

Virtual Production

How the UK is setting
the global standard



Building on success

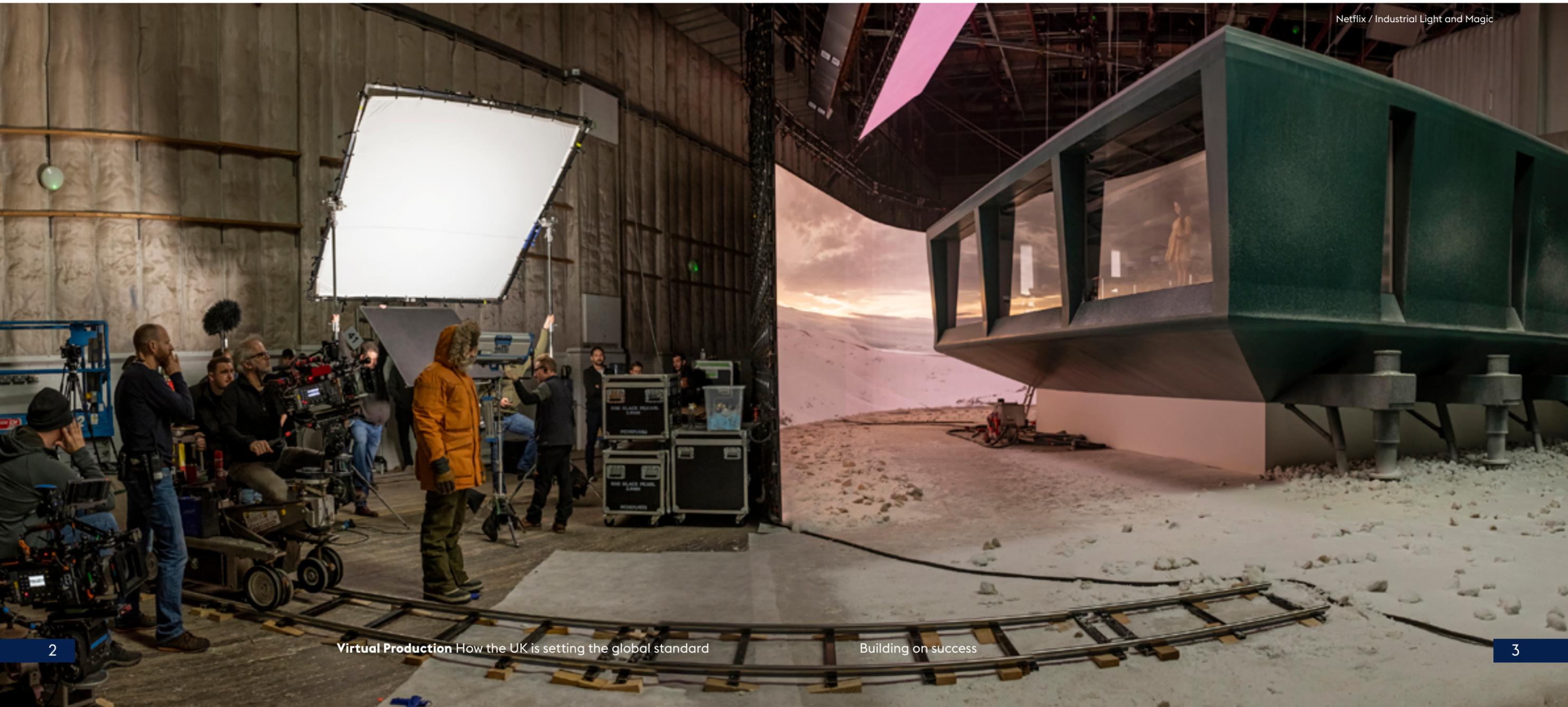
Production expenditure on Film and High End Television (HETV) in the UK in 2021 was £5.6Bn (c.\$7.6Bn) – of which £4.7Bn, or 84% of the total, was inward investment.

