Creative Industries
Policy and
Evidence Centre

Led by Newcastle University Business School with RSA

Government Submission

Invest 2035: The UK's Modern Industrial Strategy Creative PEC response

Creative Industries Policy and Evidence Centre

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SECTION 1: SECTORS

Sector Methodology

Q1. How should the UK government identify the most important subsectors for delivering our objectives?

The UK's creative industries are a major part of the UK economy, contributing over £108bn GVA (Gross Value Added), 2.3m jobs and representing around 5.6% of the UK economy. They are growing faster than the rest of the economy, outpacing national growth by a factor of two.

The creative industries are a heterogeneous set of sub-sectors, some business-facing, some household-facing. But what unifies them is that they are industries which specialise in deploying creative talent for productive purposes (Bakhshi et al., 2013). For statistical purposes, DCMS groups thirty-one 4-digit SIC codes (the creative industries) into nine sub-sectors (DCMS, 2016). However, there are overlaps. For example, 'TV, radio and publishing' and 'IT, software and computer services' are also included in the government's definition of the digital sector, exemplifying the importance of digital technologies to the creative industries.

The creative industries sub-sectors vary according to their specific strengths and economic contributions, as outlined immediately below. For this reason, it is particularly important that the Industrial Strategy plays to the distinctive strengths of each creative sub-sector, instead of having an exclusive focus on a few creative sub-sectors at the expense of others.

Each of the nine creative sub-sectors contribute to overall growth in the creative industries. The Creative Industries Policy and Evidence Centre (Creative PEC) undertook analysis into each sub-sector's share and annual % growth rate to calculate its percentage point contribution to the annual % growth for the creative industries in total for three measures: GVA (current and constant prices), employment and exports (current prices). Together, the charts underscore how the contributions of different sub-sectors vary depending on the measure and on the time period considered – these tables are available for review, please email emily.hopkins@pec.ac.uk to receive a copy.

For this response, we will summarise the high-level GVA findings. The IT, software and computer services sub-sector has generated the highest GVA for the creative sector at £53.4bn, representing 42.9% of creative industries GVA. This includes the video games industry, for which DCMS estimates its total GVA at £5 billion. Advertising and marketing generated £18.9bn in 2022, or 15.2% of creative industries GVA. Third highest is film, TV, radio and photography which generated £20.8bn, representing 16.7% of total creative industries GVA. Publishing generated £11.8bn, representing 9.5% of CIs GVA, but seeing a decline over the last decade. Music, performing and visual arts generated £11.3bn, which represents 9.1% of total creative industries GVA. Importantly, within these aggregate

figures for sub-sectors, specific components like the UK's recorded music market and online revenues through streaming have seen consistently rapid growth.

It may be tempting to use indicators like GVA growth to rank sub-sectors. However, this should be avoided: prioritisation should be grounded in a forward-looking assessment of growth potential, barriers and opportunities for effective policy support. Also, the DCMS sub-sectoral statistics, while immensely valuable, are necessarily aggregated and mask divergences at the more detailed level, some of which are obscured by limitations in the Standard Industrial Classification (SIC) and by the small sample sizes in official surveys which prevents release of the data at the fine-grained 4-digit SIC level. As importantly, we should expect creative sub-sector priorities in the Industrial Strategy and forthcoming Creative Industries Sector Plan to vary according to the policy issue. For example, one sub-sector may be a high priority for public R&D investment, while another sub-sector may be a priority for skills development.

Creative PEC evidence also shows that the geography of the creative industries varies greatly across the UK (Siepel et al, 2020; Klinger et al, 2018; Siepel et al, 2023), so which sub-sector is the priority for local economic development will vary greatly according to locality.

As noted above, priorities should be based on a forward-looking assessment of the growth potential of the different sub-sectors not a simple extrapolation of the past, especially as the creative industries are being impacted on by major sources of structural and technological change (Schneider, 2023) and consideration of where government action can make most difference (Mazzucato, 2018; Hutton and Schneider, 2008; Bakhshi et al, 2011).

Last, but not least, beyond their economic importance, unlike many other priority sectors in the Industrial Strategy Green Paper, the creative industries also make significant social and cultural contributions to meeting the government's wider policy objectives. For example, access to arts, culture and creativity can improve individual wellbeing and promote community cohesion (Di Novo and Easton, 2023).

Q2. How should the UK government account for emerging sectors and technologies for which conventional data sources are less appropriate?

The emergent nature of some parts of the creative industries can make them ill-suited to Standard Industrial Classifications (SIC), which are set at only roughly 10-yearly intervals. Whilst official firm-level data coded to SIC remains important, it is not sufficient to account for these parts of the sector. In these cases, the government should go beyond SIC classifications and official data to explore alternative sources, including web-scraped data and text-mining techniques, working closely with the Creative PEC.

For example, the Creative PEC has previously used web-scraped firm data to identify over 700 creative microclusters (Siepel et al, 2020) – concentrations of creative firms at the

neighbourhood and street level – which contribute to local economic growth. Similar methods have also been used to map the Immersive Economy (Mateos-Garcia et al, 2018) and Video Games sub-sector (Mateos-Garcia and Bakhshi, 2016).

When it comes to official data, it is important to recognise that the creative industries – and other emergent sectors identified in the Industrial Strategy Green Paper – are not captured by any one Industry Section or Division. To ensure they are given due consideration in policy formulation, it is crucial that all ONS and government statistical publications, where the underlying firm-level data is coded at the 4-digit SIC level, include statistics for the creative industries using the DCMS classification (Bakhshi, 2023).

Business survey instruments that are used to collect firm-level data must also recognise the distinctive features of the creative industries. For instance, we know from pilot survey evidence that R&D investment by 'createch businesses (defined as those creative businesses where the development of new technologies or the adaptation of existing technologies in a novel way is a significant part of their business, and where creative businesses do not include creative businesses working exclusively in the IT/software sub-sectors) are disproportionately in arts, humanities and social sciences when compared with tech firms in other sectors (Siepel et al, 2022).

The Creative PEC, working with the CoSTAR Foresight Lab, is launching a new longitudinal business survey of creative firms, supported by DCMS and DBT (the Creative Business Panel). This will capture novel data on firm performance, operations, and use and innovation with advanced and emerging technologies. The UK government should work closely with the Creative PEC to ensure findings from this data source can be appropriately used to inform policy development.

Sectors

Q4. What are the most important subsectors and technologies that the UK government should focus on and why?

New advances in digital technologies are one of the most important drivers of economic growth and innovation in the creative industries. The Creative PEC's foresight report *Tomorrow Comes Today*, outlines key new technologies which we expect to impact on the creative industries in the coming years (Schneider, 2023). As well as presenting technology trends, the report discusses the opportunities, challenges and risks involved. A global analysis, the report also discusses UK-specific considerations, detailed below.

Digital advancements: Wider creative opportunities lie in advancements in technology and connectivity. Mobile technology, including the rollout of 5G and 6G, will decrease transaction costs and increase the geographic coverage, reduce latency, cut energy consumption and boost spectrum efficiency. Hardware advances like chips and deposition technologies will drive developments in computing power, packing more

computational power into a smaller physical space, using less energy to train and run AIs. Technological developments in areas like 3D printing and digital manufacturing will also support the shift from mass production and economies of scale to mass customisation and local production, particularly for creative sub-sectors like architecture and design.

