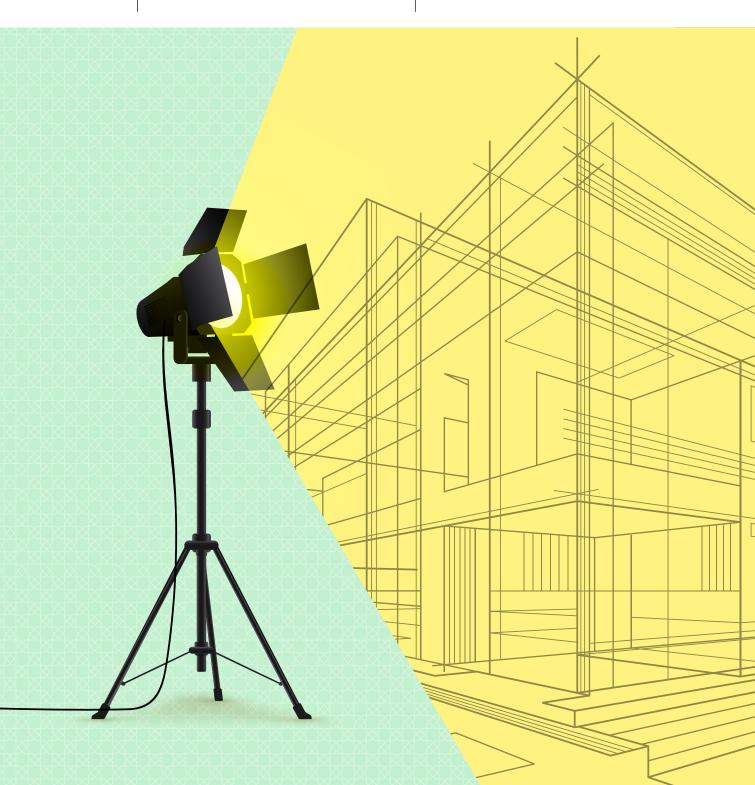


UK Film and Television Studios Market Report

2023

Exploring the latest dynamics and trends in the UK Film and Television Studios Market

knightfrank.com/research



Stage Presence



FOREWORD BY FREDDIE OWEN PARTNER, CAPITAL MARKETS

Historically, studios have been regarded as a niche and specialised asset class with few investment transactions. Leasing studio space has traditionally involved short-term contracts and unpredictable void periods.

Over the past few years, streaming platforms, such as Netflix, Apple TV+, Amazon Prime, and Disney+, and more traditional broadcasters, such as Sky or the BBC, have been investing in film and television production to meet the rising demand for original content. These streaming platforms are changing the leasing model; although they are still taking short-term leases as needs require, their strategy of leasing studios on a longer-term basis has helped to provide scheduling certainty for their large-scale, long-term content-creation plans.

We expect demand for new content will continue to grow, however, future production spending is not likely to maintain the same course of growth experienced in previous years. Taking a centrist view as a mid-point between high and low growth scenarios, we would see total production spend reach £8.7 billion by 2028. The additional £2.4 billion in spending would need around 2.6 million sq ft of additional studio space.

The supply / demand fundamentals

of the film studio market have led to significant interest from institutional investors for both operational assets and those let on a longer term basis which offer secure rental income.

The supportive stance from councils and the planning system, coupled with tax incentives and government funding, also reinforces the long-term prospects for the sector. Institutional grade stock of studio space has increased in recent years, meaning studio buildings are now built with ESG criteria in mind. Technologies being employed for filming within these studios, such as LED volumes and virtual production, also offer increasing potential to improve the environmental and sustainability credentials of the industry. Additionally, the sector's job creation potential can boost local economic growth and development, which should appeal to investors.

The demand profile in the industry is shifting, however. The major streaming platforms have, for the most part and time being at least, satisfied their requirements in terms of studio space. There aren't any other platforms that require large scale (500,000+ sq ft) dedicated facilities. That is not to say that demand for studio space is not still rising, though the scale and type of facilities, their locations and the leasing structure will not necessarily be the same as that needed by the major streaming platforms.

These changing dynamics within the film and TV studio market offer exciting prospects for a new wave of potential investors. The supply of new studio space will need to respond to these changing requirements and perhaps diversify to accommodate new and evolving types of demand. The operational segment of the market is likely to grow to facilitate a rising number of smaller players. This will present more diverse investment opportunities in terms of scale and location, requiring greater sophistication, specialisation and market knowledge.

The current inflationary environment makes operational real estate, and specifically the studio sector, an attractive option. Investors are finding it increasingly challenging to generate targeted returns from traditional real estate sectors such as office and retail. They are seeking higher returns by increasing allocations to operational real estate. However, there are also more significant risks in an operational real estate environment, and investors typically partner with a specialist operator to drive returns and capture value.





10 Key Points

01

Total stage space in the UK stands at 6.9 million sq ft, with 1 million sq ft added in the past year and **71%** of all stock in London and the South East.

02

Many significant tax incentives are targeted to help the film industry in the UK. However, the revaluation of business rates that took effect in England and Wales on the 1st April, 2023 has become a significant cost for studios. Knight Frank's analysis of Valuation Office Agency (VOA) data demonstrates exponential increases since the revaluation period. Many studios have pushed back at the unsustainable rises in costs at a time when they face a myriad of inflationary pressures on operating costs.



03

Training and development of staff are paramount to the industry's success, and many of the largest production studios and companies are now recognising this. Screenskills estimates that there could be a shortage of **15,130** to **20,770** crew by 2025.

04

The advent of the Master Lease Agreement is changing the risk profile for many of the more prominent production stages, which are now permanently occupied/let to typically one of the big streaming platforms. Smaller studios are more likely to operate on short-term contracts.

05

ESG credentials are becoming more critical to production companies and filmmakers, with newer studios built to high BREEAM standards amid efforts to reduce the carbon emissions of filming. However, challenges remain. An estimated **3,370** metric tonnes of Carbon Dioxide is released on average during film production with a US\$70 million budget.



06

Construction costs have risen across all sectors, with the BCIS build cost index rising **15.5%** in the year to June 2022 but the last year has seen pricing stabilise with growth of 1.6% (year to June 2023). Coupled with higher financing assessing their viability.

07

Approximately **£6.3 billion** was spent on film and HETV production in the UK last year, corresponding with around **6.9 million sq ft** of current stock. This would indicate that, on average, each £1 billion of spend on film and HETV production would require around 1.1 million sq ft of studio space.

08

With the 2022 statistics pointing to a revised growth trajectory, expectations are that future production spending will not maintain the same course of growth experienced in previous years. With interest rates rising and following a period of rapid expansion and aggressive market share growth, streaming platforms are now looking at their costs and profitability with greater scrutiny. Therefore, production spend, at least from the major streaming platforms, is expected to plateau over the next few years.

09

Under our high growth scenario, spending on film and HETV production would rise by £2.9 billion, reaching £9.2 billion in 2028. Based on current stock and spend figures, this additional spend would require an extra **3.2 million sq ft** of studio space. Under our low growth scenario, we could see an additional £1.8 billion of spend, which would require a further **2.0 million sq ft** of space by the end of 2028.

