

Final Report

Business Case for an Enhanced Video Games Expenditure Credit

Prepared for: Ukie

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1. Argument-in-Brief

Following major changes to the Audiovisual Expenditure Credit in March of 2024, Ukie commissioned Nordicity to provide research and economic analysis supporting the development of Ukie's recommendations for an enhanced Video Game Expenditure Credit (VGEC) (i.e., a business case). This business case is informed by Nordicity's economic modelling, case studies, desk research, and a comparative analysis of international labour-based rebate schemes. Using this information, the following report reviews six different possible scenarios accounting for different VGEC parameters including changes to the nominal rate, expanded eligibility criteria, and changes aligned with project budgets.

Any enhancements to the current VGEC scheme would necessarily need to reflect important macroeconomic trends and market realities affecting the global – and domestic – video game industry. While many labour-based incentive programmes have traditionally been implemented to attract and retain major game development studios to a given jurisdiction, the onus for industry support is beginning to embrace both employment and export revenue from sales and IP exploitation as the latter represents an equally potent avenue for industry sustainability and growth. Considering high volume layoffs and UK studio closures, the risk-averse investment climate, the cascading effects of inflation, rising interest rates, and wage competition, and the emergence of optimised indie game production processes, VGEC should equip the UK video game industry to survive, and subsequently thrive, within this new market reality.

Nordicity modelled six distinct scenarios for an enhanced VGEC, modulating different nominal rates (34%, 39%, and 53%), extended eligibility criteria and qualifying expenditure types, and rates applied to specific project budget thresholds. These scenarios were compared to effective rates for schemes used in other jurisdictions, and were used to assess potential employment growth, GVA additionality, tax revenue and additional revenue generation for the sale of new games developed by small, UK-owned studios from reinvestment of the expanded claim allowance – all relative to the cost of implementing each scenario.

Ultimately, Nordicity's modelling and research found that there is a **distinct business case to be made for the enhancement of the current VGEC scheme.** The approach yielding the highest overall volume increase in employment, GVA and tax revenue would be to **increase the nominal rate to 53% for project budgets up to £10 million ("Games Growth Rate") and increase the nominal rate to 39% on 100% of expenditures for project budgets greater than £10 million ("Enhanced Primary Rate").**

The proposed changes would result in higher lump-sum amounts of relief disbursed to companies to cover expanded claims which would, in turn be reflected in higher volumes of employment (additional FTE generation), tax revenue, and GVA additionality. Based on Ukie's knowledge of UK's games industry. this package of measures would more acutely address the needs of the UK video games industry at large; from multinational studios, many of whom have a significant UK footprint following historic investment and higher employment which has contributed substantially the overall GVA of the UK industry, to smaller, growing British studios trying to scale, develop new IP, export and compete internationally.

Within this potential change, the new 'Games Growth Rate' that is included in this proposal provides the highest per-pound economic return on investment of all of the scenarios we have considered, representing a return of £2.12 per £1 in additional VGEC spend by the fifth year of implementation. This EROI figure reflects the potential reinvestment effect from local studio development, as smaller studios would be able to use the increased VGEC disbursements to fund new projects or accelerate current projects – in turn, generating more game sales and associated export revenue. This Games Growth Rate would increase the "on-paper" appeal and utility of the VGEC scheme for smaller studios in the UK.

When this Games Growth Rate is combined with the Enhanced Primary Rate, the combined package would create one of the most competitive tax incentives available to the video games industry, generate an additional £479m in GVA annually (over that which would be generated by the existing VGEC scheme), and pave the way for the creation of an additional 5,969 jobs in the UK..

The following table demonstrates the anticipated outcomes related to this business case in a hypothetical fifth year of implementation in comparison to the changes if they were implemented in isolation:

	Industry Impacts Projects for Year 5 of Implementation (Current VGEC)	53% Games Growth Rate combined with the 39% Enhanced Primary Rate	53% Nominal Rate for £10M and below	39% Nominal Rate + 100% Expenditures
Approach	Maintains status quo for support	High volume growth, increased comparative international competitiveness, focus on employment generation	Scalable focus on support for smaller studio development and export revenue generation	Impact solely related to an 'enhanced primary' rate
Effective Rate	14%	20.6%	16.8%	20.0%
VGEC Disbursement Costs	£937.3M	+£367.6M	+£151.2M	+£302.6M
Total GVA	£6,167.9M	+£479.3M	+£197.1M	+£394.4M
Total Tax Revenue	£1,872.5M	+£145.5M	+£59.8M	+£119.7M
VGEC GVA ROI	£2.46	+£1.44	+£1.64	+£1.42
VGEC Tax ROI	£0.74	+£0.43	+£0.48	+£0.43
VGEC Total ROI	£3.20	+£1.87	+£2.12	+£1.85
Total Direct FTEs	32,810	+2,550	+1,048	+2,098
Total Indirect FTEs	26,089	+2,027	+833	+1,668
Total Induced FTEs	17,922	+1,393	+573	+1,146
Total FTEs	76,820	+5,969	+2,454	+4,913

2. Introduction

Ukie commissioned Nordicity to provide research and economic analysis support for the development of a business case for an enhanced Video Game Expenditure Credit (VGEC). The business case demonstrates how potential enhancements to VGEC would make the UK video game industry more competitive and sustainable. Nordicity's research and economic analysis explores several possibilities for enhancing VGEC, including increases to the tax credit's nominal rate, the expansion of eligible expenditures, and the use of VGEC for other processes and services related to game development. This report also explores the use of VGEC within the context of current market realities for international game development, addressing the new avenues for growth via targeted support for smaller British studios and scalable projects.