Developments in AI and improvements in pattern recognition, natural language processing and visual perception: These will be adopted to solve classification, prediction and control problems to create value. Advances in AI and automation enable many tasks previously performed by humans to be produced by machines, with 'deep learning' methods learning directly from data without human intervention. This includes large language models (LLMs) trained on books and most of the internet, and multimodal models which learn and link objects (e.g. words to images) to generate learned content.

Reinforcement learning environments and imitation learning techniques are also developing, with reinforcement learning algorithms best suited for tasks that have a clear goal, where many random actions can lead to accidental breakthroughs. Imitation learning will be better equipped for more exploratory and open-ended tasks - for example, through immersive worldbuilding for storytelling. Creative content will be developed through wider AI technologies such as generative adversarial networks (GANs) and creative adversarial networks (CANs). Diffusion models like DALL-E2 are an additional type of generative model which generate photorealistic images and caption matching in a matter of seconds. Advances in generative AI are poised to unlock further value in the video games sector, which generates £5billion of GVA for the creative industries. It is also expected that AI will lead to advances in data-driven decision-making, which will have a positive effect on productivity.

Immersive technologies: There is a renewed focus on virtual reality (VR) and augmented reality (AR) as technology improves, prices fall and more content becomes available. Base functionality is improving rapidly. Following the success of Facebook's Oculus Quest 2, tech giants and hardware manufacturers are likely to enter or re-enter the VR market, driving further innovation. New tools support the creation of entire 'worlds' that can be plugged into various environments virtually on demand (for example, Metahuman and Microsoft's Flight Simulator). Haptic devices will also offer an extra dimension to the VR world.

Internet of Things: referring to the convergence of digital and physical worlds as the next stage in connectivity. IoT combines the Internet, near-field communications, hardware and embedded sensors with real-time localisation. Affective computing, enabled by the IoT, is another growing area of interest, with next-generation sensors picking up emotionally rich cues like facial expressions, hand gestures, eye gaze, vocal tone, head movement, speech frequency and duration. Paralleling these developments is the Tactile Internet (TI) – technologies that provide real-time transmission of haptic information to enrich feedback and experiences that could revolutionise live performances, participation in the arts and VR.

Platform economy: Digitisation creates opportunities for creative businesses and individuals to make a larger number of profitable products, lowering the revenue

threshold for profitability. Platforms benefit from a combination of high barriers to entry and network effects that can lead to sharply increasing growth rates. The rise of e-commerce and streaming services (platform, content creation, subscription-based streaming) is helping to drive the increase in digital trade across the UK's creative industries, highlighting an area for potential policy support. Online advertising and subscription-based models will continue to play a key role in the development of the platform economy.

Blockchain technology: This has the potential to bypass traditional intermediaries and funnel more revenue to artists. It is expected that Blockchain technology will support advancements in smart contracts, micropayment pricing and sophisticated paywall models to empower content owners. Blockchain technology also enables the creation of digital scarcity and exclusivity via authentication of original works and tokenisation.

The opportunities forged by technological developments must also be considered for the social, ethical and environmental challenges that they may raise, especially during a period of rapid expansion (Coldicutt et al, 2023). Questions of moral and human rights are coming to the fore as AI and automation become more prevalent, particularly in relation to intellectual property and impacts on creative workers. Concerns have been raised about the impact of AI on the quality and availability of creative jobs, the valuing of innovation over diversity and equality in the workforce, as well as the rapid need for technical skills development. The environmental impact of new technology use in the creative industries – including the data storage and computer power demanded by emerging technologies – create an important set of sustainability challenges, often in tension with the push to innovation.

Many of these creative industries technological trends come together under the rubric of 'createch'. The term has been widely used to refer to creative work drawing upon immersive, virtual/mixed/augmented reality and related technologies, but the scope and potential of createch is much broader than this. Creative PEC developed the following definition for createch: 'Those creative businesses where the development of new technologies or the adaptation of existing technologies in a novel way is a significant part of their business, and where creative businesses do not include creative businesses working exclusively in the IT/software sub-sectors' (Siepel et al, 2022).

Createch firms cut across the creative and digital industries and so do not fit neatly within existing industrial classifications However, there is a growing body of evidence demonstrating their economic growth potential and importance within the UK economy. For example, in 2018, Creative PEC research identified 1,000 immersive-specialist companies in the UK alone, employing around 4,500 people and generating £660 million in sales, potentially representing as much as 9% of the global market share (Mateos-Garcia et al, 2018).

In 2022 the Creative PEC undertook a firm-level survey of 361 R&D active companies in the UK, including createch and other technology companies (Siepel et al, 2022). It found that createch and other tech firms exhibit similar characteristics with respect to employment, turnover, investment in R&D, and growth. However, we also found

substantial differences in how createch firms organise and undertake their R&D. As a result, policymakers designing interventions to grow this sub-sector need to pay heed to the ways in which they differ from other tech companies. For instance, createch firms are far more likely to invest in R&D via spending on staff and contractor time than investing in physical assets or equipment. They are also much less likely to rely on specialised R&D departments and to on average rely on more freelancers (Siepel et al, 2022). This points to the value of targeted createch R&D programmes like the AHRC Creative Industries Clusters Programme and the new Co-STAR research and innovation infrastructure initiative.

In addition, the knowledge domains within which firms undertake R&D differs. Whilst createch firms draw on Science and Technology fields, they are also far more likely to draw on Arts, Humanities and Social Sciences fields than their tech counterparts: 48% of createch firms in our sample compared to 18% of tech firms (Siepel et al, 2022). As we discuss in our response to Question 10, the exclusion of AHSS disciplines from existing R&D tax relief risks denting our international competitiveness for high-growth createch firms. In 2022, 23 other OECD countries recognised AHSS in their R&D tax incentives (Bakhshi and Puttick, 2022).

Finally, we also see variation in the education backgrounds of those working in createch firms compared to other technology companies, highlighting specific skills needs for the sector (Mateos-Garcia, 2021). When we look at the educational background of key personnel in createch companies we find a strong presence of Arts, Humanities and Design degrees compared with the non-createch baseline, supporting the idea that companies at the intersection of the arts, creativity and technology need access to talent with skills that go beyond STEM alone.

SECTION 2: BUSINESS ENVIRONMENT

Business Environment

Q7. What are the most significant barriers to investment? Do they vary across the growth-driving sectors? What evidence can you share to illustrate this?

Creative PEC research has highlighted several key areas where creative firms face barriers to investment, whether that be in unlocking further external finance from private or public sources, or issues that cause creative firms themselves to under-invest. These include 'access to finance', 'skills and training', and 'R&D and innovation'.

Access to Finance: Given the smaller average size of creative firms compared to the wider economy, it is important to address barriers to growth and scaling-up. On access to finance, evidence suggests that current financial mechanisms may be ill-suited to support the unique growth patterns and risk profiles of the creative industries. Analysis by the Creative PEC of a Creative Industries Council survey of 575 creative firms found that creative firms are more likely to apply for venture capital than other firms, but in the end less likely to secure it (Di Novo et al, 2022).

The extent to which access to finance is an issue for creative firms also varies geographically: A survey of 976 creative firms in 2020 by the Creative PEC found that companies in creative microclusters (at a street, neighbourhood and town level) outside of London and the South East were more likely to view access to external finance as a barrier to growth (Siepel et al, 2020). The follow up survey also found that the companies in the sample reported substantial investment needs, with 78% requiring further investment, but 45% not having the resources for those to invest (Siepel et al, 2021).

