

MAYOR OF LONDON

Sector Analysis and Evidence Base

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Contents

- 0.0 Introduction2
- 0.1 About2
- 0.2 Methodology and definitions3
- 1.0 The screen industries sector in the Thames Estuary Production Corridor.....6
- 1.1 The big picture6
- 1.2 Sector make-up and trajectory..... 11
- 1.3 Key sector strengths and opportunities.....26
- 1.4 Key barriers to growth and sector needs28
- 1.5 Building capacity and reaching potential.....30
- 2.0 Planning for screen production infrastructure.....33
- 2.1 Stage production spaces33
- 2.2 Workspaces for the screen industries.....38
- 2.3 Learning from elsewhere52

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0.0 Introduction

0.1 About

This document provides a summary of the screen industries sector from research undertaken between July-December 2021, commissioned by MHCLG to develop an evidence base and case for investment in cultural infrastructure in the Thames Estuary. Its primary purpose is to summarise and contextualise the key findings and emerging messages from the research, providing which underpins the development of a Road Map for Growth for the screen industries sector in the Thames Estuary Production Corridor, creating tools for local leaders to deliver cultural infrastructure that enriches communities and places.

Earlier research undertaken in 2017 revealed a growing screen industries sector across the Thames Estuary Production Corridor (TEPC). Since then, there has been an ambition from the TEPC partners to better understand the relevance of the sector for the region and to establish the steps to be taken to grow the screen industries sustainably and to allow the Estuary to become world leading in these areas.

This document presents an overview of key findings based on the quantitative and qualitative research to map, profile and understand the baseline and trajectory of the screen industries sector in the Thames Estuary. It also summarises qualitative evidence and key points provided by stakeholders through consultation.

The development of an evidence base and Road Map for Growth to support the screen industries sector is part of wider set of activities undertaken by the consultant team as part of this commission. This includes:

- The identification of potential development sites for new large-scale production facilities.
- The development of another evidence base and Road Map for Growth to support high growth of another creative sector: the fashion design and manufacturing sector.
- The development of actionable feasibility studies for identified projects in the Thames Estuary area.

About the Thames Estuary Production Corridor

The Thames Estuary Production Corridor is a significant programme uniting east London, the North Kent Coast and South Essex to build on the strength of the creative economy in the region. The goal is to create a world-class centre for creative and cultural production.

The Thames Estuary is backed by Government as the UK's biggest growth opportunity. The region has the potential to create 1.3 million jobs and add £190 billion to the nation's economy by 2050. The Thames Estuary is home to film studios and fabricators, dance schools and digital production houses, music and media facilities – all the building blocks of the UK's creative and cultural economy. The Thames Estuary Production Corridor harnesses this strong base.

0.2 Methodology and definitions

Methodology and evidence gathering process

The summary of the research presented in this report draws on a broad range of intelligence on the TEPC area and the screen industries sector.

The quantitative analysis has built on the evidence gathered in 2017 as part of the development of the TEPC Case for Investment and has drawn on several socio-economic datasets and sources for additional analysis, including ONS Annual Population Survey and Census data, Business Register and Employment Survey (BRES), Annual Business Survey and UK Business Count.

It also utilised qualitative information gathered through literature and policy review, qualitative mapping of key sector assets, case study and best practice research as well as engagement and consultation with a range of stakeholders (screen industries strategic bodies and agencies, regional stakeholders including TEPC partners and key sector gatekeepers, education institutions, facility operators and providers, and local businesses).

This mixed methodological approach has allowed data and information to be triangulated and assumptions to be tested and verified. It is expected that additional consultations will be carried out to test the emerging priorities and areas of actions and to finalise the Road Map for Growth.

Definitions

The screen industries sector is not straightforward to define, as it is variously used to refer to a set of sub-sectors, a set of outputs (products and services), and a set of inputs (production and distribution tools, underpinned by information and communication technologies). This means that mapping and quantifying the screen industries economy is necessarily imprecise.

The focus of the study is on the screen industries production sector. To assess this, a definition of the screen industries from the Department for Digital, Culture, Media and Sports (DCMS) has been used and the associated Standard Industrial Classification (SIC) activities have been classified using our knowledge of the sectors. The SICs have been used to map and analyse a range of socio-economic factors.

From the literature review and the DCMS definition, the screen sector encompasses four key industries:

- Film / TV and non broadcast content
- Games
- Animation / Post-production
- Digital/X Reality (incl. Virtual Reality, Augmented Reality and Immersive Technologies)

For the purpose of this commission focusing on screen production, we have defined and differentiated:

- The 'core' screen industries production sector, which includes activities ranging across Film/TV, Games, Animation and X Reality and working across content creation and development, production and post-production.

- The ‘wider’ screen industries sector, which investigates the range of activity that forms the wider creative value chain. This includes publishing and distribution activities, sound and photography, as well as related creative services such as media representation or advertising.
- The creative supply chain, which includes supply chain activities and spills outside of the creative and cultural industries as defined by DCMS, but that feed into the creative and cultural sectors and the screen industries sector. This includes manufacturing of products of wood and specialised construction activities (e.g. set construction, prop making)), freight transport and renting of equipment (e.g. logistic services for film production), catering services etc.

Disclaimer: Most of the datasets in the report are dated 2019 and 2020. They paint a picture of the screen industries sector slightly before or in the middle of the disruption caused by Covid-19, which has had a profound impact on many creative businesses and freelancers. While the figures need to be taken with caution, they should provide a good enough baseline to understand the high level growth trajectory of the sector in the Estuary.

The list of SIC codes used for the analysis can be found in the table below:

SIC code	Screen industries sector	Industry
58210 Publishing of computer games	Core screen industries production	Gaming
59111 Motion picture production activities	Core screen industries production	Animation / Post-production
59112 Video production activities	Core screen industries production	Film / TV
59113 Television programme production activities	Core screen industries production	Film / TV
59120 Motion picture, video and television programme post-production activities	Core screen industries production	Animation / Post-production
59133 Television programming and broadcasting activities	Core screen industries production	Film / TV
62011 Ready-made interactive leisure and entertainment software development	Core screen industries production	Gaming & Digital/X Reality
58290 Other software publishing	Core screen industries production	Digital/X Reality
59131 Motion picture distribution activities	Core screen industries production	Animation / Post-production
59132 Video distribution activities	Core screen industries production	Film / TV
59133 Television programme distribution activities	Core screen industries production	Film / TV
74203 Film processing	Core screen industries production	Film / TV
18202 Reproduction of video recording	Wider screen industries sector	Film / TV
60200 Radio broadcasting	Wider screen industries sector	Sound and Radio
18203 Reproduction of computer media	Wider screen industries sector	Gaming & Digital/X Reality
18201 Reproduction of sound recording	Wider screen industries sector	Sound
59020 Sound recording and music publishing	Wider screen industries sector	Sound
62020 Computer consultancy activities	Wider screen industries sector	Gaming & Digital/X Reality
62012 Business and domestic software development	Wider screen industries sector	Gaming & Digital/X Reality
74202 Other specialist photography (not including portrait photography)	Wider screen industries sector	Photography
78101 Motion picture, television and other theatrical casting services	Wider screen industries sector	Creative services
70210 Public relations and communication activities	Wider screen industries sector	Creative services
73110 Advertising agencies	Wider screen industries sector	Creative services

73120 Media representation	Wider screen industries sector	Creative services
90010 Performing arts	Wider screen industries sector	All
90020 Support activities to performing arts	Wider screen industries sector	All
90030 Artistic Creation	Wider screen industries sector	All
49410 Freight transport by road	Supply chain	All
51210 Freight air transport	Supply chain	All
50200 Sea and coastal freight water transport	Supply chain	All
77390 Renting and leasing of machinery, equipment and tangible goods not elsewhere classified	Supply chain	All
90040 Operation of arts facilities	Supply chain	All
16290 Manufacture of other product of wood	Supply chain	All

1.0 The screen industries sector in the Thames Estuary Production Corridor

1.1 The big picture

The screen industries sector in the UK is booming. There is currently an unprecedented level of activity in the production of film and television, and the immersive and games markets are flourishing. It is also driving growth and innovation in other sectors, and it has social and intrinsic benefits that compound its importance.

The sector is also constantly evolving because of technological innovations, increasing competition and changing audience preferences.

Growing the sector in the TEPC will necessary involve boosting its production capacity to respond to market trends and demand. This will also mean leveraging strengths in digital and creative tech – which are core and increasingly important parts of the screen industries sector.

1.1.1 Overview

Film and TV: The UK Film and TV industry is healthy and on a steep growth trajectory. It has been the fastest growing sector of the UK economy over the last five years. Against strong international competition, the UK benefits from several major advantages, including a generous tax relief system (up to 25% for film and TV productions) and a pool of skilled specialist labour.

- The latest data from the UK shows that the combined spend on film and high-end television production hit £3.3 billion in 2020¹. Even allowing for the impact of the pandemic on halting production activity, this is the second highest record of all time
- Recent government data shows that the creative industries contributed £111.7 billion to the UK in 2018, equivalent to £306 million every day. The film and television sector was responsible for nearly 20% for the total².
- The recent Screen Business report reveals the highest-ever return on investment to the UK economy of £13.48 billion from the UK's Government's screen tax reliefs from 2017-2019. The report shows that the tax reliefs generated record-breaking levels of production and jobs; grew local businesses and infrastructure expansion across the UK's nations and England's regions; attracted record levels of inward investment; boosted exports of UK productions and services internationally; and created wider economic benefits for other industries, including tourism and retail. The report also underlines how the strength and resilience of the screen industries pre-pandemic has enabled the production sector to bounce back effectively and

¹ Film, high-end television and animation programmes production in the UK: full-year 2020, BF1 Research and Statistics Unit, Feb 2021

² UK's Creative Industries contributes almost £13 million to the UK economy every hour. Department for Digital, Culture, Media & Sport and Nigel Adams MP, 6th February 2020

become one of the UK's strongest booming industries with £4.7 billion production spend on film and high-end television alone from January to September 2021³.

- Employment growth within the sector has also been impressive. Approximately 150,000 people were employed in the film and TV industry in 2020.
- This figure has increased by 25% over the last five years.

Animation/ Post-production: The post-production industry has undergone a major shift over the past 20 years. Developments in digital technology have forced an ever-greater speed of change in what has always been a capital intensive and highly competitive industry. In the UK and with their cutting-edge digital skills, post-production activities in both the creative and technical spheres also have strong worldwide reputation as highly innovative and high-quality activities and are a major contributor to the screen sector's growth. This includes activities as diverse as sound design, computer-generated visual effects, music composition and recording, dubbing, graphic design and the many other creative and technical disciplines.

- In 2018, there were an estimated 3,500 post-production businesses in the UK employing 14,000 people, up 20% since 2014. The total turnover of these businesses was also up 40% since 2014⁴.

The post-production sector is difficult to statistically define. The boundaries of the sector are clearly ill-defined and the ways we are measuring and defining the sector through SIC codes are not adapted. In addition, some businesses involved in post-production activities do not choose to define themselves as post-production companies (e.g. sound recording) There are therefore very limited data insights on the sector but clear evidence that these activities and their impacts are usually under-estimated.

Gaming: The UK games industry is the sixth largest games market in the world. The sector is a major generator of intellectual property and provider of high quality and high productivity jobs, and it is expected to expand by almost 9% annually over the next five years⁵. Online games and e-sports are one of the fastest growing sub-sectors and have given rise to culturally influential user-generated content.

- A recent survey found that half of the UK are now playing video games. This increased most among 18-34s, increasing from 66% in 2020 to 73%⁶.
- The UK market for video games reached a record £7 billion in 2020, an increase of +29.9% from 2019, beating 2018's previous record by more than a billion pounds⁷.
- The UK has the largest video games sector in Europe with a reputation for attracting and developing world-class talent. Ukie estimates that games companies directly employ 16,140 Full-Time Equivalents, split between 13,840 in games development and 2,300 in games publishing. Including retail, indirect and spillover employment, the games-related workforce is estimated to exceed 47,000 FTE roles⁸.
- Innovation and vibrancy are demonstrated in the games industry with 68% of the 2,280 UK games companies founded after 2010⁹.

³ Screen Business, How screen sector tax reliefs power economic growth across the UK 2017-2019, Olsberg.SPI and Nordicity for BFI, December 2021

⁴ The Economic Value of Post-Production in the UK, UK Screen Alliance, 2019

⁵ The UK Video Games Sector, A blueprint for growth, UKIE 2017

⁶ PWC research, 2020

⁷ UK Games Industry market valuation 2020, UKIE

⁸ Think Global, Create Local report, 2020

⁹ Centre Stage: Keeping the UK's creative industries in the spotlight, CBI, 2019

- E-sports is one of the screen industry's most innovative and fast growing areas, right at the cutting edge of audience engagement and technology. The e-sports sector has grown at an annual average rate of 8.5% between 2016 and 2019 and supported £111.5 million in GVA in 2019¹⁰.

Immersive tech (AR, VR, mixed reality): The UK is currently Europe's largest market for virtual and augmented reality (VR/AR). Yet there is no room for complacency, as the UK's immersive economy is grappling with many of the issues and barriers associated with an immature and rapidly evolving sector.

- There are currently around 1,250 active immersive specialist companies in the UK and there are growth opportunities for immersive technologies across several sectors, beyond the creative industries.
- A recent report also reveals that £1.39 trillion will be added to the global economy through VR and AR, and that £62.5 billion will be added to the UK economy by 2030. Over 400,000 UK jobs are predicted to be impacted by VR and AR by this time¹¹.

1.1.2 Key drivers of change

The growth of the demand and production is creating clear opportunities for the UK and its regions. The flipside to this incredible growth is a squeeze on studio space, production facilities and skilled workers and crew, meaning the UK risks not having the ability to meet rising demand. In addition, linked and combined with other factors and trends affecting and changing the sector, this growth is also source of key challenges that are important to capture in order to plan and build the foundations for a thriving, resilient and inclusive screen industry sector in the TEPC. Below are summarised the drivers of change impacting the sector now and in the future, and what this means for screen production facility planning.

Changes in consumption and demand

Technology is changing how we experience the world around us and challenging the industry to think about the audience of the future. The proliferation of smart devices, digital technologies and online content allows consumers to increasingly gain control over what, when and where they consume content. This is driving a growth of online platforms which is likely to continue in the future. In addition, recent years have seen a significant increase in the provision of non-broadcast and short-form content. Screen content providers are now expected to meet new format and content. This is driving significant shifts in consumption, production and commercial models.

There is also a growing awareness of the lack of diversity across the UK screen industries and significant steps are being taken to enhance inclusivity across the sector. Increasing diversity in the sector is not only important to create a fairer and more inclusive working environment, but it is also likely to bring new kinds of benefits to the industry, which will in turn help the industry to mediate the trends and changes that are likely to affect the sector in the years to come.

¹⁰ UK Games Industry market valuation 2020, UKIE

¹¹ PwC report "Seeing is Believing: How will virtual and augmented reality transform your business and the economy?" Published November 2019

Technological changes

In the next decade, a move away from screens and hardware is expected, with a move towards new digital interfaces, including virtual reality, augmented reality and mixed reality, and 360-degree video and immersive technologies. As illustrated by the emergence of 3D cinema and the use of VR and AR in video games, the screen industries could play a key role in bringing new, immersive technologies to the public.

Technological change is also having and will continue to have a major impact on workforce and skills need. In some areas, new technologies are creating demand for higher level skills, shifting skill needs and displacing employment in some occupations while creating new jobs in other areas.

Economic changes

The rise of streaming giants (such as Netflix, Amazon Prime, Disney Plus, HBO) is having a significant impact on many areas of the industry, posing economic challenges, but also stimulating the demand for online content and participating in the shift the way productions are financed. Productions in the UK are impacted in different ways. Overall, we see the polarisation of film budgets and an increasing number of small production companies struggling to raise finance for their projects. Low budget productions are decreasing. In 2010, 63% of all films shot in the UK cost under half a million pounds. In 2017, that figure plummeted to 34% (not adjusted for inflation). The boom in film production is largely due to inward investment: money is spent on feature films which are substantially financed and controlled from outside of the UK.

Environmental changes and rising awareness

The screen industries sector is underpinned by highly polluting and wasteful practice and is a significant contributor to climate change. An average 'tentpole' film generates 2,840 tonnes of CO₂ during production alone, equivalent to 11 one-way trips from Earth to the moon¹². The gaming sector is also a major polluter and emissions are set to rise with the uptake of VR and emergence of metaverse. There is a growing need to decarbonise platforms, game production and practices. Overall, the flexibility and adaptability of buildings has not been a priority for the industry over the past few decades, with the needs of film production remaining relatively stable. However, likely changes in technological, operational and overall industry requirements may see studios benefiting from flexible and adaptable design strategies for new and retrofitted buildings. More widely, there are increasing discussions about the opportunity of bringing together circular practices and supply chains and how this can drive sustainable innovation and sector growth.

