

A Design Sprint for the Creative Industries Sector Vision

Maximising the Spillover Value of the Creative Industries
to the Wider Economy

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Executive Summary

The Creative Industries contribute significantly to the UK economy and continue to be a high growth sector. Valued at £115.9bn in GVA to the UK economy in 2019¹, they are predicted to grow 20% faster than the UK-wide economy between 2021 and 2025². A vanguard for the wider economy, the Creative Industries now employ 2.2 million people, with 52% of those employed outside of the Creative Industries, attributing their skills to other sectors³. The Creative Industries are also referred to as a future-proof sector due to the low likelihood of automating creativity, with 87% of creative roles at low risk of automation⁴.

For the Creative Industries to maximise their contribution to the wider economy, an understanding of creative skills and ideas, and their value to other sectors must be recognised and supported by both Government and Industry.

To further understand the wider economic spillover value of the Creative Industries to other sectors, a policy co-design sprint, commissioned by DCMS and the Creative Industries challenge team at UKRI (hereafter referred to as UKRI), and led by the Design Council, was undertaken to develop an understanding of how government and industry led interventions could help maximise this value. This took place alongside work commissioned by DCMS from Frontier Economics to explore an approach to data collection on economic spillovers to build the evidence of wider economy impacts.

Using the Design Council's Double Diamond framework to underpin divergent and convergent thinking, the creative process brought together a diverse range of over 76 creative professionals and stakeholders from Government and Industry to explore the barriers and enablers in maximising spillover value within six weeks. Together they worked to refine these into opportunity areas, before ideating potential policy interventions and longer-term policy initiatives that could be actioned.

Throughout this process, four opportunity areas emerged and were used to inform potential policy levers and interventions.

- How might we ensure that the Creative Industries are better understood and valued by the wider economy?
- How might we help businesses feel supported to absorb, collaborate on and create knowledge and innovation spillovers with the Creative Industries?
- How might we foster creative clusters across the UK that respond to place: their local assets, opportunities, needs and industries?
- How might we build and retain internal skills, knowledge, and capacity within the Creative Industries to support collaborative innovation within the wider economy?

An extensive list of ideas for policy intervention was generated through the design sprint. However, four areas significantly resonated with participants as having the most potential for policy intervention. These areas include:

¹ [DCMS Economic Estimates 2019: Gross Value Add](#)

² [Oxford Economics \(2020\). The Projected Economic Impact of COVID-19 on the UK Creatives Industries](#)

³ [DCMS Economic Estimates for 2020](#)

⁴ [Bakhshi, H., Frey, C. B., Osborne, M. for Nesta \(2015\) Creativity vs. Robots.](#)

Awareness:

- Build a shared understanding and value of the Creative Industries and their wider impact to other sectors through **improved metrics, case studies and the use of unusual suspects** to champion this value.
- Convene cross-sector government departments and industry bodies to form a Creative Industries **Spillover Commission** to give a mandate for this work.
- Create an **Impact Framework** with specific metrics.

Innovation:

- Improve and **adjust the definition of R&D tax credits** to further incentivise the wider spillover value to other sectors
- Build Creative Industries' understanding around the commercialisation and collaboration opportunities provided by **IP**.
- Provide **research and innovation funding** to incentivise cross sectorial collaboration.

Cross-sector collaboration

- **Convene Mission and Place-based Clusters** (which include creative and non-creative organisations) to maximise their wider impact, including economic, social, environmental, and democratic.
- Local and central government should **provide guidance** to industry **on the benefits of working with creatives**, what to expect along the project lifecycle, and how to commission work that is inclusive and open to different sectors' approaches.
- **Support clusters to achieve their mission and consolidate learning**, for example: government and industry could provide guidance on creating a circular economy to stimulate intentional knowledge and innovation spillover in addressing the climate emergency.

Education & skills

- Improve **creative provision within the UK's education system**, to embed creative skills at an early age, and illuminate the diverse career pathways into the Creative Industries and the creative economy for both students and parents – embedding this into the upcoming Cultural Education Plan (2023) and adopting the learnings from where this has been achieved in Scotland and Wales.
- **Upskill and bridge skills gaps to further develop** and create a more resilient and collaborative workforce, particularly within digital skills where this has formed barriers to cross-sectoral collaboration.

This report provides key insights from the design sprint, detailing the enablers, barriers and policy levers required to address the opportunity areas, as well as the recommended interventions for maximising the Creative Industries economic, social, and environmental impact.

Introduction

Design Council was commissioned by the Department for Digital, Culture, Media and Sport (DCMS), and UK Research and Innovation (UKRI), to undertake a design sprint to understand how the economic spillover value of the Creative Industries can be maximised through policy and industry-led intervention between 2022 and 2030. The purpose of this research was to help inform the ‘economic spillover’ section of DCMS’s forthcoming Creative Industries Sector Vision, and future Creative Industries work at UKRI.

This report includes:

- A summary of current literature on economic spillovers from the Creative Industries into the wider economy.
- An overview of key barriers and enablers facing the UK’s Creative Industries to realising spillover value into the wider economy.
- Policy and industry recommendations developed with Creative Industry sector leaders to maximise the spillover value of the Creative Industries to the wider economy over the next decade.
- The design sprint methodology used within this research project (see Appendix 1).

The findings in this report were developed through a two-month co-design process with over 76 stakeholders. This included four deliberative workshops with 46 creative industry sector leaders; an online policy co-design session with 30+ policy and industry experts; and a senior leaders’ roundtable. It was supported by a rapid-evidence-review into current literature on spillovers from the Creative Industries, undertaken by BOP Consulting in February 2022 (see Appendix 5) alongside further work commissioned by DCMS from Frontier Economics to explore an approach to data collection on economic spillovers.

The programme adopted a double-diamond approach⁵ and utilised the impact framework methodology developed in Design Council’s *Design Economy* research programme⁶.

⁵ See the [Framework for Innovation](#) (Design Council, 2019).

⁶ See our research methodology for Design Economy [here](#).

What are the Creative Industries?

The Creative Industries are defined by DCMS as “those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property”⁷.

The Creative Industries comprise the following sectors:

- advertising and marketing
- architecture
- crafts
- design: product, graphic and fashion design
- film, TV, video, radio and photography
- IT, software and computer services
- publishing
- museums, galleries and libraries
- music, performing and visual arts

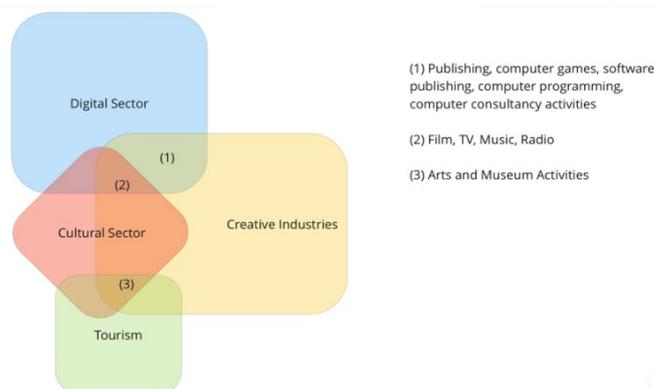


Figure 1: Sectors comprising the Creative Industries and overlap with other sectors. Image adapted from the DCMS Sectors Economic Estimates Methodology (2021).

The Creative Industries were identified as one of four key priority sectors in the UK government’s Plan for Growth⁸ to encourage recovery following the pandemic. To be published in summer 2022, the DCMS Sector Vision focuses on the following sectors: Advertising, Architecture, Crafts, Design, Fashion, Film & TV, Music, Publishing, and Video Games⁹. It will set out a vision for 2030 and a long-term strategy focused on promoting growth within the sector and delivering on the government’s levelling-up, Global Britain and net zero objectives¹⁰.

There is already a significant evidence base demonstrating that the Creative Industries are a high-growth sector which contribute high economic value to the United Kingdom. The Creative Industries:

- Contributed £115.9bn in GVA to the UK economy in 2019¹¹.
- Are predicted to grow 20% faster than the UK-wide economy between 2021 and 2025¹².
- Employ 2.2 million people, with a further 1.29 million creatives employed outside the Creative Industries¹³.
- Are a future-proofed sector well-adapted to the fourth industrial revolution: 87% of creative jobs are at low or no risk of automation¹⁴.
- Are a highly skilled sector with 73% of those in creative occupations qualified to degree-level, compared to 44% UK average¹⁵.
- Are distributed across the entire UK through an estimated 700 micro-clusters, and some 47 larger clusters, across the UK¹⁶.

⁷ [DCMS Sector Economic Estimates Methodology](#) (DCMS, 2021).

⁸ See [this press release on 'Financial support for the Creative Industries'](#) and the policy paper ['Build Back Better' \(2021\)](#).

⁹ For this reason, IT, software and computer services were not included in this design sprint.

¹⁰ See the policy paper ['Net Zero Strategy: Build Back Greener'](#) (updated 2022).

¹¹ [DCMS Economic Estimates 2019: Gross Value Add](#)

¹² [Oxford Economics \(2020\). The Projected Economic Impact of COVID-19 on the UK Creatives Industries](#)

¹³ [DCMS Economic Estimates for 2020](#)

¹⁴ [Bakhshi, H., Frey, C. B., Osborne, M. for Nesta \(2015\) Creativity vs. Robots.](#)

¹⁵ [Carey, H., Florisson, R., O'Brien, D., Lee, N. \(2020\). Getting in and getting on Class, participation and job quality in the UK Creative Industries](#)

¹⁶ [Siepel, J., Camerani, R., Masucci, M., Velez Ospina, J., Casadei, P., Bloom, M. \(2020\). Creative Industries Radar: Mapping the UK's creative clusters and microclusters](#)

What are creative spillovers?

Despite the significant evidence base demonstrating the economic value of the Creative Industries, and its importance to post-pandemic recovery and levelling up, the evidence base for the spillover value of the Creative Industries to the wider economy is uneven. This is due to multiple factors including the variety and diversity of sub-sectors and activities that comprise the Creative Industries; the challenge of attributing spillover impacts directly to creative industry activity; and limited data capture at regional, national, and organisational levels. DCMS has commissioned Frontier Economics to recommend an approach to data collection on economic spillovers to address this.

The term ‘spillover’ is often used interchangeably with ‘externalities’: when activity impacts (positively or negatively) an unintended recipient and is not financially remunerated. However, alternative definitions have been proposed to emphasise spillovers as having more lasting and systemic effects on the economy, discussed more fully in the Rapid Evidence Review in Appendix 4.

For the purposes of this work, we structured our design sprint in line with Arts Council England’s (2015) definition of ‘creative spillovers’, to emphasise the distinctive aspects of spillovers from and within the Creative Industries. Creative spillovers are:

“...the process by which activity in... Creative Industries has a subsequent broader impact on places, society, or the economy through the overflow of concepts, ideas, skills, knowledge, and different types of capital.”

Creative spillovers are understood as positive ‘knock-on’ effects, where activity in the Creative Industries benefits someone else but is not directly financially rewarded for doing so. Creative spillovers may arise *intentionally*, for instance when an innovation emerges through a Knowledge Transfer Network. But they are often *unintentional*, such as when a new performance venue increases footfall for a local restaurant. This research focuses on knowledge and innovation spillovers that arise, for example, from knowledge transfer and creative hybrid sectors that lead to new innovations.

Creative spillovers are here distinguished from ‘externalities’ on the grounds that they tend to be driven by the complex ways the Creative Industries interact with and influence other sectors. Emerging hybrid sectors such as creative-net zero and creative-health demonstrate significant potential for spillover value, both due to their hybrid nature and by virtue of being high-growth sectors.

It is worth noting that creative spillovers can involve financial benefits or harms (e.g., increased revenue, increased skills, and knowledge) but may also comprise social and environmental benefits or harms (e.g., increased sense of safety in an area, or reductions in air pollution). Whilst this design sprint focused on maximising spillovers related to economic value such as increased revenues, innovation activity, professional skills, and knowledge, it also considered wider value spillovers in these other domains.

Four types of creative spillover

Through the rapid evidence review undertaken at the start of this design sprint, four types of spillover were identified to guide the policy co-design process. These built on existing approaches discussed in Appendix 5 and are summarised in the table below.