Skills and Training: Ensuring that creative firms have access to high-skilled talent which can meet existing and future business needs is also crucial for increasing investment into and within the creative industries. For instance, access to the UK's creative talent is one of the three top motivations behind inward FDI into the creative industries (Jones and Maioli, 2023). The creative industries encapsulates a high-skilled and highly qualified workforce: 95% of creative workers are in 'higher-skilled' occupations, compared to 46% in the UK workforce as a whole, with three quarters holding a qualification to degree-level of higher (Giles, 2022). However, the creative industries also faces ongoing skills shortages and gaps, particularly with respect to more senior and high-skilled roles (Giles, 2022 and Giles et al, 2020) . These ongoing shortages reflect the overall need for greater sector recognition in education and skills policy overall. It is worth noting that whilst these skills challenges are seen across the sector, there is significant variation at a sub-sector level. For example, analysis of the Employer Skills Survey (2017) found skills shortages are higher in sub-sectors including ICT and digital; Architecture, and Design compared the wider economy (Giles et al, 2020).

Underlying barriers that are exacerbating these skills challenges are linked both to the supply of creative talent (skills provision and education) and demand (take-up of training and education provision by employers, workers, and future talent).

On Supply: A breadth of evidence highlights that a key supply-side barrier is the devaluing of creative education seen throughout the skills and education system in the last decade, particularly in England. Pressures on funding have limited funds for employing specialist staff, equipment and maintenance and risk undermining creative education pathways.

This has been reflected in declining-take up of creative subjects in schools, with enrolments in D&T GCSE in England declining 68% over the last decade (Design Council, 2024), and the share of GCSE entries in arts subjects declining 47% since 2010 (Ashton et al, 2024) . Enrolments in creative subjects at FE are also declining at faster rates than FE enrolments overall across the four nations (Carey et al, 2024). In England, there has been a 57% drop in creative subject FE enrolments between 2014/15 and 2022/23 (aged 19%), compared with a 31% drop across all subjects (Carey et al, 2024).

This stark decline also intensifies barriers of access and opportunity for minority groups and those from working class backgrounds into the creative industries, which currently is un-representative of the workforce as a whole. To highlight one dimension, in 2020, over half of the creative industries workforce was from a higher socio-economic background, compared to 38% across all industries, and between 2014 to 2020 the rapid growth of jobs in the sector disproportionately benefitted those from similarly privileged backgrounds (Carey et al, 2021).

Research has consistently shown that barriers to 'getting-in and getting on' in the creative industries begin in early-years and persist throughout a person's career journey (Carey et al, 2021 and Carey et al, 2023). For instance, young people from privileged backgrounds are far more likely to have engaged in cultural activities, and disadvantaged students less likely to participate in creative subjects at GCSE-level.

Challenges persist throughout the skills system, including to higher-education level. Given that three quarters of workers in the creative industries are educated to degree-level, with rates higher for design graduates (82%); Music, Performing and the visual arts (78%) and Architecture (75%) (Bloom, 2020). Funding pressures on higher education may threaten this route into the creative industries workforce.

These domestic challenges facing the UK nations' skills systems are compounded by barriers to foreign workers entering the UK creative workforce. Given the global nature of creative industries supply-chains, and reliance on highly specialised skills, access to a global labour market remains important for creative firms. In 2019 43% of creative industries employers tried to recruit foreign talent, compared to 38% across the Economy, mainly from the European Union (Bakhshi and Spillsbury, 2019).

Research by the Creative PEC into challenges facing creative SME's when it came to recruiting international workers following the UK's exit from the EU highlighted increased administrative burdens to process Visas; long-time frames in processing visa's not working

for the sector; and personal costs for workers themselves disincentivising applications (Haddoud et al, 2023).

On Demand: On the side of demand, investment in training and skills provision by creative firms remains a problem, with rates of training across the sector falling behind other industries (Carey et al, 2023). Indeed, only around half of creative businesses offered training to their staff in the last 12 months of data from the Employer Skills Survey 2017 (ESS) compared to 61% for the economy as whole. Only around a quarter of creative employers stated that training led to a nationally recognised qualification as against 42% of employers in the whole economy (Giles et al, 2020).

Creative PEC analysis of the Employer Perspectives Survey (2016) highlighted that the single most common reason (by some distance) in both the creative industries and whole economy that employers do not provide training is that they feel their staff are fully proficient and do not need training (64% employers in the creative industries, 67% in whole economy). Further barriers cited were: lack of funding or training being too expensive (57% of respondents); can't spare staff time (53%) and hard to find time to organise training (19%) (Carey et al, 2020). This is of particular concern in a policy context focusing more on ways to stimulate lifelong learning for workers, through their whole careers, to support ongoing employment and progression in a modern, and rapidly changing future world of work.

Employer engagement with education and skills provision also plays an important role in ensuring suitable match-fit of provision and industry need but remains low. For example, only 7% of creative businesses are accessing training through FE colleges and 13% with universities and higher education institutions compared to 17% and 9% for all industries (ESS). Partnership working is also more limited between businesses with only 14% of creative employers currently work with other employers to develop skills in their workforce. This is similar to the all industry average (Giles et al, 2020).

One reason for these low levels of engagement with FE and HE provision is the perception by creative employers that courses and subject matter is not relevant, with rates of creative employers citing this as a reason for not engaging slightly higher than the wider economy (Carey et al, 2023). Indeed, creative employers main reason for choosing private provision is the relevance of courses (Giles et al, 2020). This mismatch between industry need and training provision is a key issue in the skills system.

Worthy of specific mention is the incredibly low take-up of Apprenticeships by creative employers overall. Only around 5 % of employers in the creative industries reported that they employ at least one apprentice and a further 5% had offered Apprenticeships in the past (Giles et al, 2020). The level of engagement in the creative industries is also well below the level across the whole economy (i.e. 11 % of all employers nationally employed apprentices and 7 % offered them). More recent analysis suggests that engagement levels remain low (Carey et al 2024).

Previous evidence from the Employer Perspective Survey (2016) suggests this low take-up is not due to lack of awareness. Key barriers cited include: not suitable because of size of business (25%), not looking to recruit new staff (18%), don't suit business model (11%)

(Carey et al, 2020). These findings are consistent with more recent research calling for significant changes within the existing Apprenticeship scheme, including to convince employers to invest in them (Carey et al, 2024 and Communian et al, 2023).

Whilst recent changes to the Growth and Skills Levy aim to allow for more flexible apprenticeships, and to fund a broader range of vocational and technical training, that betters suit the needs of the sector, future developments will need to be kept under close review to ensure these meet business as well as learner need.

There is also a need to better foster a culture of continued professional development, not only with employers but also with creative workers. The Creative PEC's Good Work Review found that rates of creative employees undertaking formal training were below the average of the UK economy as a whole, with some of the lowest rates found in sub-sectors including Publishing, Design and Crafts sub-sectors (Carey et al, 2023).

Finally, self-employed workers play a disproportionate role in the UK creative industries workforce: accounting for a third of all workers, compared to around 16% in the UK workforce as a whole (Easton and Beckett, 2023). Creative PEC analysis of the Employer Skills Survey (2017) found that only one in ten creative freelancers/self-employed had engaged in on-job training within the last three months (Carey et al, 2023), with barriers including 'time', 'cost' and 'flexibility with work commitments' holding back investment.

R&D and Innovation: Creative PEC research shows that creative industries firms make an outsized contribution to R&D in the UK economy, accounting for 11.5% of Business Expenditure on Research and Development (BERD) in the economy (Bakhshi, 2022). This is higher than the creative industries share in GVA (5.8%) calculated on the same basis using ONS data, meaning that they make a significant contribution to R&D overall.