Studio space developments added around 1.5m sqft to capacity in 2021 with significant further major expansions announced and underway, cementing the UK's position as a global centre for Film and HETV production.

But beneath these headline figures there is another interesting dynamic, as an increasing number of productions employ Virtual Production technologies – and the UK infrastructure and ecosystem evolves to match.

“The demand for content has never been greater. Existing production hubs are growing to accommodate the demand, and new hubs are developing throughout the UK.”

Adrian Wootton, CEO, British Film Commission



Netflix / Industrial Light and Magic

“The UK is a hotspot within the global VP market, in terms of expertise in pioneering techniques, manufacturing equipment and delivering projects at scale.”

Rob Fowler, Brompton Tech

Sky Studios



Infrastructure

Over the past 2 years the emergence of virtual production techniques, and real time production technologies, has generated a fundamental change in process, production, roles and workflows.

And this has given the international industry the confidence and trust to experiment with entirely new virtual production processes within live production environments.

As a result the UK has seen exponential growth in the development of large scale virtual production capacity.

With parallel significant investment, and the emergence of new businesses and services, across the entire virtual production value chain (including hardware, software and creative), the UK has rapidly established itself as an unrivalled centre of excellence.

The UK has a unique ability to combine a number of complementary factors:

- Established production infrastructure
- A skilled and adaptable workforce
- World class VFX supply chain
- Agile innovation around creative technologies

Stage activity by region

The UK has become the epicentre for large feature film level Virtual Production stages

Country	Tier 1	Tier 2	Tier 3	Total
USA	9	11	64	84
UK	12	6	22	40
Japan	1	3	12	16
Germany	2	4	8	14
Australia	1	4	8	11
Canada	3	2	5	10
South Korea		1	9	10
Rest of the world	20	7	44	71
Total	30	38	170	238

By city

Countries leading the way in Virtual Production

Top 5 cities	Tier 1	Tier 2	Tier 3	Total
London UK	10	5	12	27
Los Angeles, CA	4	4	13	21
Tokyo, Japan	1	3	12	16
Atlanta, GA		1	11	12
Vancouver, BC	2		3	5



12 Active Tier 1 stages in the UK

30% Global Tier 1 stages in London alone



Rock Paper Reality

“Virtual production demands that we locate ourselves close to facilities and talent. A significant push to make the UK a virtual production centre of excellence accelerated our plan to open a presence in London.”

Jonny Slow, Pixomondo

80six



Garden Studios



MARS / Bild Studios



Xplor / Production Park





Skills

With any emerging technology there are inherent challenges in adoption – particularly the generation of workforce capability and capacity where access to experience is by definition limited.

And as identified by StoryFutures Academy in their recent Virtual Production Skills Report 2021: “Fundamentally, Virtual Production ‘rolls up’ the previous linear Production process of film and television into a dynamic Production world, bringing together departments that had previously worked sequentially into simultaneous interaction.”

UK skills development bodies, Universities and Research organisations have responded to this challenge by developing targeted training and policy initiatives to deliver a pipeline of skilled talent which will underpin future growth and opportunity.

For example:

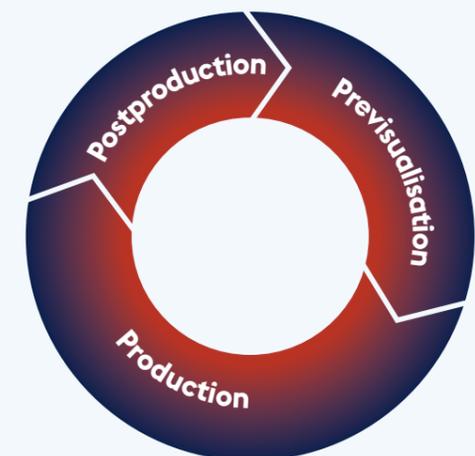
- ScreenSkills’ generation of standards and core competencies for VP technologies in order to guide the coherent definition of training courses, alongside funding for professional development training in VP skills
- Story Futures Academy’s Introduction to VP Labs and NFTS “hands on” LED volume training
- Industry driven prototype productions to create collaborative learning environments
- Seeing is Believing, a series of open days at VP studios across the UK in partnership with ScreenSkills, providing access to tech and expertise

The Virtual Production pipeline

▼ In traditional filmmaking pipelines move through clearly identifiable and demarcated phases.