Category	Description	Growth Example	Policy Levers
Industry spillovers	Supply chain spending triggered by Creative Industries activity	For every £1 of turnover directly generated by the arts and culture industry, an additional £1.23 worth of turnover is supported in the wider economy through indirect and induced effects	Steps to strengthen supply chains with localities and retain more of this spending
Knowledge spillovers	New ideas spread to other sectors, catalysing innovation, and improving other sectors' ability to absorb innovation	Just under half of the GVA generated by those with design skills in 2015 was generated by designers and others in design-skilled occupations working in non-design sectors, such as aerospace, banking and retail	Support for skills and lifelong learning to enable more people to benefit from productivity raising ideas and approaches
Supply-side effects	Through an amenity that attracts skilled workers and visitors – creating a virtuous circle through these workers and visitors increasing the value of the amenity	Design District is a collection of 16 buildings designed by eight architects, set in the heart of Greenwich Peninsula. It offers permanent and purpose-designed workspace for the Creative Industries	Utilise planning powers to incentivise these kind of developments – as the GLA helped to bring the Design District forward
Innovation effects	Creation of new categories of knowledge in product and service innovation	The Creative Industries Clusters Programme is bringing together world-class research talent with companies and organisations across the UK	Research and Development (R&D) policy to support generation of new knowledge

See Figure 1 of Appendix 5: BOP Consulting, Rapid Evidence Review for full referencing.

Understanding the spillover value of emerging hybrid sectors

Increasingly the Creative Industries are working collaboratively with other sectors, creating emergent hybrid sectors. There is a particularly high probability of significant spillover activity in such sectors as creative businesses are working closely alongside those from other sectors (or creating hybrid businesses). Hybrid sectors can display high levels of innovation and growth precisely because they are new. For this reason, they were identified as key sectors to include within this design sprint, even though they do not neatly fall into a specific creative industry sub-sector.

This design sprint focused on four hybrid emerging areas of activity:

Creative and tech: a well-established union between creative and technology industries, with bi-directional spillover value. For example, analysis has found that machine learning is the most common technology exploited by 'createch' ventures¹⁷. It is important to note that some of these ventures can be found exclusively in the creative sub-sectors, such as gaming. We have, therefore, tried to focus on those areas of activity in which creative technology (like gaming) is being used in new contexts and to generate new innovations and knowledge.

Creative and health: hybrid activity between creative and health-care sectors, with mechanisms such as social prescribing now being used to help systemically deploy health benefits from creative activity.

Creative and manufacturing: hybrid where creative occupations add value to manufacturing businesses, for example using immersive technology in digital prototyping as part of a production process.

Creative and net zero: an emerging body of activity across these two areas being used to help meet net-zero goals.

¹⁷ BOP A Framework for Classifying Creative Technologies 2021

Key insights: what kinds of spillover are the Creative Industries creating?

The Creative Industries are creating substantial spillover effects, particularly in knowledge and innovation. In the appendices, you will find a longlist of the examples that were shared in the regional workshops, and the benefits generated within and beyond the Creative Industries. Many examples cited the creation of new employment, sharing and building skills, improvements to health and well-being, and fostering connections and collaboration across sectors. These are four stand-out examples that were shared with the participants in the policy co-design day (there is more detail on each provided in the appendices).

Title	Description	Spillover effect	Benefits to other Creative Industries	Benefits to the wider economy	Benefits to society
Production Park, Wakefield	Production Park is one of the world's premier campuses for entertainment technology. It is home to a community of live events businesses, 6 studios and a cohort of over 200 students. It began with developing high-performance modular trussing systems for live performances, which are now industry standard.	Industry		Increase in hospitality, catering e.g., film crews booking out hotels	Increased local employment in these sectors
				More local businesses on site in Production Park, e.g., cafes	
			Musicians needing to hire/develop new event spaces, staging, equipment etc. creates a market in the local area	Supporting the development of new innovative businesses.	Increase in number of engineering jobs to support music industry
		Innovation	Developing innovative, high-performance systems for cutting-edge performances		
XR Stories	XR Stories provides research and development funding, support, and networking to expand the potential of immersive and interactive technologies for digital, interactive storytelling.	Innovation	Bringing engineering to Creative Industries	AECOM and ARUP using environmental noise evaluation tools (originally for Creative Industries) to understand environmental noise impact	Using these tools to communicate findings in an accessible and engaging with the public
Fashion Week	The British Fashion Council organises 4 annual London Fashion Week events, attracts millions of global visitors to the UK every year, thus delivering an indirect spill-over effect, both to the tourism industry and the UK economy.	Industry	High profile of the fashion industry is of added attractive value for students and manufacturers	Attracts millions of global visitors to the UK every year	The UK fashion industry contributes approximately £21 billion to the UK economy and influences almost £16 billion in consumer spending in industries such as tourism.

Title	Description	Spillover effect	Benefits to other Creative Industries	Benefits to the wider economy	Benefits to society
TouchLab (Creative Informatics)	Creative Informatics is a research and development cluster based in Edinburgh focused on nurturing creative talent to explore the opportunities associated with data and technology to drive new products, businesses, and experience. One start-up that has benefited is Touch Lab, which is building sensing robots that can be used as distance avatars and use a mix of design skills, robotics, and machine learning.	Innovation		A creative digital technology being used in: space exploration, healthcare, and nuclear decommissioning	
		Supply-side	Nurturing creative talent, and building relationships with funders	Supported through the Creative Informatics CICIP cluster	

Key insights: what are the barriers and enablers to maximising creative spillover value?

Barriers and Enablers

The first workshops, with representatives from the Creative Industries across the regions, generated insights around (a) the types of spillover effects created by the Creative Industries, and (b) the barriers & enablers to maximising spillovers. First, a caveat: when reading the recommendations that follow, it is important to note that the research undertaken with industry included representatives from the Creative Industries alone, rather than those who might commission them. This means that any recommendations about fostering cross-sector collaboration are, while informed by dozens of perspectives and shared experiences, not fully representative. We do not know, for example, what might motivate non-Creative Industries to commission or partner with creatives, nor can we make strong recommendations on how best to support those businesses to do so.

We have included a shortlist of spillover examples shared by the participants above; you can find a longlist in the appendix. Following the workshops, the Design Council team clustered and themed the main discussion points and distilled these into four key opportunity areas:

- How might we ensure that the Creative Industries are better understood and valued by the wider economy?
- How might we build and retain internal skills, knowledge, and capacity within the Creative Industries to support collaborative innovation with the wider economy?
- How might we help businesses feel supported to absorb, collaborate on, and create knowledge and innovation spillovers with the Creative Industries?
- How might we foster creative clusters across the UK that respond to place: their local assets, opportunities, needs, and industries?

The following themes emerged from the Barriers and Enablers discussion held across the four regional workshops. These were then further developed in the policy co-design workshop, where each group discussed between three and four of the themes most relevant to their opportunity area.

Education and Training

To maximise spillovers, the Creative Industries need to be better understood and valued by the wider economy as this will create new markets for, and increase commissioning from, the Creative Industries. More varied cross-sector collaborations will lead to knowledge and innovation spillovers where there currently are none and will also expose more sectors to different ideas and new ways of working. As the Creative Industries are innovative, of high-growth, and creative workers are highly productive, the transfer of skills into new industries through collaborative working has the potential to invigorate less productive businesses across the UK.

Regional workshop participants agreed that one key action to enable Creative Industries to be better understood and valued by the wider economy would be to improve the provision and visibility of creative education and training. This would also build the Creative Industries' reputation as an integral part of the UK's current and future economy, as well as providing exciting, innovative, and inter-disciplinary work that is secure and attractive to people regardless of background.

To prepare the future workforce, participants advocated for a greater awareness of multidisciplinary and creative career paths in schools and universities, and for better cross-over with industry to promote recruitment. A barrier that came up in every workshop was that

creative skills were undervalued in primary and secondary education for example in comparison with STEM subjects. Creative and Cultural Skills' Creative Curriculum campaign and Creative Careers Week were cited as good examples of programmes that bring industry representatives into schools. In Wales, the 'Creative Learning through Arts Action Plan' provides a pathway for children and young people in Wales to gain access to the Arts, but also embedding creative skills into the school curriculum, upskilling both students and teachers¹⁸. In Scotland, the Creative Curriculum Pilot Project and Creative Curriculum fund support students in applying the four creativity skills – curiosity, open-mindedness, imagination and problem solving – to their own contexts¹⁹. In 2023, the government will publish a cultural education plan which will set out plans on how to increase children and young people's access to cultural opportunities and supporting their pursuing creative careers²⁰.

Employers should be supported to assess the digital and creative development needs of their existing and future workers to help UK industries be innovation-ready and more collaborative. To retain creative talent, businesses (both in the Creative Industries and those outside) could be helped to develop shared language around creativity and ways of working that foster collaboration. This training could be designed and delivered by industry, with support from the government to scale, promote, and standardise it. This is starting to be addressed, with some universities offering courses that combine an understanding of both technical and creative components of creativity and technology, such as those at Bristol University, Falmouth University, and a course at the University of Arts London (UAL) in Creative Computing.

Diverse recruitment was also a strong theme in conversations, with the recommendation that recruitment from other sectors, disciplines, degrees, and (in particular) backgrounds was imperative to continuing the resilience of the Creative Industries.

Understanding value and sharing a common language

Key to widening the understanding and valuing of Creative Industries across the wider economy is to create a common language across industries. This will involve, as will be discussed later, the development of shared metrics and a framework to articulate how value is being created in terms that everyone can understand. When businesses are able to understand how creativity and collaboration can add value, they are more likely to consider commissioning or partnering with them, thereby experiencing spillover benefits.

Participants reflected on a disconnect between the creative and other industries, which is due in large part to language being used in different ways across sectors. For example, when 'technology' is used to describe the apparatus (e.g., a VR headset) rather than the experience (i.e. the immersion in another world). The value of the creative output resulting in new technology is thereby minimised compared to the value of the engineering or technical output. There is also a barrier around the accessibility of language: many creatives are excluded from participating in work that is perceived as requiring a STEM background. The research and development (R&D) tax credits system is one such excluding mechanism, as many firms would not automatically think of the Creative Industries as qualifying. One major barrier, however, is that the HMRC definition of R&D is restrictive and does not allow for approaches more commonly associated with the Creative Industries to be considered as part of the R&D process. We say more on this below.

Many noted that their first interaction with non-Creative Industries was through either an opportunity to help to shape communications or by delivering training in creativity. If there was encouragement and support offered to businesses to seek out these types of

¹⁸ See the Arts Council Wales' Creative Learning strategy [here](#).

¹⁹ See Education Scotland's Creative Curriculum Fund (2019) [here](#).

²⁰ See the School's White Paper (2022) [here](#).

collaboration (which many are already comfortable with), this would help the Creative Industries to make the 'first contact' and start to develop more warm relationships. This will then lead to increased knowledge and innovation spillovers, particularly with industries and sectors that may be less familiar with the Creative Industries generally.

One recommendation was for a convening organisation to act as a translator and champion across sectors. Government and industry could also produce case studies and stories showing how bridges can be built (and the benefits of doing so) between creative and other industries. Special attention should be paid to language, as mentioned above, to highlight the in-common ways of working, skill sets used, and shared objectives.

Changing perceptions of the Creative Industries

Another aspect that will positively contribute to better understanding and valuing the Creative Industries is to challenge the misperceptions around working with small businesses and freelancers, which make up a large part of the Creative Industries. From the Creative Industries' side, there is an appetite to collaborate with other businesses, but they often find themselves losing out to larger companies that are seen to be more stable, reliable, and arguably, who will provide predictable outcomes. Repeatedly commissioning from and working with the same preferred suppliers, while both understandable and the norm, is not conducive to innovation nor to maximising spillovers²¹.

It is true that, internationally, the largest UK Creative Industries (such as publishing, architecture, and TV & film) have a fantastic reputation. These Creative Industries successfully leverage and maintain this reputation through high-profile events and awards, such as the BAFTA awards, the Booker prize, and D&AD awards for design and advertising. Such occasions also provide a stage for storytelling and sharing the impact that the Creative Industries have within and beyond themselves. This global reputation for excellence, however, does not necessarily filter down to UK creatives generally, the majority of whom are small, independent businesses and self-employed freelance workers.

Workshop participants speculated that many non-creative businesses who could be commissioners of creative work perceive the small, independent, freelance profile of the sector as risky to partner with. Raising awareness through demonstrator projects and communications campaigns could help to overturn these misconceptions, give courage, and provide a strong business case to would-be commissioners. It was recommended that this awareness-raising campaign should be led by both industry and government, for example through the Creative Industries Council.

Participants, all of whom worked in the Creative Industries, described themselves as the 'Cinderella' Industries: they appear glamorous at award shows but participants felt that, in comparison to some other sectors, they are underfunded and undervalued. Government can boost the profile of small creative businesses and facilitate non-creative businesses to commission, partner with, or otherwise start to work with them. The objective would be to create bridges and generate bi-directional spillover between different industries, especially those who currently do not work with and are unfamiliar with the Creative Industries.

