

ABOUT THE REPORT

This report is part of the Clwstwr programme, a five-year project that aims to put innovation at the core of media production in South Wales. Clwstwr wants to build on South Wales' success in making creative content by putting research and development (R&D) at the core of production.

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EXECUTIVE SUMMARY

In December 2021, the British Film Institute (BFI) published its latest Screen Business report (Screen Report)¹, analysing how the tax relief granted to the screen sector in the UK affected stakeholders and the economy in 2019. The BFI Screen Report features granular and specific data for UK nations: the purpose of **this report is to provide a summary of the most important data relating to Wales.** Our summary also provides a comparison with the rest of the UK, focusing on two sectors: high-end television (HETV) and filmmaking.

UK film tax relief was established in 2007 to attract and incentivise film production in the UK. Tax relief announced in 2013 and 2014 offer the same benefits to HETV, animation for broadcast and video games. The BFI Certification Unit is the first point of contact for applicants wanting to qualify for this tax relief.

These forms of tax relief enable a production company with an eligible project to claim back 25% of qualifying expenditure. All relief is capped at 80% of the total production budget. These financial incentives are designed to have spillover effects in the nations and regions where production takes place, with a significant impact on local economies.

Our analysis of the data published by BFI shows that in Wales, HETV and film tax relief has had a considerable economic impact. When compared to the rest of the UK, the HETV and filmmaking sectors in Wales play a leading role, both in spending efficiency and in relative Gross Value Added (GVA) outcomes. Key findings include:

- Welsh companies' spending as a result of the tax relief on **filmmaking** resulted in a nine-fold return in terms of GVA in 2019.
- For every additional employee in Welsh **HETV**, £59,000 in additional GVA was generated by tax relief across the value chain. The GVA figure for Wales is the second highest of 12 nations and regions in the UK (the UK average is roughly £57,000).
- Every £100,000 in tax relief enables the Welsh **filmmaking** sector to employ 14 additional full-time employees a ratio that is the second highest of 12 nations and regions in the UK.
- Every £1 spent in **film production** due to film tax relief (FTR) generated an £8.8 return in terms of GVA on the film production value chain in Wales significantly

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¹ Find the full BFI Screen Report via: https://www.bfi.org.uk/industry-data-insights/reports/uk-screen-sector-economy

- higher than the UK average return of £2.5. The figure for Wales is the second highest of 12 nations and regions in the UK.
- For **HETV** tax relief, each additional £1 spent in Wales generated £1.5 in terms of GVA across the HETV value chain. This is slightly below the UK average of £1.8.

The impact of HETV production tax relief in Wales

Employment and GVA outcomes

The data (extracted for the most recent iteration of the study, i.e., for 2019 only)² on the impact of tax relief granted for HETV production in the UK shows that HETV tax relief allowed the Welsh sector to spend **an additional £71.4 million** directly on production or on other auxiliary investments, such as purchases of physical capital or innovation. This puts Wales in fifth place (out of 12 UK nations/regions) after the London Metropolitan area, the North and South West and Scotland (see Table 1). This spending **has allowed the Welsh HETV sector to sustain 1,260 full-time jobs and generated a total GVA of £63.2 million**.

Geographical Region or Nation	Total additional spending (£m)	Employment sustained by the additional spending (FTE)	GVA created by the additional spending (£m)
Wales	71.40	1,260	63.20
Metro London	1,341.60	33,548	1,672.00
North West	262.20	4,458	222.10
South West	126.30	2,086	103.90
Scotland	104.90	2,091	104.40
Yorkshire and the Humber	59.70	1,518	75.60
South East	46.40	1,640	81.70
Northern Ireland	29.60	486	24.20
East of England	17.80	754	37.50
North East	14.40	274	13.70
West Midlands	3.70	591	29.40
East Midlands	0.30	452	22.50
Total	2,078.30	49,160	2,450.30

Table 1: HETV sectoral spending attributable to tax reliefs in 2019, as well as the employment it sustains and the GVA it generates in the sector, grouped by geographical region/nation. Source: BFI Screen Report (2021)