1.1.3 Implications

Increasing and changing nature of production and demand

Increased production volume and demand for content has increased the need for production infrastructure. For the film and TV industry, this relates to the volume of projects being produced but also to specific production trends including series production. In the UK, studio provision is not expanding as rapidly as production demand and top-tier studios are operating at capacity. London is running at close to full capacity for film production and has little room for growth. Los Angeles has 3.5 times the soundstage capacity of London, yet

¹² A screen new deal, Arup for BFI, 2020

produces fewer blockbusters because much of the capacity is used for major TV productions.

Demand has also been exacerbated by the upturn in major series production, which can require studio bases for many months – and even years. At the same time, the increase in budgets and scale at the top-end of feature production means that producers require sizeable and multiple sound stages with controllable environments.

Increasing demand for skilled and mobile workforce

Screen productions require a range of skilled workers, from performers to carpenters, electricians to drone operators. Many of the skills required are highly specialised and technical, often developed over many years of specific on-set experience. A high-quality and broad workforce is therefore a cornerstone of any healthy screen industry sector. There is an increased demand for a skilled workforce across all grades, including technical and creative crew. This is evident in both emerging and established markets. In addition to this, mobility of labour is a key issue. This benefits areas that can attract skilled workers. For areas without a highly developed sector or without an incentives offer, it can be a challenge to retain talent.

Increasing strategic role of public sector and support bodies

The increasing demand is creating fast-moving opportunities for the sector and there is a concurrent need for regions to move quickly on policy and strategy to improve the production landscape and to attract investment. In a rapidly shifting and evolving market, regions need to effectively communicate their potential and position themselves. This has led to an increase in incentives, as well as regulatory and other policy interventions. Finally, the public sector and screen sector bodies have a vital role to play in ensuring the sector can continue to deliver economic and cultural benefits, most notably by aligning policies, plans and funding structures to the needs of the sector during a period of rapid change.

Responsible production

A critical question revolves around the strategies that need to be put in place to offset the environmental impacts of all this activity – and who should take the lead in those mitigation efforts. There have been a number of discussions about how to instil screen content production with more responsible and sustainable practices in recent years, but a key consideration may involve incentives and funding.

Key considerations for the TEPC screen industry growth agenda

- The lack of studio provision has seen a trend of producers investing in long-term rentals or development (e.g. Netflix in Shepperton and Enfield, Disney's long-term commitment at the Pinewood Studios).
- Producers are also increasingly opting to utilise and convert warehouses or other industrial buildings in markets where dedicated studios are not available.
- Building up production capabilities rapidly is of key importance: there is a need to focus closely on aligning industry need with the skills pipeline.
- The dynamic nature of production and the competition to attract investment means that interventions to leverage incentives and create the conditions for good sector growth must occur quickly.

- There is a potential to add sustainability into the calculations that links infrastructure and funding access. These approaches range from providing targeted information to productions to incorporating sustainability pledges into funding initiatives.

1.2 Sector make-up and trajectory

1.2.1 Key figures and characteristics of the sector

There are around 2,005 screen industries production businesses and 4,805 screen production jobs in the TEPC. However, considering the wider range of activities that forms the screen production creative value chain, the number of businesses and jobs are much higher with 11,465 businesses and 32,640 jobs. There are strengths in the digital and software development sector.

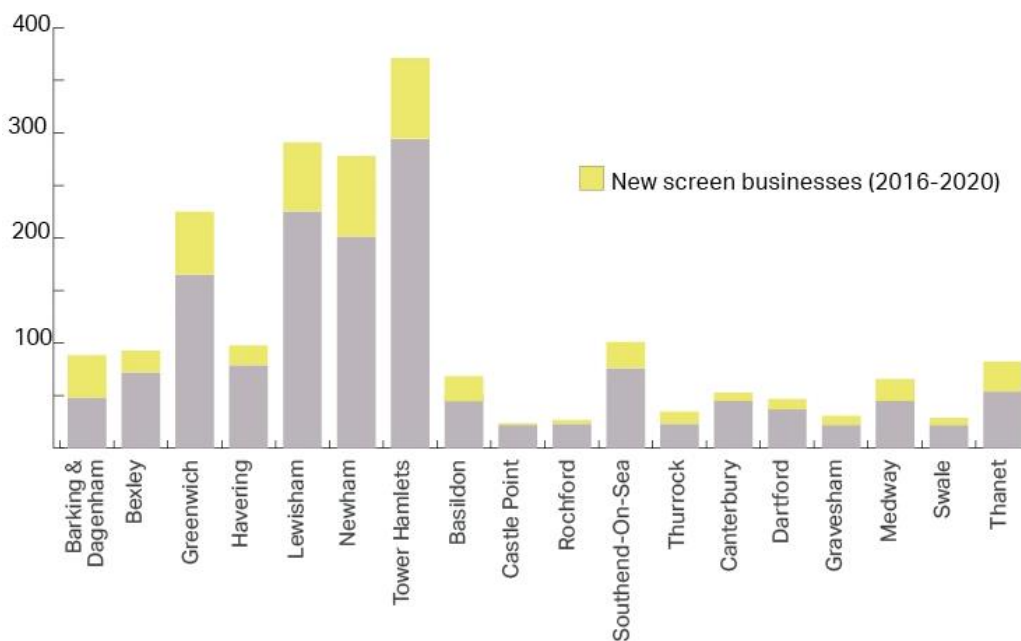
Overall, the number of businesses has been growing over the past 5 years (+42%) and at a faster rate than the TEPC creative economy as a whole (+15%). It has also been growing more than twice as fast as the screen production sector in the rest of the country (+15%). The data shows that screen production is a specialism in East London, which influences the specialisation figures for the wider area. However, the sector has been growing at a faster rate in Kent and in Essex than in London overall. In some areas, such as Gravesham, Medway and Thurrock, the number of businesses has been multiplied by more than 1.5 between 2016 and 2020. This is from a small business base but demonstrates strong growth.

	Creative businesses		Core screen businesses			Wider screen industries businesses		
	2021	% change 2016-21	2020	% change 2016-21	LQ	2021	% change 2016-21	LQ
Core TEPC	19,200	+20%	2,005	+42%	1.2	11,465	+13%	1.3
TEPC London	13,300	+19%	1,551	+33%	1.65	8,150	+12%	1.7
TEPC N Kent	2,800	+20%	272	+56%	0.7	1,650	+19%	0.8
TEPC S Essex	2,500	+8%	182	+62%	0.6	1,665	+6%	1
England	276,000	+8%	31,020	+15%	n/a	20,650	+17%	n/a

Screen industries businesses: number and recent changes

Source: Business Count 2021.

Note: An LQ above 1.0 shows a higher level of specialisation than in England



Number of screen production businesses per local authority and recent growth
 Source: *Business Count 2021*.

A relatively young business base in Kent and Essex

Screen production businesses in the Thames Estuary Production Corridor are relatively young, with nearly one-quarter established post 2016 in Kent and Essex. In East London, one-fifth of screen production businesses were established post-2018.

An important contribution to the local economy

The direct and indirect economic contribution of the screen industries sector in the TEPC is estimated to directly generate a GVA of £820million (GVA area denoted by marked areas on maps p.17 & p.18). Adding to this the wider screen creative supply chain sectors, the sector is estimated to generate £2.4 billion.

It is standard practice in the literature to consider indirect value creation. Based on the data, it is estimated that indirect GVA of the TEPC screen industries sector and its creative supply chain is £4.9billion. It is important to note at this junction that this indirect GVA does not quantify all the benefits that the sector brings locally. There are less measurable spillover effects such as impacts on tourism, place-making, skills development etc.

The screen industries sector is growing and accounts for half of the creative jobs in the Thames Estuary Production Corridor

It is estimated there are 4,805 people employed in the screen industries production sector in the Thames Estuary. This is complemented by an estimated 32,640 people employed in the wider supply chain. Altogether, this accounts for half of total creative employment in the Thames Estuary and 3.5% of total employment.

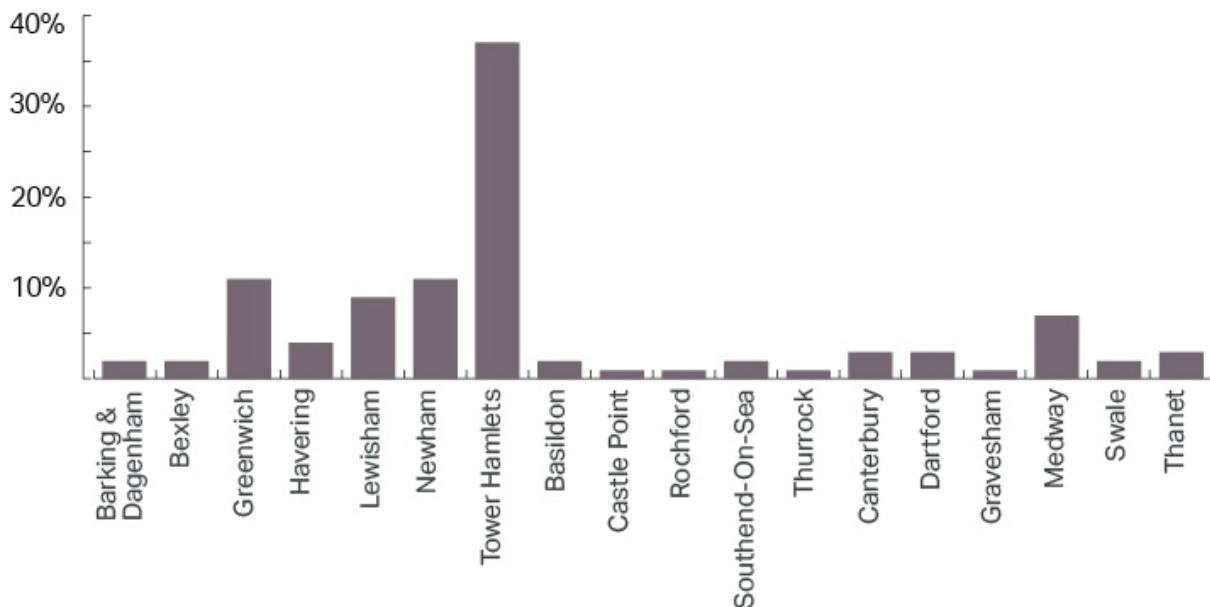
The screen industries sector has grown by 28% from 2016 to 2021. This employment growth has been driven by East London and North Kent.

Screen industries jobs are concentrated within East London boroughs, which are home to more than 75% of all screen industry jobs. There is however significant employment within the sector in Medway, Thanet, Basildon, Southend, Canterbury and Dartford.

	Creative employment		Core screen employment			Screen supply chain employment		
	2021	% change 2016-20	2020	% change 2016-21	LQ	2020	% change 2016-20	LQ
Core TEPC	61,300	+26%	4,805	+28%	0.7	32,640	+26%	1.0
TEPC London	44,000	+33%	3,565	+38%	0.9	23,030	+33%	1.2
TEPC N Kent	8,500	+4%	845	+39%	0.5	4,105	+4%	0.5
TEPC S Essex	9,100	+19%	395	-5%	0.2	5,315	+19%	0.8
England	1,294,700	+17%	147,675	+17%	n/a	634,550	+17%	n/a

Screen sector employment: key figures

Source: Employment estimates, BRES 2020 Note: An LQ above 1.0 shows a higher level of specialisation than in England

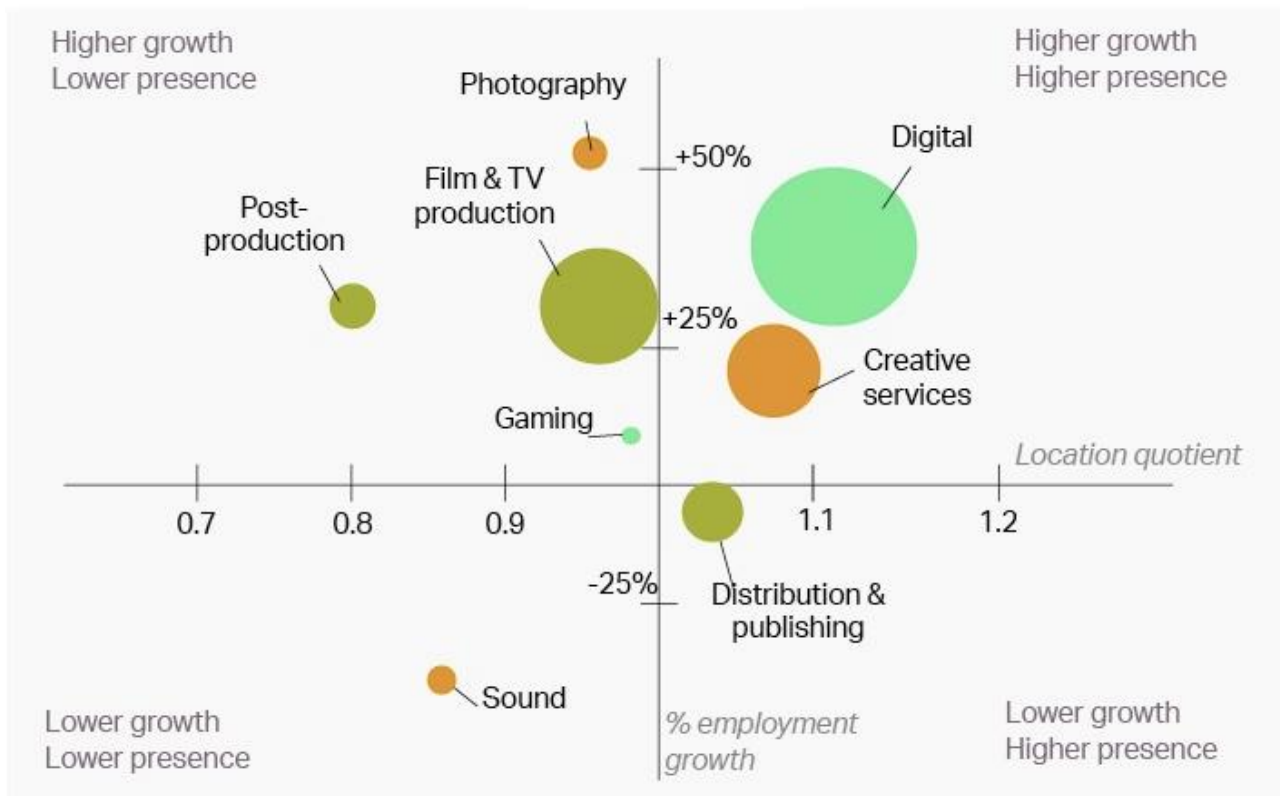


Distribution of screen industry jobs across the Thames Estuary Production Corridor

Source: Employment estimates, BRES 2019

Most of the screen industries sub-sectors are growing

A detailed sub-sector breakdown for screen industries employment is displayed on the graph on p.15. This highlights absolute employment levels (size of bubble), employment growth (vertical scale) and level of specialisation (horizontal scale). Most of the sub-sectors associated with the screen industries are growing. Only the Sound and Distribution/Publishing sub-sectors (=sound recording and publishing) have slightly declined in terms of employment in the past few years.



Sector size, specialisation and growth by employment in the Thames Estuary Production Corridor (2020)

Source: BRES, ONS, 2020

Note: An LQ above 1.0 shows a higher level of specialisation than in England

Film & TV production

Film & TV production is a relatively important sub-sector across the Thames Estuary but not yet a specialism in the region. The sub-sector is made of a number of independent film and video production small and micro-businesses as well as sole traders and freelancers. There are very few businesses relating exclusively to film and there is no major production company operating from the Estuary.

Distribution & publishing

The distribution and publishing sub-sector is slightly declining across the Thames Estuary. This reflects what can be seen at national level. Digital distribution is radically re-writing the rules of the feature film business in much the same way it did with other creative industries such as music and publishing, altering established release patterns and revenue models.

Post-production

The Thames Estuary post-production sub-sector is relatively small but on a growth trajectory. It is typically made of 'generalist' micro-businesses and small companies, providing both VFX and post-production services across film, TV, advertising - rather than the specialist companies seen in larger markets. The data suggests that post-production activities in the Thames Estuary are undertaken by a freelance workforce within a subcontractor environment.

Games

The games sector in the Thames Estuary is small, as expected as this is a relatively small sector nation-wide. However, there is a concentration of gaming jobs in Medway which

support highly productive, future-oriented jobs, requiring an advanced set of technical and creative skills. This is due to the presence of four gaming companies, including Dovetail Games. Dovetail Games is an award-winning developer and publisher of market leading simulation entertainment software, based in Chatham's Historic Dockyard, and currently employing more than 180 people. It is estimated that Dovetail Games generates £12.3 million in GVA (direct) and contributes over £21 million in GVA for Medway's local economy¹³.