There is another set of perceptions that are limiting spillovers: those of the aspiring workforce. Jobs in the Creative Industries are seen to be for those from privileged backgrounds or those who are exceptionally talented, passionate, or lucky: entry requires unpaid experience, expensive training, and an ability to build portfolios or industry connections. Perceptions of the Creative Industries both as difficult to enter and lacking in the benefits associated with traditional professionals, such as reasonable starting pay,

²¹ This research was undertaken with representatives from the Creative Industries alone, rather than those who might commission them. This attitude towards commissioning, therefore, is speculative and based on the perceptions of the Creative Industries' representatives.

training, and secure work, presents multiple barriers to entry. Teachers and parents should be targeted in communications campaigns around careers in the Creative Industries, as much as young adults and more experienced workers looking to transition between sectors. Better understanding and valuing of creatives – and improving the diversity of those who work in the Creative Industries – should start with building the profile of creativity in school and the workplace. Programmes to support graduate placements within the Creative Industries, and to support in-career training, secondments across industries and disciplines, and general creative upskilling, were recommended.

It was noted that the Creative UK have the *Future of Freelance Champions*²², who will work with the UK government and industry to give more stability and security to freelancers. The policies and guidance that comes from this will support spillovers by enabling more self-employed people the security to pursue types of work across diverse sectors that they might otherwise have not risked. The Policy & Evidence Centre released a report in May 2021²³ looking into the gaps in policy that affect freelancers, on whom the creative industries are highly reliant.

A better profile for the Creative Industries, and a more realistic view into what work in the Creative Industries looks like, the variety of jobs and opportunities, might incentivise more people from diverse backgrounds to take up more creative skills development at school and workplace training, and to pursue a career in the Creative Economy. Nevertheless, there was some consensus amongst participants that the Creative Industries are already attractive to work in: they allow a degree of freedom, self-direction, and expression that is uncommon in other types of work. Maximising these benefits, while supporting workers through on-going training, more dignity in work, and a better profile for their industry would help to encourage more diverse types of people into the Creative Industries. Industry and government might consider how to provide greater security to both the businesses, from start-up to scale, and the workforce in the long-term, including freelance and short-term contract workers. This ties in with the *Fair Work* and *Good Work* agenda that many local councils are pursuing. This is also being seen across the nations, with Wales publishing their Future Generations Act and a report authored by Benny Higgins to the Scottish Government, describing how a “National Arts Force” of freelance and gig economy workers to work in communities will preserve jobs and stimulate recovery in the creative sector post-pandemic.

Participants felt that some Creative Industries were unequally valued by the wider economy, with design, for example, being seen as transferable to business and other sectors and providing clear economic spillover benefits to them, while the performing and visual arts are not being so highly regarded for this. Some worried that the trend for hiring for certain prized creative skills would precipitate a ‘brain drain’ within the Creative Industries themselves. Despite its obvious challenges for the Creative Industries themselves, this ‘brain drain’ is (at least in part) being driven by something positive: business leaders, such as McKinsey, advocating for more creative skills in their own and other industries. Influential thought-leaders have seen the benefits of a more playful, experimental mindset, and of interdisciplinary working – and they are leading the trend to both directly hire creatives into their workforce and to upskill their existing staff. The enhanced pay, professional development, stability, and other benefits that have long attracted people with a STEM background to work in the business and financial sectors have now expanded to also attract creatives. This was felt, however, to be to the detriment of the Creative Industries who lack the resource and capacity to offer comparable benefits.

The improved profile of creative skills was hoped to translate into increased commissioning of creative businesses to work on cross-sector projects and more long-term partnerships.

²² For more information, visit the Creative Industries website [here](#).

²³ [Easton, E., Beckett, B. \(2021\) Freelancers in the Creative Industries. Creative Industries Policy & Evidence Centre.](#)

Participants said we are at the beginning of a shift from seeing creativity as a 'nice to have' to something critical to success. Currently those perceptions only extend to the role creativity plays in innovating and problem-solving, rather than on the artistic, expressive, or cultural value it generates, but that can change. Through the pandemic, we saw how crucial the Creative Industries are to society: keeping up morale, connecting us, and communicating vital messages in accessible ways.

Metrics and Storytelling

Being able to adequately qualify and quantify the outputs generated by the Creative Industries was discussed as being an important enabler for others to understand the Creative Industries' value. These standardised measures would allow people to tell their story in ways that are accessible to different audiences, which will raise awareness in sectors that infrequently interact with the Creative Industries.

The first workshop activity was to identify examples of spillovers and map them against a framework illustrating types of spillover and the likely beneficiaries. It was clear that the role that creativity plays across different sectors appear to be more prominent in those sectors that commonly measure their impact, such as healthcare (which is using gamification and design to the benefit of healthcare workers and patients) and technology (such as virtual reality). It is more difficult to capture stories on (a) the benefits that Creative Industries had on one another and (b) on wider outcomes on society beyond health, such as cultural and environmental outcomes. The challenge is not that these metrics do not exist (they do), but rather that they are not widely known and captured. A shared framework, like the UN's sustainable development goals, that is co-developed across industry could be a useful next step towards better understanding and valuing the Creative Industries' impact. This should be co-produced because the Creative Industries can struggle to communicate their value in terms recognised by other sectors, which means that the 'real' value is not accurately reflected or is overlooked altogether. The current misalignment of metrics is fuelling innovation gaps and missed opportunities, and therefore fewer knowledge and innovation spillovers than the UK could be benefitting from.

IP and ownership

Better understanding and education around IP within the creative sectors will enable more effective and long-term collaboration across sectors, leading to increased knowledge and innovation spillovers.

People working in the Creative Industries are highly likely to create unique intellectual property (IP), and yet there is a lack of education around how to use and share that property: to benefit from trading on it, whilst sharing its potential benefits to others. Being open to collaboration is crucial to innovation but was seen by participants as risky and difficult. If there is nothing to support innovators to work together, across industries, this will greatly slow the rate of innovation and knowledge-sharing, leading to less impactful R&D across the UK. Many participants in the workshops noted that larger businesses, with budget and time allocated to innovation, tend to still be risk-averse about who they will partner with, usually preferring those with whom they have previously worked, or within similar industries and skillsets. This keeps innovation and knowledge spillovers within industries, perpetuating siloed ways of working and limiting the opportunities for fortuitous cross-sector innovation. Government could provide training programmes for creative microbusinesses or subsidise legal fees during the partnership development and/or innovation phase.

Support and resourcing for cross-sector collaboration

Enabling better cross-sector collaboration seemed to participants the best way to maximise spillovers across the UK. Industry and government have a role to play in creating conditions

for better cross-sector collaboration: many barriers discussed in the workshops were systemic, requiring change ‘from the top’.

Barriers to businesses absorbing, collaborating on, or creating spillovers were largely structural: for example, the Creative Industries include micro-businesses whose capacity is too limited to even engage with other sectors, let alone work in partnership. Core funding for start-ups might help to alleviate this, however those who had gained access to funding described the challenges of, firstly, evidencing their requirements and then, on receipt of funding, reporting back. The creative sectors tend to be more risk-taking, experimental, and innovative than other sectors, and so – given the right support – both sides of the collaboration would benefit greatly: the creative sectors from stability and access to resources; and other sectors, from the creative and innovation approach that characterises the high-growth creative sectors.

While the UK has one of the most adaptable start-up ecosystems, much of the support is directed at technology businesses. Participants considered that this might be because they are seen as generating a quicker financial return on investment than creative businesses, even if those creative businesses might generate long-term social, cultural, place-based, or environmental benefits. A targeted programme supporting creative microbusinesses and start-ups (and businesses outside of the Creative Industries who might want, but lack the incentives, to work with creatives) would be helpful. Participants suggested taking the Innovation Voucher scheme as a model, which would support them to put in place processes that would help them to innovate and collaborate with others.

Another structural challenge is the misaligned ways of working between businesses of varied sizes and sectors, which limits the opportunities for collaboration and R&D. Larger companies were seen as not wanting to work with or commission creative microbusinesses, as they were seen as riskier, and less reputable than larger more established businesses. Briefs from organisations putting out tenders (or commissioning work another way) ought to be written in a way that encourages creative or innovative responses. This would foster a more inclusive marketplace, opening up new opportunities for work to diverse industries and sectors.

Something else that would enable more creative industries to collaborate with other sectors would be to shift the bulk of time allocation away from *delivering* goods and services, and towards their development. Many of our participants described how there is no space, time, or resource allocated for creating, imagining, or experimenting: the result being a lack of genuine innovation, or testing whether the innovation meets an actual need or purpose. Rarely is time given over to developing relationships, which means that preference is given to those providers with whom the commissioner has already worked, rather than starting something new and potentially revolutionary.

Government and industry can work together to create guidelines on how to commission in ways that are inclusive of different sectors and approaches, and how to build strong partnership working throughout the lifecycle of a project. This guidance can be issued as part of an awareness-raising campaign and case studies on the benefits of working in more creative and interdisciplinary ways.

Some sectors, such as healthcare, are more heavily regulated than others. The health sector presents a huge opportunity for creative innovation, as we have already seen with gamification, remote VR treatment for patients and training for healthcare workers, and the design of products, services, and architecture. The UK’s healthcare sector is particularly innovative, both in its introduction of new products, and in using user-centred design

practices for developing new and improved services²⁴. We should maximise the spillover benefits of this cross-sector working by improving the understanding within the healthcare sector of the role that creativity is already playing in the development of new goods and services, and improve procurement as already mentioned above.

Improving digital literacy and skills among sole traders and microbusinesses will further enable cross-industry spillover and collaboration, especially in areas with less access to digital infrastructure, such as broadband. Government and Industry could support through something like the Grants for Arts programme or the Cultural Development Fund, which encourage taking more experimental and collaborative approaches to solving challenges. Alternatively, a Research and Development (R&D) programme or challenge fund that specifically supported micro-businesses to work with Creative Industries, and to actively foster pan-sector knowledge transfer, was also suggested.

Regulation and Procurement

Participants recommended that the government redefine R&D to explicitly include creativity in its definition: it could be named as a 'key ingredient' to innovation (acknowledging the limitations presented by the Frascati definition used by the government). Alongside this, there was a desire amongst participants for the government to clearly articulate how the Creative Industries are implicated and impacted by policy: for example, how they fit into and can contribute to the levelling up agenda or achieving Net Zero emissions by 2050. Another potential political lever is in effective communication. Creating a shared language across sectors and breaking down the divisions in funding between arts and STEM, should be a priority to foster better collaboration.

Government is also a large market for the Creative Industries, and with its push to work more with local and small businesses, there is room for a specific incentive or support for the public sector to commission from the Creative Industries. Especially for local political agendas, these industries can play a huge role in economic and cultural development. Bringing creatives into the tendering process for different types of briefs, and encouraging joint applications between sectors, will both generate more innovative responses in the short-term and more effective solutions in the long-term. These can then be used as demonstrator projects to encourage others to commission more openly.

Fostering diverse networks and creative hubs

Given the potential for creative clusters (dense co-location of similar businesses in one area, usually for increased efficiencies, to foster collaboration, and attract skilled workers) to generate significant local economic development, participants wanted to see government and industry working together to create a network of physical meeting spaces and hubs specifically focussed on cross-sector collaboration. One model might be Creative Informatics: a research and development cluster based in Edinburgh²⁵ that is helping creative businesses to develop in new sectors. These creative environments were seen as crucial to supporting thriving economies, and the best way to foster knowledge and innovation spillovers. Clusters create substantial industry and supply-side spillovers, creating advantageous market conditions, new jobs, and opportunities, and generating direct and induced effects. They tend to attract increased investment from both the public and private sectors, leading to improved infrastructure, boosted productivity, and more efficiencies. This was exemplified by the Sector Deal's Creative Industries Clusters Programme.

The knowledge and innovation spillovers from diverse industries working in proximity provide more than economic benefits: many of the innovations developed in clusters (especially if they were to be missions-oriented) would lead to the development of ideas, knowledge and

²⁴ [NHS Digital](#) and NHSX (now integrating with the Transformation Directorate at NHS England) are good examples.

²⁵ You can read more about this in [the table on page 10-11](#).

innovation that is good for society: from health and wellbeing to the environment. Participants suggested that there should be knowledge sharing communities that consolidate and share best practice from existing clusters if new clusters are being set up. However, it is important to acknowledge that there is no 'one size fits all' approach, and that each place has its own assets, opportunities, needs and industries that will inform how the creative cluster operates. There was also a consensus that existing creative networks are too siloed for effective collaboration, and that there should be a way of better connecting creative sector networks both with each other, and with other industry networks.