Following changes made by the UK Government to the Audiovisual Expenditure Credit (AVEC) in the March 2024 Budget, there arose an opportune moment to review and advocate for enhancements to VGEC. AVEC enhancements raised nominal relief rates for film and television visual effects from 34% to 39% and rates for independent film production from 34% to 53%. Animation and children's television production was already subject to a previous enhancement and other creative sectors (including theatres, orchestras, museums, and galleries) saw once-temporary tax reliefs made permanent following the pandemic. Ultimately, the UK video game industry would equally benefit from similar enhancements, as it competes with other international jurisdictions to offset labour costs associated with labour-intensive video game development activities.

To analyse the effectiveness of the current VGEC relief scheme and to evaluate the impacts of possible enhancements, Nordicity utilised a combination of methodologies, both qualitative and quantitative. The following methodologies include:

- 1. Effective relief rate modelling using the Ersatz Game Project tool: To compare VGEC's effective relief rate compared to other jurisdictions, Nordicity utilised its video games incentive programme calculation tool, called the Ersatz Game Project. The Ersatz Game Project was developed over the course of previous engagements and consultations with industry professionals and simulates the finances for a plausible project of a video game studio with a budget of approximately £10 million. The simulation allows Nordicity to compare effective tax credits/labour rebates across benchmark jurisdictions and pays specific attention to the way project budgets breakdown of development activities and other eligible expenses (as permitted by the various support mechanisms).
- 2. **Industry engagements**: Nordicity conducted interviews with game companies in the UK as to 1. provide case studies that describe the current and intended uses of VGEC and 2. to inform quantitative findings.
- 3. Additionality modelling of top-line gross value added (GVA), tax generation impact and reinvestment effects: To calculate GVA and tax impacts, Nordicity created an impact model that assessed how much potential labour would be supported or created as a measure of relief paid out. Since labour is a key driver of production in the video games industry, the model used the allocation of relief to labour to measure how much GVA and tax revenue would be generated from labour productivity in certain scenarios. Nordicity also developed an impact model add-on that tabulated GVA and tax from potential sales of new projects created from the proposed additional enhancements added to the current VGEC programme.
- 4. **Jurisdictional scans and desk research**: To provide a complementary understanding of the current landscape of the video games industry in the UK and in comparable jurisdictions, Nordicity conducted

region-specific research and reviewed broader international trends related to game development processes, wage competitiveness, and the impact of recent macroeconomic shifts.

3. The Baseline: How the UK's Games Industry Competes Internationally

3.1. The State of the Global Games Industry

The rise and growth of the video games industry, culminating in its 2021 peak, has been driven by a two-decade paradigmatic shift marked by diversification, technological advancement, and evolving consumer habits. The video games industry is the largest entertainment industry in the world.

Traditionally centred around "games-as-a-product", where titles were developed, published, and sold as complete packages, the industry transformed into a multifaceted ecosystem. Developers embraced a spectrum of production and business models, from indie and AA projects to blockbuster AAA productions. Major publishers focused on consolidating talent and intellectual property (IP), creating iconic franchises that extended across media and merchandise, and attracting and growing audience.

The past 15 years saw the rise of live-service models ("games-as-a-service"), where games evolved continuously post-launch, supported by subscriptions and in-game monetisation schemes. Consumer acceptance of these models grew alongside the ubiquity of smart devices and strong global network infrastructure, which democratised access to games. Casual and mobile gaming emerged as dominant modalities, attracting broader demographics and driving revenue growth, as illustrated by the following chart.

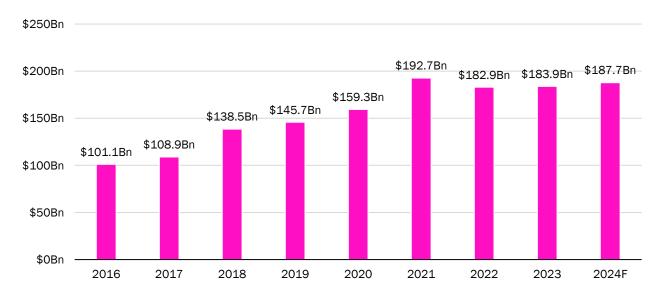


Figure 1. Global Game Revenue (\$USD)

Source: Newzoo, 2024

The macroeconomic landscape in North America and Europe, two regions with high concentrations of AAA game development and publishing, further fuelled the accelerated growth of the industry up to 2021. Low interest rates made capital abundant and accessible, encouraging investment despite the inherent risks of game development. Digital distribution platforms, such as Steam, the Epic Games Store, and mobile app stores, allowed developers to bypass traditional gatekeepers, reaching global audiences directly. These factors converged to create an industry that was not only resilient but increasingly innovative, setting the

stage for unprecedented growth and culminating in a surge during the pandemic era, as demand for digital entertainment skyrocketed.

Since its peak in 2021, the global video games market has experienced a more nuanced form of growth and has begun to face new challenges such as market saturation, aggressive consolidation, and a lack of financing opportunities. Indeed, the pandemic-era surge in demand for games has subsided, exposing companies to the sharp rise in the cost of speculative capital. This downturn notably translates into massive layoffs, studio closures, and corporate consolidation.