10

studio space.

Taking a centrist view as the mid-point between high and low growth scenarios, we would see total production spend reach £8.7 billion in 2028. The additional **£2.4 billion** in spending would need around **2.6 million sq ft** of additional



Demand for studio space 2023: has the bubble burst?

The past year has presented several challenges, including inflationary pressures, business rate increases, the Writers' and Actors' strikes in the US, a decrease in productions being commissioned, and job cuts, all of which could impede the scale and speed of new content production and, thus, demand for studio space.

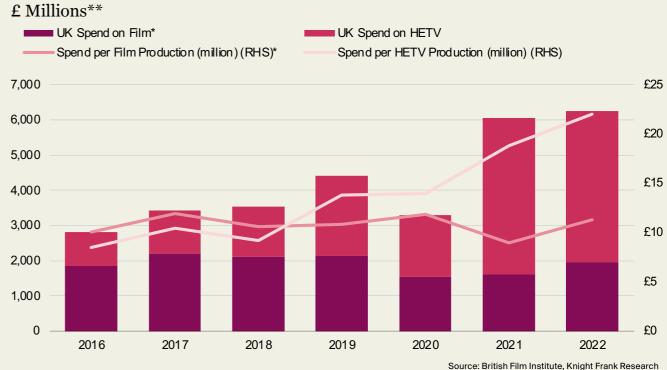
SETTING THE SCENE

The show must go on... unless the show has not been written. The Writers Guild of America (WGA) mandated a strike on 2nd May 2023 for all members. This leaves many British writers facing the threat of a lifetime ban from the Guild and a stifled career if they don't follow suit. Following this, the US actors' union SAG-AFTRA called a strike on 13th July, with the main points of debate stemming from the lack of residuals coming from streaming services and the rise of Artificial Intelligence (AI). While the writers' strike does not necessarily impact fullywritten productions already in progress, further industry disruption could severely diminish the pipeline of new productions. Indeed, with the actors striking, all principal photography is forced to stop immediately. This is the costliest element of production and will likely result in pent-up demand for studio space when negotiations are resolved as companies rush to film again.

As budgets are cut due to a plateauing of new streaming subscribers, redundancies have become more prevalent for many streaming services. Cancelling streaming subscriptions is an easy way for consumers to save money amidst the rising cost of living. However, Netflix has spent £4.8 billion on UK content since 2020. It continues to invest in the UK, with initiatives such as advertisingsupported cheaper monthly fees and a



Spending on UK Film & HETV Production



*Excluding films with budgets <£500,000 due to time lag in reporting of lower budget film data. **All statistics should be treated as provisional and subject to revision.

crackdown on password sharing used to maintain and increase subscriber numbers. Conversely, in February 2023, Disney announced its intention to cut US\$3 billion from content budgets and US\$2.5 billion in other costs, resulting in an estimated 7,000 job losses globally. These cuts will reduce the amount of content that can be commissioned.

In June 2023, the UK Government announced ambitious plans to grow the creative industry by £50 billion and create one million extra jobs by 2030 in recognition of, and to maximise, the industry's potential across the UK. This includes new national R&D infrastructure for the screen industries through delivering the £75.6 million Convergent Screen Technologies and Performance in Realtime (CoSTAR) programme, matched by an additional £63 million of co-investment, to develop advanced screen technology and virtual production techniques for film and stage and looking at the possibility of utilising Artificial Intelligence (AI). New regional research labs will be based in Yorkshire, Dundee and Belfast, with a national lab in Buckinghamshire.

HOW HAS DEMAND WITHIN THE SECTOR EVOLVED OVER THE PAST YEAR?

Statistics from the British Film Institute (BFI) for 2022 showed another year of growth in production spending on UK film and high-end "The total spend per production increased by 31% year-on-year to a record-high of £15.1 million and was **86%** higher than pre-pandemic levels"

decline in the overall spend on UK HETV, spend per production of HETV grew by **17%** to a record high of £22 million"

"Despite a slight

television (HETV). Reaching a record-high of £6.27 billion, the combined spend on UK film and HETV production was 3.4% higher than the 2021 figure.

Inward investment, which comprised 86% of total UK production spend in 2022, increased by 5.6% annually to £5.37 billion. This increase was driven mainly by a 31% increase in film production investment. US studio-backed films represented over two-thirds of the total UK film production spending. Inward investment into UK productions continues to underline the country's reputation as a world-class film and TV hub. Domestically, spending on independent filmmaking decreased by 31% compared with 2021 volumes, and while domestic lower-budget films have also recorded a decline in spending, upward revisions to these figures are likely to be made due to a time lag in reporting lowerbudget production data.

Statistics from the BFI show growth in long-form single-episode productions made by streaming platforms. Major players such as Netflix, Amazon Prime, Disney+ and Apple TV have been increasingly investing in original content and single productions to acquire and retain customers, adding to the demand for high-end studio space. Production spend on long-form HETV increased by 23% in 2022 to £934 million. These long-form single episodes can be >

described as 'films' but are eligible for the HETV tax relief scheme.

The total spend *per production* increased by 31% year-on-year to a record-high of £15.1 million and was 86% higher than prepandemic levels. The growth in spend per production highlights the increasing financial importance of large-scale shoots to the UK film industry. Despite a slight decline in the overall spend on UK HETV, spend per production of HETV grew by 17% to a record high of £22 million.

Higher spending on each production means greater demand for high-end, purpose-built studio space. Examples include Pinewood Studios, where Disney has leased studio space for ten years, and Shepperton Studios, where Netflix and Amazon Studios are based and expansion is ongoing. Netflix has taken a 10-year lease at Shepperton, with access to 14 sound stages, while Amazon Studios has taken a long lease (over ten years) in 450,000 sq ft across nine sound stages, workshops and offices at Shepperton Studios.

Following a dip in 2021, spending per film production (for films with budgets of over £500k) rose by 26% year-on-year to £11.3 million, as bigger budget films for the UK (> £30 million) were, on average, higher in 2022 than those recorded in this category in 2021 (BFI). Rising production input costs, including crew rates, equipment hire and stage rates, have also contributed to the growth in spend per production over the past year.

Changing viewing habits have also impacted streaming revenues and demand for studio space. UK consumers held almost 50 million streaming subscriptions in 2022, averaging 2.7 per household, compared to 2.3 in 2021. The UK home entertainment sector grew by 14.3% in value across 2022, reaching £4.43 billion. According to figures released by the British Association for Screen Entertainment, streaming video on demand (SVoD) was the main driver, growing 17.6% year-on-year.

The number of streaming platforms is growing, and these platforms are increasingly looking to produce their own content and thus maximise their return on investment. "The ability to have a direct relationship with the customer gives us an opportunity... to monetise much more effectively" (Bob Iger, Disney Executive Chairman). As platforms invest in creating content, companies require greater access to production (soundstage) space to film content.