▼ In VP on the other hand these phases overlap and iterate, with an extended duration of Preproduction.



StoryFutures Academy



RSC "The Dream"



Prox and Reverie "Interchange"

Innovation

In recent years the UK Government, through UKRI, has invested in significant R&D programmes focused on creative and immersive technologies.

The Audience of the Future Challenge established large scale collaborative demonstrator projects and supported the technology-enabled transformation of the screen industries around the UK, in production innovation hubs in Belfast, Cardiff, Bristol and Yorkshire, as well as those around London.

The aim of these ongoing R&D programmes is to support the transition to the current wave of virtual production technologies and to underpin the continued growth of the UK screen sector and its partners in future technology developments – investment in innovation acting as a catalyst for the generation of new, commercially viable, products and services.

“2022 will see the next stage of this R&D investment with the launch of CoStar, a £100M programme to deliver a fully functional R&D infrastructure for the screen sector. Over the next three years CoStar will establish a new national lab for virtual production technologies and three network labs, each sited to maximise benefit to producers and studios.”

Andrew Chitty, Programme Director, Audience of the Future

The CoStar programme will provide access for industry to pre-commercial R&D facilities, supporting prototyping and testing of new solutions in order to research technology challenges and de-risk current production innovation.



Offer

The UK is able to offer a unique combination of incentives, infrastructure and excellence which has been successful in attracting major production revenues.

And the exponential growth of virtual production in the UK is an exemplar of our ability to combine world class creative production skills and technology services at scale.