Digital

The digital sub-sector is important. There are many software development and digital technology businesses in the TEPC. Around three quarters of the digital businesses are based at residential addresses revealing a high prevalence of home-based working amongst the sub-sector. Businesses are typically micro-businesses and sole-traders and are working with clients in all sectors, from the creative industries through finance to healthcare, energy, manufacturing.

A concentration of businesses in East London

There are a major clusters of screen production activities in London, and in particular Tower Hamlets, Newham, Greenwich and Lewisham. Activities disperse in other parts of the TEPC but there are notable micro-clusters in both Kent and Essex.

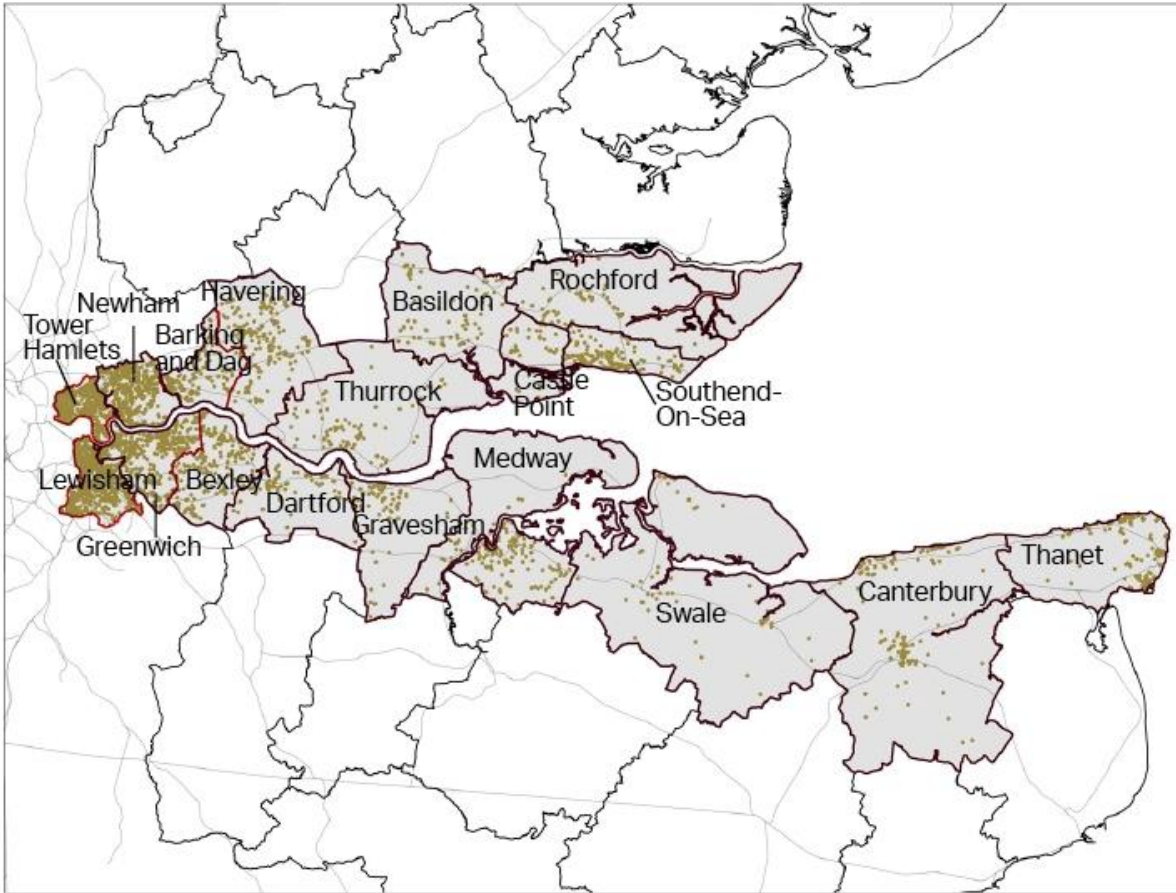
In Kent:

- For Film & TV activities, the mapping reveals particular concentration of businesses in Thanet (Margate and Ramsgate), Canterbury (in and around the town), Dartford and Medway (Chatham and Rochester).
- For Gaming and Immersive activities, the mapping reveals particular concentration of businesses in Canterbury, Gravesham (Northfleet), and Medway (Chatham).

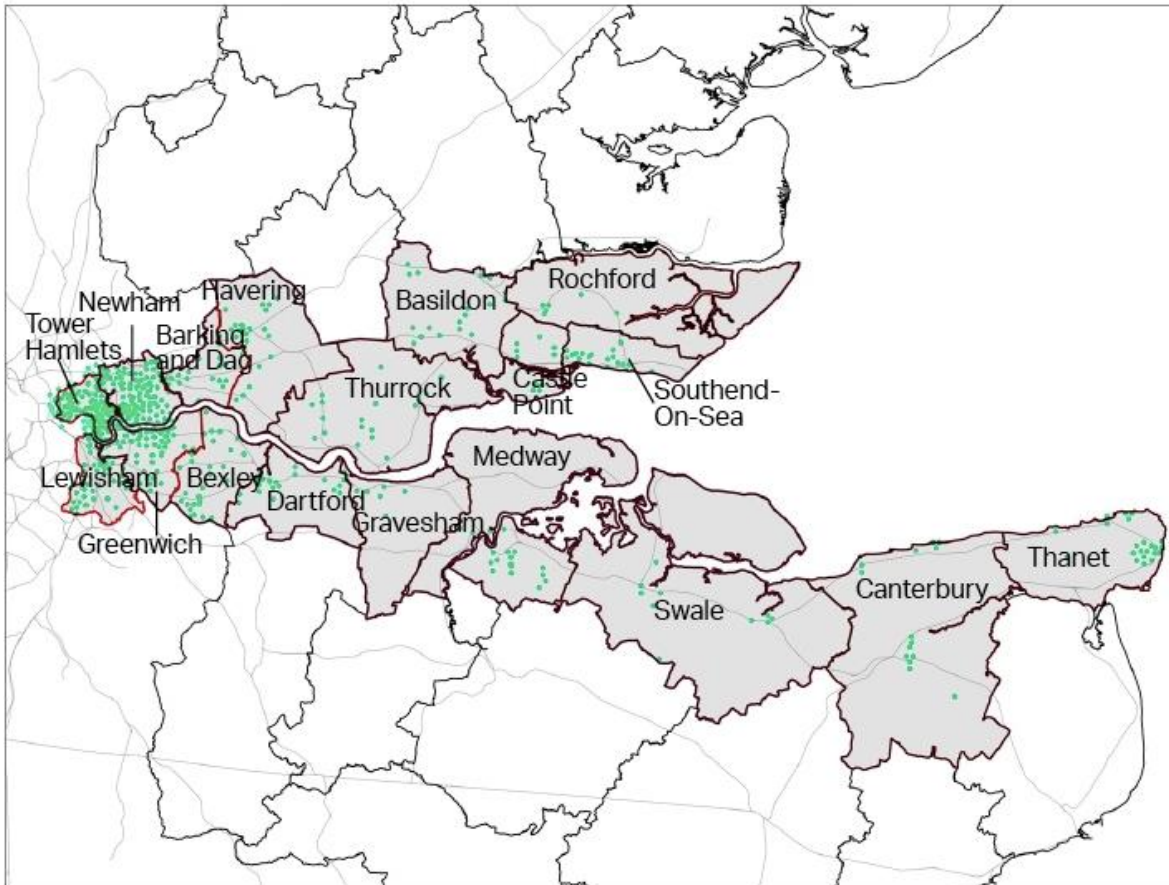
In Essex:

- For Film & TV activities, there is particular concentration of businesses in Southend-On-Sea, Basildon (Wickford) and Thurrock (Grays).
- For Gaming and Immersive activities, there is particular concentration of Southend-On-Sea and Basildon.

¹³ Think Global, Create Local, the regional economic impact of the UK games industries, 2020, UKIE



Distribution of Film and TV production businesses – Source: *Companies House, 2021*



Distribution of gaming and immersive businesses – Source: Companies House, 2021

The Thames Estuary Production Corridor has creative capacity

Previous studies looking at the Thames Estuary Production Corridor highlighted higher creative and cultural occupation figures when compared to employment. This demonstrated an existing creative capacity (= residents in creative occupations) across the Thames Estuary Production Corridor's places.

In 2017, there were over 100,000 people living in the Estuary who worked in creative occupations but only around 55,000 creative and cultural jobs in the area. That surplus accounts for people working outside the region or who have creative roles within non-creative businesses.

There are an estimated 7,500 screen industry freelancers in the TEPC

The freelance economy is an important component of the creative and cultural sectors. The screen industries sector has traditionally employed a high proportion of freelance workers. Sub-sectors made of a large proportion of freelancers include television, film, animation and post-production.

It is estimated that there are around 20,300 residents in the Thames Estuary Production Corridor with a creative or cultural occupation and who are self-employed in 2021. This is 17% more than in 2016.

To get an estimate of the screen industry freelance workforce present across the Thames Estuary, an Average Grossing Factor has been applied to occupational data in the screen

industries. We have used existing research to establish the average proportion of freelancers for each sub-sector: Screen Skills estimates that 36% of the digital and gaming industry workers are freelancers and BFI estimates that 50% of the Film and TV workers are freelancers.

A proliferation of ‘one-person’ operations

In addition to an important freelance workforce, the screen sector in the Thames Estuary is also made up of many micro-businesses and micro-independent sole directors. A large amount of the sole-traders based in the Thames Estuary are mobile and working on production crews, either in creative or technician roles and can move easily across film, television and commercial work. From the consultation, it is suggested that a number of freelancers and sole-traders would like to work more in the region, but that there simply isn't enough production. The lack of production was also highlighted as a key issue, making it hard to keep young crew in the region and difficult for them to gain skills if they do.

	Self employment in the creative and cultural sector		Self employment in the screen industries sector
	2021	% change 2016-21	2021
Core TEPC	20,300	+17%	7,500
TEPC London	13,000	+17%	5,300
TEPC N Kent	3,850	+23%	1,290
TEPC S Essex	3,450	+13%	910
England	273,000	+11%	147,675

Self employment estimation

Source: Annual Population Survey 2021

Note: Figures are estimated and have been rounded.

Key considerations for the TEPC screen industry growth agenda

- The sector has grown significantly across the Thames Estuary in recent years, but productivity rates are below the UK average. This signifies a need for innovation and investment.
- The sector is mainly composed of micro-businesses, sole traders and freelancers. It faces competition from highly integrated global companies with greater capacity to invest in innovation and skills.
- There is a latent screen production capacity in the Estuary and therefore an opportunity to bring and create more production work opportunities in the region. However, this capacity is currently not communicated and legible, and the sector appears fragmented.

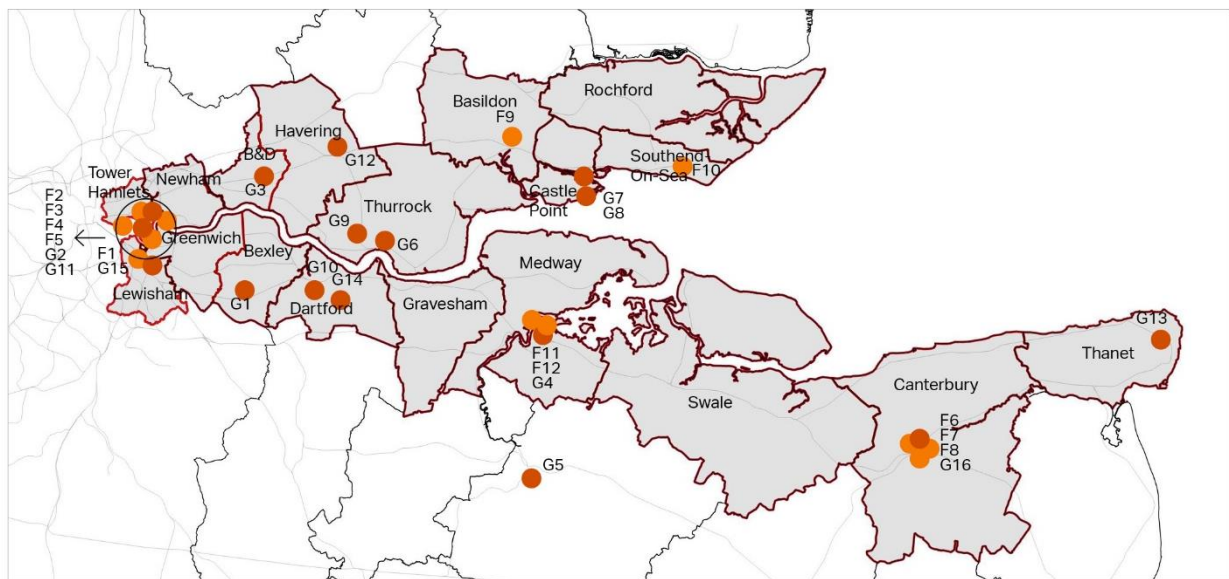
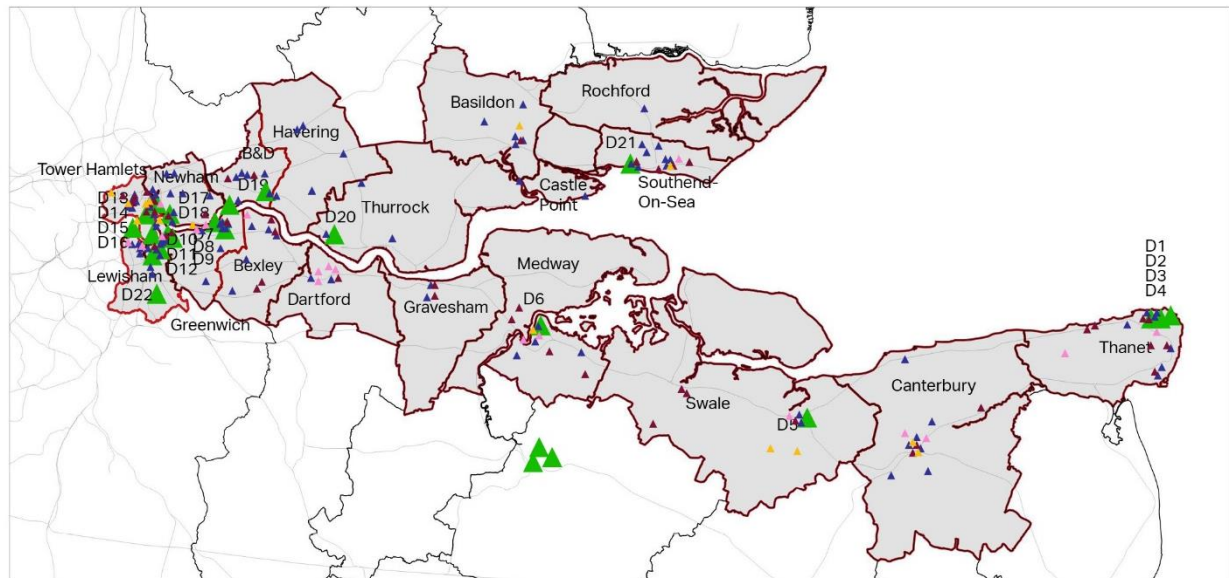
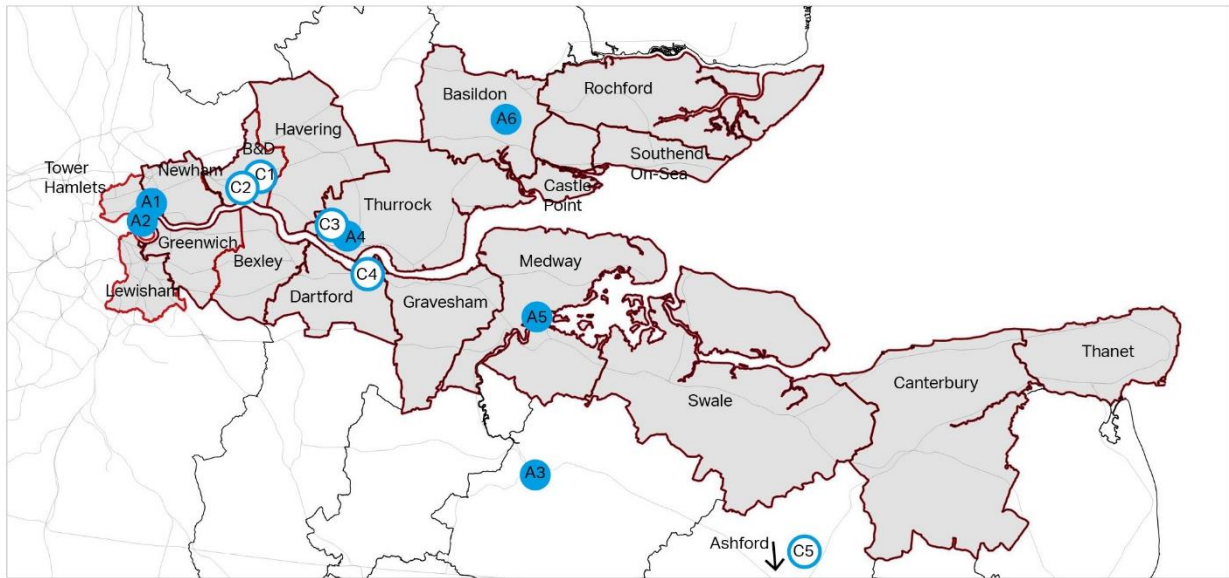
1.2.2 Thames Estuary Production Corridor screen industries sector assets

Infrastructure and facilities

The Thames Estuary Production Corridor is home to a significant network of screen production assets. These range from large scale and highly bespoke facilities (such as High House Production Park, Here East, and 3 Mills Studios), to mixed activities production and specialist facilities (such as Chatham Historic Dockyard and the Underwater Studio in Basildon), and smaller scale stage production facilities and workspaces targeted to the screen industries.