"Higher spending

on each production means greater demand for high-end, purpose-built studio space, likely owned or fully leased by the production company"

RISING PRODUCTION COSTS

The effects of global inflationary pressures over the past year have not spared the film industry. UK inflation reached a 40-year high in 2022, peaking at 11.1% in October. This has affected the film industry two-fold; through increased production costs and decreased revenue as consumers grapple with less disposable income to spend on non-essential goods such as entertainment.

Regarding the latter, ongoing inflation has impacted consumer viewing habits. Individuals trying to cut household costs may remove non-essential outgoings such as streaming subscriptions or reduce leisure activities such as cinema attendance. A recent poll (April 2023) by Deloitte found that 47% of consumers had made changes to their entertainment subscriptions because of the current economic conditions. The survey also found that 19% of consumers had dropped at least one subscription service and switched to a free ad-supported service, with a much higher figure of 31% reported for the Millennials age cohort.

Platforms are responding to this by offering lower-cost subscription plans supported through advertising income (ad-



supported) to retain customers and maintain revenue. Netflix introduced an ad-supported tier that currently accounts for 12% of the subscriber base and primarily comprises people downgrading their subscriptions rather than new joiners.

In terms of production costs, the industry has been particularly hard hit by sharp rises in energy costs due to its energyintensive processes from pre-production to distribution. The average price of electricity for non-domestic consumers rose by 40% over the year, while the price of gas increased by 44% (ONS and Department for Energy, Security and Net Zero).

The revaluation of business rates that took effect in England and Wales on the 1st April, 2023 has become a significant cost for studios. Knight Frank's analysis of Valuation Office Agency (VOA) data demonstrates exponential increases since the revaluation period. It is worth noting that some studios have expanded their footprint during the revaluation period, so their rate payable will be further inflated. The revaluation by the VOA is ongoing, and initial increases have been significant for many studios.

This sharp uptick in rateable values results from a change in valuation approach by the VOA, which the studio sector is in the process of challenging.

Questions have been raised as to whether increased cost pressures will undermine the industry's competitiveness, offsetting tax incentives offered for production companies and discouraging investment or lead to cancellation or postponement of further studio development.

In the Spring 2023 budget, Chancellor Jeremy Hunt announced an increase to Film and TV Relief rates from 25% to 34% from January 2024 for the expenditure of over £1 million per hour of HETV content. To put this threshold in context, the fifth and most recent series of Netflix's 'The Crown' cost around £11.6 million per episode, while UK broadcasters typically budget around £650,000 - £1 million per episode of premium TV dramas. However, the tax break change in real terms is only 0.5%. Although this tax break is a welcome development for productions with these larger budgets, it does not offset the increased costs from the business rates rise and the benefits to smaller budget productions or domestic broadcasters are more limiting.

Films and HETV productions (subject to a 'cultural test') can qualify for beneficial tax



BY SIMON BERKLEY PARTNER, KNIGHT FRANK BUSINESS RATES

The UK film industry has seen a significant increase in their outgoings this year following a business rates revaluation that took effect on 1st April 2023.

The full impact will not be felt immediately, with Transitional Relief cushioning the impact of the increase across the next three years. Nevertheless, the scale of the increase has taken many in the industry by surprise. At Knight Frank, we are working with industry representatives to engage with the Valuation Office Agency.

Further to comprehensive and constructive discussions between all stakeholders, and the provision and analysis of additional evidence, a more formal process is now underway to challenge the current revaluation.

breaks under the British Film Certification system. UK film tax relief is available to the production company at 25% of qualifying film production expenditure, regardless of budget. Productions are scored across criteria including cultural content, cultural contribution, cultural hubs and cultural practitioners. There are no extra benefits or 'cultural points' for smaller independent companies. Smaller production firms, however, may choose to locate in parts of the UK with more generous 'Levelling Up' funding or financing from local council partnerships. These cost savings can be vital for the survival and viability of smaller production studios.

Despite the sharp rises in production costs, the relatively weak position of sterling **•**



to the euro and US dollar attracted foreign investment over the past year and went some way in combatting the increased costs. Sterling averaged 81p to the dollar in 2022, compared with 73p in 2021 and 70p across the ten years previous (2011-2020) (Macrobond). This additional buying power has meant that non-domestic investors continue to see the UK as an attractive location to base their film and HETV production.

THE TALENT SHORTAGE PERSISTS

While the ongoing writers' and actors' strikes have led to a current surplus of jobs, this is a temporary event. Once resolved, the industry is likely to continue to face a talent shortage in the medium term.

According to ScreenSkills in 2022, between 15,130 and 20,770 additional trained and skilled crew will be required to meet filming demands by 2025 if the current growth trajectory in the industry continues. However, the most recent industry data and projections regarding streaming subscriptions, revenue and content spend indicate that this trajectory may be shifting. Indeed, many prominent players in the entertainment and media industry have recently announced job cuts.

That said, these recent job cuts may partially reflect a pivot in operation or a change in how content is delivered rather than scaling back content or production. Effective collaboration between industry, the BFI, the Government and educational organisations is critical to harness the sector's full potential for growth and investment.

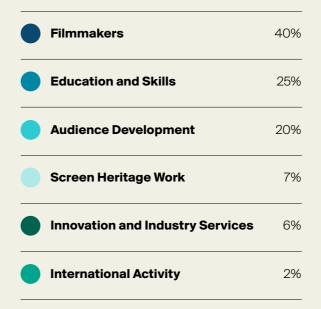
INTO Film, BFI Film Academy, BFI Future Skills traineeship programme and Step Up offer training to a wide range of young people to draw them into the industry, with funding partnerships including the Department for Education and the National Lottery. In addition, Netflix has set up a £1.2 million scheme, 'Grow Creative UK', to train 1,000 young people, focusing on those from underrepresented backgrounds, and has donated £600,000 to the London Screen Academy, a free sixth-form academy. The BFI has developed a 10-year vision for the industry called 'Screen Culture 2033', which includes approximately £45 million per year of national lottery funding. Funding for the first three years has been allocated, with 40% for filmmakers and 25% for education and skills. These funding initiatives point to a sense of long-term commitment to production growth to secure the future of the UK film industry, with longer-term initiatives and a refreshed, open approach to what was a largely opaque industry, relying on word of mouth and connections more than structured training.

GREEN SHOOTS

According to a 2021 report on carbon emissions of film & TV production by the Sustainable Production Alliance, an average of 77 metric tonnes of carbon dioxide are emitted in the production of a single hour of a television drama. Feature films with a budget of \$70 million and above release an average of 3,370 metric tonnes per production. Within this, fuel accounts for most carbon emissions, followed by utilities, hotels and housing and air travel.