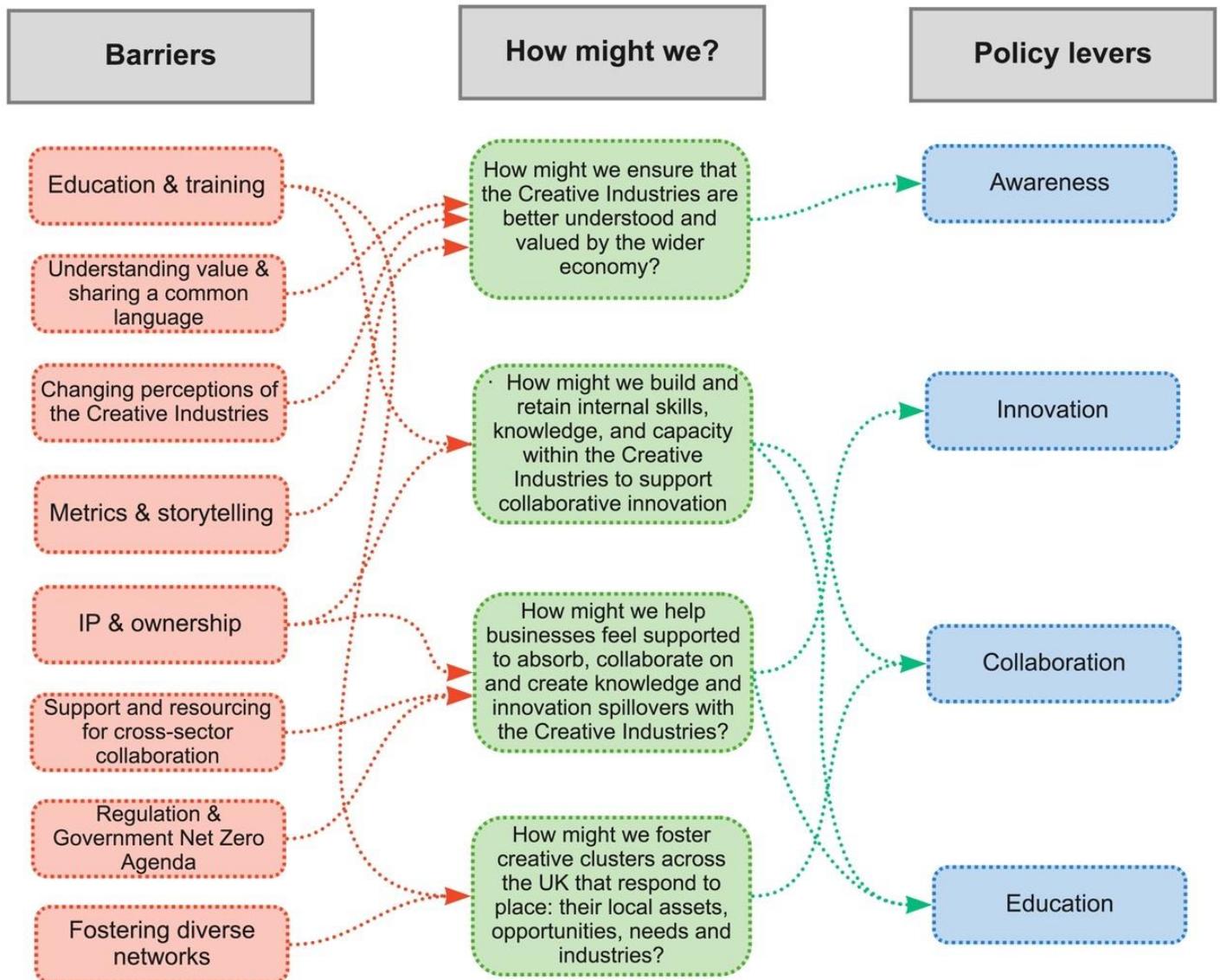
Clusters are based in a physical location: this is what generates greater efficiencies through shared infrastructure and resources. However, different businesses and sectors have differing needs, which means that clusters should account for local needs, opportunities, and industries – and be co-developed with diverse stakeholders. To ensure that clusters are enabling cross-sector collaboration and spillovers, it is vital that they are open and accessible to a diverse range of industry types and business sizes – and not just creatives. Participants suggested that certain industries might need or want to engage in a way that does not depend on physical proximity or density, such as more rural industries like farming, or industries that are as yet unfamiliar with how to collaborate with the Creative Industries, and so it was recommended that clusters be supported to develop in an inclusive, iterative way that is informed by place. This more organic approach, in which anyone who wants to participate can do so, will enable co-production, learning, and collaboration, which in turn stimulates spillovers. It will also broaden the appeal of participating in more formal clusters and networks to more diverse industries.

One recommendation was to undertake research into understanding their similarities and differences. This work has already been started by Frontier Economics on behalf of DCMS. By understanding who stimulates spillovers in different regions, and what the capacity, projects, and networks currently exist, it might give some indication of how to link up industries and businesses who would benefit from working with Creative Industries. One key barrier to getting more diverse businesses to engage with creative clusters is that they are not widely known about, and so a communications campaign, or developing a directory were suggestions made by participants. This should be open-source, iterative, and led by local industry and government, so that useful connections are fostered from the very beginning, during the discovery and development of the directory.

There is also an opportunity to support the development of clusters that are both place-based and missions-oriented: bringing together diverse sectors to work towards a shared objective, such as developing a more circular economy or creating a sustainable future economy for young people. Taking a missions-based approach to developing clusters would fast-track spillover effects and by making these outcomes explicit: different industries, across sectors, collaborating to create new forms of knowledge, innovation, and hybrid business ventures to meet a shared challenge. Local authorities can convene stakeholders, co-develop priority areas, and create favourable conditions and policies to support the flourishing of cross-sector clusters and knowledge transfer networks in their area.

Participants also raised the inequitable distribution of new technology across the UK: both access to the innovations themselves, and the associated expertise and opportunities to learn about them. Related to this was the regional disparity in digital literacy of workers, as well as limitations posed by infrastructure like broadband capacity and geographical distance from the major universities and industries developing cutting-edge technology. One potential solution showcasing emerging technologies that the Creative Industries could interact with, either through roadshows or otherwise using creative clusters to share opportunities, trends, and knowledge. Not learning about new technologies, as well as a lack of digital skills, was

seen as a huge barrier facing the Creative Industries and their capacity to stay relevant, innovative, and to continue flourishing.



Recommendations for Policy and Industry-Led Intervention

Through the exploration and interrogation of the research insights for maximising the economic spillovers of the Creative Industries for the wider economy, key focus areas emerged from the design sprint as having the strongest resonance with participants:

Awareness:

- Build a shared understanding and value of the Creative Industries and their wider impact to other sectors through **improved metrics, case studies and the use of unusual suspects** to champion this value.
- Convene cross-sector government departments and industry bodies to form a Creative Industries **Spillover Commission** to give a mandate for this work.
- Create an **Impact Framework** with specific metrics.

Innovation:

- Improve and **adjust the definition of R&D tax credits** to further incentivise the wider spillover value to other sectors
- Build Creative Industries' understanding around the commercialisation and collaboration opportunities provided by **IP**.
- Provide **research and innovation funding** to incentivise cross sectoral collaboration.

Cross-sector collaboration

- **Convene Mission and Place-based Clusters** (which include creative and non-creative organisations) to maximise their wider impact, including economic, social, environmental, and democratic.
- Local and central government should **provide guidance** to industry **on the benefits of working with creatives**, what to expect along the project lifecycle, and how to commission work that is inclusive and open to different sectors' approaches.
- **Support clusters to achieve their mission and consolidate learning**, for example: government and industry could provide guidance on creating a circular economy to stimulate intentional knowledge and innovation spillover in addressing the climate emergency.

Education & skills

- Improve **creative provision within the UK's education system**, to embed creative skills at an early age, and illuminate the diverse career pathways into the Creative Industries and the creative economy for both students and parents – adopting the learnings from where this has been achieved in Scotland and Wales.
- **Upskill and bridge skills gaps to further develop** and create a more resilient and collaborative workforce, particularly within digital skills where this has formed barriers to cross-sectoral collaboration.

These areas appeared to have most potential for immediate and long-term policy interventions and are further outlined below:

Awareness

Improved metrics to better understand the wider value of Creative Industries:

Improved metrics, evidencing the wider economic, social, environmental, and democratic value generated by the Creative Industries, will help to educate other sectors, commissioning bodies, and funders: not only by highlighting their spillover effects, but also

the commercial viability. These metrics should cover social, environmental, and cultural impacts. The government already provides guidance in the form of the Treasury's Green Book, and DCMS are currently developing a framework for valuing cultural and heritage capital.

There are two things that shared metrics and a framework would enable: first, a mutual understanding of the outputs and outcomes being created by the Creative Industries; and second, more clarity around their shared objectives and how collaboration might maximise these. Better understanding and valuing of the Creative Industries will contribute to increased confidence and trust between different sectors, creating new markets and partnerships.

Research should be undertaken by PEC, or a similar body, into what existing spillover-related metrics are being used by different industries that might also be used and standardised across the Creative Industries. Rather than developing something new, this approach will ensure that the Creative Industries are able to communicate their worth in terms that industry already understands. The development of an easy-to-use framework with recommended metrics should be accompanied by a communications strategy to ensure that people understand why they ought to measure their impact and can share their stories. These can be used as demonstrator projects or case studies to build awareness within and beyond the Creative Industries. This will also help those who represent the Creative Industries, such as the CIC, to evidence the impact of the sector.

To help scale this awareness, leaders within the Creative Industries should champion this narrative and their 'vanguard' reputation. As the current UK Creative Industries workforce now numbers over 2.2 million people, there are many potential advocates for the sector, in addition to some more 'unusual suspects', for example the Head of Systems for BAE, or the CFO or COO of a non-creative business. These leaders, armed with effective and accessible metrics, should be better able to demonstrate the value added by creative skills – both to encourage new people to enter the Creative Industries, and to create new creative jobs within other industries.

There is also an opportunity to challenge and encourage commissioning bodies to allocate pan-sectoral funding, or commission additional creative skills to achieve their objectives. By doing so, businesses will feel supported to absorb, collaborate on and create knowledge and innovation spillovers with the Creative Industries.

Strategic policy and industry levers

- Build a shared understanding and value of the Creative Industries and their wider impact to other sectors through improved metrics and case studies and make use of unusual suspects to champion this value.
- Create an impact framework with specific metrics.
- Convene a cross-Government and Industry Spillover Commission to give a mandate for and guide this work

Additional ideas suggested by participants:

- Commission research to map the needs of other industries for creative skills and capability, so that we might better understand and value the Creative Industries (including their social, environmental, and cultural value), and facilitate their connections between each other and with other sectors.

- Convene cross-sector government departments and industry bodies to form a Creative Industries spillover working group: building awareness of creative spillover with departments including BEIS, Department of Trade, DfE etc.

Innovation

R&D tax credits & commercialising of IP to incentivise the production of wider sector value, generated by the Creative Industries:

In the Autumn Budget and Spending Review, the Government noted that business investment in R&D at 0.9% of GDP was low relative to the OECD average of 1.5% and very considerably lower than leading nations like Korea, Japan, Germany, and the US. As well as making a commitment to increasing spend on public R&D, financial relief through R&D tax credits is a way of incentivising innovation and the creation of wider sector value more broadly. Research has shown that adherence to a strict interpretation of technology-oriented R&D can exclude some aspects of Creative R&D. This means the government risks missing out on fully incentivising R&D investment in the Creative Industries, one of the few industrial sectors where the UK is a world leader. Widening the interpretation of R&D would also bring the UK into line with the governments of countries like Germany, South Korea, Austria, and Norway – all of whom recognise the strategic importance of their Creative Industries²⁶.

This also links closely with improving education around IP and broadening access to legal support for micro-businesses and freelancers so that those working within the Creative Industries feel empowered and inspired to share their ideas across the economy and, in doing so, can demonstrate their wider value. This will aid the Creative Industries role in supporting collaborative innovation within the wider economy.

Recommended strategic policy and industry levers:

- Increase the use of R&D tax credits to incentivise the creation of wider spillover value to other sectors by broadening the interpretation of R&D for tax relief purposes. This would better recognise R&D in creative disciplines and bring UK practice into line with the large number of countries that already do so.
- Targeted advice from HMRC given to creative firms, with specific guidance, supported by case studies, detailing what qualifies for expenditure in Creative Industries R&D.
- Build the Creative Industries' understanding around the commercialisation and collaboration opportunities provided by IP to support further cross sector collaboration.
- Provide research and innovation funding to incentivise cross sectoral collaboration. Funders should look to the success of the UKRI Creative Industries challenge programmes and prioritise investment in this strategic and fast-growing sector.