The headlines around the video game industry throughout 2022, 2023 and 2024 have been dominated by news of layoffs. To mitigate losses and make their operations more sustainable through the industry's market recovery period, many companies started reducing the scope or cancelling projects, shedding the related employees or shuttering the studios responsible for their development. The initial wave of layoffs, starting in 2022, amounted to 8,500 jobs; subsequent years saw continuous increases in the volume of layoffs, with 10,500 layoffs in 2023 alone, and another 14,000 estimated to have happened in 2024. ¹. In the advent of these layoffs, many developers are turning to freelance or contract-based employees to fulfil forthcoming project roles as teams are becoming more distributed (and amenable to fully remote roles) in the post-pandemic world. Subcontracting has become a more feasible employment arrangement for both small British and AAA developers – subcontracting labour can help fill expertise gaps in small teams or can supplement unforeseen and short-term development processes respectively.

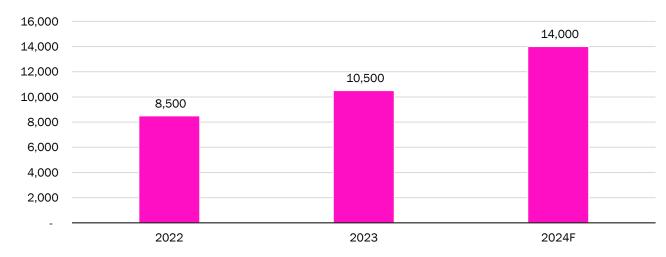


Figure 2. Global Video Games Industry Layoffs

Source: Games Industry Layoffs Tracker

Finally, the global games industry is contending with a reduced volume of investment and a risk-averse financing climate. Following years of inflated investment, further exacerbated by the end of the pandemic boom in home entertainment and a growing scepticism over speculative technologies, the industry is experiencing a significant market correction. Venture capital investment dropped off significantly as interest rates began to rise, leaving many companies without the financing to continue or start new projects.

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¹ Games Industry Layoffs Tracker

\$9B 450 \$8B 400 \$7.2B \$7B 350 \$6B 300 \$5.3B \$5.1B \$5B 250 \$3.7B \$4B 200 \$3.3B \$3B \$3B \$3B 150 \$2.4B \$1.8B \$2B 100 \$1.5B \$1.4B \$1.2B \$1.1B \$1.1B \$1.2B \$0.9R \$0.7B \$1B 50 \$0B 01 02 03 **Q4** 01 02 03 **Q**4 01 **Q**2 03 04 01 02 03 04 01 Deal value Deal count

Figure 3. Video Game Venture Capital Investment Volume Worldwide (\$USD billion)

Source: Pitchbook, 2024

The current context reflects a global race among jurisdictions to recover and revitalise their respective game industries. Accordingly, any industry will need to adapt their support mechanisms to the emerging landscape – a landscape that is much less advantageous for multinational developers or employment-based growth strategies than it once was. However, this landscape also provides new avenues for industry growth as the market stabilises and achieves its own "new normal", particularly to developers with more streamlined and scalable production processes and the maintenance of global distribution systems.

One such avenue for growth is to leverage the competitiveness of indie games in the global market. Indies and solo-developed games are now competing for attention with AAA offerings from major multinational studios, with the percentage of full game revenue from independent games sold on platforms like Steam almost doubling since 2018.² Small studios are less dependent on initial publisher buy-in for their titles, using audience engagement processes and developer-friendly online platforms to create and sell games in a more flexible and timely way, while capitalising on current player preferences and trends to de-risk titles and ensure market fit.



Figure 4. % of Full Game Sales Revenue from Steam Games by Year

 $^{^2\ \}underline{\text{https://gameworldobserver.com/2024/10/16/indie-games-revenue-steam-vs-aaa-titles-vg-insights}}$

3.2. The UK Games Industry in 2024

The international video game industry experienced a period marked by turmoil, contraction, market correction, and economic recovery, especially over the span of the last four years. The United Kingdom's own domestic industry was not sheltered from the resulting layoffs, studio closures, and decreased investor activity, but in following with the broader trend, the UK games industry has seen an optimistic increase in both consumer market value and development activity. Per Ukie's reporting, the UK games consumer market was worth £7.82 billion in 2023, representing an increase of 4.4% from 2022.³ Per TIGA's reporting, the UK games development sector grew to 25,419 full-time equivalents in 2024, an increase of 4.8% over the course of the previous year.⁴ Against the backdrop of difficult macroeconomic conditions, the current UK games industry can be characterised as resilient and adaptable; as a measure of game revenue, the UK remained the sixth largest gaming market in the world in 2023.⁵

Despite the encouraging portrait painted by increased consumer market valuation and development sector growth, it is worth acknowledging that the industry has had to make some compromises. As headcounts have recovered across the sector, the composition of the workforce has changed: between April 2023 and May 2024, the number of freelancers working in the UK games industry almost tripled, from 4.4% to 12.7% of the workforce.⁶ Studio closures and restructuring also affected the broader industry workforce: 248 companies closed down between 2023 and 2024, but 678 companies grew their headcounts in the same period, indicating that employees were able to find employment elsewhere in the industry.⁷ Changes in workforce composition, including increases in freelance labour arrangements and higher headcounts in established studios, may have implications for the deployment of labour-based relief programmes, but the long-term impact of these changes remain to be seen.