The screen industries sector mapping exercise has also identified a range of independent screen industry businesses which are key assets for the region. These range from large gaming companies (e.g. Dovetail Games in Chatham) to VR specialists (A-VR in Greenwich), post-production and animation studios (A+C Studios in Margate, Cartoon Media in Canterbury), film and video production companies (Spaghetti Weston in Rochester, FOSTER Studios in Havering) production management services (KD Productions in Thamesmead), among others.

These activities are being hosted in a range of different building typologies – from purpose-built office building and facilities to re-purposed industrial buildings, high street commercial units – and locations – from town centres to business parks, industrial locations and residential neighbourhoods.



KEY

ANCHOR PRODUCTION SPACES

● Large & medium scale production facilities

- A1. 3 Mills Studios
- A2. Here East
- A3. Maidstone TV Studios
- A4. High House Production Park
- A5. Chatham Historic Dockyard / Institute of Cultural and Creative Industries
- A6. The Underwater Studio

○ Forthcoming large-scale production facilities

- C1. Eastbrook Studios
- C2. The Wharf
- C3. Purfleet Media Village
- C4. London Resort
- C5. Ashford International Studios
- C6. Mo-Sys VR Hub
- C7. Indie-Zero Studios
- C8. The Docking Station

KEY FACILITIES AND BUSINESSES

▲ Screen industries workspaces and facilities

- B1. Studio Black Greenwich
- D1. Fire Eye Land
- D2. Resort Studios
- D3. A+C at The Old Laundry
- D4. Marine Studios
- D5. Creek Creative Studios
- D6. Dockside Studio
- D7. UniQ Studio
- D8. Crixus Studios
- D9. Scale Model Studios
- D10. Sugar Studios
- D11. Greenwich Studios
- D12. Worldwide WorldwildeStudios
- D13. The Nest Post, post-prod
- D14. FW Studios
- D15. Aquifere Studios
- D16. Arch Film Studios
- D17. Silver Building
- D18. Peacock Film Studios
- D19. Movie Studio London
- D20. A13 Studios
- D21. The Glass Factory Studio
- D22. East End Studios

- ▲ Key video production businesses
- ▲ Key post-production businesses
- ▲ Key gaming businesses
- ▲ Key immersive tech businesses

SCREEN INDUSTRIES KEY EDUCATION PROVIDER

● Higher Education

- F1. Goldsmith University
- F2. University of Greenwich
- F3. Queen Mary University
- F4. Ravensbourne University
- F5. Loughborough University
- F6. Canterbury Christ Church University
- F7. UCA Canterbury
- F8. University of Kent, Canterbury
- F9. South Essex College - Centre for Digital Technologies
- F10. South Essex College - Southend
- F11. University for the Creative Arts - Rochester
- F12. University of Kent -Medway

● Further Education

- G1. London South East College - Bexley
- G2. East London Arts and Music
- G3. Barking & Dagenham College
- G4. MidKent College - Medway
- G5. MidKent College - Maidstone
- G6. USP College - Palmer's
- G7. USP College - Seevic
- G8. USP College - XTEND Digital
- G9. South Essex College - HHPP
- G10. North Kent College - Dartford
- G11. New City College - Tower Hamlets
- G12. New City College - Havering
- G13. Broadstairs College
- G14. Dartford Science and Technology College
- G15. Lewisham College
- G16. Canterbury College

Education institutions

Alongside these assets, the TEPC benefits from a dense network of higher and further education institutions. There are 12 universities which offer screen industries related course options. Some of them have attained world-class reputations for creative education.

In addition:

- The University of Kent is amongst the top 10 universities in the UK for film production;
- Ravensbourne University is in the top 5 universities in the UK for studying VFX and animation;
- Goldsmith University is one of the 10 UK universities providing courses in immersive technologies

There is also relatively good provision of Further Education Colleges across the Estuary, which offer a greater degree of specialisms in terms of subject matter and course options. These provide courses that are more ‘hands on’ or ‘technical’. For example, the National College of Creative Industries located within High House Production Park offers a wide range of technical production apprenticeships designed to give students the skills and hands-on experience required to progress to employment. Apprenticeships cover subjects such as venue operations, business administrations and technical theatre.

Whilst geographic density of education provision is greatest in East London, there are clear educational hubs across Kent and Essex.

In addition to FE/HE provision, there is also a good network of Post 16 institutions across the TEPC, which offer bespoke course relevant to the screen industries such as Music Technology (E.g. The King Edmund School, Rochford), Computer Science (Simon Langton School, Canterbury), Games Development (Chase High School, Southend-On-Sea), Scenic Art and Construction (Rose Bruford, Bexley). College courses and apprenticeships are increasingly considered by the screen industry.

Institutions	HE / FE	Course provided							
		Film & TV production	Games design & dev.	Animation / VFX	Digital & immersive tech	Software engineering & dev.	Technical and prod practices	Creative media & comms	Music, sound production, audio tech
Goldsmith University	HE	X	X			X		X	X
University of Greenwich	HE	X	X						X
Queen Mary University	HE				X	X			X
Ravensbourne University	HE/FE	X	X	X	X				X
Loughborough University	HE/FE				X			X	
Canterbury Christ Church	HE	X		X					X
UCA Canterbury	HE		X						X
University of Kent, Canterbury	HE		X		X				
University of Kent, Medway	HE								X
Centre for Digital Technologies	HE/FE		X		X				
South Essex Colleges – Southend	HE/FE	X		X					

UCA Rochester	HE			X					
London SE Colleges – Bexley	HE	X	X	X			X	X	
East London Arts and Music	FE	X		X					X
Barking & Dagenham College	FE		X	X					
Canterbury College	FE	X		X					X
MidKent College - Medway	FE		X	X			X	X	X
USP College - Palmer's	FE				X			X	X
USP College - Seevic	FE				X			X	
USP College - XTEND Digital	FE					X			
South Essex College - HHP	FE	X					X		
North Kent College - Dartford	FE	X	X	X			X		X
New City College - TH	FE							X	
New City College - Havering	FE			X				X	X
Broadstairs college	FE							X	
Dartford Science and Tech College	FE							X	
Lewisham College	FE						X	X	

Partnerships and research

There are a number of partnerships which are active across the TEPC and have a focus on screen industries enterprise. These draw together a variety of sector stakeholders, with a common aim of supporting sector growth, attracting investment and fostering research and innovation in the industry. In some cases, educational institutions are driving these partnerships forwards. For example, this includes:

- Institute for Creative and Cultural Entrepreneurship (Goldsmith University led): delivers entrepreneurship and management education to the creative sectors, with specific pathways in computing, media and communications.
- University for the Creative Arts: multiple research programmes including the Animation Research Centre, Audio Research Cluster, the Cluster for Cinema, Affect, Place.
- Re:Generation 2031 (Creative Estuary and University of Kent): developing the creative skills of young people in disadvantaged areas of North Kent and South Essex).

Key considerations for the TEPC screen industry growth agenda

- The TEPC has a distinctive mix of screen industry production assets and infrastructure, from large-scale multi-purpose film and media facilities to smaller specialist workspaces and facilities.
- The provision of affordable and flexible workspaces targeted to small and micro-businesses as well as sole-traders and SMEs is relatively poor in the TEPC area. Considering the make-up of the sector, there is a need to cater for these businesses through the provision of flexible and specialist workspace typologies

from clean office spaces to production spaces. Screen industries sector workspace needs vary from one sub-sector to another, but these can be accommodated in a range of buildings and environment conditions.

- The higher and further education provision indicates a strong platform from which to extend the capabilities of the TEPC's screen industries by working with educational institutions that are already supporting sector growth and driving competitive advantages.
- There is an opportunity to coordinate interventions that respond to clusters of activity and educational commonalities across the TEPC, accentuate distinctiveness and leverage value from existing partnerships and collaborative projects. The area's educational assets open up ways to secure new investment, pioneer research and form the centrepiece for promotional activity.
- There is also a need to ensure that the schools, colleges and universities are responding to the needs of local creative and cultural employers and are maximising opportunities for labour market participation through flexible and vocational learning pathways.

1.2.3 Ongoing investment and momentum for the screen industries

Over the past decade, screen sector capacity in the Estuary has been boosted by high levels of investment in specialist production facilities. Crucially, further investment is on the way. There are many projects either in delivery or being planned which will further enhance the region's screen production capacity.

Increasing production capacity

In recent years, the region's key production hubs have attracted a range of national and international TV and stage productions such as award-winning series Killing Eve, Wes Anderson's Isle of Dogs, BBC's MasterChef and RuPaul's Drag Race UK (3 Mills Studios); BT Sport productions (Here East); a number of TV shows such as BBC Blankety Blank and ITV Family Fortunes (Maidstone Studios). Smaller facilities and specialist production facilities have also attracted a range of productions. For example, the Underwater Studio in Basildon have recently been used to shoot underwater filming scenes for the BBC series EastEnders and Dr Foster and the Backstage Centre for Breeders.

Significantly, there is a strong supply of large scale screen production facilities and spaces in the pipeline. Currently at planning stage, Dagenham Film Studios (Eastbrook site and satellite site at the Wharf) will see the creation of 18 sound stages equalling 165,000 sq.ft of sound stage production spaces. This new production hub will also deliver supporting workspaces, including spaces for screen industries SMEs and freelancers as well as a wide range of supporting amenities from restaurants and shops to hotels.

In Purfleet, the new media village will deliver 1,000,000sq.ft of screen and media production and consumption facilities, including TV studios where live shows can be filmed in front of a public audience.

In Swanscombe, the theme park London Resort will see the creation of a new conference and eSports Centre, offering TV studios and filming facilities along with event spaces for gaming events and large-scale exhibition and shows.

Just outside of the TEPC, Ashford International Film Studios will also see the creation of 4 purpose-built sound stage production spaces as well as workspaces and office spaces dedicated to the screen and wider creative industries. There are also a number of large scale production facilities projects that currently remain aspirational and require development and investment.

Overall, planned large-scale projects in the TEPC will see the delivery of at least 250,000 sq.ft of sound stage production spaces and 500,000 sq.ft of supporting offices, workshop and production facilities and amenities.

Attracting filming activities

The Thames Estuary's diverse landscape and heritage assets also means that filmmakers have an array of choice for filming locations. The Estuary is becoming more and more popular as a filming location. For example, the Netflix series *Bridgerton* and *The Crown*, recent episodes of the BBC and ITV series *Call the Midwife* and *Downton Abbey* have been shot at Chatham Historic Dockyard associated filming facilities. Other popular locations for film and TV series include Coalhouse Fort and Tilbury Docks (*Grimsby*, *Batman*), Southend Pier (*Wonder Woman*), Dreamland in Margate (*Empire of Light*, *The Tunnel*) among others.

This is made possible by the work of several stakeholders in the region, and in particular film offices which are working hard to maximise inward investment from filming activity and develop the Thames Estuary as a 'film-friendly' environment.

Ongoing investment in places and town centres

In addition to significant investment in large scale screen and creative production facilities, the Thames Estuary Production Corridor is seeing significant regeneration and change and receiving significant investment from government funds. In the Estuary, culture and creativity are increasingly being embedded within development and regeneration: from the creative and cultural focus of developments in Stratford, the Royal Docks, Woolwich, Thamesmead, Ebbsfleet, Purfleet, and Margate; the creative and cultural focus of regeneration projects in Southend, Chatham and Basildon; to the placement of cultural and creativity at the heart of local economic development activities (e.g. the Creative Enterprise Zones and Good Growth Fund programmes in London, Creative Estuary, the Cultural Development Fund for the Thames Estuary supported by DCMS).

The current funding pipeline is also unprecedented in terms of its priority for cultural infrastructure. The Government's Levelling Up Fund Prospectus identifies a total of £4.8 billion to be invested over the coming years to support town centre regeneration, local transport projects and cultural and heritage assets across the country. Alongside the Treasury's review of the 'Green Book' and the evolving Valuing Culture and Heritage Capital framework from the DCMS, the dial seems to be shifting towards a more holistic understanding of the impact that cultural investment, including cultural production investment, might have in the realisation of macro-level policies.

Across the TEPC, recent government funding streams targeting high streets and town centres (Future High Street Fund, Town Deal, Levelling Up Fund) have already seen a great deal of uptake and approximately £200 million in funding has been either confirmed or bid for by local authorities. These are mainly targeting town centres and there is a clear opportunity to join the dots between town centre and place-based regeneration projects and screen industries sector growth.

Key considerations for the TEPC screen industry growth agenda

- With the number of large-scale production facilities in the pipeline, the TEPC will increase its production capacity and it will be important to ensure that this is complemented by the right supply and development of skills, so the new infrastructure benefits the region and its residents, and grows regional production and capabilities on top of attracting further inward investment.
- The delivery of new infrastructure is a great opportunity and additional investment in the screen industries and in the 'wrap around' of place-making and supply chain development is required to develop and grow larger and smaller hubs.
- A strong and growing production base will attract valuable ancillary businesses, such as freelancers, distributors, post-production, and coders, as well as service providers, such as lawyers and accountants. An ecosystem will quickly grow up around production centres. Through capital investment in infrastructure, the TEPC should seek to build a virtuous circle by creating the regional infrastructure, spaces and skills that provides a reason for people to stay, return and move here.

1.3 Key sector strengths and opportunities

The Thames Estuary Production Corridor is well positioned to build on existing sector strengths and take advantage of emerging opportunities at regional and place-based level.

Competitive advantage

The mandate for out-of-London independent production for public service broadcasters and servicing major shoots from international productions as well as the government's Levelling Up agenda makes the TEPC ideally placed to take advantage of inward investment. Linked to this, ongoing investment in infrastructure will help to connect towns and cities within the Thames Estuary and nationwide, making it an even more attractive place to live and work.

The presence of East London with the TEPC is a key asset. For larger employers and inward investors, access to a pool of skilled labour across a range of disciplines is a significant advantage when evaluating locations for new screen content development. Smaller companies can also access a range of skills and be secure in the knowledge that they can quickly build teams through a mixture of employment, freelance workers and sub-contracting.

Large investment in broadband connectivity in the Thames Estuary is also a great boost for the region, particularly for the games and tech/digital industries. The infrastructure, including spaces and skills, needs to be in place to enable the sector to take advantage of this opportunity.

Capability

The TEPC's strengths are bolstered by the high level of skilled screen practitioners attracting productions to the region. Whilst screen industries growth and the skilled workforce are still concentrated in East London, there are also important assets that are currently under-exploited, including talent in Essex and Kent that is either undeveloped or is working elsewhere. The youth and diversity of the region are significant assets, and these strengths should be better utilised.

The TEPC's vocational education and training providers and universities offer a wide range of screen qualifications. There is an opportunity to establish clearer pathways for students studying screen qualifications, to transition into the industry, gain practical industry experience and secure ongoing employment, while ensuring practitioners are developing the necessary digital skills and capabilities to thrive in the industry.

Attracting skilled practitioners to work in TEPC's screen industries is a further way to bolster the capability and status of the sector. There is an interdependency between large scale international productions and the domestic industry, particularly in the attraction and retention of highly skilled practitioners who can share their knowledge and assist with further building the skills and capability of the TEPC screen industry workforce.

Innovation and convergence with other industries

The screen industries sector is uniquely positioned to support other industries through skills transfer and innovation. The increasing use of gamification in the health and wellbeing and education sectors is one example where screen can be used to benefit other industries. Games and creative digital technologies can also serve as a powerful tool for education providers in childhood education, primary and secondary school, university courses and skilled professional training.

The full value chain of the screen industries sector also encompasses a wide range of other creative and non-creative sectors such as music, performing arts, accountancy, communications, legal activities etc. These industries have notable areas of overlap in the skills, talent and studio space required for their activities and there is a clear opportunity to initiate cross-industry collaborations and create more resilience through the provision of space and funding for cross-pollination between sectors.

It should also be recognised that the creative and technical skills developed in the screen industries sector have applications far beyond the screen industries as we currently know them: there is an opportunity to master immersive technologies, to translate learning into other significant areas of the economy including healthcare, defence, education or construction.