Additional ideas suggested by participants:

- Provide creative innovation vouchers that provide financial support to help incentivise SMEs across the wider economy to collaborate with creative businesses, learning from previous initiatives. This should be supported by an awareness-raising campaign.

²⁶ Easton, E., Bakhshi, H., Kulka, B. for PEC (2022) Insights for policy makers, R&D in the Creative Industries

- Develop a Creative Industries exchange secondment scheme to embed creative practitioners in other sector businesses, building on the successes of initiatives like the Knowledge Transfer Network and Knowledge Transfer Partnerships.

Cross-sector collaboration

Creative Hubs for place-based and missions-led cross-sector collaboration

Place-based creative clusters enable innovation, knowledge, supply-side and industry spillovers. They provide increased employment opportunities within their area, footfall through tourism, and maximise collaborative creative output due to their proximity and the entrepreneurial, opportunistic spirit of individuals within the clusters. The need for a stronger infrastructure to enable cross-sectoral spillovers and wider impact could be supported further by place-base clusters.

However, knowledge transfer and networking opportunities are unevenly signposted across different areas given the disparity of creative clusters across the UK. There is an opportunity to scale good practice seen in creative clusters to encourage larger businesses to operate in an entrepreneurial and agile way. New businesses should seek out opportunities within emerging cross-over sectors.

To foster creative clusters across the UK that respond to place, their local assets, opportunities, needs and industries, it is important policy goes one step further by supporting place-based clusters that include creative and non-creative organisations who collaborate around a specific local mission e.g. climate change, energy transition, health and well-being within their community. The government could support these missions as part of their wider Net Zero and Levelling Up strategies, learning from good practice and the impact that creative communities have in their area, as well as generating advice and guidance for how clusters might work across sectors to achieve these significant missions.

Recommended strategic policy and industry levers:

- Convene Mission and Place-based Clusters (which include creative and non-creative organisations) to maximise their wider impact, including economic, social, environmental, and democratic. Mission based goals could be achieved by continued investment into Creative Industries Clusters (as this funding has now finished).
- Recruit a creative liaison into new clusters to link creative businesses with non-creative organisations and local government within the area, building on the Cultural Compacts Initiative.
- Provide guidance on how to achieve Net Zero and a circular economy through a collaborative approach, from experts in this field, to stimulate intentional knowledge and innovation spillover to address the Climate Emergency.
- Renew investment into the Creative Industries Clusters Programme. The R&D mission in the Levelling Up White Paper aims to see domestic public R&D investment outside the Greater South-East increase by at least 40% by 2030. The success of the Creative Industries Clusters Programme in achieving economic, social, and cultural benefits by investing in R&D right across the UK's nations and regions makes it a useful lever for the Government in achieving these goals.
- Set-up a targeted programme supporting creative microbusinesses and start-ups (and businesses outside of the Creative Industries who might want, but lack the incentives, to work with creatives) would be helpful.

Additional ideas suggested by participants:

- As part of the cross-sector creative spillover Commission recommended above, there should be work done to raise the profile of Creative Industries in their regions. Local and Central Government can draw attention to the value of local creative hubs in creating spillover value for their area, and the role Creative Industries play in job creation, levelling up, and achieving local priorities.
- Create a directory with visibility of:
 - National or local 'creative skills and business' directory to support businesses in the wider economy to identify local creative talent. This should be open-source, iterative, and led by local industry and government, so that useful connections are fostered from the very beginning, during the discovery and development of the directory.
 - UK clusters including their specialisms.
- Create innovation delivery partnerships across the country that bring together educators, local authorities, and industry to ensure local skills, capabilities and needs are identified and understood across the local economy.
- Build regional networking initiatives to connect Creative Industries with local 'dominant industries' currently not engaged with Creative Industries (e.g. agriculture in East Yorkshire).

Education & Skills**Improved provision within the education system to raise the profile of the wider value creatives bring to the rest of the economy, and skills to retain and empower our existing workforce:****a) Education system**

Underpinning the value generated by the Creative Industries is our emerging workforce. Improved creative skills provision is needed within the current primary and secondary school curriculum. A good example of where this has been achieved is in Scotland through the Creative Curriculum Pilot Project and Creative Curriculum fund; students are supported in applying the four creativity skills – curiosity, open-mindedness, imagination, and problem solving – to their own contexts²⁷. They will be encouraged to explore new possibilities and empowered to change their thinking, practice, and approach to continuous improvement.

To communicate the value of the Creative Industries to the wider economy it is vital that the career pathways into these sectors are illuminated for both students and parents, while acknowledging that these are different audiences. The National Plan for Cultural Education (forthcoming 2023) would be a good vehicle for encouraging educators to provide clear guidance and support to those young people looking to pursue a career in the creative and cultural industries.

One of the barriers mentioned above was the unequal valuing of different creative skills and pursuits: design thinking, for example, being held to be more valuable in the marketplace than being musical, for example. The point, however, is that creativity is valuable in its own right, as well as contributing to spillover benefits and innovation in largely unpredictable ways. Showing the value of diverse creative skills can both incentivise partnerships between different sectors *and* reinforce the intrinsic value of creativity. In terms of education, this will give courage to parents, carers, teachers and careers advisors, young people, and career-changers that their creative skills are worth pursuing and will be valued.

²⁷ [See Education Scotland's Creative Curriculum Fund \(2019\)](#)

b) Building industry awareness

Although the difficulty of this intervention was emphasised, it plays an essential role in solving issues around skills and workforce, not just within the Creative Industries, but also non-Creative Industries, where creative skills should be embedded.

Recommended strategic policy and industry levers:

- Improve **creative provision within the UK's education system**, to embed creative skills at an early age, and illuminate the diverse career pathways into the Creative Industries and the creative economy for both students and parents – embedding this into the upcoming Cultural Education Plan (2023) and adopting the learnings from where this has been achieved in Scotland and Wales.
- **Increase visibility and provide extra support for pathways** from creative education into non-creative sectors.
- Launch a **Creative Careers Campaign** driven by government and the private sector, to build on initiatives like Speakers for Schools but also at mid-career level to build awareness of the value of creative qualifications and skills.

Additional ideas suggested by participants:

- Roadshow / library of work to promote spillover case studies, career pathways, applicability of skills to the wider economy.
- Augment existing place-based training and apprenticeship schemes: increase pathways from local schools and training providers into local businesses and incentivise firms to invest in staff skills and capabilities.

c) Upskilling our existing workforce

Upskilling our existing workforce is key. It is about anticipating the right skills for the future, that will not only improve resilience within the Creative Industries but will help to enable cross sector collaboration to maximise wider spillover effects. Well-directed incentives and investments directed at our existing workforce will help to strengthen wider spillover effects, strengthen the tax base, and generate other advantages such as keeping up with a rapidly changing marketplace. Investing in the skills people need for the jobs of the future, for cross sector collaboration will enable and encourage businesses to navigate a more co-productive economy. This is about building up the capacity to learn and relearn over time.

There are barriers created by the unequal levels of digital literacy across regions and Creative Industries, most notably in hampering cross-sector collaboration. Uneven access to good digital infrastructure and the skills needed to collaborate digitally across creative and non-creative businesses, means spillover benefits of clusters rely on close physical proximity. There is an increasing demand for upskilling the existing workforce to enable and maximise spillover value to the wider economy. Policy needs to be developed with digital reliance in mind.

Recommended strategic policy and industry levers:

- **Upskill and bridge skills gaps to further develop the professional workforce allowing them to be resilient and collaborative**, particularly within digital skills which has formed barriers to cross-sectoral collaboration. This could be achieved through increased investment and from adopting models such as the 'Help to Grow' scheme, which support businesses, specifically, pivoting to the digital world.

Additional ideas suggested by participants:

- Secondment programmes to enrich learnings and best practices.
- Large enterprise mentorship scheme, for e.g. The BBC mentoring production/media SMEs to encourage the transfer of skills, knowledge, and best practices.

Conclusion and Recommendations

Alongside the work underway by Frontier Economics, researching the similarities and differences between existing clusters, Design Council would recommend that DCMS and UKRI pursue the four heavily weighted themes that emerged through the design sprint, and address the policy recommendations for each.

Limitations

- Gaps in representation with participants of the workshop. Recommendations and insights should not be taken as representative of the Creative Industries.
- Recommendations focus primarily on maximising positive economic spillover value.
- Further work needed to test policy and industry recommendations and to gather additional data with which to refine these.
- Research highlighted some region and sector specific issues which warrant further investigation: e.g., lack of collaboration between Creative Industries and dominant agriculture industry in the North East.
- Further work is needed to understand where the creative industries can add value to other sectors of the economy, and how this presents different opportunities and challenges across the UK. Collaboration with the devolved governments will help to identify the strengths and needs of the sector in all parts of the UK. It will determine an appropriate focus for future work on the opportunities and challenges for the creative industry across the UK with recommendations adapted and integrated into creative industries strategies where applicable.

Appendices

1. Design Sprint Methodology
2. Case Studies
3. Design Sprint Engagement
4. Participant List
5. BOP Consulting Rapid Evidence Review

Appendix 1: Design Sprint Methodology

The aims of this design sprint were:

- 1) To understand the types of spillover value the Creative Industries have into the wider economy.
- 2) To co-develop a series of recommendations for policy and industry-led action that could help to maximise the spillover value of the Creative Industries into the wider economy.

The design sprint adopted a collaborative and deliberative approach, drawing on Design Council's Double-Diamond model, to ensure that insight and recommendations reflected sector priorities. The stages of this design sprint included:

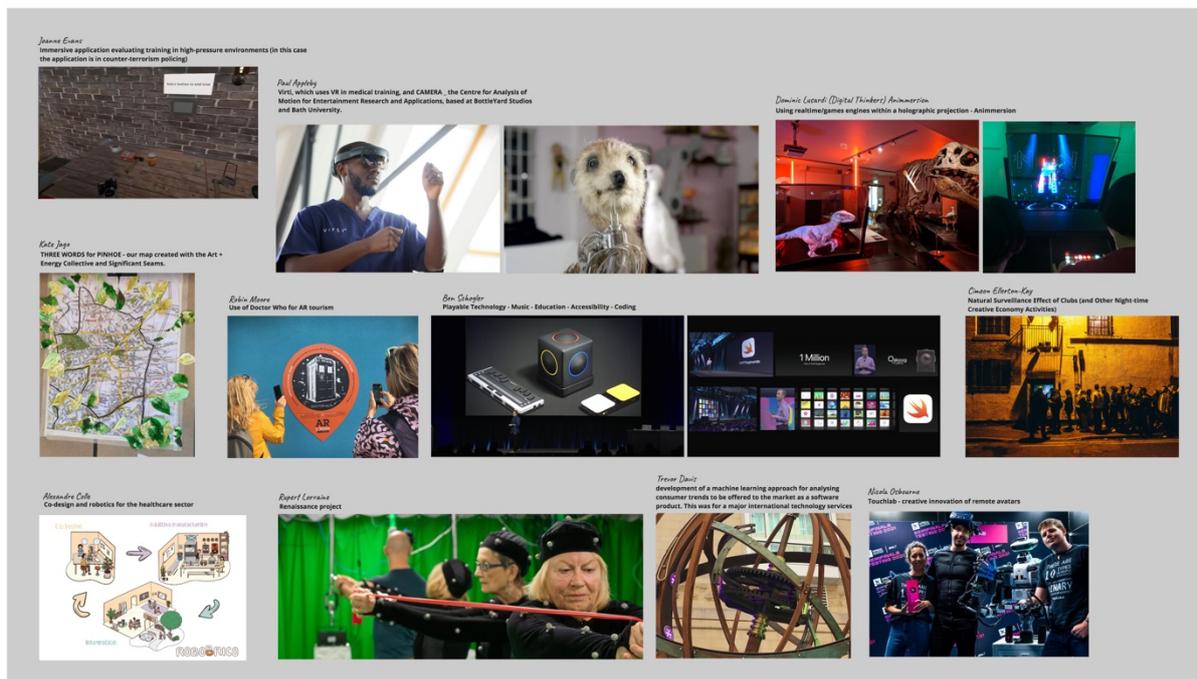
Phase 1: Discover & Define

- Rapid evidence review to define the Creative Industries, spillover value and to assess the current evidence base of creative industry spillover value. This review also included a focus on emerging hybrid sectors: create-tech, create-health, create-manufacturing, create-net zero. This evidence review is included as Appendix 5 of this report.
- Stakeholder recruitment for the design sprint to ensure involvement from a diverse representative of creative industry leaders from across regions and creative industry sectors.
- Four online workshops with 46 creative industry leaders. These workshops utilised a deliberative approach drawing on the Design Economy Impact Framework and the Framework for Innovation to understand the types of spillover value being realised by the Creative Industries, and barriers and enablers to maximise that value.
- From these workshops, Design Council developed four 'opportunity areas' which identified priority challenges facing the Creative Industries and wider economy that could be addressed to increase spillover value.