Not only do increasing energy costs have higher production cost implications, but scrutiny of the industry's environmental credentials is driving an ambition to reduce non-renewable energy consumption. This impacts the type of space production companies demand, with more sustainable studio space increasingly sought after. The British Film Institute (BFI) offers

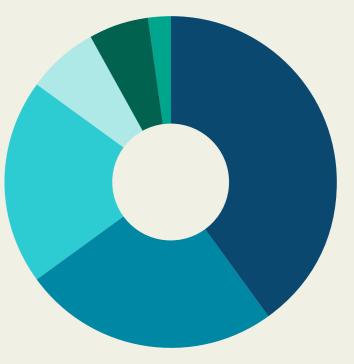
National Lottery Funding Allocation



recommendations for environmentally sustainable production. The BFI has highlighted areas of opportunity that include production materials; energy and water; studio buildings and facilities; studio sites and locations; and production planning. Accompanied actions include the reuse of materials, the use of sustainable energy sources, and the repurposing of buildings. The BFI aims to set out a roadmap to net zero by the end of 2023, with the BFI National Lottery Sustainable Screen Fund in place to support the sector. Film studios with better accredited (or targeted) EPC and BREEAM ratings are already being developed across the UK, with features such as electric vehicle (EV) charging, air source heat pumps and rooftop photovoltaic panels.

In 2022, BAFTA Albert introduced the Studio Sustainability Standard, that rates studios' sustainability credentials across six key areas. 11 UK studios participated in the Standard in its first year and it will grow to be the accepted sustainability benchmarking tool for UK studios.

Technological advancements are also enhancing the sustainability of filming. For instance, new virtual production stages and volume technology are being used by filmmakers. Large LED volume walls are systems of linked high-end LED panels



Source: British Film Institute, Knight Frank Research

that display video footage or 3D content to form a background. These are being used in a studio setting and reduce the need for shooting on location, thus reducing travel costs, production timescales, and emissions. It does have implications for building requirements, however. Filming of Disney+'s 'The Mandalorian' made use of this technology; the height of their wall was 20 ft and 75 ft wide and 270 degrees around. Accommodating this type of structure requires a large studio with high eaves.

ARE DOMESTIC PRODUCERS AND LOWER-BUDGET PRODUCTIONS BEING PRICED OUT?

According to ScreenSkills, crew all over the UK appear to be prioritising longer, better-paid opportunities offered by HETV over independent films, children's TV, and other TV dramas. As a result, lower-budget productions are increasingly priced out. The increase in bigger-budget, longer-running shows puts increased pressure on sourcing crew and creates difficulties for domestic producers in finding available studio space and hiring equipment, thus causing delays in production commencements.

Rising pressure for facilities in the London and South East hub has prompted film production companies to look further •



afield to regional centres. These locations typically benefit from lower operating costs, rent, and staffing costs. There may also be additional financial benefits from local authority/government funding.

Independent production companies can apply for separate local and regional subsidies alongside tax relief incentives as part of the government's 'Levelling Up' agenda. Regional development and production funding agencies, including Screen Scotland, Northern Ireland Screen Fund, Ffilm Cymru Wales, Yorkshire Content Fund and Liverpool City Region Production Fund, are committed to supporting the growth of the creative industries to entice content producers to the regions and offering these locations a competitive advantage.

Developing and investing in the sector's workforce, including creative "Independent production companies can apply for separate local and regional subsidies alongside tax relief incentives as part of the government's 'Levelling Up' agenda"

talent such as new writers, directors and producers, is crucial to maintaining and strengthening the indigenous independent industry across the UK. Two-thirds of the BFI's financing for the UK's Skills Clusters has been allocated to the north of England, Scotland, the West Midlands, and Northern Ireland, with further announcements on funding expected in Wales. This funding should help ensure the availability of local talent in these regional centres and thus help to attract productions.

Record levels of inward investment and production spending, favourable tax relief, sector-leading infrastructure, toptier personnel and world-class talent, have all contributed to the UK film and highend television (HETV) sector's post-Covid expansion and continue to maintain the UK's position as a production hub on the international stage.

Supply Update: The Reel Picture

Last year saw strong appetite for film and HETV studio development. However, various factors, including higher financing and build costs and changing expectations for future demand, are weakening the appetite for new development, particularly for large-scale speculative projects.

There remains a robust pipeline of *planned* developments. However, these developments are less likely to proceed without a funding partner or an operator lined up.

Demand for studio space is still rising, albeit at a more reduced pace than last year. and this will mean that additional supply is needed. However, the slowdown of additional major streaming platforms seeking to enter the market will necessitate a change in the supply response. The scale, type and location of facilities must adapt to suit future sources of demand. This will likely mean fewer large-scale new developments, with development activity concentrated in smaller facilities, conversions, and expansions at existing studio sites.

REGIONAL DISTRIBUTION OF STAGE SPACE The UK's film studio space landscape has

evolved over the past year. As of June 2023, over 6.9 million sq ft of stage space has been identified across the UK (stages over 5,000 sq ft). New stage completions over the past year, including both new studios and expansions

Stock of Film Studios by Region, 2023

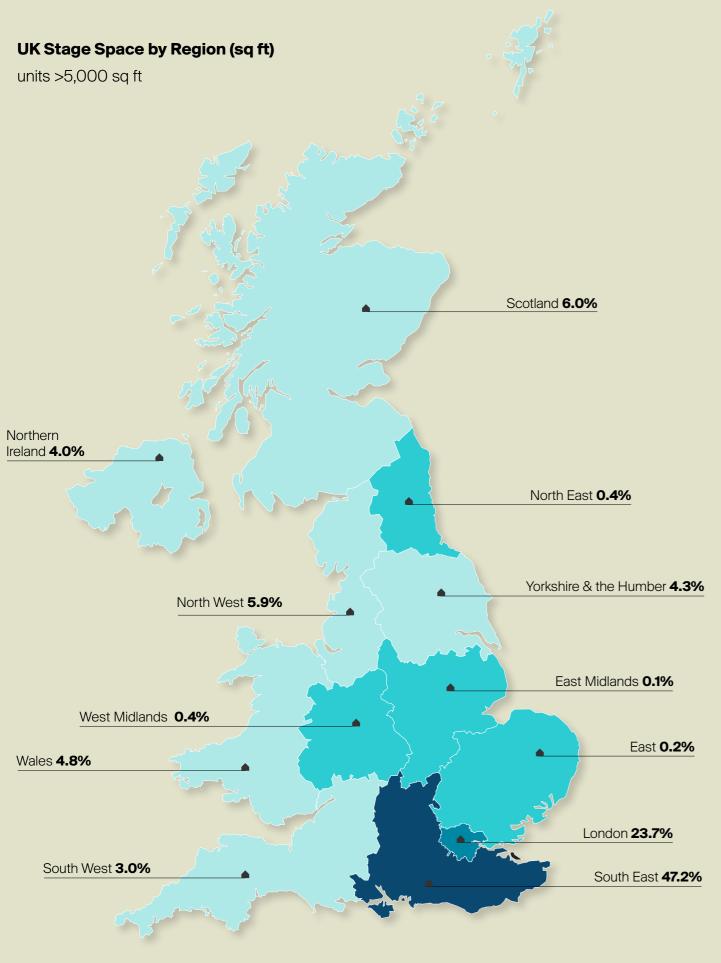


to existing studios, account for approximately one million sq ft of the total stock.

This stock has become increasingly concentrated in London and the South East and now accounts for 71% of UK studio space (47% in the South East and 24% in London). up from 65% one year ago.

While London and the South East is the biggest market, there are also important film and TV centres in Wales, Scotland, Northern Ireland, Liverpool, Manchester, Yorkshire, Bristol, and Birmingham.