If we look across the entirety of the HETV value chain, which includes all suppliers and downstream users of the sector, the employment and GVA effects are naturally stronger than for the sector considered in isolation. Wales ranks sixth in the number of jobs that

² The BFI examines the impact of tax reliefs granted for HETV production in two ways. First, it estimates their effect generated by the sector individually, which it then complements with a study of the impact running through the entire value chain. This includes the activity of upstream firms, such as purveyors, suppliers and freelancers also impacted positively by the additional spending that the HETV sector carries out as a direct outcome of being granted tax reliefs. The value chain also includes downstream users of the content produced by the HETV sector, who use it as inputs for their own products or services. At this junction, it is necessary to consider that the amounts of additional spending due to tax relief is not necessarily perfectly correlated with the size and output of the HETV in given regions or nations. In fact, any given GBP of output can carry (potentially very) different associated costs and production processes, which fundamentally affects the effective taxation imposed on it.

additional HETV spending, attributable to tax relief, sustains on the entirety of the value chain and in fifth place regarding GVA (see Table 2).

If we consider the difference between Wales' position in the final column of Table 1 (where it ranks seventh overall) and the final column of Table 2 (where it ranks fifth), it suggests that the impact of tax relief in Wales is stronger across the entire value chain rather than within the sector in isolation. This indicates that the Welsh HETV sector's value chain is longer and more inclusive than in other geographical regions or nations.³

In other words, in Wales, proportionately speaking, Welsh HETV creators are more likely to rely on local service providers than their counterparts elsewhere in the UK – making the value chain more inclusive locally. They are also likely to use Welsh inputs and services for a wider range of tasks than their counterparts elsewhere in the UK – which makes the HETV value chain comparatively longer than elsewhere in the UK. This additional local spending from the HETV sector is then used by Welsh suppliers to purchase local inputs and services themselves.

³ There are two possible explanations for this. The first possibility is that the Welsh HETV may be using relatively more inputs and services from suppliers and freelancers than HETV producers from other regions or nations. The second potential explanation is that the output produced by the HETV sector in Wales contributes relatively more to further incremental production (using the HETV sector's output as an intermediary input) than in other regions or nations. The reality may also reflect a combination of these two possibilities.

Geographical Region or Nation	Total additional spending (£m)	Employment sustained by additional spending on the entire value chain (FTE)	GVA created by additional spending on the entire value chain (£m)
Wales	71.40	1,855	108.70
Metro London	1,341.60	487	24.30
North West	262.20	894	47.80
South West	126.30	45,240	2,639.20
Scotland	104.90	727	42.00
Yorkshire and the Humber	59.70	291	14.40
South East	46.40	5,565	305.40
Northern Ireland	29.60	2,228	114.10
East of England	17.80	1,921	102.60
North East	14.40	2,422	128.40
West Midlands	3.70	944	55.70
East Midlands	0.30	1,735	91.60
Total	2,078.30	64,310	3,674.30

Table 2: HETV sectoral spending attributable to tax reliefs in 2019, as well as the employment it sustains and the GVA it generates on the entirety of the value chain, grouped by geographical region/nation. Source: BFI Screen Report (2021)

The relative overall efficiency of tax relief spending in the HETV sector

Combining the BFI's data and Clwstwr's own analysis,⁴ we can see that every £100,000 of tax relief related additional spending sustains 2.6 full-time jobs in Wales (across the entirety of the HETV value chain, i.e., including employment with suppliers and downstream users of the sector's output - see Table 3).

This analysis shows that the overall GVA return from every £1 of tax relief spent by the HETV sector on the entirety of the value chain is equal to £1.5 in Wales, which corresponds to a 50% return on spending. This is about average for nations and regions across the UK.