An attractive region

The Thames Estuary's diverse landscape, including a mix of rural and coastal landscapes, small market towns and urban environments, means that the region is attractive. The Estuary is also enriched by the diversity of its people from culturally and socially diverse backgrounds. Championing this diversity allows unique stories and experiences to be shared with national and international audiences.

In addition to this, the commercial property market is strong and performing well relative to the national averages which suggests that the TEPC is a compelling business location. Vacancy rates are low and there appears to be growing demand for office and industrial spaces. Large scale developments in the pipeline also suggest that the area is attractive to investors and developers.

However, decreasing affordability has the potential to limit the expansion and viability of creative businesses throughout the area. Policy makers and developers will have an influential role to play in ensuring that sufficient suitable space is delivered to keep workspaces affordable and fit for the changing requirements of the industry. Stakeholders have already understood this issue and initiatives such as the SECEN Workspace Masterplan delivered by the South East LEP, or the development of a Creative Land Trust in Margate are going in the right direction in exploring new models and partnerships to ensure the continued supply of affordable workspace provision in the future.

Strong regional vision and joined-up agendas and partnerships

The potential of a united screen sector is becoming clear. Although ultimately unsuccessful, the Creative Industries Clusters programmes bids provided some positive lessons in terms of the way in which the sector worked together to develop ambitious research programme from this region. The TEPC and Creative Estuary is also demonstrating how strategic and partnership working can work in the region.

As the TEPC has identified the Estuary as a significant strategic location for creative industries, this puts a distinct emphasis on the importance of place-making. This is where a clear and compelling strategy for a region and its places is driving collaborative planning, decision-making and partnership working across the place or region. This is a key asset to uniting the diverse partners and pooling their expertise and resources towards locally shared priorities around the TEPC screen industries sector.

With the new place-based funding streams coming on-line, there is a clear opportunity to join up places' regeneration and recovery agendas to the screen industries sector growth agenda., Vacant or under-utilised buildings in and around town centres and high streets could be home of new screen industries production spaces, supporting and bringing together creative freelancers and micro-businesses in small towns and larger cities.

1.4 Key barriers to growth and sector needs

The Thames Estuary Production Corridor's screen industries sector has some existing strengths, and this is made evident by the level of inward investment directed towards new screen production infrastructure in the region. However, this research has also pointed to the existence of some important structural barriers to growth of the screen industries in the Thames Estuary.

A sector made of freelancers and micro-enterprises

The screen sector in the TEPC is made of small independent SMEs, micro-businesses and freelancers. The research has also highlighted that the region is home to a few production companies of more than 10 employees. This provides a number of challenges in relation to capacity and upskilling. The sector faces competition from highly integrated global companies with greater capacity to invest in R&D and innovation in a fast-moving screen sector. This lack of capacity also reduces productivity overall.

Lack of R&D and capacity

Consultation with the TEPC screen industries sector stakeholders revealed a lack of R&D and capacity to engage with innovation, indicative of a wider lack of resource in upskilling and upscaling. With revenue streams tied to project-based commissions, there is often little capacity for horizon scanning or medium/long-term investment in R&D.

Whilst some sub-sectors such as games and post-production, which are relatively more focussed on adapting new technologies to screen content creation, are more likely to engage in R&D as part of their work process, the film and TV sub-sectors are less likely to engage.

Lack of R&D and capacity, including commercialisation capacity, means that the TEPC screen sector is likely to struggle to develop and scale-up. Too much screen production in the TEPC is 'show and go' – creating content but holding none of the intellectual property needed for long-term sustainability and growth.

Developing innovation capabilities through public sector investment in R&D in the TEPC will be crucial to ensure scaling-up and growth of the existing business base. In addition, to create sustainable businesses, value comes from being an originator rather than just a content provider.

Skills gaps and shortage, developing and retaining talent

In the TEPC, new talent is supported through the presence of high quality universities and education institutions offering a range of options for skills training, but some sub-sectors (post-production, gaming, immersive tech) are reporting skills shortage. In particular, the changing nature of work and technology is driving huge demand for digital skills. Production growth in the film and TV sector is also putting sudden strains on local resources. The issue is therefore both quantitative and qualitative.

There are also important assets that are currently under-exploited, including talent that is either undeveloped or has moved away to find success elsewhere because of the lack of work in the region. The youth and diversity of the region are significant assets, and these strengths should be better utilised. Skills development and business support needs to focus on inclusion to create pathways to growth and make the most of these assets.

There is a need for building up production capabilities. Focusing closely on aligning industry need with the skills pipeline will be key. This also needs to be linked to the infrastructure development agenda: investment in training people without the industry and infrastructure to keep them, is simply spending money for economic benefits elsewhere.

Lack of network, connections and identity

The make-up of the sector (micro-businesses and freelancers) and the polycentric nature of the Thames Estuary means that the screen industries supply chain is somewhat fragmented across the geography.

This fragmentation is felt by the sector reporting a lack of network and identity for the screen sector in the TEPC. There is no clear compelling narrative for the sector to come together around. With no shared mechanism or structure to co-ordinate action, the sector seems to have lacked focus, and co-ordination and leadership would be needed to raise the profile of the sector and build its capacity in terms of skills and facilities. Better networks

need to be created to help develop relationships and galvanise and catalyse this rich and diverse sector. Production businesses need support to build audiences and to access local, national and international finance, resources and markets.

There is a need to develop links with existing local screen industry organisations. The remit of different regional organisations needs to be clear with each playing a clear role in the delivery of the ambitious growth plans for the sectors. By developing better physical and virtual networks, it will be possible to bring together businesses to create a stronger and more dynamic screen sector.

The TEPC screen industries sector has some existing strengths, and this is made evident by the level of inward investment directed towards new screen production infrastructure in the region. However, the research has also pointed to the existence of some important structural barriers to growth of the screen industries in the Thames Estuary.

Lack of specialist production spaces, as well as innovation, scale-up and grown-on spaces

To address the demand and grow the sector, there is a clear need for physical infrastructure across the Estuary. These infrastructures come in different types and sizes, from large-scale production spaces to smaller flexible facilities.

Taking into consideration what is existing and the facilities in the pipeline (e.g. Eastbrook Studios), consultations with TEPC screen industries sector stakeholders have highlighted a lack of flexible/agile and medium-scale facilities that could support a variety of regional productions and new media developments, as well as a lack of start-up and grow-on spaces for digital and post-production businesses and freelancers.

A need to invest in specialist infrastructure to provide a niche offer and to grow sector capacity (e.g. immersive technology studios) and the need for short-term production and rehearsal spaces has been identified.

Whilst it is acknowledged that the TEPC should position itself to attract inward investment coming from the ‘boom’ of the screen content demand (TEPC as content provider) , there is also a need to recognise the threats and opportunities of changing production need and to develop agile / more flexible spaces to support sustainable sector growth of the sector in the region (TEPC as content originator).

1.5 Building capacity and reaching potential

The Thames Estuary is already home to an important network of screen production assets. These range from large-scale, highly bespoke to mixed activity production facilities, and smaller scale workspaces targeting creative entrepreneurs and makers. To build on this existing network there are some important considerations for Thames Estuary Production Corridor partners to address to drive innovation-led and inclusive growth.

Key consideration	Challenges	Takeaway for action
Change and increased demand	Higher production volume and demand for content has increased the need for	Together with infrastructure provision, Thames Estuary Production Corridor must work to

	<p>production infrastructure. Beyond space, this will have a major impact on workforce and skills need.</p>	<p>grow its production capabilities by aligning industry needs with the skills pipeline. This means ensuring local screen workers, across all fields – from technical to creative, trades and corporate – are highly skilled and job ready.</p>
Technological changes	<p>In the next decade, a move away from screens and hardware is expected. Instead, the focus will be on new digital interfaces, including VR, AR and mixed reality, as well as immersive technologies.</p> <p>Immersive technologies are increasingly used in other industries such as health, education or manufacturing</p>	<p>Thames Estuary Production Corridor needs to further develop its innovation capabilities. This will help scale-up existing business base, attract new skilled practitioners and industry leaders, and support other industries through skills transfer and innovation.</p>
Economic changes	<p>With the rise of streaming ‘giants’, the boom in film production is mainly down to inward investment. That is money spent on productions which are substantially financed and controlled from outside the UK. The risk is that the economic and social impacts of studio development projects into neighbouring locations are not maximised.</p>	<p>There is a need to develop a resilient sector and support regeneration and inclusive economies. To support this, any capital investment in Thames Estuary Production Corridor is being accompanied by efforts to grow the capacity of the sector locally. This recognises that value comes from being an originator rather than just a content provider. New infrastructure projects must be embedded within existing places.</p>
Environmental changes	<p>The screen industries sector is underpinned by highly polluting and wasteful practices and a significant contributor to climate change. An average ‘tentpole’ film generates 2,840 tonnes of CO2 during production alone. That is equivalent to 11 one-way trips from Earth to the moon (BFI, 2020). The gaming and digital sector is also a major polluter, and emissions are set to rise with the uptake of VR and the ‘metaverse’.</p>	<p>Building on its net zero ambitions, the production corridor can make the difference. Solving the screen industries sustainability challenge can be a competitive advantage for the region. There is a real appetite to do greener and better.</p>

Cultural equity	The UK screen industries lack diversity. In the globalised screen landscape, it is vital to ensure that more communities can see themselves reflected on screen. Screen talent, projects, opportunities and events must reflect the diversity of diverse communities.	Thames Estuary Production Corridor should work to attract and advance diverse talent. For example, by stronger targeting of careers activities towards social mobility 'cold spots', widening access to higher education, and strengthening technical education pathways into the industries.
Access to space	Existing workspaces are increasingly vulnerable to rent rises and redevelopment. Higher workspace costs and rent are often perceived as a barrier for screen sector businesses.	This points towards a need for protecting existing workspaces and assets. In addition, there is a need for financial investment into existing clusters and micro-clusters. It is important to build capacity, but also – as in London - to retain talent. There is a clear opportunity for places in Kent and Essex to attract businesses and talent. However, it remains a challenge for emergent clusters to attract investment.

2.0 Planning for screen production infrastructure

2.1 Stage production spaces

Increases in the volume of production, and in the technical requirement needs of evolving practices is creating a demand in production spaces, including in specialist facilities. Given the nature of the sector in the TEPC, which is made of a high number of freelancers and micro-businesses, there is also a growing need for scalable and fit-for-purpose workspaces that facilitate new and future ways of working and foster creative clusters and micro-clusters which the sector typically thrives in.

The availability of high-quality physical infrastructure is a key factor in the attractiveness of a place for the screen industries. To grow the sector sustainably, a diverse mix of space and quality will be necessary to support all types of production. Infrastructure provision should support capacity building and be considered as part of a production ecosystem, bringing together space, connectivity, people and innovation.

The activity created by the screen industries is shared across multiple land uses and built form. Large and small productions alike create demand for space to accommodate set construction workshops, costume design and storage, production offices, catering services, among others.

At the core of these various ancillary and supporting uses, is the stage production space where filming happens. These spaces are usually challenging to deliver, requiring high levels of upfront investment as well as a range of spatial and economic conditions to make them viable in the short, medium and long term.

Studio space comes in many forms; from industrial warehouses converted for production use to purpose-built sound stages featuring a wide range of amenities and features. Different types of space meet the needs and budgets of different productions, and spatial and technical requirements of the industry can vary dramatically across sectors and individual productions. Feature films, television series, music videos and commercials each require different types of production space, with specific needs often dictated by the script.

In this way, the demand for film and TV production infrastructure is and can be configured in several ways and accommodated by properties of varying types and quality. A filming stage can range from small raw industrial space converted from other uses all the way to large-scale purpose-built sound stages featuring a wide range of amenities and features. A small budget television show or movie may only require a limited amount of space for a small number of key sets, while a big budget international tent-pole production may require space from multiple studios and stages, with special consideration for the size of sets and special effects. The budgets of these productions will often dictate the type of space they can afford to rent. Therefore, having a diverse inventory of stage space in terms of both square footage and design quality will be critical to facilitating continued growth in the industry.

Location decisions and other key considerations

Beyond capacity, technical and design requirements and whilst infrastructure needs and requirements can vary between production types from high-end TV production to smaller budget independent film production, there are common factors that producers are considering when looking at places to base a production. Key location decision considerations and trends in stage production spaces include the following:

Site context

Studio spaces are usually found in industrial settings. Ideally, the infrastructure is developed in a controlled environment, separated from other adjacent land uses so that production can take place on site 24 hours a day on weekdays and weekends without disturbing or interacting with neighbouring land uses in terms of noise, vibration, and traffic. Confidentiality is also a critical concern. With film and television projects facing financial risk if content is leaked prior to scheduled release, it is important for studio operations to be protected behind a secured perimeter.

Ancillary spaces and facilities

High-end productions will usually look for stages featuring a range of amenities, specialist facilities and features, covering a range of services provision such as post-production (e.g. sound recording, cutting rooms, visual effects), equipment rentals (e.g. camera, grip and electrics), construction (e.g. manufacturing and set building workshop), transport (e.g. specialist access vehicle, mobile catering), dressing and props (e.g. prop rental). The level of services needed on-site often depends on the nature of the production but basic ancillary spaces, such as office space, storage space and dressing rooms are essentials.

Geographic access and transportation options

Good public transport and vehicular access is key. Around London, most existing or forthcoming large-scale purpose-built film studio facilities are located within a mile of a motorway and a train station (e.g. Pinewood, Shepperton, W Studios).

Availability, quality, depth and skills levels of the workforce, and access to supply chain: Alongside creative, logistical and financial considerations, the availability of a skilled and mobile workforce is a key decision factor considered by productions. Good locations are therefore locations that can be easily accessible by a range of skilled workers, from performers to carpenters, electricians to drone operators. It is worth noting that some large scale studios can play a key role in developing skills, and new developments often include training provision for this reason.

Access to a wider range of supply chain services is also important. Complementary services expand the pool of potential clients and businesses benefit from customer overflow. Complementary uses located nearby are also ready to meet just-in-time production needs that crop up during shooting. Physical proximity of companies facilitates exchanges of information and talent. While there is a natural competitive aspect to clustering, businesses evolve to distinguish themselves and develop complementary lines of products and services enlarging opportunities for all in the cluster.

Communications infrastructure including broadband

High-level communications infrastructure, such as superfast broadband, is critical for contemporary content production purposes where large files need to be transmitted at high speed, while availability of mobile services is also essential in a business so heavily

dependent on people. The growth of virtual production is also leading to an increased demand for digital content services facilities. The proximity to an existing data centre, or the provision of a dedicated data centre on site, are key selling points for some studios which can connect their studios to post-production houses across the world via an exclusive, highly secure, very fast broadband network.

Quality of place and amenities

The proximity to hotel accommodation and lifestyle amenities such as restaurants, bars and cultural spaces are also important factors in the sustainability of physical infrastructure.

Pricing and rent models

The rents achieved by film and TV studios vary greatly depending on the type, quality and location of the studio. For high-end film production, film studio stages are generally rented for the entire duration of a production’s shooting. This will be several months. Typically, repurposed warehouse space commands lower rents, with weekly or daily rates generally quoted.

In recent years, demand has been exacerbated by the upturn in major series production, which can require studio bases for many months – and even years. At the same time, the increase in budgets and scale at the top-end of feature production means that producers require sizeable and multiple sound stages with controllable environments. There is also a trend of producers investing in long-term rentals or developments. For example, Disney has undertaken a long-term commitment at Pinewood Studios and Netflix is committing to the forthcoming Ashford Studios.

Reflecting the lack of dedicated shooting space, many producers have opted to utilise and convert warehouses or other industrial buildings in markets where dedicated studios are not available.

Typical offer and characteristics

The following pages present a range of production studio typologies, focusing on medium and large scale type studio facilities. These are not prescriptive typologies but reflect the variety of models, sites and buildings that host shootings and screen production activities.

<p>Purpose-built studio complex</p> <p>Large, well-equipped sound stages suitable for non-live film and big budget TV productions. These can be built to bespoke requirements of production companies.</p> <p>Typical offer:</p> <ul style="list-style-type: none"> • Flexible soundstage spaces and ability to join two or more stages, soundproofing, at least 15,000 sqft; • Tall building height (typically 35 ft) to accommodate large sets, lighting and scenery rigs; 	<p>TV Floor Studio</p> <p>Multi-camera sound stages with high technical specification. They are usually purpose-built, smaller than film studio complexes and can usually co-locate better with other uses. They often provide several additional facilities for broadcasters, creative and post-production agencies.</p> <p>Typical offer:</p> <ul style="list-style-type: none"> • Typically providing around 5,000 to 10,000 sqft of multi-camera sound stages with high technical specifications;
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- Serviced offices to accommodate for productions' creative, managerial, financial and administrative functions;
- Pre-production spaces in the form of workshops for set building;
- Drive up access for loading/unloading equipment, as well as storage spaces;
- Flexibility through the base build installation to cater for bespoke requirements;
- Backlot space for outdoor scenes or space for temporary set constructions;
- Special facilities such as underwater film facilities, digital content services facilities (e.g. data centre) or motion capture, blue screen and sound post production facilities;
- Ancillary spaces (e.g. restaurant, function rooms)
- Access to parking both for top talent as well as production crew vans

Example: Pinewood is home to 1112,000 sqm of production facilities including stages, workshop and office spaces. An additional 67,000 sqm of production facilities is being built on site.