The 'golden triangle' for film and TV production stretches northwest from London, encompassing Hertfordshire and nearby Pinewood and Shepperton studios to the south and is home to most large, purposebuilt studios. An arc around the western M25 is also beneficial in providing ease of access for crew along the M25/M3/M4, with proximity to Heathrow and Central London. Attraction and retention of skilled workforce is vital and this locational advantage can be further exploited.



Source: Knight Frank Research

STUDIO DEVELOPMENT PIPELINE

In recent years, growing demand for new content spurred a wave of plans and proposals for new purpose-built studio space and expansion to existing studios. However, a slowdown in consented schemes has emerged in 2023, demonstrating a decreased appetite for development. There have been just eight planning consents to date in 2023, for either extension, refurbishment, or new-build film studios; this compares to 17 consents over the same period last year.

This year's largest consented scheme was the 21-stage expansion of Pinewood Studios, Buckinghamshire, including a training hub and a publicly accessible nature reserve. An 11-stage extension of the Warner Bros. Studios Leavesden was also approved, including new production offices, three workshops and a multi-storey car park, while construction of 14 additional stages at Pinewood Shepperton is already underway.

Planning was approved at Sunset Waltham Cross Studios, Broxbourne, in what would be Sunset Studios' first expansion outside the US and one of the UK's largest film and television production locations. The studio is not subject to pre-let agreements and would add around 470,000 sq ft of production space in 21 studios. However, Blackstone and Hudson Pacific, which owns Sunset Studios, have put plans on hold, considering the current interest rate environment and inflationary pressures.

Outside of London and the South East, most approved projects are smaller and more specialist developments, including the redevelopment of an old banana factory in Digbeth, Birmingham, where three new sound stages at Digbeth Loc. Studios are planned. This is part of a wider regeneration of Digbeth to create an arts and cultural hub in Birmingham.

It is worth noting that most of the expanding studio space at Leavesden, Pinewood and Shepperton will not be available in the open market, as the space has been committed to major streaming providers, including Leavesden to Warner Bros., Shepperton to Netflix and Amazon Studios, and Pinewood Studios to Disney.

At the Pinewood Shepperton expansion, all planned space has been pre-let to Netflix and Amazon Studios on Master Lease Agreements (MLAs). Other purpose-built schemes are typically either owned outright by production companies or on long-term MLA contracts. For example, Sky Studios



Elstree is occupied by Sky and NBC Universal, while Netflix has created a new production campus at SEGRO Park Enfield. While these schemes will add to the overall stock of stage space in the UK, the space available to production companies seeking short-term access to studio space is more limiting.

INFLATION IMPACTS SUPPLY

The number of construction starts this year is likely to have been constrained due to elevated development and financing costs.

A period of rapid inflation in build costs emerged during the tail end of the Covid-19 pandemic, with the BCIS General Build Cost Index showing that build costs increased 15.5% annually to June 2022. Price growth has more recently slowed to 1.6% in the year to June 2023, with expectations for 2023 and 2024 of 5.2% and 3.0%, respectively (BCIS). Though this indicates a more stable outlook, build costs will remain elevated for the medium term.

Similarly, the all-in tender price index shows an upward trend in tender prices, rising by 10.3% from May 2021 to May 2022, with a further 4.9% growth in the year to May 2023, and is forecast to continue at a relatively steady rate. These rising tender prices are not only due to the increasing build costs but are compounded by rising labour costs.

Interest rates rises have driven up the all-in cost of financing after rising rapidly over the past year and a half. The Bank of England base rate was just 0.1% at the start of 2022; it is now 5.25%, its highest level since 2008. This has pushed up the cost of financing, and some developments may no longer be viable, especially given other inflationary pressures. Due to relatively high construction/fit-out costs and their specialist nature, most film studio developments will not commence without a pre-let agreement or an operator with an MLA.

THE PLANNING PROCESS AND APPETITE FOR FILM STUDIO DEVELOPMENT

Generally, councils react favourably to film studio development proposals within local areas. There are several reasons for this; according to the BFI, films with a \pounds 60-100 million budget generate more than \pounds 750,000 in spend per day, and those with budgets over \pounds 100 million generate over \pounds 1 million in daily spend. Councils expect this spending to benefit the local economy through the multiplier effect. Film studios also create **>**

Top 10 UK Studio Development Schemes 2023

New Studios/stages announced	Type of development	Existing / completed stages*	Planned stages	Sq ft of planned stages	Planning/Construction Status	Speculative (Y/N)	Funding (if in place)	Operator (if in place)
Home of Productions (HOP), Bedfordshire	New Studio	0	22	471, 200	Planning approved	Yes		Home of productions/T
Pinewood Studios, Buckinghamshire	Studio Extension	25	21	600,000	Planning approved	No	Pinewood	Pinewood (Disney)
Sunset Studios, Waltham Cross	New Studio	0	21	470,000	Construction paused	Yes	Blackstone and Hudson Pacific	Sunset Studios
Marlow Film Studios	New Studio	0	18	473,000	Planning application pending	Yes		Marlow Film Studios/TE
Holyport Studios	New Studio	0	15	270,000	Planning application pending	Yes		Speculative
Shepperton Studios (Pinewood)	Studio Extension	14	14	395,000	Under construction	No	Pinewood	Pinewood (Netflix and An
Eastbrook Studios, Dagenham	New Studio	0	12	252,000	Under construction	Yes	Hackman Capital Partners	MBS
Warner Bros Studios, Leavesden**	Studio Extension	19	11	308,000	Planning approved	No	Warner Bros.	Warner Bros.
Bray Studios	Studio Extension	5	10	150,000	Planning approved	Yes	Private individual	Amazon Studios
Shinfield Studios, Reading	New Studio	9	9	205,050	Part complete / Under construction	Yes	Commonwealth Asset Management	Blackhall Global Partne
Wycombe Film Studios	New Studio	1	7	176,000	Part complete / Planning approved	Yes	Stage Fifty	Stage Fifty

Source: Knight Frank Research | *existing/completed stages in new studios include complete and operational stages as part of a new development. **An announcement by Warner Bros Discovery on 22 September 2023 confirmed that 10 new soundstages would be built, with construction to start by mid-2024 with estimated completion by 2027.

jobs and are often located on sites that suit industrial uses, and film crew typically command higher salaries than warehouse staff.

The recent and ongoing expansion of Shepperton Studios is one such example. The studio, owned by Pinewood, gained planning permission to build on Green Belt land adjacent to the current buildings. Building on the Green Belt is largely restricted; however, planning was granted on the grounds that the national economic impact

MASTER LEASE AGREEMENTS

These are relatively new agreements in the film industry and have come about partly as a response to the lack of available studio space. Traditionally, studio space was let on a hire agreement which are very short-term periods – months or even weeks – for principal photography to take place, the most expensive part of filmmaking. But the nature of the short-term commitments means an ongoing challenge of securing space for the next production.