However, creative industries rely extensively on the Arts, Humanities and Social Science (AHSS) disciplines in their R&D. A DCMS survey of R&D in the creative industries from 2020 found that over half of firms reported carrying out R&D according to the OECD Frascati Manual, which includes AHSS in its definition, but this dropped to only 14 per cent when using the UK government R&D definition for tax relief (Bird et al, 2020). Importantly, in not recognising AHSS R&D, HMRC's current practice is out of step with 23 other peer countries (including France, Italy and South Korea) that do include these disciplines within their definitions of R&D for R&D tax relief purposes, risking our international competitiveness (Bakhshi and Puttick, 2022).

Forthcoming research from the Creative PEC also shows that the creative industries are under-represented in overall UKRI investment - with a share of only around 1.3% on average over the 2013-2023 period, considerably lower than their economic contribution in value added. The analysis further highlights the importance of strategic UKRI investments into the creative industries, including Arts and Humanities Research Council (AHRC) investments such as the Creative Industries Clusters programme and CoSTAR, without which their share would be even lower.

Not only would increased public R&D funding help to reduce barriers to investment and unlock wider innovation across the creative industries, but it would help to support the Government's wider policy objectives as captured in the five missions. Successful interventions such as the AHRC's aforementioned Creative Industries Cluster Programme highlight the ways in which public investment in R&D can leverage significant additional private investment (AHRC, 2024).

Business Environment - People and Skills

Q8. Where you identified barriers in response to Question 7 which relate to people and skills (including issues such as delivery of employment support, careers, and skills provision), what UK government policy solutions could best address these?

Given ongoing skills shortages and challenges facing the creative industries, enhancing the relevance and responsiveness of the skills system across UK nations should be a priority. There are a number of developments that are needed end to end within the skills system to address these. Overall, enhancing sector recognition for the creative industries in future skills policy reform and across the whole policy cycle is needed, particularly to improve industry relevance and responsiveness to rapidly changing demands given the knowledge-intensive, technologically driven, and innovative nature of the creative industries.

The UK Government should work closely with Skills England, Devolved Nations and industry to develop a robust Labour Market Information framework and data for the creative industries (Carey et al, 2023). This should capture emerging skills gaps and impact of wider mega-trends such as technological change. This can guide the collection of economy-wide data, working with partners such as the ONS and should recognise the use of sector definitions for the creative industries as developed by DCMS and used for their Economic Estimates.

A robust LMI framework is a prerequisite to for Further, Higher and other Education providers to provide more tailored curricula and technical training that meets emerging skills needs and can address employer perceptions that courses are not relevant to their requirements. Better data will also be helpful for systems managing the update of National Occupational Standards to better reflect changing workplace competencies and emerging skills (Carey et al, 2023). The establishment of Skills England also provides a basis for re-establishing UK wide partnership working on shared skills products.

Creative PEC's Good Work Review (2023) shows how occupational licensing or professional accreditation schemes can help to frame what skills or qualifications are prerequisites for certain career pathways. The are already examples being deployed in the UK which could be extended to other areas. Government should explore with industry the potential for new occupational licencing and professional accreditation schemes in

creative sub-sectors. Examples like the National Council for the Training of Journalists (NCJT), which sets professional standards for journalists, shows how these can help to frame what skills and qualifications are pre-requisites for certain career pathways (Carey et al, 2023).

With moves towards the delivery of more modularised skills and training programmes across the skills system, there are lessons that can be drawn from other countries and applied to the UK skills systems. Shorter, non-linear qualifications pathways such as good-quality digital badging and micro credentials that can be accredited in conjunction with industry standards should be explored further (Carey et al, 2023). Some industry bodies operating in parts of the creative industries are already offering such industry-facing programmes such as TechSkills and there is room to consider how industry-led skills innovations could be expanded (Carey et al, 2023). Accreditation is particularly important for the creative industries, where only around 25% of training leads to a nationally recognised qualification, versus 42% of the wider economy (Giles, 2022). Pilots for digital badging and accreditation have been successful in different parts of the UK already, including via the Royal Society of Art's Cities of Learning scheme (Kenyon and Singh, 2023), and they provide the sort of flexibility that would benefit both worker and employer requirements. In addition, further Skills Bootcamps should be developed and tested in England for the sector, in partnership with industry.

Apprenticeships have been an area of policy focus for training the creative industries over the last decade. However, the incredibly low take-up by creative employers clear that apprenticeships in their current form do not work for many parts of the sector and are not perceived to be of value by many creative employers. Building on the recent flexi-apprenticeships pilots in the screen, a redesign of this scheme for the sector is needed, followed by a re-engagement campaign with creative employers (Carey et al, 2023 and Communian et al, 2023).

Alongside apprenticeships, there is a need to strengthen creative technical education and vocational pathways more generally, especially within our Further Education sector and by extending funding in areas of growing demand. Creative PEC research has highlighted that alongside stark declines in enrolments in creative subjects at FE-level (19+) across the UK nations, the policy challenge is greater than simply reversing this decline (Carey et al 2024). The same report finds a mixed picture of achievement and outcomes, with a need for sharper focus on the quality and labour market relevance of FE courses overall. It similarly finds un-even provision across parts of the UK, with FE opportunities more prevalent in urban areas. Finally, whilst FE can be good for diversity and inclusion, our analysis of the profile of learners in creative disciplines in FE shows this is not guaranteed (Carey et al, 2024).

The high proportion of self-employed in the creative industries – compounded by very low levels of recent training and CPD in the freelance workforce – highlights the importance of ensuring that policy solutions focused on up-skilling meet the specific needs of freelancers. Specific barriers holding back creative freelancers from undertaking training opportunities include time, cost, and flexibility with work requirements (Carey et al, 2023).

UK Government should consider how strengthening baseline protections for the self-employed through the forthcoming Employment Rights Bill, could help create the conditions needed to incentivise freelancers to undertake training opportunities. Consideration should also be given to the feasibility of special protection schemes for Creative workers, including soft loans, flexible financial products and insurance schemes. (Carey et al, 2023). Programmes like the Lifelong Learning Entitlement (LLE) also offer potential to enhance learning for creative freelancers: sector-specific pilots of provision that can support creative freelancers to utilise the LLE effective should be considered.

Consideration should also be given to how freelancer training can be better incentivised through other forms of funding, particularly for those from less advantaged backgrounds who may hold less disposable funds. The UK Government should consider how reforms to the UK Growth and Skills Levy might provide funding for the self-employed as well as firms wishing to up-skill their existing or future employees. Our research has also found backing for training activities and courses offered through Creative Trade Unions and Professional Bodies in Scotland, Wales and Northern Ireland, including the Union Learn Fund and Federation of Entertainment Unions Freelancer Training (Carey et al, 2023).

With the UK Government committed to a programme of devolution, and deepening and broadening deals at a regional level, this provides further opportunities to build the capacity and capability of skills networks for the creative industries. Our work with Arts Council England and the RSA has also highlighted the potential of Creative Corridors in skills development, where creative clusters and micro-clusters are joined-up over a large geographic area under coordinated policy (RSA & Creative PEC, 2024). Such corridors may stimulate further labour mobility and address skills mismatches at a local level by aligning skills strategies across administrative boundaries. Our stakeholder workshops with industry brought to life the various opportunities inherent in corridors, not least in better connecting local businesses with apprentices. Participants saw the potential in "skills coordinators" or "regional skills agencies" that could act as mediators between different education and training pathway partners in place.