Phase 2: Develop and Deliver

- An online policy co-design day with 30+ participants from across government, policy, research, and the Creative Industries. The workshop adopted a policy-design approach using the UK Policy Lab's Government Styles of Intervention framework. The purpose of this session was to gain a deeper understanding of the underlying challenges related to the four opportunity areas and to ideate potential policy and industry led recommendations.
- A closed roundtable with eight senior leaders from UKRI, the Creative Industries and relevant sector bodies to review and refine the proposed policy and industry-led recommendations.
- Final synthesis and review.

Appendix 2: Case Studies and Examples



Example: XR Stories and Highways England



XR Stories provides research and development funding, support, and networking to expand the potential of immersive and interactive technologies for digital, interactive storytelling. Based at the University of York, they bring research excellence to support business focused partnerships. Their research explores various aspects of sound, music, computing, and audio technology, particularly immersive audio, and how it is used. E.g.: Partnering with AECOM and Highways England, XR Stories conducted a noise impact assessment on a dedicated site in Stonehenge to communicate its environmental impact to a diverse audience, which included policymakers, politicians and the wider public.

Example: Creative Informatics, Edinburgh



Creative Informatics is a research and development cluster based in Edinburgh focused on nurturing creative talent to explore the opportunities associated with data and technology to drive new products, businesses, and experience. One start-up that has benefited is Touch Lab, which is building sensing robots that can be used as distance avatars and use a mix of design skills, robotics, and machine learning. They applied to Creative Informatics having qualified for the Avatar XPrize, a global £10m prize to create remote avatars for space exploration. They are now based at the STFC-funded Higgs Centre for Innovation business incubator and have recently secured £3.5m from Octopus Ventures. Although their core focus is on space exploration, Touch Lab's creative technologies have potential for use in other sectors including healthcare and nuclear decommissioning.

Example: Production Park, Wakefield, (2015 – Present)



Production Park is one of the world's premier campuses for entertainment technology. It is home to a community of live events businesses, 6 studios and a cohort of over 200 students. It began with developing high-performance modular trussing systems for live performances, which are now industry standard. The venue is now being used for major concerts and events which has significantly benefited revenue for local hotels and restaurants. In addition, it has attracted talent, witnessing unexpected growth of manufacturing and engineering jobs in the area, for example in the construction of Stormzy's stage set, and supporting the development of new innovative businesses.

Example: Here East, London.



Located in London's Queen Elizabeth Olympic Park and established after the 2012 London Olympics, Here East is a creative cluster that brings together businesses, universities, and museums. The campus has attracted high-skilled workers across Creative Industries and wider industries and supports collaboration and knowledge exchange through networking events. It is the UK's largest incubator for start-ups.

Example shared	Spillover effect	Benefits to other Creative Industries	Benefits to the wider economy	Benefits to society
Virtual Reality to help amputees how to use prosthetic limbs	Knowledge	Educating clinicians on the benefits of creativity	Working with the NHS in a way that emphasises empathy and accessibility	Healthcare providers able to provide better experiences to patients
			Minimising training time through user-friendly design	

Example shared	Spillover effect	Benefits to other Creative Industries	Benefits to the wider economy	Benefits to society
			Training healthcare professionals how to use new software and tools	
	Innovation		Patenting new hardware from creative co-design	Positive impact of health and wellbeing of patients
Production Park, Wakefield	Industry		Increase in hospitality, catering e.g., film crews booking out hotels	Increased local employment in these sectors
			More local businesses on site in Production Park, e.g., cafes	
		Musicians needing to hire of event spaces, staging, equipment etc. creates a market in the local area		Increase in number of engineering jobs to support music industry
Guildhall Project and XR Stories (incubator and accelerator)	Supply-side		Attracting other technology businesses into area	Active engagement with and outreach to the public
		Building an eco-system for technology-focused industries (and showing how creativity is integral to doing that well)	Fosters new relationships and business opportunities	
			In the lab, displays and shares project as they emerge	
			Developing new skill sets through allowing others to 'play' with technology	
XR Stories	Innovation	Bringing engineering to Creative Industries	AECOM and ARUP using environmental noise evaluation tools (originally for Creative Industries) to understand environmental noise impact	Using these tools to communicate findings in an accessible and engaging with the public
Using real-time/games engines within a holographic projection	Knowledge		Collaborating on a shared project inevitably leads to sharing knowledge and improving ways of working	Used as part of virtual training for apprentices

Example shared	Spillover effect	Benefits to other Creative Industries	Benefits to the wider economy	Benefits to society
				Used in a museum/ exhibition setting – public engagement (more accessible, fun, available in many languages)
Bishop Auckland	Supply-side		North-East particularly strong in immersive technology and Createch	
Koala soft prosthetic	Innovation		Technology developed from initial innovations in fashion/ textile design	Easy to use prosthetics for better wellbeing and quality of life
Skoog (music device to decoding platform)	Innovation		Innovations in creating more accessible musical instruments for education used in other sectors, e.g., developing drones based on musical direction	Creativity making products and services more engaging and user-friendly
	Knowledge		Bi-directional cross-sector knowledge: music benefitting from tech knowledge as much as the tech sector benefiting from creative processes and applications	Teachers can teach coding and music together in an engaging way (intersection of STEM and arts)
Wearable tech/ Smart textiles	Knowledge			Young people develop craft and technology skills (intersecting STEM and arts)
		Technology being embedded into traditional craft industries (resilient, future-proofed)	Skills exchange between creative and technology sectors	
			Craft workers working across sectors, such as	

Example shared	Spillover effect	Benefits to other Creative Industries	Benefits to the wider economy	Benefits to society
			technology and/or manufacturing	
	Innovation		New patents in smart textiles	Outputs (the wearable tech) used in occupational therapy for improved wellbeing
Use of Doctor Who for Augmented Reality tourism	Knowledge	Storytelling within the Creative Industries on their value		Cultural value and entertainment; tourism
		Normalising technology, and showing how it can be adapted for use within own sector		
Virti (VR in medical training) and AMERA (Bath University)	Supply-side		Passively reinforcing networks to generate interest and engagement with those who are ready to innovate and collaborate	
	Knowledge		Working with and upskilling medical professionals	More innovative and better healthcare technology
VR for immersive training in high-pressure environments	Innovation		Gaming and immersive technology used in variety of applications, from sports to training counter-terrorism policing	
Micro-publishing	Knowledge		Building connections between academics and the community	Sharing net zero effects
				Creating a community data commons
				Involving citizens in creating data – developing new skills within the community (participatory mapping)
				Fostering democratic and wider policy change through Citizens Assembly/ People's Panels

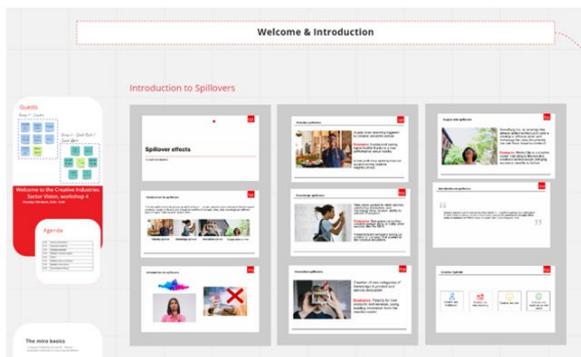
Example shared	Spillover effect	Benefits to other Creative Industries	Benefits to the wider economy	Benefits to society
	Innovation			Creative data visualisation as more engaging and informative
Mural Work	Supply-side		More appealing and safe places encourages more businesses to set up there	Making places more visible and attracting for funding
				Changing the streetscape , so it feels safer and more welcoming, more inclusive
Renaissance Project	Knowledge		Collaboration: project brought practitioners, technologists, and policy makers together	Better health and wellbeing , and less social isolation, for ageing communities
Fashion Week	Industry	High profile of the fashion industry is of added attractive value for students and manufacturers	The British Fashion Council organises 4 annual London Fashion Week events, attracts millions of global visitors to the UK every year, thus delivering an indirect spill-over effect, both to the tourism industry and the UK economy.	The UK fashion industry contributes approximately £21 billion to the UK economy and influences almost £16 billion in consumer spending in industries such as tourism.
Machine learning	Innovation		This was offered to the market as a new software product – new IP for performing art	Has also been used in place-making , to understand societal and ethical problems triggered by the technology
			Adaptation of digital creative asset for analysing customer trends in hospitality sector	
			Spillover of design methods and approaches over to the Tech sector	
	Industry		“Maker spaces” developing new edutainment projects across industries	Attracting new, non-polluting industries to different regions

Example shared	Spillover effect	Benefits to other Creative Industries	Benefits to the wider economy	Benefits to society
Hubs for sharing Indigenous knowledge	Supply-side			Creation of a hub in an area with low median incomes, with an aim to create higher-paying, high-skill jobs (with training)
				Creating social enterprises for refugees
	Knowledge	Sharing knowledge and applying this in new sectors and contexts	Spaces created for overlapping ideas for climate related conversations and ideas to emerge	Protecting tangible and intangible cultural assets
FromBelo Fernando Laposse	Innovation	Repurposing waste materials	Development of new tech and design in robotics and fashion, through bio-inspired textiles (new patents, and open-source R&D)	Providing local employment
Performing arts with VR	Knowledge	Showcasing what is possible to creatives industries	Content creation for other sectors	High overlap of low democratic engagement and digital poverty – opportunity to use these places for digital and creative interventions, to both increase engagement and build digital literacy
	Industry		Growth of the 'experience economy' leading to new businesses	
Gaming VR and Health	Knowledge	Showcasing what is possible to creatives industries	New understanding of how games and VR can improve health and wellbeing	Improved health and wellbeing
			Seeing how creatives and scientists can collaborate	
	Industry		Creating employment for PhD students	
	Innovation	Catalysing Creative Industries to think about how to apply their skills to grand	Demonstrator project that can prove the business case and	

Example shared	Spillover effect	Benefits to other Creative Industries	Benefits to the wider economy	Benefits to society
		challenges (like an ageing population)	competitive advantage of working with creative businesses and the application to other sectors	
Memory Tracks	Innovation		Showcase the role that arts have in improving wellbeing (and using this in developing new products)	Caregiver support app that links memorable songs to care tasks, for independence and improved wellbeing
TouchLab (creative innovation of remote avatars)	Innovation		A creative digital technology being used in: space exploration, healthcare, and nuclear decommissioning	
	Supply-side		Supported through the Creative Informatics CICP cluster	

Appendix 3: Design Sprint Engagement

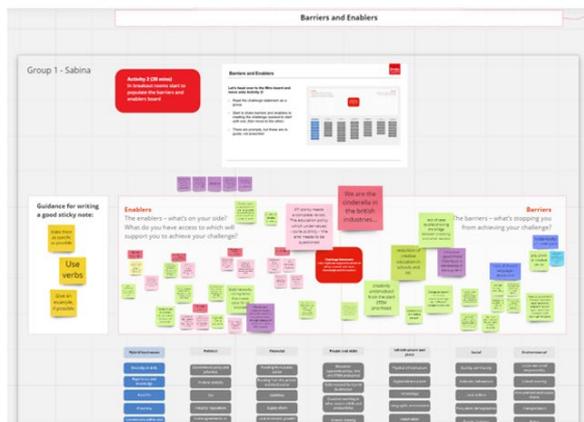
Workshops: Zoom with Miro



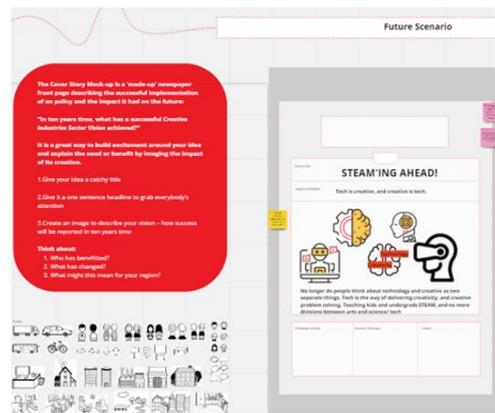
Introduction to Spillovers



Activity 1: Framework Mapping



Activity 2: Barriers and Enablers



Activity 3: Future Scenario

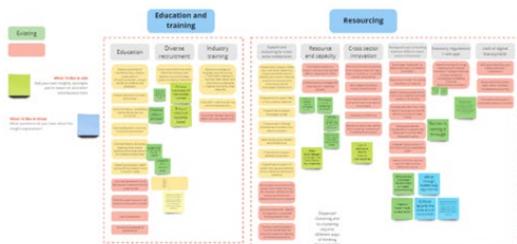
Online Policy Co-Design Session: Zoom with Miro



