others have highlighted a funding gap for British games businesses trying to raise between £50k and £3m to progress the development of original games content and the ongoing pressures of competing in the context of market dominance by other territories, particularly North America.
- Socially-relevant and culturally-rich games – which are otherwise commercially risky – struggle to get off the drawing board and do not currently benefit from public support. Games such as the recent Bafta-winning *That Dragon, Cancer* (made in the US) show that, just as much as film and TV content, games can provide engaging, innovative experiences dealing with difficult and important topics.

An extension of the Fund could also allow it to create a new programme for projects which have great potential but which are encountering the middle-stage £50k – £3m funding gap, helping to de-risk investment and ensuring that high value IP continues to grow and stay in this country.

Immersive technologies

16. On top of these comparatively mature and well understood industries, immersive technologies are growing fast. These have the potential to redefine screen-based content as well as other live experiences such as theatre and music. Furthermore, the spillovers to wider industries are numerous with applications in health, tourism, defence, entertainment and education. But these sectors will be looking to our screen industries and cultural producers to lead the way. This is where the expertise in experimentation and creative innovation lies that will help other industries make sense of, and monetise, the wider benefits and applications.
17. The UK's creative and screen sectors are particularly well-placed to realise the early benefits of new technologies such as the immersive reality market (including virtual, augmented, 360 filming, haptics and others), which is expected to reach £100 billion worldwide by 2020.⁸⁹ Our growing immersive sector has to date attracted the second highest share of global investment at 5%. However, the US is leading the charge with a 70% share.⁹⁰ The UK looks set to continue to hold a strong position following recent events, such as the \$502m invested in British company *Improbable* by the Japanese telecoms giant *Softbank*. But despite encouraging signs, this is a global race. Additional support and coordination from both government and industry is required to cement the UK's position as a global leader in creative and commercial exploitation of these technologies.

⁸⁹ *After mixed year, mobile AR to drive \$108 billion VR/AR market by 2021*, www.digi-capital.com

⁹⁰ <https://growthenabler.com/flipbook/pdf/Market%20Pulse%20Report%20-%20ARVR.pdf>

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18. Despite a large amount of interest from investors, with \$800 million invested globally in the second quarter of 2017 alone,⁹¹ the immersive industry is still in its infancy and significant revenues are not expected to be seen until at least 2018.⁹² There is a high degree of fragmentation. Film and video effects companies, games studios, advertisers, cultural institutions and technology developers are all seeking to innovate in this area without any centralised effort or shared commercial standards. The current situation risks wasting investment and potential innovation with little or no centralisation of knowledge, commercial practice and cross-sectoral opportunities.
 19. The UK has the opportunity to take a real lead, using our expertise in content development to unlock and commercialise immersive technology. And there are some encouraging signs: for example British games company Ninja Theory has co-developed a technology that captures and renders a motion-capped actor's performance in real-time allowing it to appear instantly in-game. It has been dubbed "real-time cinematography."⁹³ Ninja Theory believes that this technology could be transformative for immersive reality, allowing users to seamlessly interact with characters in the game. But approaches such as this, in addition to innovations in motion capture, facial recognition and digital broadcasting, could also be game changing across our creative industries. With events such as music, immersive could turn a venue of two hundred into two million – offering the live experience to anyone around the world in the comfort of their living room. In the production of AV content, these same technologies could allow creators access to more efficient filmmaking techniques where content can be shot, edited and interacted with live on set instead of in the back office. This is revolutionary.
 20. Immersive experiences represent a new form of content. This requires novel narrative mechanisms and a new language around production which will draw on expertise across the Creative Industries. The best technology will not produce the step change needed without equal excellence in content production and understanding of immersion as a narrative form. There is a unique opportunity in the UK to bring together our leadership in the creative sector with highly innovative technology companies and researchers in order to gain vital ground in the race for immersive. Government should move quickly to invest.

Recommendations

- **Within six months, the film industry should set out firm commitments for how it will support delivery of the BFI's Future Film Skills strategy.**
- **Government should invest £23.7 million over five years to extend the highly successful and innovative UK Games Fund and Transfuser graduate development programme.**
- **Within six months, government should confirm it will make innovation investment available for cutting-edge, business-led research and innovation projects in immersive reality to ensure the UK takes a global leadership role in developing commercial, cultural and production applications for these technologies.**

⁹¹ <http://www.thewrap.com/augmented-and-virtual-reality-investment-ramps-up-in-q2/>

⁹² <http://connectedconsumer.osborneclarke.com/digital-entertainment/report-predicts-vr-gaming-breakthrough-strong-growth-uk-entertainment-media-industry/>

⁹³ <https://www.inverse.com/article/19744-hellblade-real-time-custscenes-explained>