Policy developments to strengthen local skills ecosystems through LSIPS have already unlocked additional sector investments locally. See, for example, the skills clusters serving the screen industries which have been funded by the BFI (Carey et al 2024).

Q9. What more could be done to achieve a step change in employer investment in training in the growth-driving sectors?

Skills underinvestment remains a problem in the creative industries, as it does with the wider economy. That said, despite falling levels of employer investment in training 43% of creative industries recognise that their training behaviour needs to change and want to train more but are prevented by prevented by barriers (Giles 2022).

Increasing and strengthening mechanisms for co-investment in skills by creative industries employers and public bodies would not only help to widen levels of

commitment from employers in training and up-skilling, but also better ensure the responsiveness of the skills system (Carey et al, 2023).

The establishment of the new skills oversight body in England, Skills England, offers the potential to revisit, better co-ordinate and enhance mechanisms for greater employer skills investment in future, including in the creative industries. Skills England should work with industry to ensure that there is balance in the policy measures, programmes and priorities to work with industry across the UK i.e., nationally, sectorally and sub-nationally in different nations and regions.

The Creative PEC's Good Work Review (Carey et al, 2023) acknowledges the importance of existing public funding streams for skills developments, but also highlights opportunities for better leveraging firm investment, through national, sub-national and sectoral levers. The OECD's research also provides vital information from different countries about the range of different employer incentives that can be used under different conditions (eg OECD 2017). It is important that any future instruments are customised appropriately to the different employer networks they serve and that funds generated by employers are clearly hypothecated in how they are spent. We explore the potential of some further policy developments with potential benefits for the creative industries below.

National policy levers: The government's stated intentions for a flexible Growth and Skills Levy to replace the Apprenticeship Levy offers an opportunity to better spread funding among learners of all ages and career stages, though it is important that Level 2 and 3 apprenticeships aren't neglected in the process (Carey et al, 2023).

Sector focused actions: Skills Sector Funds exist for some parts of the creative industries such as the screen-sector, and in some devolved nations and regions. In essence, such funds pool resources from a mixture of sources and are used to support and deliver training, both for employees and creative freelancers. UK Government should work with industry to explore whether such Funds should be established for other creative sub-sectors and in other parts of the country (Carey et al, 2023).

Existing Sector funds may also need reforming to properly make good on their promise. Currently, levies are largely voluntary in nature with capped contributions, meaning that they aren't always able to properly respond to shortages and the need for development. Developing sector-specific skills levies should be considered in the new industrial strategy and there a few routes that might be pursued to make them more robust:

- Scaling up the level of firm contributions.
- Making funds as flexible to businesses and learner needs as possible.
- Intermediaries and other partners playing a mediating role in fund management and utility.
- Strengthening employer ownership of skills development by incentivising employers in receipt of benefits, such as sector specific tax relief, to produce Employment and Skills Plans. (Carey et al, 2023)

As mentioned above, the number of self-employed workers in the sector means that any consideration of 'employer investment' also needs to consider the unique position of self-employed workers. The government should work with industry partners to support creative workers to identify and take up training opportunities where they can. The Good Work Review draws attention to devolved government schemes such as the (now disbanded) Screen Scotland Development Fund or the Northern Ireland Screen Skills Fund, which offer financial aid for creative workers looking to upskill (Carey et al, 2023).

A stronger emphasis on place-based approaches to the skills system, including via local skills improvement plans, can potentially also help to leverage greater funding. Our research on the Thames Estuary Production Corridor demonstrates how industry and education partners across the region pooled their resources to target specific creative clusters. A combination of local and national funding has been used to support mixed delivery models that draw from different parts of the skills system in order to provide a flexible, responsive system, and support more engagement between educators and employers (Giles and Carey, 2021).

Business Environment – Innovation

Q10. Where you identified barriers in response to Question 7 which relate to RDI and technology adoption and diffusion, what UK government policy solutions could best address these?

First, the UK Government should recognise Arts, Humanities and Social Sciences (AHSS) R&D in its definition of R&D for R&D tax relief purposes, which will benefit sectors like the creative industries that invest disproportionately in AHSS R&D, thereby incentivising even greater investment in R&D, as recommended by the Council for Science and Technology's Review on R&D in the creative industries (Council for Science and Technology, 2023). Currently HMRC explicitly excludes these disciplines from eligibility for R&D tax relief.

Creative PEC research shows that creative industries firms make an outsized contribution to R&D in the UK economy, accounting for 11.5% of Business Expenditure on Research and Development (BERD) in the economy (Bakhshi, 2022). This is higher than the creative industries share in GVA (5.8%) calculated on the same basis using ONS data, meaning that they make a significant contribution to R&D overall.

However, creative industries rely extensively on the Arts, Humanities and Social Science disciplines in their R&D. A DCMS survey of R&D in the creative industries from 2020 found that over half of firms reported carrying out R&D according to the OECD Frascati Manual which includes AHSS in its definition, but this dropped to only 14 per cent when using the UK government R&D definition for tax relief (Bird et al, 2020). Importantly, in not recognising AHSS R&D, HMRC's current practice is out of step with 23 other peer countries (including France, Italy and South Korea) that do include these disciplines within their

definitions of R&D for R&D tax relief purposes, risking our international competitiveness (Bakhshi and Puttick, 2022).

Creative PEC researchers have combined the findings from a 2021 PEC survey of 361 R&D active businesses in the creative and high-tech sectors who had received funding from UK Research and Innovation (UKRI) research councils or from Innovate UK with ONS data on Business Enterprise Research and Development (BERD), to estimate that in 2020, creative industries firms may have invested in as much as £321 million in AHSS R&D, or around 9.7% of total creative industries BERD (Siepel and Bakhshi, 2023). They would invest considerably more if they benefited from the same tax reliefs that are enjoyed by STEM R&D.

Adopting the more inclusive definition of R&D set out in the OECD's Frascati Manual for R&D definitions, which recognises AHSS R&D, would incentivise even more R&D investment in the creative industries, supercharging creative industries innovation and growth.

A second policy recommendation is that the UK government commits to increasing the share of UKRI investment going into Creative Industries R&D. This is consistent with the conclusions of the Council for Science and Technology's Harnessing Research and Development in the UK Creative Industries report which recommended that "public investment into R&D in the creative industries should be reflective of the size, economic contribution, and future growth potential of the sector" (Council for Science and Technology, 2023).

Forthcoming research from the Creative PEC shows that the creative industries are under-represented in overall UKRI investment - with a share of only around 1.3% on average over the 2013-2023 period, considerably lower than their economic contribution in value added. The analysis further highlights the importance of strategic UKRI investments into the creative industries, including Arts and Humanities Research Council (AHRC) investments such as the Creative Industries Clusters programme and CoSTAR, without which their share would be even lower.

Not only would this increased public R&D investment unlock wider innovation across the creative industries, but it would help to support the Government's wider policy objectives as captured in the five missions. Successful interventions such as the AHRC's aforementioned Creative Industries Cluster Programme highlight the ways in which investment into R&D can also help to develop wide ranging socioeconomic benefits in local economies (AHRC, 2024). Creative industries R&D programmes at stimulating greater cross-sector innovation would allow the UK to harness its strengths in the creative industries to tackle societal challenges. Research published by DCMS and Creative PEC in 2023 adds to the growing body of evidence that the creative industries make other sectors more innovative through supply chain linkages (DCMS and Creative PEC, 2023).