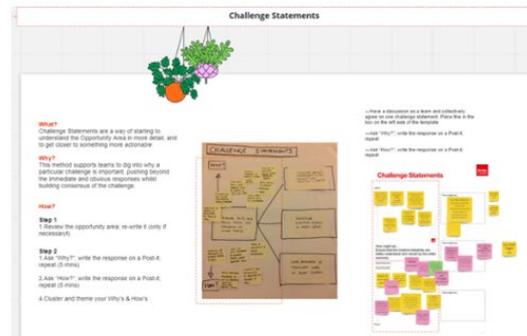
Zoom



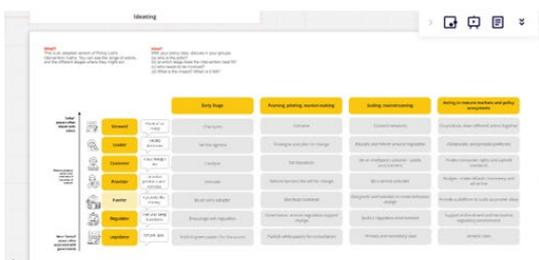
Insight Exploration



Barriers and Enablers



Challenge Statements



Ideating



Ideating

Appendix 4: Participant List

Workshop 1 North Region

Mark Adamson, Creative Fuse North East, Newcastle University
Carol Bell OBE, Creative England
Dominic Lusardi, Digital Thinkers
Mark Bailey, Northumbria University
Dr Freya Horsfield, Durham University
Professor Katy Shaw, Northumbria University
John Mathers, British Design Fund
Anna Disley, New Writing North
Nicola Osborne, Creative Informatics / University of Edinburgh
Sarah Kettle, Edinburgh Futures Institute, The University of Edinburgh
Alexandre Colle, Edinburgh Centre of Robotics
Stephen Coleman OBE, Codebase
Ola Wojtkiewicz, Creative Edinburgh
Benjamin Schogler, Playable Technology Limited
Brian Baglow, Scottish Games Network
Ed Stack, Decagram.co

Workshop 2 East Region

Jo Schofield Screen Yorkshire and The Film & TV Charity
Ivan Phelan, Sheffield Hallam University
Jim Farmery, Backstage Academy Production Park Ltd
Professor Damian Murphy, XR Stories, University of York
Nikki Stearman, XR Stories

Workshop 3 West Region

Paul Appleby, VID Communications Ltd
Joanne Evans, University of Exeter
Charlotte Carey, Birmingham City Business School
Sara Pepper, Cardiff University
Sara Auty, SAZ Media Club Limited
Greg Mothersdale, Clwstwr - Cardiff University
Rupert Lorraine, University of Plymouth
Kimberly Ellen Hall, University of Gloucestershire
Robin Moore, SHWSH Ltd
Helen Keegan, Advantage Creative
Kate Jago, Portfolio Five

Workshop 4 South Region

Jeremiah Osei Tutu, PAPA
Neelam Raina, Middlesex University
Piyush Suri, Handmade in Britain
Caroline Jackman, Crafts Council UK
Trevor Davis, Trevor Davis & Associates Ltd
David Robinson, Institute of Practitioners in Advertising
Cimeon Ellerton-Kay, Social Convention
Will Saunders, StoryFutures and StoryFutures Academy
Stephanie Humphries, University of Essex
Sarah Ticho, XR Health Alliance
Julian Grice, Design Age Accelerator
Katie Hudson, Digital Catapult
Gill Wildman, Upstarter

Online Co-Design

Miles Beckwith, Department for Business, Energy & Industrial Strategy
Joanne Evans, University of Exeter
Neil McDonnell, Edify/Soluis
Hannah McLennan, UK Music
Dr Josh Siepel, Creative Industries PEC, SPRU, University of Sussex
Rebecca Field, Department for Digital, Culture, Media and Sport
Louis Gibbon, Department for Digital, Culture, Media and Sport
Jeremiah Osei Tutu, PAPA
Nerys Evans, UK Research and Innovation
Jon Zeff Creative Industries Council
Clive Gillman, Creative Scotland

Asha Easton, Innovate UK KTN
Fiona Kilkelly, Story Futures Academy/XR Health Alliance
Judith Rosser Davies, UK Fashion and Textile Association
Professor Damian Murphy, XR Stories, University of York
Gerwyn Evans, Creative Wales
Paul Appleby, Paul Appleby Sustainability Consultancy
Konrad Shek, Advertising Association
Annie Gascoyne, BBC
Gail Caig Creative Industries Council
David Robinson, Institute of Practitioners in Advertising
Richard Foggie Knowledge Transfer Network
Bruce Tether, University of Manchester
Christopher Rocks, Greater London Authority
Elizabeth Diaferia, Ed Ventures
Gregor White, Abertay University
Paul Moore, Future Screens NI
Dominic Lusardi, Digital Thinkers
Rowena Crawford, Frontier Economics
Graham Hitchen, UK Research and Innovation
Nicola Osborne, Creative Informatics
Harriet White, Department for Digital, Culture, Media and Sport
Hilary Hall, Department for Digital, Culture, Media and Sport

Roundtable

Minnie Moll Chief Executive Officer, Design Council
Cat Drew Chief Design Officer, Design Council
Hilary Hall, Department for Digital, Culture, Media and Sport
Sir Peter Bazalgette Chair of the Creative Industries Council
Caroline Norbury Chief Executive, Creative UK
Professor Andrew Chitty Challenge Director, Creative Industries, UKRI
Professor Cynthia Bullock Deputy Challenge Director, Healthy Ageing Challenge, UKRI
Tom Lloyd Co-Founder, Pearson Lloyd Studio
Dr Joe Marshall Chief Executive, National Centre for Universities and Business
Brian Waterfield Head of Immersive Production, Falmouth University
Alison Tickell Director, Julies Bicycle

BOP Consulting

Creative Sector Vision: Spillovers Briefing Note

Introduction

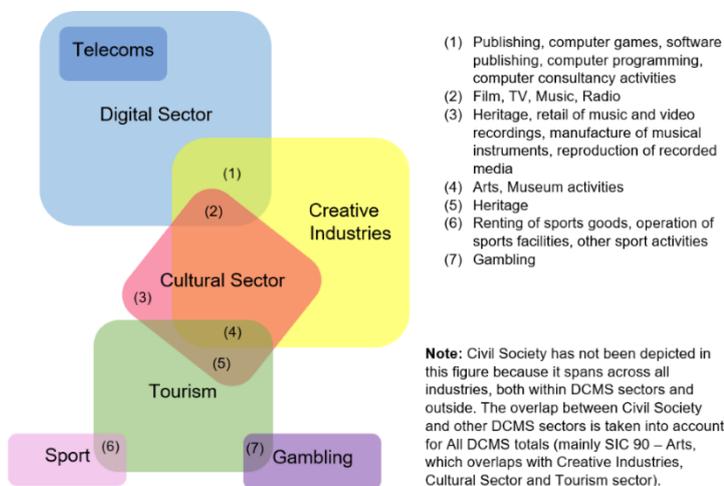
BOP Consulting has been commissioned by the Design Council to prepare a short literature review of spillovers from the Creative Sector. The literature review is to provide background for a policy design process, undertaken with DCMS and UKRI, to generate policy recommendations co-developed through workshops by industry and government. These recommendations will be explored further as part of the work to develop a new Creative Industries Sector Vision.

What do we mean by the Creative Industries?

The Creative Industries were defined in the Government’s 2001 Creative Industries Mapping Document²⁸ as “those industries which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property”.

The sectors that make up the Creative Industries for the purposes of national statistics are set out in tables²⁹ containing the relevant SIC codes. For the purposes of this paper, we are assuming the following simplified version:

- advertising and marketing
- architecture
- crafts
- design: product, graphic and fashion design
- film, TV, video, radio, and photography
- IT, software, and computer services
- publishing
- museums, galleries, and libraries
- music, performing & visual arts³⁰



When thinking of the effect of spillovers from the Creative Industries to the wider economy, it is worth noting that the Creative Industries overlap considerably with adjacent sectors. The Cultural Sector is almost completely contained within the Creative Industries, as is much of the Digital Sector and some of the Tourism Sector. Furthermore, the Creative Economy is a wider measure which includes the contributions of those in creative occupations working outside the Creative Industries, for example a

²⁸ <https://www.gov.uk/government/publications/creative-industries-mapping-documents-2001>

²⁹ <https://www.gov.uk/government/publications/dcms-sectors-economic-estimates-methodology>

³⁰ Ibid Figure 2.1: Overlap of SIC codes within DCMS Sectors

designer working for a business in the manufacturing sector. These sector overlaps are already building in spillovers between overlapping sub-sectors through the everyday operation of the sectors and the movement of workers within them.

The Design Economy research by the Design Council has further extended understanding of these sector overlaps and found that designers operating in non-design industries such as aerospace, automotive and banking create most of the Design Economy's value (68%).³¹ Moreover, beyond those in design or creative occupations, there are other workers that benefit from design and creative skills. The diffusion of these skills from the Design and Creative Industries across the economy tends to lift productivity and is a form of spillover from these industries to the rest of the economy.

What do we mean by spillovers?

The term "spillovers" is often used interchangeably with "externalities." However, there have been at least three conceptualisations of a spillover as more a systemic effect:

- The MAR (Marshall-Arrow-Romer) spillover was synthesised by Glaeser et al³² from earlier work by Alfred Marshall, Kenneth Arrow, and Paul Romer. It proposes that dense *clustering of a single industry leads to co-operative or accidental exchange of knowledge*, and hence innovation and growth.
- Similarly, Jane Jacobs³³ described ways in which *different industries co-located in the same city could benefit from spillovers of knowledge* between them: for example, she related the growth of the automobile industry in Detroit to knowledge transferred from the pre-existing shipbuilding industry.
- Michael Porter³⁴ had a different emphasis and proposed that *competition between firms in clustered industries is more intense and this competition drives spillovers*: new knowledge needs to be applied to survive in a more competitive environment.

The issues with defining spillovers in the Creative Industries were discussed in work undertaken for a group of European agencies, including Arts Council England, in 2015.³⁵ The authors were conscious of two factors in particular:

- the desire to distinguish spillovers from mere externalities – side-effects that do not have any lasting systematic impact on the wider economy, which are often highlighted in the context of the cultural sector (e.g., spend on hospitality as part of theatre trips).
- the complexity of the ways influence can spread from the Creative Industries to other sectors "mobilised by the flow of careers, ideas, knowledge and money across a 'cultural ecology' configured by multiple interdependencies."³⁶

They propose a broad definition of "*creative spillovers as the process by which activity in ... Creative Industries has a subsequent broader impact on places, society, or the economy through the overflow of concepts, ideas, skills, knowledge, and different types of capital.*"³⁷

Categories of spillovers

³¹ Design Council, *The Design Economy*, 2018

³² Glaeser et al, "Growth in Cities" *Journal of Political Economy*, 1992, vol100, no 6

³³ Jacobs J, 1969. *The Economy of Cities*. London: Penguin; Jacobs J, 1984. *Cities and the Wealth of Nations: Principles of Economic Life*. New York: Vintage

³⁴ Porter ME, 1990. *The Competitive Advantage of Nations*. New York: The Free Press

³⁵ Cultural and Creative spillovers in Europe: Report on a preliminary evidence review

https://www.artscouncil.org.uk/sites/default/files/Cultural_creative_spillovers_in_Europe_full_report.pdf

³⁶ Ibid p15

³⁷ Ibid p15

Building on earlier conceptualisations of spillovers as knowledge effects related to geographic proximity, this 2015 research proposed a typology of three kinds of spillovers that categorise how the Creative Industries benefit wider society and the economy:

- **Knowledge spillovers:** new ideas, innovations and processes developed by creative businesses, which then spill over into the wider economy and society; including the transfer of skills and training.
- **Industry spillovers:** where successful creative enterprises affect business culture and entrepreneurship; property markets; private and foreign investment; productivity, profitability, and competitiveness; and innovation and digital technology.
- **Network spillovers:** effects from a high density of Creative Industries: clustering and agglomeration effects; regional attractiveness and economic growth.³⁸

A different approach has been suggested by Potts and Cunningham.³⁹ They analyse how the Creative Industries can contribute to the overall growth rate of the economy. They link this contribution to the typically above-average growth of the Creative Industries themselves. This above-average growth means that creative businesses are more often in expansionary phases and seeking to attract new investment.⁴⁰ Potts and Cunningham identify four categories of spillover from the Creative Industries to the wider economy – which we present in the figure below. We draw growth examples from other bits of research.