Chapter 8

Realising the international growth potential

“Creativity may well be the last legal unfair competitive advantage we can take to run over the competition”

Dave Trott

Relevance to the Creative Industries

1. The UK is renowned worldwide for its creative exports. Creative Industries exported £19.8bn of services in 2014 (9% of the UK total) and is a net exporter of creative services overall, with imports of £8.7bn in 2014.⁹⁴ In the Sunday Times 2017 *HSBC International Track 200*, which ranks Britain’s mid-market private companies with the fastest growing overseas sales, almost a third of the companies operate in the creative sector.⁹⁵ This shows the enormous potential of the Creative Industries to add further to export growth. Furthermore, arguably the benefits of a well-resourced Creative Industries export strategy are even stronger than in other industries because of the soft power benefits that our world-class cultural and Creative Industries bring. All of this, coupled with research that demonstrates a clear link overall between exporting and productivity, underlines why we should focus on growing exports in this particular sector.⁹⁶ I need hardly spell out how important this will be to the United Kingdom through the uncertainties of the next five years.

⁹⁴ DCMS Economic Estimates (Aug 2016)

⁹⁵ International Track 200 (HSBC, 2017) – www.fasttrack.co.uk/league-tables/international-track-200/

⁹⁶ <https://www.gov.uk/government/publications/the-economic-benefits-of-support-for-international-trade-and-investment>

2. In 2014 government and industry, via the joint Sector Advisory Group, agreed an ambitious international strategy, with targets covering exports and FDI wins. These have been taken forward by the new Department for International Trade (DIT):
- To **double Creative Industries services exports by 2020** to £31bn
 - To **double the numbers of creative companies supported by DIT** per year from 7,500 in 2013/14 to 15,000 per year by 2020
 - To **increase the UK's share of the global market for inward FDI** by 50 percent by 2020 (from 10% to 15%).
- The strategy includes a range of initiatives to underpin growth, and the latest figures show that DIT has made progress against its targets.⁹⁷
3. The progress that has been made demonstrates that this sector can work productively with government to develop effective export and inward investment programmes. However, the UK faces intense competition from North America and Europe (both long-standing exporters of creative content), and from developing economies such as Brazil and India whose governments are targeting the Creative Industries as key areas for growth. Given Brexit, it's clear that both industry and government need to continue to challenge themselves to find new ways to work together on this agenda, particularly if we are to deliver on these ambitious export targets.

Background and Key Challenges

Growing exports

1. Government provides a range of support for businesses to extend their international reach. This includes public support such as the Tradeshow Access Programme (TAP), as well as advisors – both international and domestic – funded by DIT.⁹⁸
2. Industry benefits significantly from the investment and support that government provides to exporting companies. This includes the network of International Trade Advisors spread across the UK regions, and the international network of trade attachés based overseas (including those focused on Intellectual Property and other key creative issues). Cultural organisations like the British Council are also valued for their capacity to 'soften' potentially challenging markets – for instance, the government worked with the British Council to deliver the 2015 'UK-China Year of Cultural Exchange', an initiative which has helped to strengthen relationships with the Chinese government and key industries.
3. However, industry identifies a number of areas for potential improvement.
 - **Government support is too short-term.** Planning is done on an annual basis and funding or trade missions are often made available with only short notice. Industry is calling for stability and certainty to help it develop complementary strategic plans for engagement in key markets.

⁹⁷ In 2016, the UK's share of global FDI projects was 11%, an increase from the previous baseline of 10%. By 2017, DIT reported that 140 FDI projects had landed in the UK, an increase of 40% from its 2014 base. The most up to date figure for Creative Industries export services is from 2014 – at that point, they were worth £19.8bn, a 10.9% increase from the 2013 base. If this rate of increase is maintained through to 2020 then DIT will achieve its export target.

⁹⁸ DIT estimate that they have supported approximately 2,000 overseas market access programmes over a 12 month period (2016/17) and 140 FDI projects (75% of which were new investments into the UK, 19% expansions, and 6% acquisitions).

- Government **financial support is often fragmented** and hard to navigate, with funding available from a range of different sources that often operate independently of each other, using different criteria and applications processes, with long lead times for decision making.
 - **Target markets do not fully match those identified by the industry.** DIT's focus on high value campaigns (HVCs) in markets that can deliver £300m of export wins by 2021, limits the focus to the USA, China, UAE, Hong Kong and India. Several sectors within the Creative Industries argue that these are not priority markets for them, and that instead of providing assistance in markets that are already mature, DIT should instead focus on helping industry enter emerging markets where the opportunities may be longer-term, or those where barriers to access, such as language or culture, make them harder to enter.
 - **Government expertise at post and at home is stretched.** Industry feel that support from attachés is often spread thinly: although the overall headcount for trade specialists has grown since DIT was established, some overseas posts have been re-prioritised which Industry feel is detrimental to their sectors.
 - **Data.** The Creative Industries Council has argued that the Office for National Statistics (ONS), DCMS and DIT should publish more useful export and inward investment data that is timely and represents all commercial activity from the sector. This means publishing an export figure that encompasses goods, services and all digital content. It should also encompass inward investment statistics that fully report the international investment being paid into the UK's Creative Industries.
4. In response to these challenges the Creative Industries Council has begun a proposal for a new International Trade Board to address many of the barriers outlined above. The aspiration is to aggregate available government export support, match it with industry funding and set it to work to deliver a 3-year export strategy into a set of target markets agreed by industry itself. This is an idea with real merit.