⁴ This subsection presents the outcome of Clwstwr's own analysis on the BFI's data. In particular, it assesses the relative efficiency with which the additional spending made by the HETV sector creates jobs and produces GVA. In order to proceed to a holistic overview of spending efficacy, we consider the entirety of the HETV value chain in our study. First, we have calculated the number of full-time jobs that each £100,000 of additional spending directly attributable to tax relief sustains. In Wales, this number is equal to 2.6, but please note that this is not a proxy for wages and earnings in the sector. Depending on how the tax relief is spent exactly (which can vary by region), a given unit of additional spending can sustain more or less jobs. For instance, if the tax relief spending is mainly directed towards long-term investment or innovation, its employment effects will not necessarily manifest themselves in the short-run. Direct spending on projects and output, however, provided that it is mainly produced using labour instead of capital will generate significantly more employment on the short-run. The same is true for the amount of additional GVA generated by tax relief related HETV spending. At this point, it is important to note that the numbers for both East and West Midlands are very high, which may be due to relatively smaller sectors benefiting comparatively more from a given unit of additional spending than larger ones.

Wales ranks second highest in the UK in terms of marginal productivity. This measure is based on how much GVA the additional tax relief related HETV spending generates per employee, sustained by the same spending. Marginal productivity is a measure of the additional output generated by brand new employees engaged in the sector, and can be seen as a measure of the growth potential that a sector has in a given region or nation. High marginal productivity signals the prospect of strong growth, because new labour adds substantial value. Lower marginal productivity, by contrast, indicates that the addition of new labour changes less in terms of overall production.

Optimal regional labour allocation would direct new workers to regions, where their contribution (i.e., their marginal productivity) is highest. Since Wales is second in the UK in terms of additional GVA generated by new employees in the HETV sector, it will attract new talent. This labour intake will continue until the additional output that a new worker generates reaches labour cost (i.e., wages and benefits). Therefore, regions (like Wales) with high marginal labour productivity have a greater potential for new hiring (with marginal productivity exceeding wages). To the extent that capital in HETV is a complementary input to labour, any new hiring in Wales is also likely to be accompanied by additional investment in equipment, creating promising growth potential in the HETV sector. For further details, see footnote 5.

Geographical Region or Nation	Number of jobs (FTE) sustained on the entire value chain per £100 000 of additional spending	Return (in terms of GVA) in the entire value chain from £1 of additional spending	GVA per employee sustained by additional spending on the entire value chain
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The measure in the table above is an adequate approximation (i.e., a suitable "proxy") for marginal productivity. The numbers in the fourth column show how much GVA an additional employee hired has generated. This additional employee was specifically hired because of the additional budget that the tax relief has freed up. Otherwise, these same workers would be pursuing activities outside of the sector. This is why their employment and thereby, their additional output, may be thought of as the measure of marginal productivity.

⁵ Marginal productivity is a metric that measures the additional output that an additional "unit" of labour produces, holding everything else within the production process constant (physical capital, intangible capital, the level of innovation, etc). This additional "unit" of labour is an infinitesimal increase in labour usage (say, within a firm), which may be thought of as "one more worker" or "one more hour of work" compared to a pre-established status quo (i.e., an already functional, representative firm). If marginal productivity is high, it implies that every new worker generates a large volume of output – conversely, if it is low, the opposite is true. In a geographical comparison, the optimal allocation of labour would suggest directing a new worker to the region with the highest marginal productivity of labour. Consequently, whichever regions exhibit comparatively higher marginal productivity levels have a natural ability to attract more new labour than other regions.

⁶ This is not a measure of total productivity, instead, it proxies marginal productivity. That is because it measures additional GVA produced by additional workers (who would be working elsewhere, if not for the tax relief).