3.3. Games vs AV: Geographic Distribution in the UK

A significant attribute of the games sector's value to the UK economy is in its geographic distribution. While, like most sectors in the UK, there is a significant concentration of business in London, there are large hubs of games activity around the country, offering levelling-up opportunities and a wider distribution of economic impact derived from a highly skilled, highly paid workforce. In particular, there are concentrations of games development spend in Scotland, The West Midlands, and Yorkshire and The Humber Regions, as well as in the South East.

Indeed, game business activity in the UK is more evenly distributed than film and TV production and postproduction business activity, where outside of London, there is comparatively less activity away from cities like Manchester, Bristol and Cardiff (as illustrated in Figure 5). The Film and TV sector has benefitted from increases in tax incentives, so a similar increase in the games sector incentives has potential to result in an even greater geographic distribution of comparison to film and TV production.

³ https://ukie.org.uk/news/2024/04/2023VideoGameIndustryValuation

⁴ https://www.prnewswire.com/news-releases/weathering-the-storm-tiga-research-reveals-uk-games-dev-sector-continues-to-grow-despite-global-sector-downturn-302304483.html

⁵ https://newzoo.com/resources/rankings/top-10-countries-by-game-revenues

⁶ https://www.gamesindustry.biz/number-of-uk-game-dev-freelancers-triples-amid-layoffs-and-studio-closures

⁷ Ibid

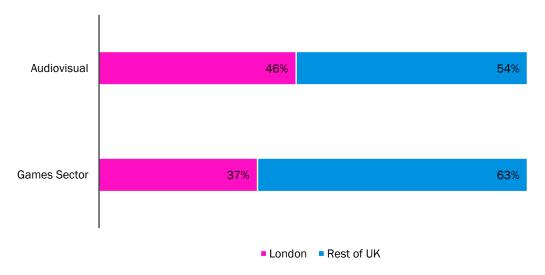


Figure 5: Comparative regional distribution of business activity in the AV and game development sectors

Source: ONS, UK business: activity, size and location (2024)

3.4. Wage Competitiveness

As the UK's game industry leverages labour-based relief programmes, wage competitiveness factors into the broader efficacy and appeal of VGEC. Historically, labour-based tax credits have been introduced by jurisdictions to offset costs associated to employee salaries, with the added – and perhaps intended – effect of incentivising multinational studios with lower relative costs for a highly skilled workforce. Thus, not only does the UK have to consider how their relief programme fairs against other jurisdictions with similar schemes, but it must also contend with important macroeconomic changes affecting wages.

Overall, the UK and comparative jurisdictions have all faced the same issues: inflation, higher interest rates, and an increased cost of living. As a result, wages have mostly increased in tandem with these macroeconomic trends. Figure 6 demonstrates that since 2013, the UK has seen the steepest increase in wages relative to competing jurisdictions. It has also increased at a rate outpacing the average of all jurisdictions' consumer price index.

Indexed Wage Growth (2013-2023) 20.4 Canada France - Ireland Australia · · · · · United Kingdom

Figure 6: Comparative indexed wage growth 2013-2023 (2013 base = 100)

Sources: StatsCan, Institut national de la statistique et des études économiques, Central Statistics Office Ireland, Australian Bureau of Statistics, Office for National Statistics.

Figure 7 maps comparative average wages across jurisdictions starting in 2013. Initially, wages in the UK were only slightly higher than its closest geopolitical competitor, France. Over the course of the following ten years, UK wages increased significantly, as the gap with France almost tripled from £3,000 to £11,000. While the UK has maintained the second-highest average wages among competitors (just behind Canada), the increasing gap between it and other jurisdictions have made the UK less and less competitive over time.

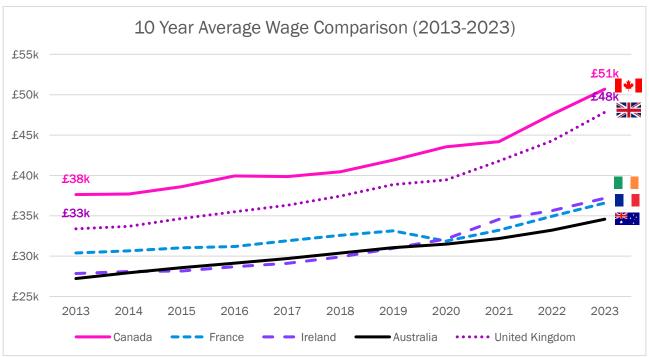


Figure 7: Comparative average wages for game industry workers 2013-2023

Sources: StatsCan, Institut national de la statistique et des études économiques, Central Statistics Office Ireland, Australian Bureau of Statistics, Office for National Statistics.

Between historically high comparative wages and trends indicating continuing wage inflation, the UK games industry has also had to contend with the long-term implications of Brexit, and the resulting – mostly

negative - effects it has had on labour mobility, access to markets, subcontracting arrangements, and exchange rates. Figures 2 and 3 both indicate a more significant increase in average wages in the UK around 2020, with the impacts felt into current day.

Video game development is labour-intensive, and as such, wages become a major point of consideration for companies seeking to establish studios or start projects in other jurisdictions. As the UK has become less competitiveness, safeguarding the domestic game industry will require support mechanisms like VGEC to maintain the viability of the UK games industry (namely, by working to restore wage competitiveness and anticipate ongoing macroeconomic trends).