With the rise of streaming subscriptions and the race to create more and more content, streaming platforms have sought to take studio space on a longer-term basis. Major streaming platforms such as Amazon Prime, Disney+ or Netflix have sufficient requirements to fill production schedules; they don't want to compete for studio space. The first MLA was signed between Pinewood and Netflix in 2019, and since then, a flurry of MLAs have been signed at Pinewood, Elstree and Longcross. With an MLA in place, the production company takes on the risk of leasing space for longer but benefits from the security of having in-house stages for shooting productions.

Until the advent of the MLA, film studios were more susceptible to being empty in periods of downturn, as leases were typically months or weeks long. From an investor perspective, a purpose-built studio with an MLA in place to a major production studio will mean a high-quality asset and secure rental income underpinned by a strong covenant. and the support for Government policy aims outweighed any potential harms to the green belt. The plans were sent to the Secretary of State – as per protocol for Green Belt development - and subsequently approved.

Ashford Borough Council has received a £14.7 million allocation from the 'Levelling Up' fund to redevelop the brownfield site of the old Newtown Railway Works into four film studios along with other commercial and residential development. It will become Ashford International Studios once completed. Similarly, in Liverpool, £17 million of funding has been committed from the Liverpool City Region Combined Authority (LCRCA)'s Strategic Investment Fund toward redeveloping the old Littlewoods building into a film studio by Capital & Centric. This local authority funding comes from the £8.8 billion 'building back better' economic recovery plan for the area. While in Wales, the Welsh Government has provided funding for film and television studios to promote the country's film industry, including Wolf Studios Wales in Cardiff Bay; Great Point Seren Studios Wales in Wentloog; and Dragon Studios near Bridgend.

Owing to the implementation of the new Use Class E, buildings with a diverse range of uses previously classified as Class A or sui generis could be converted into studio space without expressed planning permission or used temporarily for filming. Any building or land can be used for a period of up to 12 months in any 27-month period. However, prior approval from the local authority is needed to ensure that the filmmaking doesn't breach the conditions within Class E. Temporary or converted space could become operational in a shorter timescale and more cheaply than purpose-built studio space.

Local Development Orders (LDOs) can also be used by councils, allowing specified development without planning permission. The first relating to film studios was applied to the Eastenders set at Elstree studios providing the BBC with greater flexibility in allowing for set changes.

In the 2023 Spring Budget, the Chancellor announced that capital allowances would be transformed, allowing a 'full expensing' policy for qualifying plant and machinery. Though less generous than the 'superdeduction' allowance that ended in April, offering 130% capital allowances, the new policy will help to incentivise continued investment. It could enable significant tax savings on internal fit-out and purchased plant and machinery for new studio developments and studios undergoing refurbishment. Purpose-built studios that feature custom fit-outs with expensive plant and machinery will qualify for significant tax savings that could go some way to help offset higher corporation tax, business rate rises and other increased costs.

BUILDING DESIGN REQUIREMENTS

It is important to note that different segments of the film and TV industry require different types of studio space, with differing building design requirements.

Traditional TV studios require 'shiny floors' with levelled resin to facilitate the seamless tracking of cameras and minimise sound transmission. Additional power supplies are also essential to



avoid interruptions for live broadcasts. Adjoining spaces such as post-production office space and dressing rooms are also increasingly desired features, particularly for longer-running productions. Studios that accommodate filming in front of an audience may need additional provisions such as extra ventilation and cooling, additional space for seating, and front-ofhouse services such as a reception area and bathroom facilities.

For purpose-built film and HETV studios, building heights of 35-50ft are needed to house large sets, lighting and rigging, alongside a significantly larger lot size to account for at least double the floor space and outdoor areas for production support vehicles. Pre-production rather than post-production space is required, and sound stages are designed to allow for better manoeuvrability of the cast and crew. They tend to be built to suit the bespoke requirements of the production company.

Production activities consume high levels of power, and studios must be able to meet this demand. In many cases, a high voltage (HV) power network will be installed to facilitate the increased electrical loads efficiently. In some cases, an additional power supply may be required, such as an uninterruptible power supply (UPS) or business continuity generator, to help prevent the risk of downtime if the primary power supply fails. This is particularly important for studios with live broadcasts.

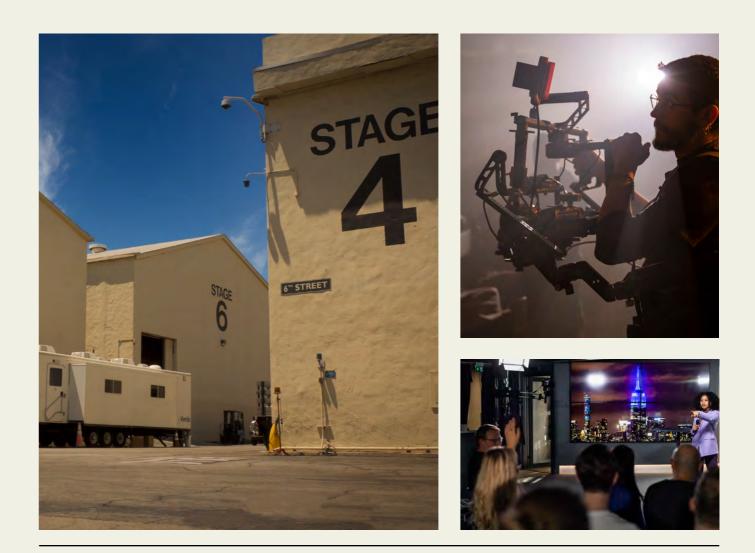
Sustainability considerations are becoming increasingly important within the sector. Media and production companies increasingly recognise the importance of environmental, social, and governance (ESG) principles and are incorporating them into their operations and facilities. New developments and extensions frequently target BREEAM 'Very Good' or above. Sky Studios Elstree, among others, are also implementing other green initiatives, including using renewable energy in day-today operations and harvesting rainwater for onsite use.

THE IMPORTANCE OF SPEED - BUILD **TIMING & METHODS OF CONSTRUCTION** In recent years, the acceleration in

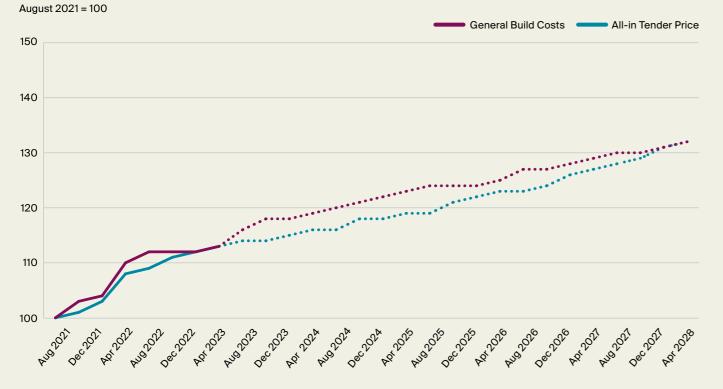
requirements for more studio space, coupled with rising costs, has meant developers choosing construction methods that reduce build timing while also minimising construction costs during a period of high inflation.