- Seamless, super-flat floors with acoustical value topping;
- Generators/UPS infrastructure to ensure uninterrupted live broadcasts;
- Space to accommodate audiences (e.g. reception/waiting area, seating area around stage);
- Adjoining post-production office space to support production and content capture;
- Several additional facilities such as dressing rooms, catering, editing suites, green rooms, galleries and control rooms;
- Central or very accessible location, easy to access daily for all kind of visitors;
- Access to parking both for top talent as well as production crew vans

Example: Maidstone Studios is home to over 18,000 sqft of sound stages for TV production. It offers a range of post-production facilities such as edit and dubbing suites. It also has its own dedicate data centre. Additional facilities include production office spaces, dressing rooms, green rooms, a cinema and a restaurant.

Flexible production studio

Flexible and equipped studio spaces catering for short-form video content, commercials and smaller budget productions as well as photography shoots. Typically providing several studio suites as well as post-production services.

Typical offer:

- A range of studios size ranging from 250 sq.ft to 1,500 sq.ft
- Minimum clear height of 4m including a false ceiling for services;
- Soundproofed studios with vibration isolation;
- Studios capable of accommodating high powered computers and servers;
- Lighting, camera and grip equipment available for hire;
- Additional and specialist facilities such as edit suites, green screen production facilities and sound recording studio;
- Ideally these spaces will have a loading bay and access enabling the receiving and loading of film production equipment;
- Typically available to hire by the day or the week, and at relatively affordable rates.
- Central location, on-site car parking and good public transport accessibility

Example: Cherryduck Studios are located on the ground floor of a converted warehouse in Wapping, London. Upper floors are occupied by residential use. The space offers 6 equipped studios catering for photography and small scale film/TV productions. The space also provides edit suites and sound recording studios.

Blank canvas studio

Alternative space is a term that is generally used to refer to vacant industrial buildings that are offered as spaces for filming, but that have had little or no refurbishment. Such spaces are increasingly being marketed as “blank canvas” film locations to make up the UK’s shortfall in dedicated studio space.

Typical offer:

- These spaces can vary in size. Typically, size can range from 500sq.ft to 80,000 sq.ft.
- Usually meanwhile spaces / awaiting redevelopment
- Typically heritage buildings or industrial buildings with high ceilings and relatively good natural light and ventilation;
- Very basic facilities outside of toilets, changing area and car parking
- Comprehensive and reliable power points
- Good public transport accessibility and vehicular access.

Example: Located in North London, Neasden Studios is a large location for the film and TV industry. It offers four 30ft high stages, 8000 sq.ft of production offices and ample parking. The studios are comprised of a large complex of industrial warehouses of over 60,000 sq.ft with drive-in access and loading areas. The TV Series Mr Selfridge was shot there.

2.2 Workspaces for the screen industries

Beyond stage production spaces, it is important to have a more nuanced understanding of the types of workspaces which support the screen industries and its supply chain. Workspaces can be as varied as the businesses they host - incorporating small and large office spaces, co-working spaces, industrial spaces, studio spaces, and yard spaces.

To cater for the range of activities that the screen industries encompass, from games and software development to set building, sound recording and creative management, it is clear that a diverse mix of workspace and quality is necessary. Accessing adequate workspaces directly impacts production and employment capacity in the supply chain. Small changes in a design and/or fit-out spec can help ensure most creative practices are able to use a space, for example office-style spaces accommodating artistic production require running water; other production or rehearsal sites may require ventilation.

Beyond technical and design requirements and whilst infrastructure needs and requirements can vary between sub-sectors, there are common factors that screen industries businesses consider when looking at places to locate. These factors are also critical in shaping an environment where businesses are drawn to and can thrive.

Key considerations

Proximity and agglomeration

Research on the geography of creative sectors in the UK suggests that businesses from the screen industries sector of all sizes concentrate in clusters or micro-clusters. Research also suggests that screen industries sector businesses tend to co-locate with other creative sectors such as performing arts, music, broadcasting/radio and publishing sectors. This suggests that there are synergies, complementaries and knowledge spillovers between these sectors.

The proximity and agglomeration benefits provide competitive advantages — a critical mass of talented workers and creators, access to clients, opportunities for collaboration, knowledge sharing and socialising.

For example, in the post-production sector, one of the reasons why London continues to win work from the Hollywood Studios is through individual companies collaborating on film projects to generate the scale needed to handle a multi-million pound feature films. This is made possible partly because the companies engaged in each consortium all work near to each other. It is important to note that these benefits are also relevant in micro-clusters and outside of the larger, established and already recognised clusters. Here we also note the importance of virtual communities of practice (such as networks of professional creatives) which are not always bound by geographical location and are enabled through digital technologies. This is particularly important for the TEPC which is made of several micro-clusters of creative activity and local sub-sectors and specialisms.

Availability, quality, depth and skill levels of the workforce, and easy access to supply chain are also all key factors of success.

Finally, strong creative clusters are also made up of other important programmes and institutions such as sector-focussed business networks, accelerators and universities —

providing knowledge spillovers and innovation. This is particularly important for businesses working at the forefront of innovation: gaming companies, immersive tech, animation etc.

Affordability

With small and micro businesses and freelancers leading much of the screen sector's future innovation and enterprise, the availability of affordable workspaces is key. What constitutes 'affordable' for creative businesses varies greatly depending on the type of business, its activity and its operating model. For example, for established creative businesses using 'clean office space' (e.g. creative media, software developers), workspace prices are usually not the most pressing issue and 'affordability' is usually being driven by the length and terms of the lease, lower upfront costs (e.g. fit out costs) and the size of the units available. That said, access to a workspace is often an issue for freelancers and micro-businesses which often either cannot afford traditional offices or require more flexible arrangements.

As a rule, screen sector specialist workspaces are more expensive than traditional clean office spaces, and businesses in this category spend a significant proportion of their turnover on rent (typically between 20 to 40%). The higher rents reflect the initial investment in specialist equipment as well as the higher operating and maintenance cost (e.g. a post-production business will need specialist technological equipment). Shared facilities can help bring the cost of a workspace for a business down. And with the new technological requirement needs associated with the rise of virtual production and immersive technologies, shared workspaces and facilities for the screen industries will become more and more relevant.

Securing and delivering creative affordable workspaces for the screen industries is therefore a rent pricing issue but there are also different tools available to achieve affordability, including lease incentives (e.g. initial free months of rent that could help businesses in covering installation costs), rent structure (e.g. alternative forms of rents such as membership), service charges, fit-out (e.g. many creative businesses won't need a Category A fit out but would rather financially support with shared equipment costs), adaptable unit sizes and flexibility etc.



Workspace affordability parameters

Services and support

Many would-be creative clusters face issues linked to business size. Capability may be challenged by the structure and nature of the sector: companies of a few people, dedicated to a creative specialism are unlikely to have finance, HR or commercial expertise or have a “department” they can call for support. It is therefore important to support small businesses’ need. In the case of the screen industries, business mentoring and skills support, advice on IP exploitation and protection, and exporting and marketing are all important for helping businesses to scale up and become more productive.

Business support can be an important feature of creative workspaces, and in particular start-up spaces. Common benefits include mentoring, networking events, advice, workshops and introductions to buyers and investors. Workspaces offering the most comprehensive business support often work with third-party specialists, although some consultees said that grant funding for this type of work is becoming harder to come by. Most workspaces also arranged more informal networking and peer- to-peer knowledge-sharing. Supporting start-ups and small businesses is attractive since it can spur genuinely new job creation and economic growth. It also offers the possibility of breathing life into existing sectors and can bring inward investment, as larger businesses are keen to benefit from new ideas and technologies

Meanwhile

Meanwhile uses provide an opportunity to fill rising commercial vacancies and have the potential to diversify and reinvigorate town centres and high streets over the longer term, where traditional uses including retail have been lost, are no longer viable and will not return. Meanwhile workspaces can also animate areas undergoing regeneration and can be used to test the demand without major risks and attract businesses and organisations which might have a place in future developments. There are many types of meanwhile workspace models that could be considered, from public to private spaces, from town centres to outer city brownfield sites.

Quality of place

Like most creative industry businesses, screen industries businesses tend to locate in central urban locations, however, high land and property values are limit the provision and businesses' ability to locate there and the mobile nature of the workforce for some sub-sectors means that there is more and more demand for workspaces outside of central locations, including within urban fringe locations as well as rural areas as long as these are well connected to public transport and amenities.

Good access to amenities from urban amenities (restaurants, cafes, shops), cultural amenities (cultural infrastructure, night time venues), environmental amenities (green and blue infrastructure), as well as access to quality and affordable housing, all contribute to locational decisions for creative and screen industry businesses. Put simply, creative economies are places where people want to live because they are well located, have diverse communities and good local amenities.

Connectivity

Together with flexible, low-cost workspace, superfast broadband connectivity is consistently identified as basic infrastructure required for growth. Sub-sectors, including VFX and immersive tech, have high bandwidth requirements, sending terabytes of raw uncompressed data while other services depend on "always-on" connectivity and cloud based-services (e.g. video-on-demand, music-streaming). For other sub-sectors, access to fast and consistent broadband speeds provide an important and powerful platform for business growth and improved productivity. It enables businesses to take advantage of digital tools, use the internet to be more efficient and effective, reach new customers and markets online.

Workspace typologies¹⁴

The workspace typologies examples presented in the following pages are not intended as prescriptive models. Creative industry workspace takes many forms, and a bespoke approach will be needed to suit different circumstances. For example, in some locations an existing space may be repurposed for a new creative use, while elsewhere new provision may come in the form of a brand new building. Often, it will be appropriate to combine several different types of space within the same building or develop a cluster of complementary workspaces through co-location to form a 'hub'. For example, High House Production Park in Thurrock is mixing clean office space, studio spaces and production spaces and provide for a range of production and post-production activities and businesses. Therefore, the typologies are intended as a guide to the main types of space that are needed and the factors that should be taken into account when designing and planning new provision.

¹⁴ See further detail and requirements for other facility types here: [Good Growth by Design: Designing Space for Culture \(london.gov.uk\)](https://www.london.gov.uk/what-we-do/what-services/culture-and-creative-industry/good-growth-by-design)

Each typology includes an illustrative example and a case study. The typologies presented are:

Typology	Sectors	Illustrative example
Clean office space	Desk-based screen production activities (gaming / software design and development, VFX) Support services activities (casting, management, marketing, comms etc.)	Creative tech co-working space
Creative studio space	Activities requiring specialist facilities (video production, broadcasting, lighting, sound design, photography, costume making etc.)	Broadcasting and media space
Production space	Activities requiring specialist and/or industrial facilities (rehearsal, Film/TV production, mixed media, sound recording, set design and building/construction)	Digital production space Set design and construction space

Clean office space

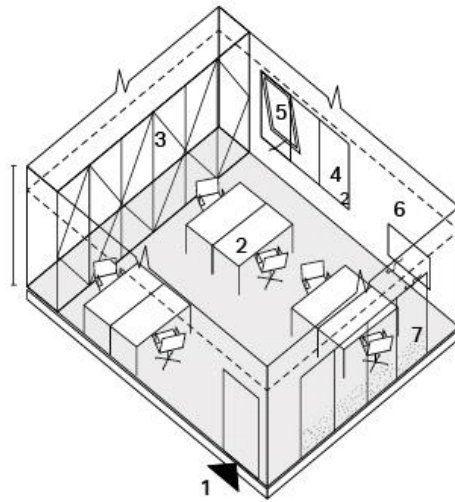
This typology covers conventional office space provision. It is applicable to a variety of occupiers, ranging from large corporate organisations using entire floorplate or sole traders and micro-businesses operating in a flexible and managed co-working space/incubator model. Activities are within the E(iii) planning use class.

Typical Characteristics

- From 25sqm (micro-business space) to 5,000sqm (larger company)
- Lower ceiling (2.9 -4.4m)
- Provision on any floor
- Can be provided at street-level or within building at any floor but street-level business presence is desirable
- Individual office units can be let individually or be part of a managed workspace building

Suitable activities

- Desk-based and computer-based activities including gaming design, software development, animation and post-production; distribution
- Screen industries support services, including casting, management and booking services, marketing and communications, legal etc.

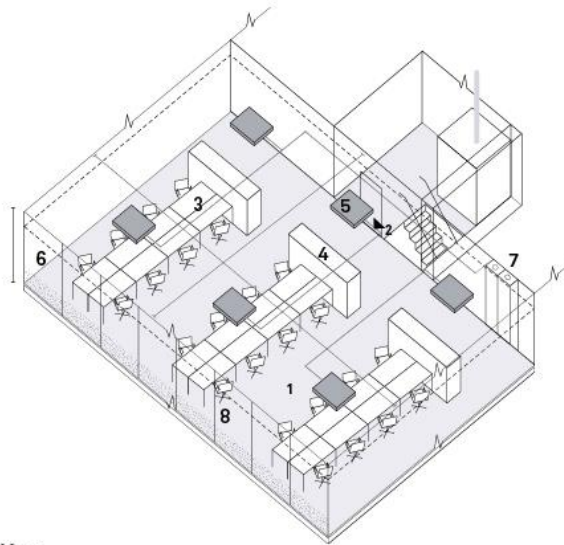


1. Unit-specific entrance
2. Desk-based working
3. Storage
4. Ducted ventilation system/ VRF where passive ventilation not possible
5. Likely electric heating
6. Daylighting
7. Street facing fenestration and privacy screening

Example: Creative tech co-working space

A co-working space for creative tech businesses would provide a mix of desk spaces and office functions as well as ancillary spaces (e.g. cafe). It would be either provided within a purpose-built office building, or a refurbished building. It would provide more flexibility in terms of the space and facilities available as well as cost and tenure options than traditional office spaces. Lower cost, flexible tenancies and a focus on collaboration means they are better suited to start-up businesses whose space needs are likely to change quickly as they grow, or smaller businesses and sole traders who value a fixed business premises and the opportunity to collaborate.

Creative tech co-working space would require high broadband connectivity. They would typically be located near anchor businesses or universities to access potential R&D capacity and opportunities created by key institutions including access to skilled labour.



Key

1. Greater than 500m² floor area
2. Unit-specific entrance
3. Desk-based working
4. Storage
5. Ducted ventilation system/ VRF where passive ventilation not possible
6. Daylighting
7. Service riser 2% of floor area
8. Street facing fenestration and privacy screening

Huckletree West, White City

Address: The MediaWorks,
White City, London

Business: Creative media, digital and tech

Space: Office type
200+ desk spaces

Huckletree West is a co-working space bringing together creative media, digital and tech freelancers, start-ups and SMEs on the ground floor of Media Works, counting BBC, ITV, the Royal College of Art and Imperial College London as neighbours.

It provides office spaces and desk spaces targeted to media, digital, design, tech and VR/AR businesses. The building itself proved flexible enough to easily accommodate a co-working space on its ground floor, achieved by putting up glass partition panels.

The co-working space is made up groups of desks, individual pods and glass partitions, along with a café, recreational spaces, a garden and an associated events programme. Huckletree runs The Alpha Programme a 12-week accelerator set up on a nonprofit basis for start-ups in the tech and digital industries. It provides free workspace, showcasing opportunities, shared resources and experienced support staff for mentoring, training, and advice.

Creative studio space

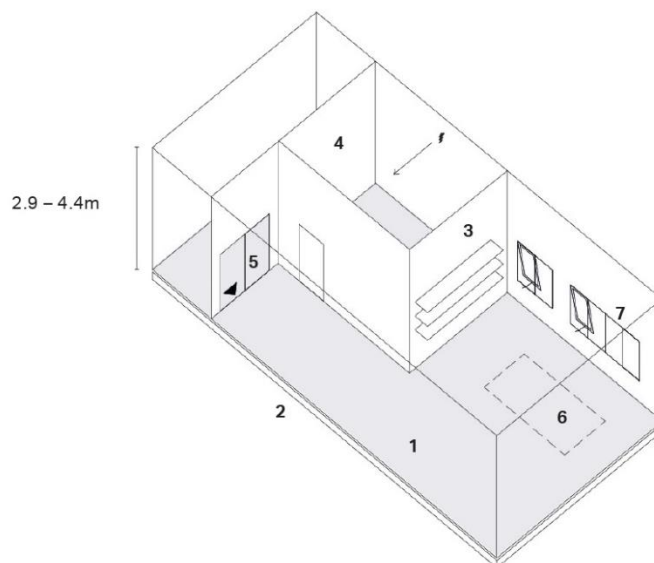
This typology spans workspace for screen industry activities that may have additional spatial requirements above and beyond those of office-type workplaces. When less than 25sqm, these spaces are usually provided within larger buildings to allow multiple managed units. Larger creative studio type space spans workspace for creative uses that have outgrown small creative studios space. This may be through taking on larger numbers of staff or having specialist facilities that necessitates more space.