3.5. UK Video Game Industry Relief Mechanisms

The Video Game Expenditure Credit was introduced in January of 2024 to replace the previous Video Games Tax Relief (VGTR) scheme. Since HM Revenue and Customs has not yet applied the new VGEC rules and companies are still applying for VGTR claims for the current fiscal year, the methodology found in this report examines the potential effect of the current VGEC scheme compared to the soon-to-be defunct VGTR.

3.6. About the Ersatz Game Project Tool

Through previous engagements and consultation with industry professionals, Nordicity has developed a video games incentive programme calculation tool, called the Ersatz Game Project.

The model simulates the finances for a single plausible project of an AA ("double A") 8 video game studio with a budget of approximately £10 million (vetted by industry stakeholders). As many video games studios are beginning to focus on smaller and more nimble teams to lower development costs and shorten production timelines, Nordicity assumes that the £10 million is a comfortable budget level for studios to produce quality games at faster production pipeline. The simulation notably compares tax credit rebates of the benchmark jurisdictions through the budget breakdown of development activities and other eligible expenses (as permitted by the various support mechanisms). The model also assumes that companies that are eligible to apply for relief will apply, providing a fuller portrait of each incentive if uptake is maximised.

The budget assumptions are estimates based on Nordicity's experience with working with industry stakeholders over the past decade. Through industry surveys and direct consultation, Nordicity has engaged with over 900 video games studios across more than 10 years – from international 'AAA' studies to micro enterprises. This has allowed Nordicity to develop industry profiles – and these were recently validated through interviews with video games studios and an industry survey.

Through this simulation, Nordicity applied the estimated deduction based on the criteria/requirements provided by each jurisdictions' tax credit frameworks, integrated local nuances (e.g., need for foreign outsourcing, average industry salary, etc.). From there, the research team was able to illustrate the effective rebate for each jurisdiction.

⁸ This industry designation is used to describe the relative size of video games products (just as the most ambitious Hollywood productions are referred as blockbusters). AAA are usually understood as projects with a budget greater than 50 million pounds, AA projects have a budget between 10 and 50 million pounds, and A projects or small British projects have budgets under 10 million pounds. This classification remains informal and various standards and ranges can be found. The ranges selected for this study reflect the most common understanding of these terms at the time of writing.

The calculations of the Ersatz model to determine the effective rates from nominal rates are developed as follows:

Step 1: Labour and Non-Labour Expenditure

Total Game Budget (A) – Development Labour Budget (B) = non-labour development budget (C) This first step separates the labour component from the non-labour expenses.

Step 2: Eligible Labour Expenditure

(B) x Eligible Labour Percentage = Eligible Labour Expenditure (D). This second step determines the actual labour expenditure that can be claimed according to the incentives' guidelines. The Eligible Labour Percentage is validated by industry stakeholders.

Step 3: Eligible Non-Labour Expenditure

(C) x Eligible Non-Labour Percentage = Eligible Non-Labour Expenditure (D)

This step calculates the amount of non-labour costs that can be claimed according to guidelines. The Eligible Non-Labour Percentage is validated by industry stakeholders.

Step 4: Relief Allocation

 $[(D) + (E)] \times Nominal Funding Rate = Relief amount (F)$

The nominal rate is then applied to the total eligible expenditures (labour and non-labour)).

Step 5: Effective Rate

(F)/(A) = Effective Rate of Funding Mechanism

Finally, the amount returned (calculated in the Step 4) is compared to the total budget of the project. This ratio is the effective rate of the incentive.

Calculations may vary in cases where several mechanisms can be stacked to ensure that the modelling does not allow double counting.

The Ersatz Game Project Tool calculates and examines the most optimal scenario under which an "ersatz" video game project with a hypothetical budget size can claim rebates and relief. The model is different from the modelling tool used in the BFI's 2021 Screen Business report as Screen Business measured impact and growth rate based on historical data received by several sources. Instead, the Ersatz model calculates the actual relief rate that a hypothetical game studio might receive after all eligibilities and restrictions are added to the budget amount. In comparison, the aim of the modelling used in the Screen Business report was to examine the estimated economic impact of the VGTR based on historic data gathered.

3.7. Key Assumptions of the Ersatz Project

The assumptions underlining the Ersatz Project model are informed by the years of research and engagements conducted by Nordicity related to the global video game industry. Accounting for insights pertaining to development cycles, R&D spend, labour vs. capital spend, use of subcontractors, and inpractice uses of claimed relief – among others – Nordicity's Ersatz Project Tool model is adapted to, as confidently as possible, project effective rates for tax relief programmes across different jurisdictions. Specific assumptions related to the use of the Ersatz Project Tool are as follows:

- Nordicity assumes that labour cost of an Ersatz project is roughly 72% of the total budget cost.
- Nordicity estimates the R&D cost to be 10% of the labour cost.
- Nordicity also assumes that the breakdown of labour costs is based on the division of labour and other non-labour costs of a typical £10m budget.

- The model assumes that an Ersatz project will optimally claim the maximum amount of relief from all eligible costs that can be incurred.
- The model assumes that an Ersatz project does not offload certain labour costs (e.g. localisation) to publishers or third-party companies.