Creative Industries Council proposal for a new Creative Industries International Trade Board

The CIC propose combining cross-industry sources of export and trade promotion support into a single fund to be overseen by an industry-led International Trade Board working in partnership with government.

The Board, which would have wide representation (including from government, members representing small businesses, and the regions) and an independent chair, would set and oversee a rolling three-year strategy to identify priority markets and activities. Support would be allocated against agreed priorities and either directly invested in key events and trade missions or delegated to industry trade bodies. KPIs would be linked to increasing the number of exporting companies.

In addition, the Board would perform a range of supplementary activities such as overseeing development and delivery of guidance and toolkits to help overcome barriers to Creative Industries exporting; advising government on the optimal deployment of overseas specialist attachés to support Creative Industries export growth and performing a coordinating role to support international trade missions.

The CIC expect the new Board to deliver substantial increases in Foreign Direct Investment, export volumes, Return on Investment (ROI) ratios and numbers of creative businesses exporting, particularly from outside London. For example, they highlight that a 25% run-rate increase in returns from current levels of support from the two main government funds alone would drive some £0.25 billion in increased trade wins.

5. Industry will need to demonstrate that it has the support of all parts of the Creative Industries and, if departing from DIT's High Value Campaigns model, how a new approach will return significant long-term value to the UK economy. Government should engage seriously with this and work to find creative solutions to overcome any bureaucratic barriers to delivery. This collaboration to develop a new type of government-industry Trade Board could form a useful model for other sectors. In this respect it could be regarded as a pilot for UK plc.
6. Building on this, many parts of this sector have shown enthusiasm and commitment to finding ways to support new creative companies to export. DIT and several sectors of the Creative Industries have flagged Pact's Export Accelerator as an example of highly effective industry leadership in this area and other sub-sectors should consider adopting a similar model.

Pact's Export Accelerator

Pact, the trade body for independent UK television, film, digital, animation and children's media companies, has developed a package of support to help its members do more effective business overseas. It was originally launched as a series of workshops that toured the nations and regions with experts from a range of backgrounds delivering practical, hands-on sessions on how to create an export strategy.

Since launch, 301 independent UK production companies have signed up to the Export Pledge, a commitment to increase the industry's export revenues by 2020. In return, they have been given regular access to a range of opportunities and information, from access to buyers from around the world, funding to help with trade show attendance, and more recently the opportunity to take part in the inaugural China-UK Creative Exchange Programme.

Pact have also run workshops, in partnership with DIT, to share their accelerator programme with other trade associations. They have 'white labelled' the format so that other industries can adopt a similar approach. This will not only serve as a useful tool to help companies build their export strategies, but it will also provide aligned metrics and reporting.

Increasing our international influence

7. In addition to export support, the UK's overseas networks including DIT, the FCO and the British Council help develop overseas markets and provide opportunities for future trade and investment.
8. Within the British Council for instance, the Creative Economy team currently focuses on three areas of work which highlight the convergence between digital technologies and the Creative Industries. First, its work on creative hubs includes makerspaces, incubators, pop-ups, labs and clusters that foster networks of creativity. Second, they are working on projects that use digital technology to develop new creative tech projects such as 'Playable City' (a series of



global experiments, encouraging citizens to engage with public spaces in playful and creative ways). Third, it helps creative and cultural businesses be more sustainable through workshops, mentoring and peer networks. Recent projects include the 'Creative Enterprise Toolkit' (developed in partnership with Nesta and now translated into six languages), and 'Creative Enterprise Skills Workshops' (which share the Creative Enterprise Toolkit with creative start-ups globally).