Typical Characteristics

- From 10sqm (individual studio) to 500 sqm
- Minimum ceiling height of 3.5m
- Provision on any floor
- Suitable for refurbished spaces
- Some facilities provide shared facilities (e.g. recording studios or production room)
- Can be co-located with residential

Suitable activities

- Activities mixing desktop and specialist facilities uses, including video production, broadcasting, post-production, digital publishing, lighting, photography, sound design, prop and costume making.



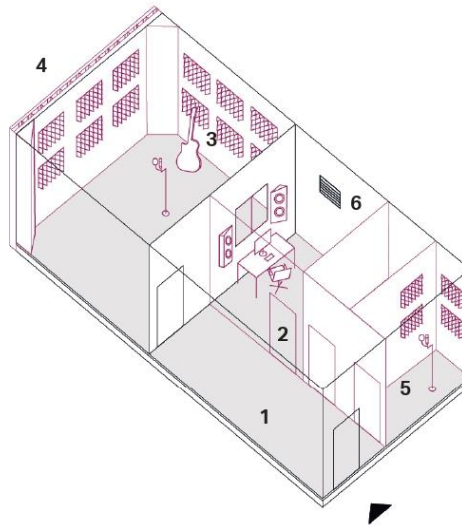
Spatial/Organisational Structure
(Note: Not drawn to scale)

Key

- 1 32-500m² floor area
- 2 Floor loading between 3.5-5kN/m²
- 3 Larger space allows for additional storage of materials
- 4 Subdivision of space into clean and 'messy' space or for specific functions is key to larger creative studios
- 5 Access for large scale works or deliveries facilitated by shared or ground floor access
- 6 Specialist large scale equipment to be considered in fit out
- 7 Natural cross-ventilation with manually operable windows

Example: Broadcasting and media space

A broadcasting and audit suite facilities for creatives working in all forms of digital media, including film, television, video and radio production, broadcasting, web and graphic design, digital photography and sound recording. Many digital creatives work in mixed media formats and require access to a range of specialist digital facilities, while others may be focused on one medium.



Illustrative fit-out examples
(Note: Not drawn to scale)

Key

- 1 Half of the space allocated to a recording / performance space
- 2 Focused desk space (control room) for audio recording/production without requirement for daylighting
- 3 Foam boards/ bass traps to absorb low frequencies and prevent deadening
- 4 Acoustic specifications required for both the floor and party walls to avoid disruption to neighbours
- 5 Vocal Booth
- 6 Quiet mechanical ventilation

The Nest Post, Wapping

Address: Wapping, London

Business: Broadcasting and sound recording, post-production (motion graphics, VFX)

Space: Ground floor of mixed-use development

Open co-working spaces with specialist production facilities

The Nest Post is a 3,000 sq.ft independent workspace offering permanent or ad-hoc spaces for post-production freelancers, micro-businesses and start-ups. Along with an open-plan co-working spaces, the Nest Post offers a number of specialist facilities including grading suites for post-production retouches, audio suites for dubbing, sound design and voice-over, a screening suite. Facilities are accessible for all regular co-working users but can also be rented on an hourly or daily basis. The Nest Post is home to 8 post-production freelancers and 5 micro-businesses.

Production space

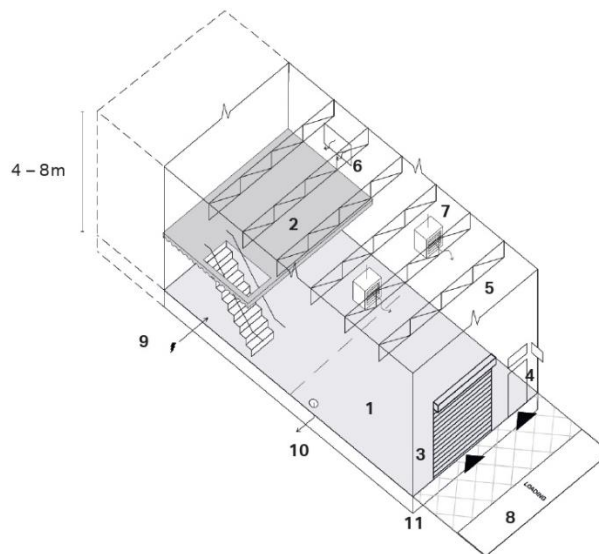
This typology covers medium to large production and rehearsal activities. By their nature, these activities have greater spatial requirements than any of the previously described categories, are likely to require servicing by large goods vehicles and may have specific servicing requirements such as three-phase power and mechanical extract equipment.

Typical Characteristics

- From 150 to 500sqm
- Minimum ceiling height of 4-4.5m / double height spaces allow for production areas where lifting/handling may be required
- Best provided at street level
- Some need for large entry access and loading facilities
- Facility to take any production services (water, gas, electricity) to any point within production area and at high power.
- Need for sound insulation/attenuation

Suitable activities

- Rehearsal, Film/TV production, mixed media, sound recording, set design and building/construction



Spatial/Organisational Structure
(Note: Not drawn to scale)

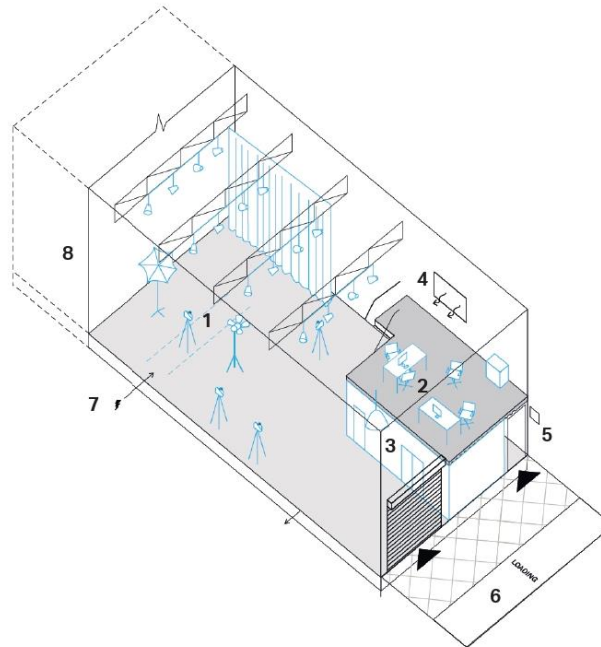
Key

- | | |
|--|---|
| 1 Less than 500m ² floor area | 8 External loading area |
| 2 Double height ceiling allows for administration mezzanine. May also be provided adjacent to loading doors in wider units | 9 3 phase power |
| 3 Roller-shuttered doors for deliveries (min. height 3.7m and min. width 2.4-3m) | 10 7.5 ton vehicle access and occasional articulated vehicle access |
| 4 Separate staff/ visitor access with signage | 11 Drainage from floors areas (suited to food production/ brewing) |
| 5 Spanning structure creates flexible internal layout | 12 Floor loading- refer to table |
| 6 Radiator heating to office areas | |
| 7 Blow air heating for work areas | |

Note: Typically rectangular plan form with ratio of long to short sides between 1:1 (where no particular traffic routes are dictated by process) and 3:1

Example: Digital production space

A digital production space for uses such as photography shoot, video production or music rehearsal. Combination of other spaces such as dressing room, green room or office space can also be expected.



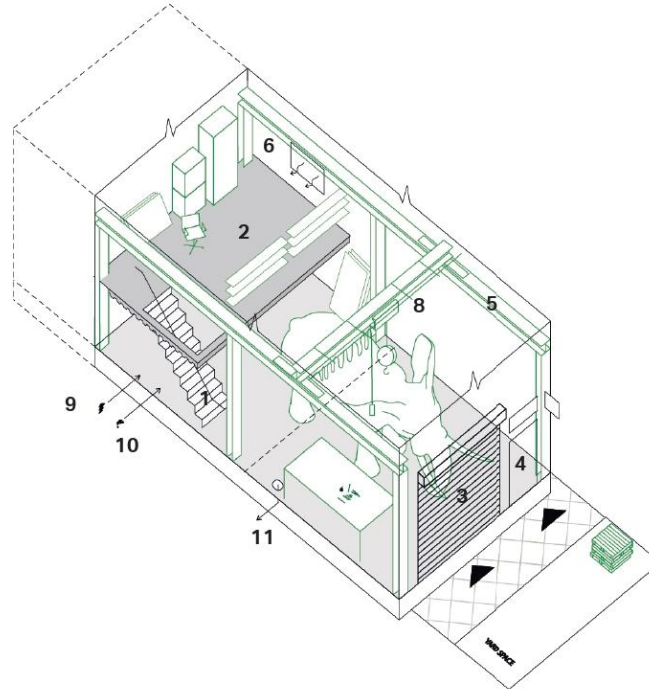
Illustrative fit-out examples
(Note: Not drawn to scale)

Key

- 1 Space and fit out for specialist artificial lighting, camera sliders etc
- 2 Workspace for digital post-production work
- 3 Secure storage for technical equipment. Lockers, changing rooms, showers, and green room
- 4 Mechanical ventilation with low airspeeds
- 5 Separate staff/ visitor access with signage
- 6 Loading bay and access for receiving equipment and scenery
- 7 3-phase power is preferable
- 8 In small industrial spaces, minimum clear ceiling heights greater than 4m (ideally 8m) to enable technical lighting rigs and set design

Example: Set design and construction space

Set design and construction spaces are typically hosted in industrial or light industrial units. They usually require servicing by large goods vehicles and have specific requirements such as three phase power and mechanical extract equipment.



Illustrative fit-out examples
(Note: Not drawn to scale)

Key

- | | |
|--|--|
| 1 Clear access to mezzanine | 6 Radiator air heating for work areas |
| 2 Double height ceiling allows for administration mezzanine. May also be provided adjacent to loading doors in wider units | 7 Yard or loading space for regular servicing, deliveries and external operations |
| 3 Roller-shuttered doors for deliveries (min. height 3.7m and min. width 2.4 – 3m) | 8 Lifting equipment (500-1000kg loading) |
| 4 Separate staff/ visitor access with signage | 9 3 phase power |
| 5 Spanning structure creates flexible internal layout | 10 Water supply with min. 1Bar at boundary, with local boosting possible |
| | 11 Drainage from floor areas |
| | 12 Note: For theatre rehearsal activities that are related to this sector see guidance for Dance sector. |

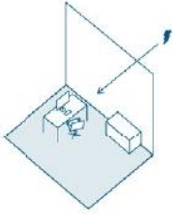
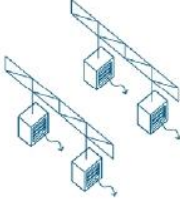
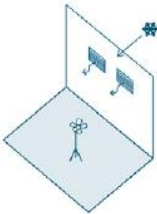
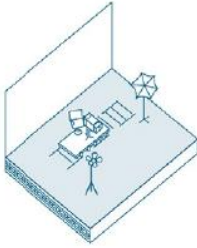
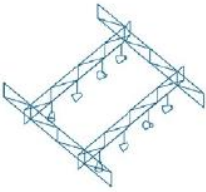
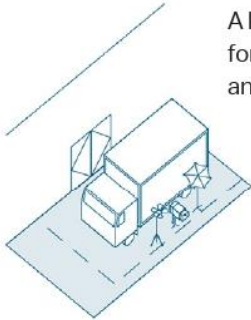
The Backstage Centre Studios, Purfleet

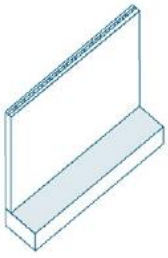
Address: Purfleet, Essex, RM19 1AS
Business: Film, video and TV production
Space: New build industrial space

The Backstage Centre is a state-of-the-art facility offering a bespoke option to production companies. The Centre boasts an 875m² uninterrupted sound stage with extensive rigging capacity for professional production work from its 15m high grid. Additional facilities include production offices, dressing rooms, a green room, a prop-making workshop, rigging workshops, CAD suite, dance studio, recording studio, on-site car parks, loading yard and 24-hour security.

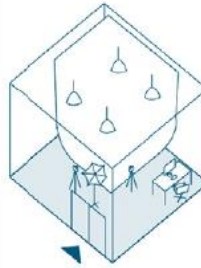
The Backstage Centre is located at High House Production Park, a 14-acre site offering a range of external filming locations just 30 minutes from central London.

Specialist facilities and key requirements

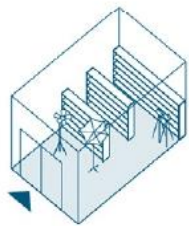
 <p>Digital production studios for film/TV will need to accommodate high powered computers and servers.</p>	 <p>Heat loading from lighting and equipment will necessitate mechanical ventilation, with low airspeeds as to not cause problematic noise levels.</p>
 <p>Ventilation and environmental controls should be able to accommodate high heat loads caused by equipment.</p>	 <p>Heat loading from lighting and equipment will necessitate mechanical ventilation, with low airspeeds as to not cause problematic noise levels.</p>
 <p>Visual recording has specialised requirements for lighting which need to be accommodated with lamp support systems.</p>	 <p>A loading bay and access for receiving equipment and scenery is preferable.</p>



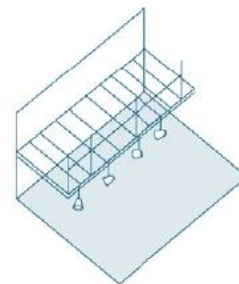
Acoustic requirements can match those of the Music & Radio sector (see guidance below). Vibration isolation is key.



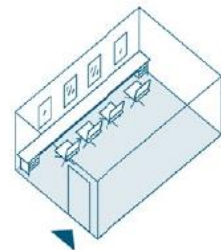
Green rooms are desirable.



Storage for specialist equipment is desirable.



Catwalk spaces at high level beneficial for servicing lighting.



Dressing rooms are desirable.

When considering refurbished spaces production/media businesses may seek higher quality (potentially new) space.

Control suites have bespoke layout requirements and a minimum clear height of 4m including a false ceiling for services.

2.3 Learning from elsewhere

Manchester, UK

A public-led and long-term approach to screen production infrastructure development

Context

Space Studios Manchester is one of three assets owned by Manchester Creative Digital Assets Ltd (MCDA), an arms-length external organisation or 'ALEO' which is 100% owned by Manchester City Council. The other assets in the portfolio are the Sharp Project, a 200,000 sq.ft refurbished warehouse offering flexible office for digital and post-production micro-businesses and SMEs, screen production and event space and One Central Park, which is 83,000 sq.ft of lettable office space aimed at digital and creative businesses. The portfolio provides spaces for both high-end film and TV production as well as regional and local productions, along with flexible and affordable workspace for all the screen industry supply chain and ancillary facilities such as purpose designed dressing & make up facilities, prop stores/ workshops, catering etc.

Best practice

The development of screen production infrastructure portfolio has been incremental and derive from a long-term strategy and ambition of the council of making Manchester one of the world's leading digital cities, a city ready and enabled for a future where '80% of jobs that will exist in 2030 haven't been invented yet'.

The Sharp Project opened in 2011 in a former European distribution centre for Sharp Electronics. It is Manchester City Council's flagship initiative to support the development of the City's digital sector. The building was completed in June 2011, having received £6.8m of public funding. The focus was on developing a model bringing together space, connectivity, power and people, to support the convergence of both assets and talent that can allow Manchester to compete in both a national and global marketplace.

Following the success of The Sharp Project, the Council through MCDA invested around £35m between 2011 and 2020 to create a purpose-built TV and film production facility, Space Studios. It also established SharpFutures, an agency that supports young people into employment. The social enterprise is proactively engaging young people from across Manchester, giving them first-hand experience of work in the creative and digital sector. SharpFutures also offers a range of digital workshops to schools in conjunction with tenants from The Sharp Project. This approach ensures that young people gain an understanding of employment opportunities in the local area, learn about the type of work that companies deliver day to day and help to build the skills required in the future workforce.

Impact

The Sharp Project supports an annual gross GVA impact of £50.6m and the publicly owned and managed portfolio of production spaces is growing: there are future development plans being prepared including the provision of additional capacity for production (+90,000sq.ft) in response to high levels of demand. There are ongoing discussions to use the income generated by the space to create a long-term patient

capital fund to support creative businesses and a regional film fund.

Relevance for TEPC

- MCDA is unequivocally owned and operated by Manchester City Council and initial purchase of privately owned sites and capital investment has led to successful and viable production spaces supporting the full screen industry ecosystem.
- Initial public sector investment is relatively consequent but is allowing value to be retained in the region and re-invested to support sector growth (creating a sustainable model rather than a model seeking continual dependence on the public sector).