As these assumptions are informed by Nordicity's experience with the video games industry, and accounts for how video games studios finance their projects, the modelling process provides an assessment that is uniquely attuned to smaller UK-owned studios and its related impacts. Since smaller studios typically perform all, if not most, of the labour needed to produce their game, the model accommodates these costs in the effective rate calculation. Furthermore, since smaller UK studios sometimes do not rely on third party publishers to outsource some of their costs, the division of costs for their project tends to align with the Ersatz model.

However, one limitation of the model is that the £10m budget calculation may not have the same results as another Ersatz project with a significant difference in budget (e.g., £500k, £1m, £100m).

Based on the Ersatz model used to calculate both VGTR's and VGEC's effective rate on a £10 million project budget, the model determines the effective rates for the current and future relief programmes as follows:

	UK VGTR	UK VGEC
Nominal Rate	25%	34%
Nominal Rate + 80% Expenditures	20%	27.2%
Effective Rate + 25% Corporation Income Tax (for VGEC)	12.2%	14%

While VGEC includes several generous allowances and improvements compared to the VGTR, including allowing subcontracting costs as eligible expenditures, VGEC includes a 25% corporation income tax on any claims paid out. Additionally, VGEC also no longer allows expenditures incurred from the European Economic Area (EEA) as part of claimable expenditures. As such, while VGEC has a better nominal rate, the effective rate is closer to a 1.8% improvement from the previous relief programme.

The Ersatz model indicates that a significant reason for VGEC's improved effective rate is the inclusion of subcontracting and freelancing costs to the eligibility of a project's budget. Considering the high volume of layoffs that occurred in 2022-24, the video game industry workforce is shifting towards smaller teams and freelancing (see section 2.2). Nordicity anticipates a greater increase in the subcontracting segment of VGEC eligibility costs. As such, the effective rate of VGEC will be higher compared to VGTR, especially due to subcontracting cost eligibility.

When looking at the impact of VGEC, the model estimates that the relief claims in 2024-2025 (when VGEC's assessments will be implemented) will potentially sustain over 15,684 direct, indirect, and induced full-time equivalents (FTEs) of the UK video games industry. Furthermore, VGEC will potentially add £1,259.3M to the GVA based on the FTE labour that VGEC potentially supports in the UK.

3.8. Competing Internationally

Labour-based financial incentives have been introduced to support the development of video games in jurisdictions around the world. While an incentive programme is tailored to the realities of each jurisdiction's own economy, bureaucratic systems, and political objectives, they all operate on the same premise: game

development is a labour-intensive process that requires a large amount of artistic, technical, and managerial work.

DPS Games: A Case Study on International Competitiveness

Surrey based DPS Games has historically used the VGTR as an essential puzzle piece in any business development conversation with international partners. The VGTR is viewed as a lifeline and something that helps mitigate the high wages and other costs of making games in the UK, to essentially stay afloat.

In 2018, Cypriot-based AAA game developer, Wargaming, acquired DPS Games as part of a strategic move by Wargaming to pivot into Western markets. Following this transaction, VGEC/VGTR was no longer the mechanism that simply kept DPS afloat. However, as the games industry responds to a changing geopolitical landscape and increasing globalisation, VGTR has remained the vehicle by which the UK stays competitive in the international market. DPS/Wargaming offers a useful case study into the value of VGEC as a mechanism for helping UK games companies attract foreign direct investment.

Wargaming are the developers of a multi-billion-pound grossing franchise, World of Tanks, and the majority of their development team was based in Eastern Europe, mostly in Russia, Belarus and Poland. In a drive to entrench themselves in the Western market, under the premise that to be successful in a market one should develop in that market, a mandate was given to set up a physical presence in a Western European country. The UK was chosen on account of its rich history of video game production and associated talent pool, and Wargaming subsequently acquired DPS. DPS is based in Guilford, an ideal location, close to Heathrow and Gatwick, and with good school and housing options available. Despite the enduring non-financial factors that make the UK attractive to games developers, the UK is one of the most expensive jurisdictions in the world. For a company like Wargaming, who chose to relocate over 200 members of staff from St Petersburg to the UK at the start of the war in Ukraine, VGEC was critical in offsetting the significant costs accrued by this process, including the costs of relocation, flights, visas and, of course, the rising consumer price inflation as a result of the war.

Without a VGEC/VGTR, the UK would not be viewed as an attractive-enough business proposition for a company of Wargaming's size and scale. The upshot of this is that, as stated by a DPS representative, the company is now near the top of the list of Wargaming' subsidiaries and offices in jurisdictions around the world to face relocation or closure if there are either any further geopolitical or economic shocks. Either way, should Wargaming not be able to claim VGEC on a significant proportion of its development spend on their upcoming projects (in the region of £1 million in spend/month or a £200k in VGEC per claim), then the UK would lose an economic asset.

DPS Games' value to the UK economy and the Exchequer is significant. DPS employs over 200 skilled and well-paid staff in an office costing around £2 million a year to run. In terms of economic impact, DPS is an asset that is at risk if VGEC does not continue to mitigate the risk of developing games in the UK. As per DPS representatives, "moving people around the world is not as hard as it used to be". Wargaming closed their Australian studio at the start of the war in Ukraine, with cost of the Australian dollar cited as key reason for moving operations. DPS's studio will not be far down the risk register.