9. However, although there is a wealth of examples of excellent collaborative projects around the globe in this sector, some (including the British Council) argue that there remains a very significant gap in coherent, consistent data and understanding of how best to measure, govern and stimulate development internationally. This means a missed opportunity for UK exports and value capture. A lack of data is one of the reasons for poor governance of these sectors in the emerging economies. This contributes towards making these potential markets for our products and services less efficient than they could be.
10. This is a difficult, complex challenge for individual countries to get to grips with. The pace of technological change and other shifts in global economics and politics mean that information about this kind of economic and cultural activity is constantly changing and disrupting old notions of sector divisions. The volume and complexity of networks between commercial and not-for-profit; cultural and economic organisations is a particular challenge to understand.
11. The UK's model for Creative Industries and the policies that frame it is an under-exploited resource. The British Council reports that we are failing to meet the high demand for expertise in emerging markets, despite UK consultants and academics also being hired by foreign

governments to develop their own strategies for the sector. If the UK wants to reach its potential in exporting knowledge, goods and services, it needs to better understand and build those markets itself.

12. Countries around the world already regard the UK as a leading authority on Creative Industries policy and metrics. Our measurement and mapping tools continue to generate interest from countries such as South Korea, Australia and Norway. We can build on this by drawing on our overseas networks to develop and deepen knowledge exchange between academic and policy communities around the world.
13. As we prepare to leave the EU and reconfirm our place on the world stage, we should take this opportunity to develop such an Observatory and use this to extend partnerships with international stakeholders such as the OECD, Australia, Canada and the US. The AHRC's recent successful bid for a Policy and Evidence Centre could act as a basis for this work, but further funding from areas such as the Newton Fund and Global Challenge Fund should be leveraged to make this an effective and globally-respected body.

Recommendations

- **Establish a new model for a Creative Industries Trade Board that gives industry greater control over how and in what markets public export budgets are spent. Industry should commit to at least match-fund government investment.**
- **Every Creative Industries sub-sector should commit to specific, ambitious support to drive up the number of exporting companies via measures such as business mentoring schemes, export masterclasses and networking events.**
- **Government, academia and industry should establish a Global Creative Industries Observatory within the UK to cement our position as the leading international authority on Creative Industries strategy and policy for, and measurement of, this sector.**

“Fix up, look sharp”

Dizze Rascal



Annex A

Creative Cluster case studies

Belfast (Cluster Catalyst – TV franchise)

The massive direct investment associated with HBO's decision to film *Game of Thrones* in Belfast in 2010 has rippled through the local creative economy, with a proliferation of SMEs, infrastructure development and an explosion of screen tourism.

The economic and cultural benefits of hosting a long-running series – from employment, training and skills to infrastructure and tourism – have been striking. The crew on *Game of Thrones Season 1* alone included 316 Northern Ireland residents, including 55 trainees.

The prospect of long-term local spend from *Game of Thrones* also enabled investment into local infrastructure, with the creation of two 20k square foot stages as part of the Titanic Studios complex, the largest of their kind at the time.

The proliferation of creative businesses around *Game of Thrones* include post-production house Yellowmoon and Belfast facilities company, Acorn Film and Video, who produce the Behind the Scenes packages for the show's website.

The true impact of *Game of Thrones* will be felt most keenly, however, once the show finally wraps after Season 8 next year. There is a clear desire *Game of Thrones* will do for Northern Ireland what *Lord of the Rings* did for New Zealand; not just in terms of screen tourism, but also in fuelling the confidence of the film and television sector that it can compete on the global stage with further great projects.

Brighton (Cluster Catalyst – “fusion”)

The fusion of creative and technological skills within firms in the Brighton cluster has been a key element of the success of this highly interdisciplinary Creative Cluster, hence the title of the AHRC-funded report ‘Brighton Fuse’. Proximity to London and the ‘Brighton lifestyle’ have also acted as significant talent magnets.

Networking and knowledge exchange were cited as strong contributing factors to the cluster’s growth by local businesses.⁹⁹ ‘Brighton Fuse’ refers to the case of closure of a games studio ‘Black Rock’ where through social media and local meetups the ‘Brighton Indie Collective’ was formed, with a view to progressing further opportunities locally. Accountants, lawyers and business development advisors were invited to join the informal meetings and in turn 15 new companies have been created from the Black Rock talent pool.

74.5% of the 1,495 firms in Brighton’s digital and creative industry believe that the cluster is an important source for opportunities and collaboration, while 71.1% believe it is an important recruitment tool. There have since been other ‘Fuse’ projects in London and the North East.¹⁰⁰

Bristol (Cluster Catalyst – strong creative networks)

Bristol has grown as a creative cluster owing to how well networked its Creative Industries sector is. Its co-location with a burgeoning tech sector facilitates cross-sector collaboration.

Overall, the area is ranked in the UK’s top 10 creativity and innovation hotspots, according to Nesta. Taken as a whole, the Creative Industries provide about 15,900 jobs in the Bristol and Bath area. The region’s creatives are estimated to be 50% more productive than the UK average, and since 1999, there has been a 106% increase in productivity in Creative Industries across Bristol and Bath.¹⁰¹ The region is now targeting annual growth of 20% for its creative sectors. Having won 14 BAFTAs and four Oscars (think Aardman Animations), the area is a key centre for TV, film and animation, and associated technology and support services.