Wales	2.6	£1.50	£58,598.40
Metro London	3.4	£2.00	£58,337.80
North West	2.1	£1.20	£54,878.70
South West	1.9	£1.00	£53,014.00
Scotland	2.1	£1.10	£51,211.80
Yorkshire and the Humber	2.9	£1.50	£52,795.40
South East	4.1	£2.20	£53,409.70
Northern Ireland	2.5	£1.40	£57,771.70
East of England	5.0	£2.70	£53,467.60
North East	2.0	£1.00	£49,484.50
West Midlands	25.5	£15.10	£59,004.20
East Midlands	162.3	£81.00	£49,897.30
Total	3.1	£1.80	£57,134.20

Table 3: Number of full-time jobs and GVA generated on the HETV value chain by additional spending attributable to tax reliefs, as well as the measure of additional GVA per additional employee. Data is from 2019. Source. BFI Screen Report (2021)

The impact of film production tax relief in Wales

Employment and GVA outcomes

The data⁷ shows that additional spending in the Welsh filmmaking sector *directly* attributable to tax relief amounted to £6.4 million (see Table 4), one of the lowest figures in the UK (ninth out of 12 nations and regions). It is important to note that additional tax relief spending is not necessarily reflective of the size of the filmmaking sectors in various regions or nations, because the taxable portions of income collected by filmmakers may vary considerably by region or nation.

Geographical Region or Nation	Total additional spending (£m)	Employment sustained by the additional spending (FTE)	GVA created by the additional spending (£m)
Wales	6.40	240	12.50
London	1624.40	37685	1958.20
South East	166.10	2386	123.90
Scotland	60.40	1171	61
South West	46.60	864	44.90
Yorkshire and the Humber	39.50	932	48.40
West Midlands	25.10	428	22.20
Northern Ireland	25.00	765	39.70
North West	12.70	171	8.90
East of England	4.80	410	21.30
North East	4.70	147	7.60
East Midlands	>0	262	13.60
Total	2015.80	45480	2362.30

Table 4: Spending originating from the filmmaking sector, attributable directly to tax relief in 2019, as well as the employment it sustains and the GVA it generates in the sector, grouped by geographical region/nation. Source: BFI Screen Report (2021)

Note: The amount of additional spending attributable to tax reliefs is indicated by the BFI to be equal to zero in 2019, nevertheless, this may be due to rounding and therefore, we are unable to conclude the true measure.

Because additional spending by Welsh filmmakers attributable directly to tax relief is relatively low, so are the number of jobs that it sustains and the GVA that it generates within the filmmaking sector (considered without the rest of the value chain). The former

⁷ The structure, presentation and analysis in this section is comparable to the text and tables in the section above. We suggest consulting it for a more comprehensive overview regarding the details of our analysis.

corresponds to roughly 240 full-time employees and the £6.4 million of additional spending generated roughly £12.5 million of GVA in Wales, as illustrated in Table 4.

Similarly, the numbers on employment and GVA sustained or generated across the entirety of the filmmaking value chain by tax relief induced additional spending in Wales remain comparatively low. The £6.4 million of tax relief related to filmmaking expenditure sustained around 879 full-time jobs and generated around £56.1 million in GVA across the entirety of the value chain.

Geographical Region or Nation	Total additional spending (£m)	Employment sustained by additional spending on the entire value chain (FTE)	GVA created by additional spending on the entire value chain (£m)	Percentage return of additional spending in terms of GVA
Wales	6.40	879	56.10	777%
London	1624.40	49845	3735	130%
South East	166.10	3952	241.80	46%
Scotland	60.40	2335	137.50	128%
South West	46.60	2139	122.50	163%
Yorkshire and the Humber	39.50	2204	143.90	264%
West Midlands	25.10	1778	148	490%
Northern Ireland	25.00	2528	182.60	630%
North West	12.70	909	60.80	379%
East of England	4.80	1044	75.30	1469%
North East	4.70	537	29.20	521%
East Midlands	0.00	780	42.70	
Total	2015.80	68390	4975.50	147%

Table 5: Spending originating from the filmmaking sector, attributable directly to tax relief in 2019, as well as the employment it sustains and the GVA it generates on the entirety of the filmmaking value chain, grouped by geographical region/nation. Source: BFI Screen Report (2021)

Note: In the case of the East Midlands, the amount of additional spending attributable to tax relief is indicated by the BFI to be equal to zero in 2019, nevertheless, this may be due to rounding and we are unable to conclude the true measure.