When studios like DPS spend millions on developing a product, that if successful can run for a decade, a significant economic impact is generated for the UK. Any enhancement to VGEC package will help preserve economic assets such as DPS and prevent the UK games industry from losing AAA developers to more competitive jurisdictions.

Accordingly, Canada, France, Australia, and Ireland have all introduced their own relief-based incentives for game developers, leveraging the strengths and mitigating the weaknesses of their respective game industries.

Country	Rebate	Year(s) Introduced/Revised	Current Posted Rate	Rationale for Comparison
Canada	MTC/IDMTC	1996/2024 (QC), 1998 (ON), 2010 (BC)	37.5% (QC), 35% (ON), 17.5% (BC)	Leading employer of video game talent and attractive to multinationals; provincial incentives provide insight into how programmes are tailored to regional realities
France	Video Game Tax Credit (VGTC)	2008, 2017, 2022	30%	Key regional competitor with established multinationals and a large talent pool
Ireland	Digital Games Corporation Tax (DGCT)	2023	32%	Recent entrant showing interest in intentionally growing their sector
Australia	Digital Games Tax Offset (DGTO)	2023	30%	New entrant with an incentive that builds on the experience and successes of other jurisdictions

It is worth understanding the context within which these jurisdictions administer their rebate schemes, as they are all tailored to the historical development and current operation of their own video game industries. Further, several jurisdictions have adjusted their rebates over the years to account for important changes in the video game production process, including funding models, talent needs, wage competitiveness and other macroeconomic changes.

3.9. Canada

The Canadian video game industry is characterised by strong development hubs across the country's urban centres in the provinces of British Columbia (Vancouver), Ontario (Toronto), and Québec, (Montréal). These hubs are sustained by robust and cooperative production ecosystems, regional financial instruments such as tax credits, and well-developed workforces and training pipelines. Canada's cultural proximity to and linguistic compatibility with the American, UK and French markets have also attracted many multinational publishers, such as EA, Ubisoft, WB Games, and Krafton, among many others, who have established or acquired Canadian development studios.

In 2024, the Canadian video game industry accounted for 821 active video game companies, generating an estimated £2.88 billion in revenue. While the industry in Canada directly employs 34,010 full-time equivalents, it is worth noting that the largest 25 companies employed 58% of all FTEs in the industry 10 . This proportion demonstrates how the Canadian industry utilises AAA multinational studios as a centrifugal force, developing a skilled workforce and partnership networks that lend themselves to successful local studios and flexible talent pipelines.

A unique feature of the Canadian game development landscape is that available financial incentives are reversed compared to other jurisdictions: public funding programmes are offered and administered by the

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⁹ https://theesa.ca/resource/canadas-video-game-industry-2024/

¹⁰ Ibid.

Canada Media Fund at a national level, while labour-based tax incentives are provided by select provinces at a regional level. While seven of Canada's 10 provinces offer some tax credit for interactive digital media production, there are three that are competitive between each other and at an international level: the Ontario Interactive Digital Media Tax Credit (OIDMTC), the British Columbia Interactive Digital Media Tax Credit (BCIDMTC), and Quebec's Production of Multimedia Tax Credit (MMTC).

3.10. France

The French video game industry is characterised by marquee game companies (such as Ubisoft, DontNod, Vivendi, and Focus Entertainment), robust training and education pipelines, and many different types of financial support mechanisms. Combined, this has enabled France to build an industry with both a strong domestic presence and with international reach. The latest survey conducted by the *Syndicat national du jeu vidéo (SNJV)* accounted for 1000 video game industry companies, including 580 game development studios. 11 27% of these development studios saw revenues exceeding £834,000 in 2022 and 12% of studios crossed the threshold of £8.34 million. 12

The SNJV survey also indicated that 85% of companies consider France to be an attractive territory in 2022; the most cited factors of attractiveness are tax incentives (31%), the quality of training provided by educational institutions (23.4%) and the country's overall quality of life (21.9%).¹³ These factors reveal the role that financial incentives, access to talent, and relative cost/quality of life play in growing and maintaining a strong national game industry.

France maintains a slate of financial support mechanisms, available at the national and the regional level, across the development cycle for companies of all sizes. Companies surveyed by the SNJV noted that 31.3% of their company financing came from private equity, followed by 15.8% and 15.5% from regional and national subsidies, respectively. The national level of support is best characterised by its production-based Video Game Tax Credit (*the* Crédit d'impôt jeu vidéo (CIJV)) and it's CNC-administered Video Game Support Fund, while regional support is more inclined towards providing funding at the ideation, conception, and prototyping stage of independent development.

3.11. Ireland

The Irish games industry has capitalised on its low corporate tax rates, its proximity to the United Kingdom and the European Union, and its talent availability to intentionally and strategically grow their domestic ecosystem. The current landscape of the video game industry in Ireland is characterised by an entanglement of establishments: independent video game studios, middleware developers and third-party service suppliers, regional customer support offices for multinational game companies, and headquarters for major developers such as Playrix and service companies such as Keywords Studios. In 2024, Irish games industry revenue is expected to reach £243 million, with additional revenue (not accounted for in this figure) attributed to industry-related service and support work.¹⁵

The growth of the Irish games industry, especially over the course of the last decade, has led to the creation of a "two-tiered" system that categorises work around development and production, and quality assurance and localisation, respectively. Ultimately a result of an industry that boasts a higher number of middleware

¹¹ https://frenchgamesmap.fr/en/barometre

¹² https://www.gamesindustry.biz/over-12-of-french-games-studios-report-sales-above-10m

¹³ https://frenchgamesmap.fr/en/barometre

¹⁴ https://frenchgamesmap.fr/en/barometre

 $^{^{15} \, \}underline{\text{https://www.statista.com/outlook/dmo/digital-media/video-games/ireland?currency=EUR}$

and game services companies than comparable jurisdictions, this divide has led to what some have called "growing pains" of the industry; the two-tier nature of the industry has its own implications for pay discrepancies, crunch, and IP creation.¹⁶

However, the introduction of the Digital Games Corporation Tax (DGCT) in 2022 has demonstrated the country's commitment to scaling up their industry.