Bristol has a number of locations that act as creative hubs, including a variety of co-working spaces and serviced creative hubs: Bristol Temple Quarter Enterprise Zone (BTQEZ), Bristol’s Harbourside Mile, The Arnolfini Contemporary Art Gallery, Watershed and Spike Island.

There are also good links with the local universities, for both access to talent and professorial knowledge. The Bristol Cultural Development Partnership (a collaboration between Bristol City Council, BusinessWest, University of Bristol, University of the West of England) is an example of this. They launched the ‘Bristol Festival of Ideas’ initiative that runs events to promote discussion and debate around cultural issues.

The region is also home to a complimentary high-tech sector including a number of big players in ICT (e.g. HP, Toshiba) and other technical sectors (aerospace). Gaming businesses such as Yogscast and Bristol Games Hub are taking advantage of local talent, infrastructure and features.

⁹⁹ Brighton Fuse Report (Brighton Fuse, 2014)

¹⁰⁰ <http://www.creativefusene.org.uk/project-overview/>
<http://www.ahrc.ac.uk/newsevents/news/creative-fuse-ne/>
<http://www.ncub.co.uk/what-we-do/fuse.html>

¹⁰¹ *Focus on the Creative Industries in Bristol and Bath* (CIC) – www.thecreativeindustries.co.uk/uk-creative-overview/facts-and-figures/focus-on-bristol-and-bath

Cardiff (Cluster Catalyst – conurbation of start-ups with public funding)

The success of the Cardiff creative cluster is about connectivity, both hard and soft. The Cardiff Capital Region City Deal struck in 2016 has strengthened the city's digital infrastructure while creative hubs and networks have facilitated collaboration between tech and media SMEs in Cardiff and catalysed the creation of a lively creative community.

Cardiff is one of the UK's largest media centres outside of London with BBC Wales, S4C and ITV Wales all based there. There is also a strong independent TV production industry with over 600 firms contributing £350 million to the local economy.¹⁰² Cardiff has developed a lively and dynamic creative hub scene, with mostly self-organised, bottom-up co-working spaces.

Networking organisations, as demonstrated in other Creative Clusters, provide an opportunity for collaboration from a local talent pool. 'Cardiff Start' is a self organised group of entrepreneurs, startup founders, creatives, students and investors. It provides networking and sign-posting, to business support resources and emerging trade opportunities. Tec Marina Penarth, headed up by innovation experts, is a tech hub for internet start-ups with space for 150 people, opened in 2015. Some of these hubs have received public funding, mostly from the Welsh government and Creative Cardiff. Porth Teigr is a new waterfront development in Cardiff and, as part of the initiative, a new Centre for the Creative Industries called GloWorks was opened in March 2016. Cloth Cat, Bait and Thud Media are three separate firms that use this space to grow in their respective creative sectors.

In 2016 the Government invested in the region's digital and physical infrastructure through the City Deal, worth an estimated £1.2billion. This is anticipated to deliver up to 25,000 new jobs and an additional £4bn of private sector investment.¹⁰³ A central aspect of the deal was investment in next generation broadband and mobile connectivity, a proven driver of business activity.

Dundee/Abertay (Cluster Catalyst – HEI/industry partnerships and targeted public funding)

Two things have allowed Dundee to flourish as one of the flagship locations for video game development in the UK: an early nucleus of creative businesses creating games IP, complemented by targeted public funding and highly responsive HEIs.

With its traditional industries in decline, Dundee aimed to use culture and creativity as drivers for social and economic regeneration, and has over the last 20 years established itself as one of the UK's most significant video games development clusters. Its history includes:

- In the 1990s, the emergence of video games pioneers (and Dundee natives) such as Dave Jones (creator of the original Grand Theft Auto) and Chris van der Kuyl (who more recently with 4J Studios produced the console versions of blockbuster game Minecraft). These examples highlight the breadth of history and depth expertise associated with the cluster in terms of the generation of an original IP and the servicing of third party IP both of which are global household games brands.

¹⁰² *The British Council Creative Hubs report* (British Council, 2016)

¹⁰³ *Cardiff Capital Region City Deal* (Cardiff Capital Region City Deal, last accessed June 2017)



- In the late 1990s and early 2000s, the establishment of a number of games development studios in the city and related course provision from the city's universities (Dundee and Abertay) have been feeding into the growing talent base. This includes the bold decision by Abertay University to create a new Computer Games Department offering the world's first games design degree. This is now regarded as a centre of excellence for video games education for the UK.
- The ongoing growth of Dundee as a games development talent hub, with close relationships between local employers and the Universities, the student community, and strong networking between businesses.
- In 2010, the launch of the Video Games Prototype Fund, based in Dundee and with funding from UK Government, offering grant support across the UK for SMEs creating new games IP. Following strong growth impacts of the first run, the programme was re-launched in 2015 as the UK Games Fund with a further £4m investment from UK Government over 4 years. The Fund's managers, UK Games Talent and Finance CIC, now supports a community of around 100 UK video games developers.