Developers are turning to modern methods of construction (MMC). MMC typically involves elements of offsite or modular construction, and although they are not a new phenomenon, advances in digital technology have broadened their potential for application. The studio sector is well suited to MMC given that the optimum dimensions and specifications of the building are already known; it is then the internal fitout that tends to be more bespoke. MMC and modular construction also have the potential to help deliver more sustainable buildings into the sector, incorporating materials such as cross-laminated timbers. For example, Stage Fifty are market leaders in this area and have utilised their own stages at Winnersh, Farnborough and Wycombe.

CONVERSIONS AND TEMPORARY STAGES Alongside MMCs, developers are looking at alternative space that can be converted relatively simply into usable studio space. For example, warehouse facilities (either



All-in Tender Price and Build Cost Indexes



Source: Knight Frank Research, BCIS

new or second-hand) can be repurposed to house production spaces requiring minimal construction, providing either long-term or temporary customisable production space. The conversion of vacant industrial property or other use classes may provide an alternative opportunity to utilise existing space while minimising the carbon impact associated with demolition and constructing a new building.

One adaptation of warehousing space was the conversion of industrial units at Premier Park, in Park Royal, West London, into RD Studios. The studio offers five sound stages. Following extensive refurbishment, the studio benefits from strong green credentials, including a BREEAM rating of 'Excellent', rooftop PV (photovoltaic cells) and electric vehicle charging.

Alternatively, industrial facilities may be granted permission to be repurposed into a film studio for a set period. An example is Hoddesdon Studios, where planning

"The conversion of vacant industrial property or other use classes may provide an alternative opportunity to utilise existing space"

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permission was granted to convert two units at Charlton Meads Industrial Estate for five years. The former storage and distribution warehouse units are currently in use by Silo 13 Productions, but they will likely revert to warehouse use in 2026.

Semi-permanent space can be built in as little as one month. Serious Stages, for example, design and manufacture a range of specialist temporary 'pop-up' stages produced specifically for the film and TV industry. Stages range from standard 10,000 -20,000 sq ft stages to as large as 100,000 sq ft. Studio developer Stage Fifty also specialises in flexible, relocatable, production-ready space that can be built in approximately four months. Its sound stages are as durable as permanent structures without needing foundations to be laid. Stages can be moved repeatedly, allowing unused space to be quickly utilised as studio space while contributing to the circular economy with its reusable or recycled construction materials.

Assessing the future of demand and supply

We assess the correlation of demand and supply of studio space in the UK, consider projections and composition of future demand and discuss the implications for future supply of space.

CORRELATING DEMAND AND SUPPLY

Approximately £6.3 billion was spent on film and HETV production in the UK last year, corresponding with around 6.9 million sq ft of current stock. This means that every £1 billion spent on production (of film and HETV) needs approximately 1.1 million sq ft of production space.

CHANGING GROWTH RATES FOR DEMAND

In the five years pre-pandemic (2015-2019), spending on HETV and film production doubled, growing an average of 15.2% per annum. This was followed by a contraction in 2020 (-25.4%) and a rapid expansion in 2021 (+83.0%). As a result of rising production spending, demand for studio space has been growing rapidly. However, the rate of growth in 2022 was just 3.4%. While the 2022 total and thus growth rate is likely to be revised up, it represents a sharp decline year-on-year.

PROJECTIONS OF FUTURE DEMAND

With the 2022 statistics pointing to a revised growth trajectory, expectations are that future production spending will not maintain the same course of growth experienced in previous years.

Spending on the production of film and HETV is closely tied to the consumption of HETV and film. Various metrics measure consumption, whether through streaming subscriptions, cinema attendance statistics or TV viewing figures, available for the UK and globally. However, the film and TV industry is highly diverse and international, with the UK production market largely "Each **£1 billion** of spend on film and HETV production would require around **1.1 million sq ft** of studio space"

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lionexport-driven. Therefore, it isn't easy to
tie any single (UK or global) consumption
metric to that of production spend. Some of
these metrics are explored below.andIt is a production spend. Some of these metrics are explored below.

MAJOR STREAMING PLATFORMS -EXPECTED CONTENT SPEND

The closest indication for future production spend could be the projections of the major streaming platforms. However, it is worth noting that their historic spend is likely to have grown more rapidly than production spend across the whole market, as they've sought to rapidly increase the scale of their production and original content.

Globally, total media-industry content spend is expected to reach \$136.4 billion in 2023, a 1% rise on 2022, according to MoffettNathanson Research; this compares to 14% growth in 2022 and 25% a year earlier. With interest rates rising and following a period of rapid expansion and aggressive market share growth, streaming platforms are now looking at their costs and profitability with greater scrutiny. Therefore, production spend, at least from the major streaming platforms, is expected to plateau over the next few years.

Netflix is the joint third biggest spender on content in the UK, after Sky and the BBC, spending around US\$1.5 billion annually on content in the UK. Last year, Netflix spent US\$16.7 billion globally on content, 4.6% less than the US\$17.5 billion it spent in 2021. Netflix management has stated that the company's most free-spending years are behind them and that content spend will continue to grow but be moderated, expecting to spend around US\$17 billion in 2023 and a similar figure for the next few years.

However, the streaming platforms do not publish official figures for their content spend projections, and it is difficult to anticipate their plans over the next five years. While some companies will see declines in spending this year, other platforms will grow.

STREAMING VIDEO ON DEMAND (SVOD) – SUBSCRIPTIONS, REVENUE AND CONTENT SPEND

Following a jump of 45% in 2022, to reach US\$23.2 billion, annual spending on streaming video content will grow to a record US\$26.5 billion this year, a 14% year-overyear increase according to a study from Ampere Analysis (March 2023).

According to Ampere Analysis, the top genres streaming platforms spend production money on are crimes and thrillers (24%) and sci-fi and fantasy (20%). Though these genres are relatively expensive to produce and typically require large studios with bespoke fit-outs, content in these two categories tends to appeal to a broad audience both demographically and geographically, which can make it relatively cost-effective.

Ampere Analysis also note that while scripted programming continues to account for the lion's share of investment, there has been recent growth in unscripted commissioning (this may include content such as game shows, talk shows or reality tv shows), with the number of unscripted projects from global SVODs rising by 35% in 2022. The combined need for cost-effective formats, alongside the current industrial action, could lead to further growth in this category, which would have implications for streaming platforms' studio space requirements.

According to Digital TV Research (February 2023), global subscription revenues from SVoD services will reach US\$124 billion by 2028, up from US\$99 billion in 2022; this represents a compound annual growth rate of 3.8%. Of this revenue, 58% would be accounted for by the six largest platforms (Netflix, Disney+, Paramount+, HBO, Amazon Prime, and Apple TV+). We could assume a similar growth rate for film and HETV production spending, resulting in a total spend of £7.8 billion in 2028, up from £6.3 billion in 2022. However, with the

UK FILM AND TELEVISION STUDIOS MARKET





"Production spend, at least from the major streaming platforms, is expected to plateau over the next few years" largest streaming platforms announcing their intentions to focus on improving profits rather than growing their market share, their content spending is unlikely to keep pace with revenues.