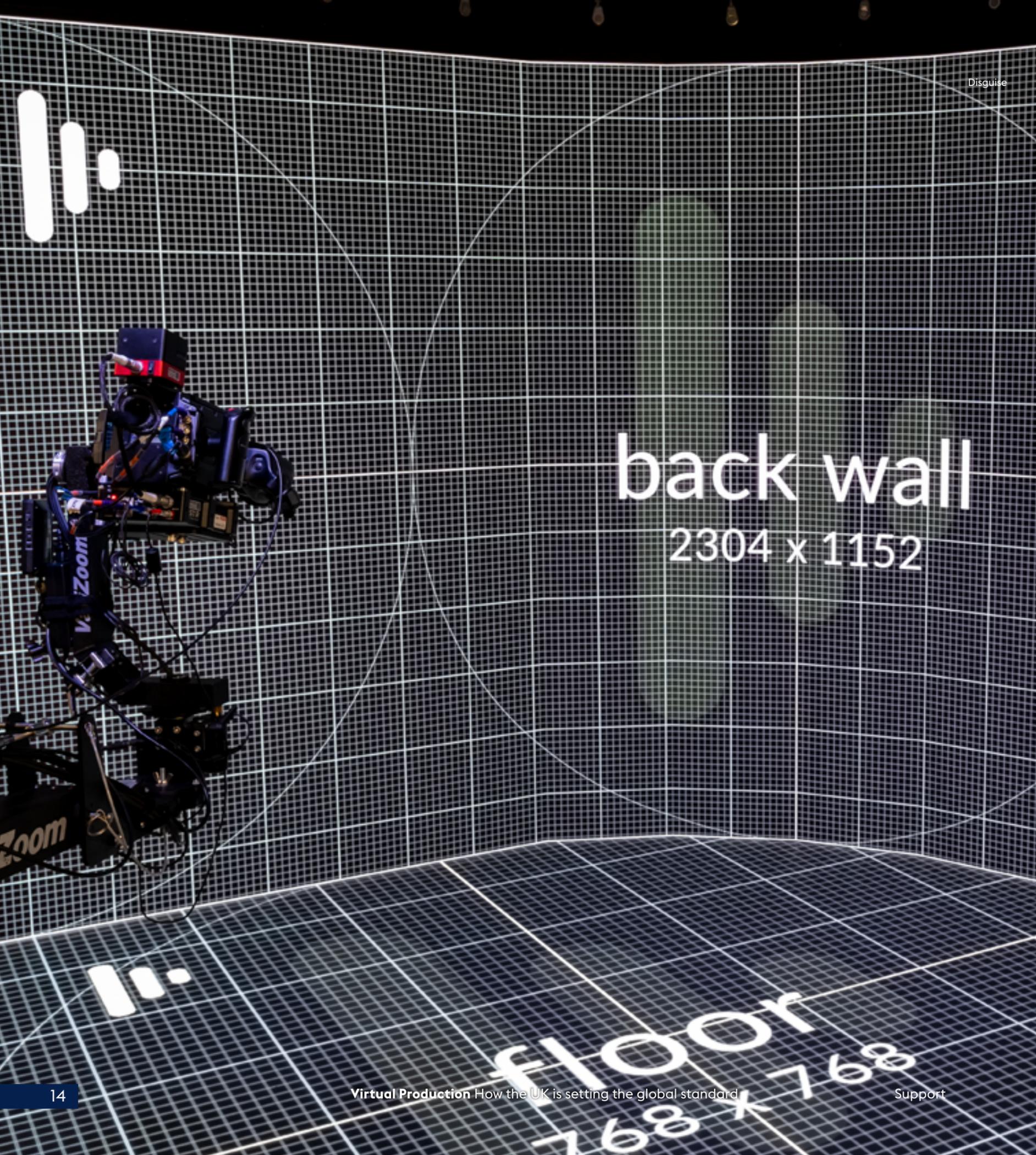
The development of the virtual production ecosystem has demonstrated:

- Fast scaling VP stage capacity
- Responsive supply chains of creative and technology expertise
- Strategic interventions in VP skills development
- Catalytic investment in innovation
- Collaborative Government and industry initiatives focused on growth

In order to establish the UK as the new epicentre for the next generation Film and TV industry.

“The emergence of the UK as a global centre of excellence for virtual production is a testament to our creative prowess and world-leading technology. We remain committed to R&D investment and innovation in the UK’s creative industries and I look forward to what the future holds in this exciting field.”

Lord Grimstone, Minister for Investment,
Department for International Trade



Disguise

Support

For support on investing and establishing in the UK market, contact the Department for International Trade: decs-fdi@trade.gov.uk

For support on producing film and high-end TV production in the UK, contact the British Film Commission: enquiries@britishfilmcommission.org

Thanks: Bild Studios, British Film Commission, Brompton Tech, Disguise, 80six, Garden Studios, ILM, Netflix, Pixomondo, Production Park, Rock Paper Reality, Screen Skills, Sky, StoryFutures Academy, UKRI (Audience of the Future), Warner Bros.



GREAT
BRITAIN & NORTHERN IRELAND

Department for International Trade

The UK's Department for International Trade (DIT) has overall responsibility for promoting UK trade across the world and attracting foreign investment to our economy. We are a specialised government department with responsibility for negotiating international trade policy, supporting business, as well as delivering an outward looking trade diplomacy strategy.

Disclaimer

Whereas every effort has been made to ensure that the information in this document is accurate, the Department for International Trade and the Contributors accept liability for any errors, omissions or misleading statements, and no warranty is given or responsibility accepted as to the standing of any individual, firm, company or other organisation mentioned.

© Crown copyright 2021

This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit nationalarchives.gov.uk/doc/open-government-licence/version/3

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

**Published by
Department for International Trade**

25 March 2022 9:08 AM



Department for
International Trade