Today, the Dundee games cluster includes around 40 established games companies with an estimated headcount of around 350-450 and a student population of around 2000. All of this happens within approximately 2 square miles of the city, giving it the highest concentration of games activity in the UK.

Leamington Spa (Cluster Catalyst – Existing sector experience/leadership)

A mixture of experienced games companies and startups has produced an organic system of inter-business mentorship and support as well as allowing continual refresh of IP.

Recently nicknamed "Silicon Spa", the cluster of games companies in Leamington Spa and the immediate area has its origins in the emergence of games publisher and developer Codemasters (in 1986) and of Blitz Games (in 1990). Many of the companies and workers in the region can be traced back to these companies.

Today, there are more than 50 active games companies in Coventry and Warwickshire of which two thirds are in Leamington Spa. At the core are a number of medium-sized companies (50-500 employees), a mix of inward investor-owned and independent studios typically described as anchors to the cluster. These include Codemasters, Ubisoft Leamington and Playground Games. Clustered around these are many small, relatively new companies. Currently the rate of new games company development in Leamington is high, with 50% of the businesses in the cluster established since 2012. The Warwickshire and Coventry LEP estimates that there are between 2,000 and 2,500 full-time employees in the 50 games companies in their area and 3,000 to 3,500 across the West Midlands as a whole. Local universities – the University of Warwick and Coventry University – feed into the talent pipelines across a range of creative and technical disciplines.

Over the last year, the LEP and Ukie have developed a *Blueprint for Growth* for the Leamington Games Cluster. This sets out the cluster's USP as:

- The mix of large and smaller companies, meaning there is always new IP in development in the cluster and continual demand for skilled labour (both employees and freelancers);

- Access to a pool of skilled labour, attracting larger employers and inward investors and a strategic benefit to smaller companies in the cluster;
- For newer companies, co-location with more experienced studios creating opportunities to benefit from mentoring and other support.

The *Blueprint* makes a number of recommendations for supporting further growth of the cluster, including specialist sector support and talent and skills development through initiatives such as the Digital Schoolhouse.¹⁰⁴

Liverpool/Hull (Cluster Catalyst – ‘City of Culture’ designation)

As in Hull, Liverpool’s designation as European Capital of Culture has supercharged creative engagement in the city, with significant spillover effects into the creative economy.

In 2004, Liverpool was selected to be the 2008 European Capital of Culture (ECoC), which created significant economic and social benefits for the city.

The ECoC attracted 9.7 million additional visits to Liverpool during 2008 (35% of all visits that year) as well as an additional 1.14 million visitor nights in Liverpool hotels. After Liverpool’s selection as ECoC in 2004, Merseyside’s seven largest attractions experienced a 50% rise in visitor figures, peaking at 5.5 million people in 2008. Meanwhile, attendance at museums and galleries in the North West region increase from 40% to 47% between 2005 and 2009. These additional visits generated an estimated £754 million in additional visitor spend across Liverpool, Merseyside and the North West region, £201 million in indirect spend, and 14,912 jobs.

As well as quantitative economic benefits, the ECoC has significantly boosted Liverpool’s soft power. Between 2005 and 2008, overall positive impressions of Liverpool amongst the UK population increased from 53% to 60% while negative views dropped from 20% to 14%. Similarly, the transformation in the perception of Hull has been signalled by its being named one of Rough Guides’ top ten cities to visit in the world this year.

Manchester/Salford (Cluster Catalyst – BBC/ITV, anchoring around tech)

The BBC’s relocation from White City to Salford created the opportunity for growth and innovation. Many creative clusters and hubs are characterised by an anchor organisation or tenant.

In 2006, the BBC decided to establish a new regional centre in Salford, with 2,500 roles relocated. The centre is the UK’s biggest news centre outside of London (with 3,000 BBC staff on-site), and the wider MediaCityUK development has 7,000 people employed as a whole. The development is now also home to ITV and Shine North, and there are now more than 150 SMEs operating from and around MediaCityUK creating websites, apps, games and more.¹⁰⁵

¹⁰⁴ *Digital Schoolhouse*

¹⁰⁵ BBC response to Industrial Strategy consultation

In 2015, KPMG estimated that the BBC's activities in the North West (predominantly driven by the Salford site) made a GVA contribution of £277 million in 2014/15 (before the final 1,000 posts had moved). This is equivalent to approximately 5% of the GVA of Salford, 2% of the GVA of Manchester and 6% of the GVA of the UK's programming and broadcasting sector as a whole. KPMG commented that 'agglomeration' and 'network' effects are observed in many sectors: from scientific research in Cambridge, to Formula 1 teams in the M4 corridor, to financiers in the City of London.