Global subscription numbers, however, are forecast to increase by 400 million between 2022 and 2028 to reach 1.76 billion, according to Digital TV Research (May 2023); this would give an annual compound growth rate of 4.4%. According to the research firm, six large US-based platforms will account for 55% of global SVOD subscribers by 2028. However, much of the worldwide growth will come from the younger platforms as they complete their global rollouts. As they compete for market share, they are likely to drive a rise in content spend, even if spending from the major streaming platforms plateaus.

According to PwC's forecast, UK SVoD revenue will reach £4.7 billion by 2027, compared to £3.8 billion in 2022; this represents a compound annual growth rate •

(CAGR) of 4.3% per annum. Assuming this growth rate for film and HETV production spending would mean a total of £7.7 billion by 2027. However, with much of the UKproduced content destined for the global market, this growth rate may be less influential in determining UK production spend.

ADVERTISING-BASED VIDEOS ON DEMAND (AVOD) - SUBSCRIPTIONS REVENUE

Despite the current economic headwinds, or perhaps because of them, the AVoD market, which relies upon ad-funded streaming to generate revenue, has strong prospects for long-term growth. Unlike SVoD, which depends upon subscription fees, AVoD content can be accessed for free by users, provided they sit through adverts, with revenue generated from advertisers instead of subscriptions. Most Broadcaster Video on Demand (BVoD) services, such as All4, ITV Hub and My5, follow this revenue model.

While we expect relatively modest growth for SVoD revenues, global AVoD revenues for

Forecasts Summary Table

more localised and less international than the SVoD market. Growth in this segment of the market will therefore have different implications for the amount, type and locations of studio space needed. Unscripted content such as a reality or game show, talk show, or documentary will typically require more traditional TV studio space that can perhaps accommodate an audience, rather than huge studios with bespoke fit-outs.

With content tending to be more local in focus, growth of the global AVoD may be less relevant than the UK market specifically. While AVoD revenue will drive demand for studio space, due to the content found on these platforms, it is also not as closely connected to spending on film and HETV, and therefore using the growth rate to project growth of UK film and HETV content spend maybe less relevant.

OTHER SEGMENTS OF THE MARKET

Cinema is expected to continue its postpandemic recovery growth over the next four years. PwC forecast that while cinema

Metric	Source	Date	Forecast range	CAGR
Global subscription revenues from SVoD	Digital TV Research	February 2023	2022-2028	3.8%
Global subscription numbers	Digital TV Research	May 2023	2022-2028	4.4%
UK SVoD revenue	PwC	June 2023	2022-2027	4.3%
Global subscription revenues from AVoD	Digital TV Research	April 2023	2022-2028	14.2%
Global Box Office Revenue	PwC	June 2023	2022-2027	15.0%

Source: Knight Frank Research, Digital TV Research, PwC

TV series and movies are expected to more than double from 2022 to 2028, according to Digital TV Research (April 2023), reaching \$91 billion in 2028, up from \$41 billion in 2022; a compound annual growth rate of 14.2%.

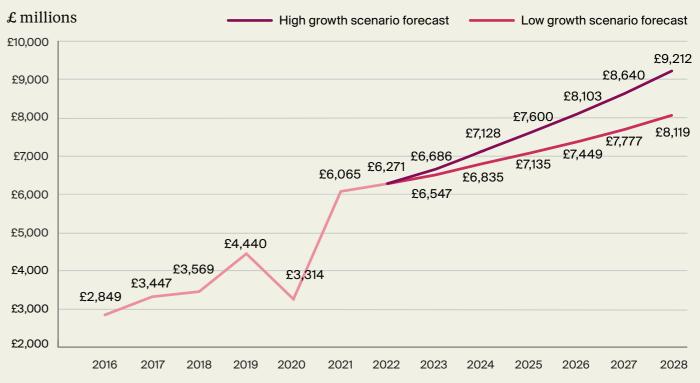
Compared with the SVoD market, the AVoD market is less concentrated in the hands of a few major platforms, with many smaller players. The market is also highly diverse. The AVoD market also tends to have less of a focus on scripted content. According to Ampere Analysis, the amount of unscripted content is around 50% for the BVoD market, compared with about 10-20% for the SVoD market. Content for the BVoD (or AVoD) market is also

admissions will reach 7.2 billion by 2027, this will still be below pre-pandemic levels of around 7.9 billion in 2019. PwC predicts box office revenues will exceed pre-pandemic levels by 2025 and reach US\$52.1 billion in 2027 (PwC), up from US\$25.9 billion in 2022; this represents a CAGR of 15.0% (2022-2027).

Using a combination of some of the above revenue forecasts and applying weightings to account for different market segments, we can apply these combined growth rates to the film and HETV content spending to determine two scenarios for future growth. For example, to project future film production spend, we combine the forecast for global

UK FILM AND TELEVISION STUDIOS MARKET

Spending on UK Film & HETV Production



subscription revenues from SVoD and global box office revenue, giving a weighted CAGR of 6.1% per annum. This means a projected content spend of £2.8 billion in 2028, up from £2.0 billion in 2022. Forecasting HETV spend, we used a weighted average of global subscription revenues from SVoD and global subscription revenues from AVoD; this gives a CAGR of 6.8% per annum, with spending rising from £4.3 billion in 2022 to £6.4 billion in 2028.

These combined forecasts mean a combined growth rate of 6.6% per annum for total film and HETV content spend, giving a forecast spend of £9.2 billion in 2028. This combination would provide a relatively high growth scenario, as content spend would only rise as quickly as revenue in a competitive market. Our low-growth scenario, on the other hand, has a CAGR of 4.4% per annum, giving a forecast spend of £8.1 billion in 2028.

IMPLICATIONS FOR FUTURE SUPPLY

Under our high growth scenario, spending on film and HETV production would rise by £2.9 billion, reaching £9.2 billion in 2028. Based on current stock and spend figures, this additional spend would require an additional 3.2 million sq ft of studio space. Under our low growth scenario, we could see an additional £1.8 billion of spend, which

view as the midpoint between high and low growth scenarios, we would see total production spend reach £8.7 billion in 2028. The additional £2.4 billion in spending would need an extra 2.6 million sq ft of studio space"

Source: Knight Frank Research, BFI

"Taking a centrist

would require about 2.0 million sq ft of additional space by the end of 2028. Taking a centrist view as the mid-point between high and low growth scenarios, we would see total production spend reach £8.7 billion in 2028. The additional £2.4 billion in spending would need an extra 2.6 million sq ft (based on current capacity utilisation rates). Our analysis of the current development pipeline indicates that there is 3.8 million sq ft of planned stages across the top 11 developments, though just 852,000 sq ft of this space is currently under construction. In addition to these top 11 developments, other, smaller schemes are either planned or underway, which will bolster these numbers. However, based on demand projections, the amount of space currently under construction is likely to be insufficient to support the anticipated growth in the coming years.

Whether the planned space not yet under construction will come forward will depend on whether it meets an operator's requirements and when a funding partner has or can be secured. Some planned studio space may not align with the future needs of the industry, and the changing nature of demand is likely to mean further changes to the development pipeline over the coming months and years. \blacksquare

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