Category	Description	Growth Example	Policy Levers	Indicators
Industry spillovers	Supply chain spending triggered by Creative Industries activity	For every £1 directly generated by the arts and culture industry, an additional £1.23 is spent in the wider economy through indirect and induced effects ⁴¹	Steps to strengthen supply chains within localities and retain more of this spending	1. More spend by creative businesses in local geographies 2. Establishment of new suppliers
Knowledge spillovers	New ideas spread to other sectors, catalysing innovation, and improving other sectors' ability to absorb innovation	Just under half of the GVA generated by those with design skills in 2015 was generated by designers and others in design-skilled occupations working in non-design sectors, such as aerospace, banking and retail ⁴²	Support for skills and lifelong learning to enable more people to benefit from productivity raising ideas and approaches	1. Use of creative and design skills by firms in other sectors 2. Investment by these firms in developing such skills
Supply-side effects	Through an amenity that attracts skilled workers and visitors – creating a virtuous	Design District is a collection of 16 buildings designed by eight architects, set in the	Utilise planning powers to incentivise these kind of	1. More time and money spent by visitors within locality

³⁸ Ibid p24

³⁹ Potts J, Cunningham S (2008) Four models of the Creative Industries. *International Journal of Cultural Policy* 14 (3):233–247

⁴⁰ Boix-Domènech R., Rausell-Köster P. (2018) The Economic Impact of the Creative Industry in the European Union. In: Santamarina-Campos V., Segarra-Oña M. (eds) *Drones and the Creative Industry*. Springer, Cham. https://doi.org/10.1007/978-3-319-95261-1_2. This reports econometric results consistent with growth spillovers from the Creative Industries

⁴¹ CEBR, Contribution of the Arts and Culture Industry to the UK Economy, A CEBR report for Arts Council England, May 2020

⁴² Design Council, *Designing a Future Economy*, 2018

Category	Description	Growth Example	Policy Levers	Indicators
	circle through these workers and visitors increasing the value of the amenity	heart of Greenwich Peninsula. It offers permanent and purpose-designed workspace for the Creative Industries	developments – as the GLA helped to bring the Design District forward	2. Increasing rents reflecting desirability of place as business location
Innovation effects	Creation of new categories of knowledge in product and service innovation	The Creative Industries Clusters Programme brings together research talent with companies and organisations across the UK ⁴³	Research and Development (R&D) policy to support generation of new knowledge	1. Patents on new knowledge 2. Business formation and growth sustained by this knowledge

Figure 1 Categories of Spillover from the Creative Industries to the Wider Economy

Source: Potts and Cunningham, CEBR, Design Council

Emerging hybrid sectors

Increasingly the Creative Industries are working collaboratively with other sectors, creating emergent hybrid sectors. Spillovers are embedded in hybrid sectors, as creative businesses work alongside businesses from other sectors or hybrid businesses use creative techniques to support the ambitions of these other sectors. Emergent sectors can display high levels of innovation and growth, precisely because they are new, so these developing sectors deserve policy attention.

These companies might benefit from the innovation effects discussed in the table above. In addition, by fusing two previously distinct business sectors, emerging hybrid sectors represent a further category of spillover. Moreover, the benefits of this hybrid go beyond the narrowly economic:

- Health gains are intrinsic to the hybrid of creative and health
- Environmental gains are intrinsic to the hybrid of creative and net zero

These hybrid sectors can, therefore, support a broad-based conception of growth that fulfils social and environmental goals in the context of an expanding economy.

Creotech

This is a sector that has been the focus of policy and promotion and is the intersection of creative and tech industries.

- There is clearly a fruitful area for spillovers from creative businesses into tech driven business developments, in providing content and user-experience for Tech driven platforms. For example, one investor cited by Tech Nation⁴⁴ is focused on the so-called “passion economy” where new tech platforms allow individual micro-entrepreneur creatives to sell products to large audiences”. On a bigger scale, the World Economic Forum⁴⁵ concluded in an overview of the most prominent Creotech concept, the Metaverse, that “experiences instead of technology will play a huge role in how we understand the metaverse and what business models can be created within it.” The nature of these business models will depend upon **the evolution of regulation of the Metaverse.**

⁴³ <https://creativeindustriesclusters.com/>

⁴⁴ Tech Nation the Creotech Report 2021 Mapping the intersection of technology & creativity <https://technation.io/the-creotech-report-2021>

⁴⁵ World Economic Forum: This is how the metaverse will be monetized <https://www.weforum.org/agenda/2022/02/metaverse-monetization-business-guide/>

- However, policy makers focused on the Creative Industries need to be aware that spillovers can be in both directions. It is possible that the primary spillover benefit is from tech knowledge into the Creative Industries rather than the other way round. Analysis by BOP⁴⁶ found that machine learning was the most common technology exploited in Creattech ventures and observed that “most ‘creative technology’ is born out of computer science and engineering facilities, or R&D labs within tech-based corporates” with little obvious sign of input from creatives into the development of technologies. An area for policy examination might **be how to enable feedback from creative products and services into enabling technologies.**

Creative and health

There is long-standing interest in the role of arts and creativity in promoting health and well-being mainly concerning the health and well-being of individuals, but also the operation of the health care system.

- This has traditionally been about externalities, rather than spillovers, with a focus on the benefits to the health of individuals of engaging in arts activity. These are clearly demonstrated. For example, over 1000 randomised controlled trials have shown the health benefits of arts and cultural activity.⁴⁷ A Scottish study showed that people who have attended a cultural place or event in the previous 12 months are almost 60 per cent more likely to report good health compared to those who have not.⁴⁸ However, these benefits are now being more systematically deployed to create spillover effects within health care. Mechanisms to enable this include social prescribing⁴⁹ or using art in therapeutic contexts like hospitals.⁵⁰ These spillovers seem to have grown slowly, given the body of positive evidence, perhaps because of the lack of organic connection between the creative and health sector and limited transfer of staff. Or policy focus, albeit the Greater London Authority (GLA) is now exploring the concept of Creative Health & Wellbeing Zones that seek to coordinate policy within defined geographies to maximise uptake of social prescribing. **Policy attention might be able to promote links between the creative and health sectors as well as mechanisms to systematise approaches.**
- There is limited literature on spillovers from the creative sector into the business processes of health care. An Australian paper from 2008⁵¹ found extensive contributions from creative occupations to Australian healthcare. Key functions that creative activities addressed were information management and analysis and making complex information comprehensible, assisting communication, and reducing psycho-social and distance-mediated barriers, and improving the efficiency and effectiveness of services. Some of this seems to be coming to fruition, for example using AR and XR immersive technologies.⁵² Again, **given the scale of the health sector and importance of functions like managing and communicating**

⁴⁶ BOP A Framework for Classifying Creative Technologies 2021

⁴⁷ Clift, S. (2012). Creative arts as a public health resource: moving from practice-based research to evidence-based practice. *Perspectives in Public Health*, 132, 120-127

⁴⁸ Healthy Attendance? The Impact of Cultural Engagement and Sports Participation on Health and Satisfaction with Life in Scotland <http://www.gov.scot/Publications/2013/08/9956/0>

⁴⁹ <https://www.gov.uk/government/news/social-prescribing-schemes-across-england-to-receive-45-million>

⁵⁰ World Health Organisation Intersectoral action: the arts, health and well-being https://www.euro.who.int/_data/assets/pdf_file/0015/413016/Intersectoral-action-between-the-arts-and-health-v2.pdf

⁵¹ Pagan, Janet D. and Cunningham, Stuart D. and Higgs, Peter L. (2008) Getting Creative in Healthcare: The contribution of creative activities to Australian healthcare. Technical Report, Creative Industries, ARC Centre of Excellence for Creative Industries and Innovation.

⁵² The Promise of Immersive Healthcare, The Institution of Engineering and Technology, <https://www.theiet.org/media/9487/the-promise-of-immersive-healthcare.pdf>

sensitive and complex information, possible policy could have a positive impact in this area.

Creative and manufacturing

Manufacturing intersects with the Creative Industries in two ways. Some creative industry activity is itself manufacturing, notably artistic and craft production. These one-off products do produce limited spillovers into the wider economy, in the form of reproductions and connected merchandise. A more economically significant spillover relates to the role of creative occupations in adding value for manufacturing businesses – which is a particular characteristic of design skills and occupations.

- Popular conceptions of manufacturing focus on the production process, but, of course, products need to be designed before they can be produced. The role of design has long been a focus of policy attention, with the establishment of the Design Council in 1944 “to promote by all practicable means the improvement of design in the products of British industry.”⁵³ UK Government research has shown substantial minorities of UK manufacturing businesses also carrying out design.⁵⁴ Analysis by McKinsey⁵⁵ shows that firms with top-quartile design “increase their revenues and shareholder returns at nearly twice the rate of their industry counterparts”.
- Newer areas of spillover include use of immersive and imaging technology for lower cost and more flexible digital prototyping and management of production processes.⁵⁶

The UK’s manufacturing strength often remains in areas that the UK will seek to prioritise for levelling-up initiatives. How can strengthened linkages between the Creative Industries and manufacturing make these initiatives more successful?

Creative and net zero

There is a large quantity of grey literature on the Creative Industries and climate change and whole organisations dedicated to promoting creative sector responses to the net zero challenge.⁵⁷ However, these are mostly concerned with the decarbonisation of the creative sector. That is an essential activity but involves spillovers of knowledge and techniques into the creative sector, rather than a spillover from the creative sector to the wider economy in support of efforts to reach net zero. Nonetheless, there are a number of areas where creative industry knowledge and techniques are driving approaches to net zero.

- Producing more environmentally friendly design and architecture is a major issue for both professions. Designs produced for particular clients should spillover into wider construction or manufacturing industry practice, and policy measures are in place to encourage these. For example, the Design Council has been leading an initiative – Design for Planet - around ways in which design can create products with lower embedded or operational carbon footprints.⁵⁸

⁵³ <https://www.designcouncil.org.uk/who-we-are/our-history>

⁵⁴ BIS, Manufacturing in the UK: an economic analysis of the sector https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/31785/10-1333-manufacturing-in-the-UK-an-economic-analysis-of-the-sector.pdf

⁵⁵ The Business Value of Design, McKinsey Quarterly, October 2018, <https://www.mckinsey.com/business-functions/mckinsey-design/our-insights/the-business-value-of-design>

⁵⁶ High Value Manufacturing Catapult Immersive Technologies in Manufacturing 2018 https://www.immerseuk.org/wp-content/uploads/2018/07/HVM_CATAPULT_IMM_TECH_DL.pdf

⁵⁷ For example, Julie's Bicycle <https://juliesbicycle.com>, Cape Farewell <https://www.capefarewell.com>, World Cities Culture Forum Culture and Climate Change Report <http://www.worldcitiescultureforum.com/publications/culture-and-climate-change-report>

⁵⁸ Design Council <https://www.designforplanet.org>

Similarly, RIBA has a 2030 Carbon Challenge⁵⁹ with related goals. **What mechanisms might best help transfer innovative techniques into mainstream manufacturing and construction practice?**

- COVID-19 has shown how business can continue while dramatically reducing the need for physical presence, and hence carbon-emitting office space and transport. The ubiquitous Zoom and Teams communication technologies currently have user interfaces with low levels of creative intensity, but their mooted developments into technologies providing virtual presence (“the Metaverse”) will require more sophisticated imaging and interface techniques with spillovers from techniques derived from core creative sectors like games, film, and TV. However, concerns remain about whether this will really produce net reductions in carbon, given concerns about emissions from training AI models and minting NFTs.⁶⁰ **What are the key creative components required to make digital presence a real alternative to physical presence?**
- Other Createch ventures are more deliberately targeting net zero, mostly through the provision of informatics and machine learning approaches to data around climate sensitive activities. A survey of Tech Nation’s Net Zero climate tech growth programme shows that the majority of companies supported have this kind of Createch business model.⁶¹ **Are there other areas of creative knowledge or techniques that might support efforts to reach net zero?**

⁵⁹ Royal Institute of British Architects, <https://www.architecture.com/about/policy/climate-action/2030-climate-challenge>

⁶⁰ <https://medium.com/geekculture/how-green-is-the-metaverse-the-two-sides-of-the-environmental-impact-of-the-metaverse-6a35913fd329>

⁶¹ See for example <https://bx-earth.com>, <https://catagen.com/>, <https://www.earthblox.io/>, <https://emsol.io/>, <https://www.gardin.co.uk/>, <https://www.sourceful.io/>

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