Nottingham (Cluster Catalyst – regeneration through co-funding arrangements)

Growth from securing and pooling funding from a range of public and private sources.

The increase in activity in the Creative Quarter – part funded by Nottingham City Council, but drawing in significant funds from private sector and EU sources – is already producing benefits in terms of businesses supported (750), infrastructure investment, highway development, public realm developments, refurbishment of workspace/offices, creation of new workspace/offices, decreases in vacant shops (down 55% on 2012) and business rate uplift (up 26.2% on October 2012).

In November 2015, the Creative Quarter was awarded an Enterprising Britain Award for 'Improving the Business Environment' just two and a half years after it commenced operation. 10% of Creative England's top 50 companies have a presence in the Creative Quarter area.¹⁰⁶

Evidence that these improvements outstrip that across the City as a whole is not yet in place – but this will be explored as part of the CQ baseline study which is currently being developed.¹⁰⁷

Sunderland (Cluster Catalyst – university and local authority investment in areas of existing creative heritage);

Sunderland's National Glass Centre has brought together and kickstarted the local cultural sector. The university's takeover of and investment in NCG spurred the local authority to put culture at the heart of its economic masterplan.

A key feature in the development of many Creative Clusters, the National Glass Centre (NCG) grew out of the area's creative heritage: glassmaking was a major industry in Sunderland up until the 1980s.

In October 1998, HRH Prince Charles officially opened the Centre, the recipient of the first major Arts Lottery award in the North East. In 2010, the University of Sunderland acquired NCG and oversaw a £2.5million revamp, relaunching in 2013. Arts Council England is a co-funder.

Built on the site of a former shipyard, NGC continues Sunderland's glass-making legacy by supporting new talent through The University of Sunderland's Glass and Ceramics

¹⁰⁶ *Creative England Top 50 Report* (Creative England, 2016)

¹⁰⁷ BEIS Analysis



Degree Programme, fostering an enthusiasm for and understanding of glass through its exhibitions and learning and participation programme. The NGC now employs over 70 people including 12 academic staff and hosts over 100 students including 30 research students within CARCuos, a centre for research in the ceramic arts.

A key factor in NCG's success was its acquisition by the University of Sunderland, which galvanised the City of Sunderland to see the creative economy as a tool for regeneration. The move then inspired the City Council and the local business community to invest in a series of high-profile cultural projects including an ambitious bid to be named UK City of Culture 2021. The University, City Council and local business community have since joined forces to create a new organisation model for the management and development of the City's cultural life: the Sunderland Culture Company.

Wakefield (Cluster Catalyst – new development)

The transformation of derelict space into creative hubs has had a huge regenerative effect in Wakefield. Key to this regeneration has been the local authority's understanding of the specific needs of creative businesses, and close collaboration with industry, on issues such as planning applications, to enable rapid growth.

The Yorkshire Sculpture Park, estimated to contribute £5m to the local economy, and the Hepworth Wakefield, the largest purpose-built exhibition space outside London and 2017 Museum of the Year, provides a centres for the production and exhibition of contemporary sculpture and Wakefield's art collection.

Production Park is Europe's largest live music production facility, with 5 studios, stage rental and warehouse provision and more than 10 events businesses under one roof. Space for freelancers and startups is available and the Backstage Academy is also based at Production Park.

The final stage of the regeneration masterplan, redevelopment of Rutland Mills by Tileyard, will give 10 acres of Wakefield's riverside a thriving creative hub along the lines of Tileyard Studios in London, a cluster of 74 music studios along with a host of other creative users.

Annex B

Executive Summary, Sparking the Flame: How governments around the world are driving growth in the Creative Industries

As part of a broader UK government initiative, the Creative Industries were selected among the top 5 industries to drive economic growth in the UK. To support this initiative, BCG conducted a study to understand leading interventions to support Creative Industries undertaken by governments around the world. Specifically, we:

- Conducted broad market research across 20+ emerging and comparable markets.
- Assessed 240+ interventions at national, provincial and city levels by both governments and non-government stakeholders.
- Explored three creative sub-sectors specifically: film/TV, music, and video games.

Across sub-sectors, Creative Industries require a robust talent pipeline, incentives to develop/retain IP and a commercial ecosystem. Globally, governments are focused on solving 1-2 critical challenges to drive growth in their markets in particular sub-sectors, e.g.:

- **Film/TV:** Vital to enable a supporting ecosystem of SME service providers and access to affordable studio infrastructure.
- **Music:** Critical to help nascent creatives build sustainable careers and monetise their talent through growth in venues/gig space.
- **Video gaming:** Requires a sustainable ecosystem of small studios supported by VCs/incubators with incentives to retain IP/tech in market.