For example, the creative industries will play a key role in supporting the UK government's climate-focused missions and should be considered to be a core sector within the upcoming Green Prosperity Plan, Building on Creative PEC and Julie's Bicycle's previous

overview of the role of the creative industries in achieving net zero (Creative PEC and Julie's Bicycle, 2022), further reviews and industry-led action on this topic are needed. Creative PEC will be undertaking a further in-depth enquiry on the topic of the creative industries and the climate crisis alongside wider partners.

There is an important place-based dimension to creative industries R&D and innovation policy. Like other R&D-intensive sectors, R&D strengths in the creative industries vary greatly across the country. Forthcoming research from the Creative PEC examines the network of R&D collaborations underpinning UKRI-funded creative industries R&D activity. Two places can be connected by virtue of their universities or businesses collaborating with each other in R&D projects.

The research confirms the central role played in the network by organisations based in London and the South of England, but also finds that many organisations in other parts of the country, like the North, function as bridges, linking otherwise unconnected parts of the UK. This 'hidden' role played by Northern universities and businesses needs to be considered in public investment strategy.

Business Environment – Data

Q12. How can the UK government best use data to support the delivery of the Industrial Strategy?

Accurate and timely data should play a critical role in supporting the formulation, design, delivery and evaluation of the Industrial Strategy. In previous UK industrial strategies, a lack of data on the creative industries has held back the development of policies to support their growth. However, in several key areas (R&D, Innovation & Clusters; Creative Education, Skills & Talent; Internationalisation; and the Arts, Culture & Heritage Sectors), this is no longer the case. To this end, the Creative PEC has begun publishing for policymakers regular, data-rich State of the Nations reports in each of these four areas (Creative PEC, no date).

Data should play a role in informing clear and transparent priorities for policies in the creative industries. This should include in setting out commitments to SMART (Specific, Measurable, Achievable and Time-bound) quantitative policy objectives. DCMS should also continue to invest in its Sectors Economic Estimates so that they maintain their accreditation as National Statistics. This includes retaining its use of a rigorous data-informed methodology for deciding upon which Standard Industrial Classification (SIC) codes to include in the creative industries for measurement purposes when the UK adopts a revised SIC next year.

Finally, the government should also commit to collating and collecting other high-quality and timely data, working closely with the Creative PEC, to help it assess its performance against its creative industries policy objectives. Alongside this, as for all eight priority sectors in the Industrial Strategy, the government should also commit to adhering to the six guiding principles for monitoring and evaluation as set out in the Department for Business and Trade's Monitoring and Evaluation Strategy (DBT, 2022).

Q13. What challenges or barriers to sharing or accessing data could the UK government remove to help improve business operations and decision making?

There are currently avoidable deficiencies in government and ONS statistical releases which hinder good policymaking and business decisions (Bakhshi, 2022). As noted earlier, the DCMS statistics for creative industries are based on sub-sectors identified by the finely grained level of four-digit codes in the Standard Industrial Classification, used by the ONS to classify businesses by their activity type. These play an essential role in standardising across government and industry our quantitative understanding of the economic contribution of the creative industries. However, the sectoral statistical releases published by other government departments and ONS typically use lower resolution two- or three-digit SIC codes that aggregate creative sub-sectors with non-creative industries.

This approach has the side effect of excluding estimates for the creative industries. As a result, even where data is available in principle, the contributions of this sector remain hidden in policy assessments or, worse still, are confused with the category of arts, entertainment and recreation, a sector which is separately identified in the SIC. A case in point is sectoral statistics for graduate outcomes published by the Department for Education which report graduate earnings by sector at the three-digit SIC level only, thereby precluding estimates for the creative industries.

The ONS should also as a matter of course include in their regular bulletins statistics for the creative industries where the underlying firm-level data are coded to the 4-digit level. One example is the UK Innovation Survey which the ONS collects on behalf of DSIT. Another is the BERD survey. HMRC should also publish regular figures for R&D tax relief enjoyed by the creative industries and their constituent sub-sectors.

The DCMS should also resume publishing estimates of the number of jobs in creative occupations outside of the creative industries as part of its Sector Economic Estimates. As well as obscuring the economic importance of creative work in the wider economy – previous research showed that there are in fact more jobs in creative roles outside the creative industries than within (Higgs et al, 2008). This decision may have had the unwelcome effect of unhelpfully narrowing the scope of key policy discussions such as about creative skills and education, where the benefits of effective policy action far exceed the interests of the creative industries.

Finally, government actions to improve access and sharing of data need not just be restricted to its own or official data. Policymakers may also have a role to play in incentivising industry to share data. One potentially important, but difficult, area is growth finance, where Creative PEC research has argued a key factor holding back the development of a more liquid market in growth finance is a paucity of public data on investment returns in creative industries firms (Franklin, 2024). Policymakers should consider whether they might incentivise more data sharing through coordinated action with investors.

Business Environment - Crowding in Investment

Q21. What are the main factors that influence businesses' investment decisions? Do these differ for the growth-driving sectors and based on the nature of the investment (e.g. buildings, machinery & equipment, vehicles, software, RDI, workforce skills) and types of firms (large, small, domestic, international, across different regions)?

We focus here on factors influencing overseas investors in the creative industries and inward FDI into the creative industries. The UK continues to be a competitive destination for inward foreign direct investment (FDI), into the creative industries, with the sector accounting for an outsized share of 10% of all UK inward FDI projects over the last decade (Jones et al, 2024). Globally, the UK is the second most popular location for creative FDI, following the USA. Considered by project count using the Orbis Crossborder Investment Database, inward creative FDI is principally concentrated in a few sub-sectors: 'IT, Software and Computer Services'; 'Advertising and Marketing' and Film, TV, Video, Radio and Photography' accounted for 90% of all inward creative FDI projects by count in 2023, although we are seeing growing shares in some sub-sectors. Inward FDI into the creative industries is predominantly directed towards London and the South East. However, other regions in the UK attract a higher proportion of FDI projects relative to the size of their local creative industries, with a varied pattern of concentration depending on creative sub-sector. For instance, we find high concentrations of inward FDI projects in 'Publishing' in the North West of England; 'IT, software and Computers Services' in Northern Ireland and Scotland; and 'Advertising and Marketing' around Bristol (Jones et al, 2024). This is important to highlight, because the motives behind FDI decisions vary depending on sub-sector and UK region.

Previous Creative PEC research has examined the motives of inward foreign direct investors into the UK creative industries with respect to New, Expansion or Co-Location projects spanning an eight-year period between 2013 and 2021 (Jones and Maioili, 2023). They find a range of significant factors determining the specific location decisions of foreign investors. The importance of these factors varies by region, with London found to be notably important for market access, and Northern Ireland important for availability of resources (including the presence of a skilled workforce). Across all regions, institutional

and agglomeration factors are significant for foreign location, including the business environment, government support, access to finance, industry clusters, infrastructure and the presence of universities/researchers and technology and innovation.

However, Mergers and acquisitions (M&As) account for a higher proportion of FDI projects in the creative industries compared to the wider economy, and this is trend growing. M&As accounted for 64% of all creative FDI projects in the last three years, compared to roughly a third in the rest of the economy, with higher concentrations in some sub-sectors like publishing (Jones et al, 2024). Our most recent research on FDI also analyses the rationales behind inward investors of mergers and acquisitions (M&As) projects over the period 2013-2023 (Jones et al, 2024).

M&As overwhelmingly result in full foreign ownership of creative firms (80%), with motivations behind creative M&A investments largely associated with access to talent, technology, creative content and media. These show the likely "pull" factors of the UK's creative industries for international investors. Within the IT, software and computer services sub-sector there is also a prevalence of projects relating to 'games' and 'software' activities (Jones et al, 2024).