Vastra Gotaland, West Sweden

A regional and cohesive approach to infrastructure development

Context

The marked growth of the screen sector in West Sweden is an example of the potential to drive strong development at regional level with a strategic approach to infrastructure development and funding. In 1992 the region of Västra Götaland created the funding and strategic Screen agency Film i Väst in response to difficulties in the regional economy, which was focused on heavy industry. The region has since attracted over 1,000 feature films, television dramas, shorts and documentaries.

A key factor in this growth has been the equity funding offered by Film i Väst, which requires elements of production or post to be placed in the region and to use regional crew and services. To this end, the organisation's strong focus on the development of infrastructure and services – as well as workforce – has ensured the development and ongoing growth of a valuable and highly capable Screen sector.

Best practice

The development of Västra Götaland's Screen industry underlines the critical importance of a cohesive approach that focuses on development of infrastructure, services and workforce – as well as an underlying financial offer for productions.

West Sweden's production sector contains a range of key services and infrastructure including major sound and visual effects companies and equipment rental houses, and a developed crew base. In 2004, *Film i Väst* opened Studio Fares, built and owned by the municipal authorities. In order to build the studio, the agency presented both the cultural and economic case for expansion to local government, focusing on jobs, regional branding, and supporting other local businesses

Film i Väst's strategic approach extends to support. In March 2019, it expanded the region's financial offer with the launch of an automatic production rebate for feature films and television dramas of up to 30% of qualifying spend. While underlying project funding can attract productions to a region, the development of infrastructure and services ensures that the impacts of production can be retained by businesses and individuals in the region, and in turn sharpens the region's competitive edge as a production market.

Impact

Film i Väst co-produced a total of 18 films in 2018, with wide-ranging impacts for the region. The studio has helped Trollhättan, around 45 miles from Gothenburg, to become a key hub in the Swedish production sector. It has also brought new and high-value jobs to a region which had seen a decline in traditional industry, demonstrating the value of screen production as a driver of economic activity.

Relevance for TEPC

- Development of infrastructure and services – including soundstages – alongside a financial offer is essential to ensure a competitive sector and to retain impacts of production.
- Screen agencies can take a strategic role in developing infrastructure and services, which includes informing investors of the opportunity.
- Strategic investment in infrastructure and services can create employment in markets even without a long history of Screen production.
- It is possible for regions to become central hubs in a nation's production sector;
- Financial support from authorities or key agencies can also be critical in establishing studios sector.

Northern Ireland

Linking workforce development with infrastructure delivery

Context

Northern Ireland has effectively built a thriving, internationally recognised screen sector over the course of the last two decades, having attracted large-scale productions including Game of Thrones.

Northern Ireland Screen has proactively responded to infrastructure and workforce needs in a manner that corresponds to demand, first providing ex industrial space for filming, and then developing Belfast Harbour Studios.

At the same time as capacity has grown in terms of infrastructure, Northern Ireland Screen has developed a range of focused training programmes which have allowed the local workforce to both grow and to gain new skills and responsibilities.

Best practice

Northern Ireland Screen runs different internship programmes aimed at getting a wide range of young people into the industry and providing specific experience in different parts of screen production and post production. This benefits the industry as a whole as it trains people up for a number of specific roles across the sector, rather than creating oversupply of one type of trainee.

Northern Ireland Screen also manages the process of aiming to get each intern placements on multiple productions where possible, providing more long-term and varied experience. It also runs a programme called Stepping Up, which incentivises promotions within the industry. The agency identifies crew with multiple years of

experience working on productions, and enables them to move up a rank, for instance from 2nd assistant to 1st assistant.

Impact

Every year, Northern Ireland Screen enables approximately 100 local crew members to be promoted to a higher grade on productions across the Screen sectors and awards around 60 bursaries to local industry aimed at their continuous professional development. It also employs trainees in production, craft and technical, post production, animation, gaming and VFX roles, and ran a new entrants training course.

Relevance for TEPC

- By working with industry, ensuring flexible courses which do not place an undue value on certification and formality, and subsidising these to ensure access, the development of a diverse, highly skilled sector has been prioritised.
- Northern Ireland Screen has also worked throughout with the industry to underline the value of upskilling to the sector. This reflects the inherent tension that future demands for skills need to be solved at an early stage, but the sector tends not to want to let people go on courses while they are on set. By underlining the value that this generates in the long-term, and working with industry, it has helped to ensure the development of a highly skilled Irish production sector.
- The absence of a strategy to develop the wide range of workers required by productions, across technical and non-technical roles, will inhibit the growth of a sector. Development strategies that do not deliver the right kind of roles or skills are also ineffective.

Ontario, Canada

De-mystifying risks to encourage private sector investment

Context

Ontario's suite of tax credits, which have been in operation since 1998, have underpinned the development and growth of the province's dynamic and internationally recognised Screen production sector.

This has led to the development of more than 2 million ft² of stage space, but the ongoing success of the province in attracting projects means that this is now insufficient for the demands of the industry. Despite this, banks and investors struggled to fill the gap – studios inherently mismatch capital requirements and risk, due to the long timescales for return on capex, and the relatively short rentals that the sector requires for stage space.

In order to address this, Ontario Creates and the provincial administration developed a range of data, including on lost spending and available space for the development of studio projects, working with municipalities to encourage investment in existing and new facilities.

Best practice

Working with the industry to provide data on lost productions helped to spur investment, as it demonstrated demand, and helped banks and investors to properly understand the risk of any studio projects. This was aligned with the creation of a dossier of available, suitable sites, making it clear where space for growth was available, and what the nature of any available sites was.

Though this wasn't a designed intervention, the two elements aligned serendipitously to provide a significant benefit to the province. Municipalities within Ontario which are responsible for zoning have proven flexible in their approach to land and have been willing to engage constructively in the marketplace, recognising the opportunity offered by the sector in Ontario.

Impact

The availability of data provided confidence to investors, who were previously put off by the mismatch between lease lengths and capex requirements. This has led to plans which will double the stage space in Ontario to 4 million sq. ft by early 2022.

Municipalities have also bought out studios for sale, to ensure that they remain available to the sector as opposed to being redeveloped into housing or other commercial uses.

Summary of best practice learnings

Investors need to have some defrayal of risk to make infrastructure investments work, given the diverging risk and reward timescales. The Ontario model shows that public financial investment is not always required – though it was not an intentional model, investment in developing coherent information filled the gap, and encouraged the investment in facilities which will allow the ongoing growth of the sector in the province.

Silicon Spa, Coventry & Warwickshire

Building the right environment for games and digital industries

Context

The Silicon Spa is an established games and digital cluster centred on Leamington Spa and taking in Coventry and the towns of Warwick and Southam, with over 140 games businesses and over 80 studios directly employing more than 1,800 people. Local names include Codemasters, Pixel Toys, Modern Dream, Kwalee, Playground Games, Sega Hardlight and its newest addition, Ubisoft Leamington. Both Coventry University, through The Serious Games Institute, and the University of Warwick provide a pipeline of skilled individuals in a range of technical and creative disciplines.

The cluster has developed over more than two decades. Leamington's long history of video game development has resulted in an organic growth of experienced veteran developers alongside new emerging talent which is no longer reliant on one big developer to sustain itself. It is a good example of developing regional economic growth through a local 'smart specialisation' in a sector that demonstrates clear advantages over its competitors in international markets.

Best practice

In the past decade, the LEP, Warwick Country Council in partnership with key sector stakeholders including local universities, Ukie, SEGA and Ubisoft concentrated efforts to address existing barriers to cluster growth, including space and digital infrastructure provision as well as skills. Together they have been at the initiative of the creation of the Digital School House to encourage the development of a diverse and talented pipeline for the industry in order to bridge the skills gaps and support a more exciting pathway into computer science.

In 2016, Ukie and Coventry & Warwickshire Local Enterprise Partnership (CWLEP) came together to create a strategic plan to further support and grow the games industry in the region.

Impact

The LEP has been key in ensuring a pipeline of games-ready business premises by promoting a wide range of building typologies to investors in urban, business park and out of town settings. A creative quarter is also being invested in on the south side of Leamington Spa town centre. The ambition is to create a physical hub that collocates specialist support for games businesses including specialist investment support, inward investment support services, a single point of access to skills support from multiple HE, FE and private providers as well as a single point of entry to the regional innovation 'sandbox' offering project and meeting space, access to knowledge exchange and R&D support rather than shared workspaces. The hub will also celebrate the culture of games and Leamington's heritage as a cluster, offering space for the local community and visitors to celebrate the cultural aspect of games and a venue for eSports events and games in education initiatives

Relevance for TEPC

- The distributed and polycentric nature of the cluster is good in offering a range of environments for company founders and managers of existing businesses.
- Regional strategy identifying games as a 'beacon' sector for digital manufacturing in the West Midlands: high value, IP-creating, export focused, knowledge intensive, high skill and high growth. Combined with the depth and breadth of the local talent pool, and the quality of life offered in South Warwickshire, this makes a distinctive and differentiated set of marketing messages to attract inward investment, including FDI.

Berlin-Brandenburg, Germany

Smart Country: supporting creative networks in a large regional urban-rural cluster

Context

Berlin is the first and only State in Germany to form a strategic innovation partnership with the neighbouring federal state Brandenburg. This joint approach to supporting the creative industries cluster, alongside the energy, healthcare and future mobility clusters, has created an urban-rural, cross-sector 'super-cluster'.

The Berlin-Brandenburg cluster spans a large urban-rural area. Of the 18 districts

within Brandenburg, 14 Central to growth of the cluster are highly specialised sector intermediaries supporting than €2 million of the cluster funding has been specifically dedicated to promoting creative industry networks. Media-net Berlin-Brandenburg networks more than 450 creative businesses, establishing cross-sector and cross-state collaborations. Working with academic institutions, business and policymakers it contributes to shaping the economic framework conditions for the cluster.

Brandenburg's Smart Country initiative was launched in 2018, aimed at networking the state's districts towns and villages, such as Bad Belzig or Angermünde, with the capital Berlin. Emerging as a cluster event programme from the Economic Development Agency Brandenburg, the initiative facilitates a range of activities to help connect creative talent and businesses across the whole creative cluster.

Best practice

Finding ways to connect across this urban-rural cluster is an increasingly important issue for millennials working in the city and they have started to look towards the Brandenburg countryside for cheaper business locations and a better quality of life; those working in Brandenburg's creative economy are seeking better connections and market opportunities from within the capital's creative growth hubs.

The Smart Country programme includes supporting 'maker-hubs', co-working space and innovation labs. Central to the initiative is the concept of smart villages – these are test fields for new digital hubs in rural areas and where kreativorte or creative spaces are emerging in old manor houses or barn conversions. Virtual hubs such as Creative Places Brandenburg are enabling new smart villages to emerge.

For example, Coconat 77 in Bad Belzig became a designated smart village in 2018, offering 'workstation retreats' for creative talent, enabling a grass-roots creative scene to flourish.

Impact

These smart villages create connections across the cluster, they provide the catalyst for creative start-ups and are attractive to younger urban creatives who choose to spend time co- working from these rural centres. They are also potential sites for large global tech locations Google, etc. Following its initial success, Smart Country is continuing to roll out.

Summary of best practice learnings

- The project "Smart Country" opened up wholly new opportunities for locations in rural areas and led to an urban-rural 'hub and spokes' cluster model made of a large cluster (Berline) and a series of micro-clusters supporting and bringing together creative freelancers and micro-businesses.
- Strong co-working ethos which facilitates networking and an abundant number of meet-ups and events in both virtual and physical locations, allowing freelancers and micro-businesses to meet and collaborate.
- Digitalisation can enliven rural areas, making them more attractive for creatives and young professionals.

Yorkshire and Humber

Developing the immersive tech sector and improving the visitor economy

Context

Yorkshire and Humber is an emerging centre for the screen industries. Building on its track record of R&D excellence, the University of York with its strategic partners Screen Yorkshire and the BFI, together with an impressive range of regional and national industry and regional university partners, were successful in their AHRC Creative Industry Cluster Partnerships bid. The XR Stories project was the result.

XR Stories has added a fourth growth pillar to the three initially identified by the Yorkshire and Humber Consortium (Production/content fund incentive; Major studio complex; Industry-embedded skills/ talent programme). This fourth pillar involves XR Stories as a regional hub through which to invest strategically in R&D, with the aim of making Yorkshire and Humber the leading UK centre of excellence for immersive and interactive storytelling

Best practice

XR Stories works across film, TV, games, media, arts, heritage, advertising, digital and creative technology to champion a new future for immersive and interactive storytelling.

XR Stories is a regional hub through which to invest strategically in R&D and deliver a series of flexible funds to support different types of R&D activity. These enable the development of both small and large projects, working with companies on specific R&D challenges. In this way, XR Stories enhances the capacity for Yorkshire and Humber to benefit from business R&D, the development of new Intellectual Property (IP) and, ultimately, economic growth.

At the same time, the services of XR Stories are relevant to other industries of strategic significance to Yorkshire and Humber. These industries include the visitor economy – which encompasses a wide range of activities, including festivals and other kinds of cultural destinations, such as museums.

Given the rich natural and cultural assets of Yorkshire the potential of AR/VR to strengthen its visitor experiences and, thus, grow its visitor economy is considerable.

XR Stories has identified a potential for immersive technologies to assist Yorkshire and Humber in rebuilding its visitor economy post-Covid in a variety of way including using immersion as a promotion tool, improving tourist experiences, travel from home etc.

Impact

Given the rich natural and cultural assets of Yorkshire and Humber, the potential of AR/VR to strengthen its visitor experiences and grow its visitor economy is considerable and XStories is working with local authorities, the LEP and touristic and key sites institutions to explore future collaborations.

Relevance for TEPC

- Immersive technologies and associated R&D can accelerate the growth of important sectors including the Screen Industries and the tourist sector. In

Yorkshire and Humber, this acceleration is underpinned by strategic relationships between XR Stories and key agencies (e.g., Screen Yorkshire, Welcome to Yorkshire) and the ability of XR Stories to understand and deliver to the ambitions and requirements of business with these sectors.

- Bringing together place-based development and sector growth development agendas: the immersive nature of XR technologies offers a technological solution that can sustainably influence our reality and living in areas such as economy, research, art, culture, and entertainment.

Hilversum Media Park, The Netherlands

Context

Hilversum Media Park, a 30min drive from Amsterdam, is one of the most significant creative clusters in Europe and the centre of Dutch media industry. It provides more than 12,000 jobs and is home to more than 250 companies from start-ups, professional media companies to major broadcasters. It provides a wealth of personal and professional services including infrastructure of the latest technologies, modern/flexible facilities and a wide range of social activities. It operates as a creative and media campus, but it also has strong supply chain relationships with creative businesses across the Randstad conurbation, facilitated through a creative business network, creative and media showcase events, and partnership with key universities.

Best practice and relevance for TEPC

Hilversum succeeds on the foundation of strong public/private partnerships and a flexible and balanced offer of commercial space, consumption space, learning and innovation spaces. It is further underpinned by a holistic planning mentality as seen in the masterplan jointly launched by Hilversum Municipality and Media Park Enterprise. This makes the campus porous and connected to the local area. An emphasis is placed to ensure occupants can live, work or conduct business so that collaboration and innovation can flourish. Concrete examples are:

- Modern and flexible office spaces, from compact co-working spaces, multi-tenant buildings to company private buildings;
- Multi-functional facilities for rent with professional technical services;
- On-campus support network, including catering, personal care and day-care;
- Active public engagement programme such as behind-the-scenes backstage access;
- Skills and employability programmes linked to HEIs and FEIs

Toronto-Waterloo Innovation Corridor, Canada

Context

Identified as Canada's top start-up ecosystem by the Start-up Genome's report and the largest tech cluster in North America outside of Silicon Valley, the supercluster of Toronto-Waterloo Region Corridor spanning 112km, is home to 4 urban centres, 15k tech companies, 200k workers and representing over 17% of the national GDP. The Corridor accounts for 20% of Canada's university students and 16 post-secondary institutions.

Corporate tax incentives, supportive government leadership and access to the wider North American market further consolidates the position and ambition of the Corridor that ensures holistic support from financial services to business services, health care, clean tech and advanced manufacturing.

Best practice and relevance for TEPC

The Corridor offers a comprehensive environment that enables accessibility, affordability, diversity, talent-cultivation and innovation to foster 'circular growth'. A shared strategic vision coupled with place-based clusters and underpinned by strong digital connectivity, enables the realisation of a cluster of regional scale. In the partnership between places no location has pre-eminence, and it is noted that all places contribute to the offer, with brokered supply chain and talent exchange initiatives across each hub of the corridor. The key critical components to the advent of the Corridor are:

- Presence of world-class academic and research centres;
- Large, high-quality talent pool
- Access to capital
- Connective infrastructure and community
- High standards of living
- Access to early adopters or receptive markets linked to HEIs and FEIs