Broadly, interventions across markets and creative sub-sectors can be broken down into three categories:

- **Supply side:** Interventions focus on fostering the talent pool and building out the missing elements of the value chain, e.g., Malaysia directed government and foreign funds to build “Pinewood Iskandar Malaysia Studios” to address gap in studio infrastructure; attracting Netflix to film “Marco Polo” in Malaysia.
- **Demand side:** Levers are linked with driving market growth through branding, events, or laws to encourage local IP development, e.g., China Film Co- Production Corporation encourages partnerships with other markets and global players, leading to more Chinese global film content.
- **Market efficiency:** Drivers ensure the market is operating smoothly, especially with regards to small businesses and individual early career artists/creative talent, e.g., NYC Mayor’s Office of Media and Entertainment set up a ‘one-stop shop’ for NYC music industry collaboration.

Governments varied in how they approach these interventions and organise themselves

- Some governments actively fostered a partnership among government bodies, businesses, academia and various non-government associations to build inclusive policies (e.g., Canada, Australia), with policies aligned at national, provincial and city level.
- Governments in emerging markets or markets with smaller creative industry footprints have undertaken a more centrally-led, coordinated approach (e.g., Malaysia, China), whereas mature economies have a distributed multi-agency leadership model (e.g., United States).
- Moreover, younger economies treated Creative Industries with a more commercial lens to drive tourism or exports (e.g., Singapore, South Korea), whereas mature economies attempted to promote demand for local culture/language (e.g., Finland, France).

The UK is one of the leading economies for traditional, mature Creative Industries, i.e., film/TV and music, and we highlighted interventions which focus on further securing this leadership position:

- **City branding:** Generate demand and tourism by branding select cities music/film towns (e.g., London, Edinburgh), and promote growth of local small businesses through targeted tax incentives and festivals. City of Nashville undertook this strategy to create a critical mass of talent and small businesses for the music industry.
- **Business/tech training:** Encourage public/private institutions and businesses to provide nascent talent training in business skills (e.g., financial planning) and exposure to latest technologies (e.g., special effects software, technical equipment management). NYC Mayor's Office in coordination with business/music schools in the city offers training to emerging musicians to help them build sustainable careers.
- **Talent hub:** Implement immigration policies to attract leading global talent to the UK, e.g., through fast-track visa process, special visa categories, less restrictive company sponsorship, income tax holidays, e.g., US has 'extraordinary ability' visa fast-track program to enable fast talent migration.

Further, the UK can extend the impact and benefits of its leadership position in film/TV and music outside London by investing on two fronts:

- **Smart government:** Facilitate film production across the UK by providing a one-stop-shop for permits/approvals across government agencies, e.g., India's 'Film Facilitation Office' acts as a one-stop-shop with nodes across Indian states, and by publishing information under a single portal, e.g. audience numbers, average ticket prices, shooting locations, SME support services available in smaller cities.
- **Ecosystem:** Develop leading studio infrastructure and subsidise growth of supporting SMEs in tier 2 cities through foreign direct investments, tax subsidies and/or low-interest loans, e.g., South Korea invested ~\$200m to create K-Pop concert venues like Gocheok Sky Dome.

Video gaming is a unique fast growing and evolving creative industry and while the UK has a strong talent pipeline and young studios, it lacks a similarly dominant position compared to global leaders like the US, Japan, and Canada. Therefore, there are two critical interventions that should be considered specifically to compete in the high growth sub-sector of video games:



- **Co-investment:** Co-invest and incentivise UK tech start-ups, studios, etc. to develop and retain IP in the UK and capture a higher share of global revenues, e.g. through strong creative content and supporting technologies (virtual/augmented reality, artificial intelligence). Canada is a leading example where national and provincial government have set up funds to invest alongside venture capital in small studios.
- **National recognition of eSports:** Raise the status of eSports with government sponsored competitions, national teams, and media coverage, e.g. eSports is now an official part of Asian Games. National teams and junior leagues can be a lever to attract foreign investment to sponsor eSports clubs, build gaming stadiums, design high-end or next generation gaming equipment (e.g. virtual reality headsets).

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Being a more disparate sector than most, it is vital that the Creative Industries speak to government with a single voice. I have therefore sought to avoid setting up a soap box for this review, and instead to align my work very closely with that of the Creative Industries Council and Creative Industries Federation, to be a champion for their best ideas. I am immensely thankful to Nicola Mendelsohn, John Kampfner and their teams, for their many months of hard work.

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Sir Peter Bazalgette is Chair of ITV and a former Chair of Arts Council England



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