Critical attention should be given to improving evidence on the positive and negative impacts of M&As on the UK's creative industries and their broader growth potential – especially given the risk of British creative IP increasingly becoming commercialised overseas, with returns and growth then occurring outside of the domestic economy.

Business Environment - Mobilising Capital

Q22. What are the main barriers faced by companies who are seeking finance to scale up in the UK or by investors who are seeking to deploy capital, and do those barriers vary for the growth-driving sectors? How can addressing these barriers enable more global players in the UK?

While the creative industries firms are more likely to be innovative, the nature of innovation in the sector can be less observable and tangible to investors, which creates difficulties when accessing external finance and/or investment. Analysis by the Creative PEC of a survey from the Creative Industries Council (CIC) of 575 creative firms in 2017 confirms that access to finance – whether equity, debt or grants - remains a pressing issue for creatives businesses seeking to scale up, who often identify this as a major barrier to growth (Creative Industries Council, 2018). While many creative industries firms say they desire to grow (73% of firms in the survey), and can identify investment opportunities, they require support to become "investment ready".

Further Creative PEC analysis of the same data found that, in the case of creative businesses, prior innovation activities appear not to provide quality signals to funders in contrast to other sectors (Di Novo et al, 2022). In the absence of formal capital, these creative businesses are less likely to secure finance in comparison to other innovative firms and more likely to rely on informal and personal funding – which, given the status, class and personal privileges for participation within the creative industries, means that minority-led businesses may face additional struggles to source finance.

This year, Creative PEC published research using data from Deal Room looking at venture capital (VC) and angel investments as routes to finance for creative businesses (Siepel et al, 2024). 85% of venture capital and angel investments in the creative industries between 2013 and 2023 were made in IT, software and computer services, with 3% of investments each in advertising and marketing; design; and film, TV, video and radio. The overall share of non-IT, software and computer services investments in creative industries firms dropped from 7% in 2013 to just 2.5% in 2023. This highlights the specific barriers to finance for creative sectors outside of IT, software and computer services, despite their innovative activity.

There is also a geographical dimension to the availability of venture capital and angel investment for creative businesses, with 63% of all investments made in London and the South, compared with 11% in the North of England (6% in the North West, 3% in Yorkshire and the Humber, and 2% in the North East), 5% in Scotland, and 2% in Wales and Northern Ireland over the decade.

Whether or not a creative firm is located in a creative cluster also affects their ability to access finance. Previous Creative PEC research has found that creative businesses in creative clusters outside London and the South East of England are more likely to report lack of access to external finance as a barrier to growth (Siepel et al, 2020).

This particularly affects creative firms outside of the major clusters around the country: the Creative PEC's Creative Radar survey of creative firms in 2020 found that creative businesses inside creative microclusters but outside the 55 creative clusters as identified by DCMS reported higher growth ambitions (Siepel et al, 2020), but also were more likely to see access to finance as a barrier to their growth, indicating this as a possible cause of persistent regional inequalities in the creative industries (Tether, 2019; Siepel et al, 2024).

Access to external finance plays an important role in enabling UK creative firms to scale-up and become 'global players' – here understood as engaged in inward or outward FDI, or exporting. Analysis of data from the Creative Industries Council's survey of 575 creative firms by the Creative PEC found a higher engagement of exporting creative businesses with financial instruments compared to non-exporting ones – such as loans from banks, business credit cards, crowd-funding and equity investment, as well as funding from public bodies (Di Novo et al, 2021). 53% of exporting creative firms in the same survey also saw lack of access to external finance as a barrier affecting business operations, including exporting. Further analysis using firm-level data has found that firm liquidity was a positive and significant determinant of export behaviour as measured by share of firm turnover generated overseas, re-iterating the important role that access to finance plays in

enabling creative firms to develop and implement internationalisation strategies and become 'global players' (Jones et al, 2024).

As previously discussed in Q21, there are potential risks with the high proportion of inward M&A projects for long-term growth and retention of IP and skills in the UK's creative industries. In 2021, while there is a substantial amount of M&A activity in the UK, concerns are raised about the tendency of UK businesses to sell to international companies and the long-term implications of this loss of ownership for the UK's potential businesses. For example, the video game sector has seen 118 transactions where a UK-incorporated video game studio has been acquired by overseas buyers since 1993 (Oxford Economics, 2023). There is a need to address barriers to finance and investment, with the M&A landscape showcasing the concerns that UK businesses are retaining their world-leading creative IP.

Q23. The UK government currently seeks to support growth through a range of financial instruments including grants, loans, guarantees and equity. Are there additional instruments of which you have experience in other jurisdictions, which could encourage strategic investment?

One alternative financial instrument for driving growth is impact investment, which currently has a growing market as investors increasingly want to use their capital in ways that benefit stakeholders and contribute to solutions. The creative industries are effective in delivering positive social and cultural outcomes – the complexity, experimentation, collaboration, imagination, and ingenuity of these sub-sectors (particularly those using digital technology) are useful elements for addressing societal challenges. However, it does mean that impact delivered by the creative industries is more diffuse and can be less demonstrable for investors.

As shown in Q22, creative industries struggle to be understood by investors, impacting their access to finance and development capital. Impact investment into the creative industries has the potential to introduce new, affordable, patient, and flexible capital while also stimulating new mindsets and behaviours around innovation and long-term thinking (Sanderson et al, 2023). A key example of the successful impact investment initiatives supporting creative industries include the Upstart Co-Lab in New York City, and the Figurative not-for-profit offering repayable finance for arts and cultural organisations in the UK (building on a previous Arts & Culture Finance initiative at Nesta which invested £14.6million into 51 creative organisations in the UK).

Business Environment - Trade and International Partnerships

Q25. Which international markets do you see as the greatest opportunity for the growth-driving sectors and how does it differ by sector?

The UK creative industries are significant exporters. In 2021, the UK exported £45.6 billion in creative services and £9.1 billion in creative goods, making it the world's fifth and seventh-largest exporter in these areas respectively (Maioli et al, 2024). Creative service exports grew at three times the rate of service exports overall between 2010 and 2021, and now account for 14% of all UK service exports (Maioli et al, 2024).

Whilst destinations of creative industries exports in goods and services have shifted since 2016, Europe remains the largest export destination for UK creative services at 45% of exports in 2021 (Gunn et al, 2024). North America has seen a growing share of creative service exports, rising from 24% in 2016 to 39% in 2021 (ibid.). These remain important export destinations across creative sub-sectors and should be prioritised in future trade policy and partnerships.

Analysis of destinations of creative service exports in 2021 highlights other important destination countries for specific creative sub-sectors. For instance, in 2021, 75% of Architecture service exports were directed to Asian countries (Maioli et al, 2024).
With respect to creative goods exports, Europe similarly remains the biggest export destination, accounting for 44% of all creative goods exports in 2021 compared to 36% in 2016. In contrast, creative goods exports to North America have dropped from 33% to 25% in the same period. Asia remains an important destination for UK creative goods – accounting for 26% of all creative goods trade in 2021.

At a sub-sector level, Crafts; music, performing and visual arts; and publishing are the three biggest sub-sectors in terms of share in goods exports. 48% of crafts exports go to Asia, while Europe remains the largest destination for both music, performing and visual arts (48%) and publishing (47%) goods exports (Maioli et al, 2024).

SECTION 3: PLACE

Place

Q26. Do you agree with this characterisation of clusters? Are there any additional characteristics of dimensions of cluster definition and strength we should consider, such as the difference between services clusters and manufacturing clusters?