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⁸ This relatively small value of tax relief spending in Welsh filmmaking does not indicate that the sector is small in a UK comparison. It may simply reflect variations across regions or nations in the portions of revenue that are taxable. Furthermore, the relative numbers of filmmakers claiming tax reliefs may also vary from region to region.

The relative overall efficiency of tax relief spending in the filmmaking sector

While the volume of additional spending in Wales is comparatively low, the GVA return on spending is the second highest in the UK (corresponding to a 777% return).

As Table 6 shows, every £100,000 of tax relief related spending sustained 13.7 full-time jobs, ⁹ meaning that filmmaking in Wales has one of the highest GVA returns in the UK. For every £1 of tax relief related spending, a total GVA of £8.8 is generated on the entirety of the value chain, corresponding to a return of almost 800%, with only the East of England performing better by this measure.

At the same time, the additional GVA generated by each additional employee sustained through tax relief related spending is relatively low in Wales, below the UK average of roughly £73,000. This relatively low marginal productivity implies that the sector is already well-established and that the addition of new employees generates relatively less output than in other regions or nations of the UK.

This result provides a striking contrast with the Welsh HETV sector, where marginal labour productivity is the second highest in the UK (see above). Although the Welsh film sector exhibits low marginal labour productivity, it may still have significant growth potential through other channels. The measure of marginal labour productivity always corresponds to a given level of technological and procedural sophistication. When firms invest in additional capital (tangible or intangible), or in innovation and R&D, they unlock new processes, products and markets that make their labour force more productive. This, in turn, attracts more new workers (and creates vacant positions), which directly lead to growth and development. As a consequence, levels of creative innovation will be a key determinant for the future of the Welsh film sector. ¹⁰

Geographical Region or Nation	Number of jobs (FTE) sustained on the entire value chain per £100 000 of additional spending	Return (in terms of GVA) in the entire value chain from £1 of additional spending	GVA per employee sustained by additional spending on the entire value chain
Wales	13.7	£8.80	£63,822.50
London	3.1	£2.30	£74,932.30
South East	2.4	£1.50	£61,184.20

⁹ As we explain above for the comparable analysis regarding the HETV value chain, this does not imply that those 13.7 jobs' wage bills are financed by a mere £100,000. Instead, it implies that the spending gave sufficient impetus to launch projects that required that number of workers.

¹⁰ https://clwstwr.org.uk/projects

Scotland	3.9	£2.30	£58,886.50
South West	4.6	£2.60	£57,269.80
Yorkshire and the Humber	5.6	£3.60	£65,290.40
West Midlands	7.1	£5.90	£83,239.60
Northern Ireland	10.1	£7.30	£72,231.00
North West	7.2	£4.80	£66,886.70
East of England	21.8	£15.70	£72,126.40
North East	11.4	£6.20	£54,376.20
East Midlands			£54,743.60
Total	3.4	£2.50	£72,751.90

Table 6: Number of full-time jobs and GVA generated on the filmmaking value chain by additional spending attributable to tax relief, as well as the measure of additional GVA per additional employee. Data is from 2019. Source: BFI Screen Report (2021)

Note: Spending efficiency is not calculated for East Midlands, as data from the BFI's report is inconclusive for this region.

Conclusions

Overall, the data published by the BFI suggests that the Welsh screen sector functions efficiently and that additional spending within it generates a high volume of additional GVA and employment.

Wales has one of the highest GVA return ratios in the UK, one additional pound of spending generating £8.8 in terms of additional GVA. This suggests that the Welsh film and TV sector is deeply anchored in the Welsh economy across value chains. As a consequence, any increases or declines in its output will certainly be felt broadly in the Welsh economy.

The BFI's data indicates UK-leading growth potential in the Welsh high-end TV sector. Only the West Midlands exhibit higher numbers in terms of GVA per new job created through tax relief. This implies that the marginal contribution that each new employee can bring to the Welsh high-end TV sector is high. This market dynamic paves the way for attracting investment and know-how in the sector. We therefore expect significant growth in the sector's output and employment on the short- to medium-run.