With respect to the creative industries, Creative PEC agrees with the proposed definition of clusters. We define creative clusters as the tendency of creative businesses and workers to collaborate and compete in the same places. Notably, creative clusters are not simply where creative business and workers are concentrated. Rather, they are places with ecosystems that support investment in R&D and innovation, skills development and give creative firms access to finance.

Creative clusters have been identified at different levels of geography. In Creative PEC's earliest studies of creative clustering we identified clusters at the level of Travel to Work Areas (TTWAs): commuting zones identified by the Office of National Statistics (ONS) where workers are most likely to live and work (Chapain et al, 2010). These zones capture cities, towns and rural areas across the four nations of the UK. In later work (Mateos-Garcia and Bakhshi, 2016; Klinger et al, 2018) we used a range of novel data sources to map and characterise 47 creative clusters.

DCMS and Frontier Economics expanded this research to identify a further 8 creative clusters, bringing the total to 55 (DCMS and Frontier Economics, 2022). These creative clusters are largely identified in urban centres like London, Manchester and Cardiff, but also includes suburban areas such as Guildford, Bournemouth and Norwich. Recent analysis from Creative PEC's State of the Nations report, Geographies of Creativity, found that these 55 creative clusters continue to make an outsized contribution to the UK's creative industries – performing better than non-clusters against GVA, labour productivity and employment (Siepel et al, 2023).

In addition, creative microclusters have also been identified at a finer geographic scale. The Creative PEC's Creative Radar study identified 709 creative microclusters operating at a street, neighbourhood or town level across the whole of the UK (Siepel et al, 2020). A host of microclusters have been found to be in rural areas and coastal locations, highlighting the untapped potential and possibility for microclusters to act as drivers of growth located outside of larger, urban creative clusters previously identified (Velez Ospina et al, 2022).

In more recent work, the Creative PEC has introduced the emerging concept of 'creative corridors' (Siepel et al, 2023 and RSA and Creative PEC, 2024). A creative corridor consists of several creative clusters and microclusters connected over a large geographic area (i.e. across multiple administrative units such as local or combined authority areas) that are joined through coordinated policy.

The ambition of creative corridors is to stimulate economic growth by increasing linkages – be they supply-chains, research and development (R&D) partnerships, or networks of people in the labour market. Through this, the agglomeration effects often seen in creative clusters have the potential to grow at a larger geographic scale. The key focus is on collaboration rather than competition, to harness the collective strengths of individual clusters to reduce competition and instead promote unified strategies to overcome common challenges felt across the creative sub-sectors – such as skills development, R&D, access to finance and collaborative working.

Q28. How should the Industrial Strategy accelerate growth in city regions and clusters of growth sectors across the UK through Local Growth Plans and other policy mechanisms?

Effective creative cluster interventions already exist and can also help with the design and development of future policymaking. These interventions could be scaled up through a coordinated UKRI investment around clusters to generate further benefits.

One intervention that could be scaled through such investment is the AHRC Creative Industries Clusters Programme, in which universities play key roles as anchor institutions within regional innovation systems. A recent evaluation of the nine previous clusters highlights their potential impact on regional growth: they generated a total public and private co-investment of £277 million, supported 466 spin-outs, start-ups and scale-ups, trained: 5,007 people with new skills and led to 970 unique industry or academia R&D collaborations (AHRC, 2024). Creative PEC strongly supports further public investment in creative clusters, both as drivers of regional growth and to support the new Government missions around growth, sustainability and breaking down barriers to opportunities.

At a larger scale, recent Creative PEC research identified emerging creative corridors across the Four Nations (Siepel et al, 2024). The corridor concept has its roots in the theoretical frameworks of transport and innovation corridors, with a history predominantly in tech-based sectors within the US and Canada, which also aimed to harness the economic benefits of agglomeration to facilitate better partnering and sharing of resources both within and between regions. When we apply these concepts to the highly networked and innovative creative industries, we see a transformative opportunity.

Creative PEC and RSA identified a framework for creative corridor development, identifying four actions areas: fostering collaboration, elevating creative R&D and innovation opportunities, streamlining skills pathways and work opportunities, and boosting profile/attracting finance (RSA and Creative PEC, 2024). For creative corridors to be successful, these four areas would require effective coordination at a national and local level.

Pilots will be necessary to evaluate the impact of creative corridors and effectiveness of the policy framework. An emerging pilot, One Creative North, is developing across the

North of England. At the Convention of the North 2024, 5 Northern Mayors and industry leaders confirmed their commitment to the development of a pan-regional corridor and many industry leaders have signed a Northern Creative Corridor Charter in support of the initiatives (NP11, 2024).

A Creative PEC policy brief outlines the potential economic impact of the corridor: if finds that if the creative industries' 3% contribution to gross value added (GVA) in the North of England were to rise to be half of London and the South East's 10% share of GVA, it might lead to a GVA boost of £10 billion by 2030 (Easton et al, 2023).

SECTION 5: PARTNERSHIPS

Partnerships and Institutions

Q30. How can the Industrial Strategy Council best support the UK government to deliver and monitor the Industrial Strategy?

Delivery of the industrial strategy will require effective coordination across UK government departments, and with the development of Sector-specific plans to implement the industrial strategy. The new Council should in this respect adopt a similar approach to the previous Council's publication of Sector Deals (DBT, 2019). Such coordination is important for the creative industries. For instance, creative firms form a part of complex supply chains with other priority growth areas like 'advanced manufacturing' and 'digital and technology'. Emergent fields like 'createch' also sit across the priority sectors so identified and creative workers are prevalent in other growth sectors and will move between these sectors through their careers.

The Industrial Strategy Council could also play an important role in ensuring standardised and consistent approaches to monitoring, learning and evaluation are adopted across all the sector plans. The Council could also play a role in supporting effective coordination with existing sector bodies, like the Creative Industries Council, and the UK Government.

Q31. How should the Industrial Strategy Council interact with key non-government institutions and organisations?

The Industrial Strategy Council can support the Government by closely collaborating with key stakeholders leading research and policy advice for the UK's creative industries - such as ourselves at the Creative Industries Policy and Evidence Centre (Creative PEC), the Creative Industries Council (CIC), Creative UK, and other industry bodies. The Creative PEC's evidence and research on the creative industries will remain vital for shaping data-driven policies, filling evidence gaps and ensuring that the sector's growth, challenges, and opportunities are well understood. The CIC, with its industry expertise, plays a strategic role in advising the government on policy, while Creative UK is central for advocating for the needs of creative businesses. By engaging with these organisations, the Council can ensure that the creative industries are adequately represented and that government strategies are informed by sector-specific insights.

Furthermore, the Council can play a crucial role by contributing to possible creative industries working groups within DCMS, DBT and HM Treasury. By facilitating collaboration between industry, academia, and policymakers, the Council ensures that creative industries receive the support needed to foster long-term, sustainable growth.

About Creative PEC

The Creative Industries Policy and Evidence Centre (Creative PEC) supports the growth of the creative industries in the UK and internationally through the provision of authoritative research and policy advice. Funded by the Arts and Humanities Research Council and hosted by Newcastle University with the Royal Society of Arts, Creative PEC works with policymakers and industry to enable a thriving sector that plays a central role in generating growth and innovation. Our research is led by consortium partners at Newcastle University, the University of Sheffield, the University of Sussex, and Work Advance.

For more details visit www.pec.ac.uk or our social channels on Bluesky and LinkedIn.

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