3.12. Australia

Australia was once characterised as a cost-effective destination for major American multinational games companies to set up production studios. The 2008 financial crisis and the sunsetting of the traditional console, games-as-a-product model prompted multinationals to shutter their Australian studios. Within this vacuum, the renewal of the Australian game industry was largely sustained by a tight-knit Australian development ecosystem, a turn towards mobile and indie games, and regional funding support schemes. In 2023, the sector generated £177.7 million in revenue, with 111 companies representing 2,458 full-time employees. The sector also prioritises the creation and export of original IP: 89% of game companies develop their own IP and 87% of revenue from games produced by Australian developers came from outside the country.

To address the concerns expressed by game developers and to accommodate the rapid expansion of the industry, the Australian government announced a new, national tax offset scheme, supplementing existing regional funding schemes. Australia's industry trade body, the *Interactive Games and Entertainment Association* (IGEA) has also been advocating for improvements to Australia's occupations classification system and immigration policy to streamline the recruitment of specialised workers from abroad.

The Australian government announced a new tax credit in 2022²⁰, which outlined a tax offset available to Australian game developers for development, completion, or porting of digital games. This announcement prompted "increased interest from international business, more job positions on offer across the market, and increase investor engagement" according to IGEA.²¹ Following royal assent in June of 2023, the Australian government enacted a law introducing the Digital Games Tax Offset (DGTO). Since the announcement and enactment of the DGTO, Australian businesses have reported a marked increase in plans to undertake more projects and interest from international businesses.²²

3.13. Comparison of Relief Rates

The Ersatz model allows for the equitable comparison of these jurisdictions by running the rebate criteria through a hypothetical project to determine which of these jurisdictions offer the best effective rate. The current VGTR's and future VGEC's relief programmes compare to the other jurisdictions as follows:

¹⁶ https://www.breakingnews.ie/ireland/long-hours-and-low-pay-the-growing-pains-of-irelands-gaming-industry-1325946.html

¹⁷ https://www.abc.net.au/news/2023-07-08/australias-video-game-industry-saved-by-indie-developers-mobile/102575770

¹⁸ https://igea.net/wp-content/uploads/2023/12/AGDS-2023-Report-Final.pdf

¹⁹ https://igea.net/wp-content/uploads/2023/12/AGDS-2023-Report-Final.pdf

²⁰ In particular, the introduction of a Digital Games Tax Offset to support growth in large-scale games development was announced through the fifth pillar (Engaging the Audience) of Australia's Cultural Policy five-year strategic plan, *Revive*. https://www.arts.gov.au/sites/default/files/documents/national-culturalpolicy-8february2023.pdf

²¹ https://igea.net/wp-content/uploads/2022/12/AGDS-2022-Report-Final.pdf

 $^{^{22} \ \}underline{\text{https://igea.net/wp-content/uploads/2023/12/AGDS-2023-Report-Final.pdf}}$

	France	Australia	Canada Quebec	Ireland	Canada Ontario	UK VGEC	UK VGTR	Canada British Columbia
Nominal Rate	30%	30%	37.5%	32%	35%	34%	25%	17.5%
Effective Rate	20.2%	18.4%	18.2%	17.8%	15.8%	14%	12.2%	6.6%

Based on the effective rate shown, the VGTR's effective rate (12.2%) is the second lowest effective rate compared to all other comparable jurisdictions for a typical project budget as described. While VGEC's effective rate is an improvement compared to the VGTR (14%), the programme still measures as the second lowest compared to all the other programmes (not including VGTR).

Right now, VGEC's effective rate is still underperforming compared to the two largest video game jurisdictions in Canada, Quebec and Ontario. While the increase of nominal rate from VGEC is on par with Ontario and Quebec, VGEC's requirements of 80% of expenditures and the 25% corporation income tax diminish the effectiveness of the relief programme significantly compared to Ontario and Quebec.

3.14. Comparison of Weighted Effective Rates

While an effective rate calculates the percentage of claimable eligible costs over the entire total budget of different jurisdictions, the calculation assumes that jurisdictions have the same average costs of labour (i.e., average wage). However, as shown in section 2.4 of this report, the wage averages of the compared jurisdictions vary greatly, which suggests that there are further differences in effective rate between the jurisdictions when the average cost of salaried labour is accounted for. The Ersatz model, therefore, breaks down the effective rate calculation further to include a weighted effective rate based on the average wage of each jurisdiction. The overall methodology can be summarised as follows:

- The model uses France's average wage in 2023 (see Figure 2.2) of £37,000 as a constant, as France's unweighted effective rate is the highest of all the comparable jurisdictions.
- The model creates a multiplier ratio based on the difference between France's average wage in 2023 and other jurisdictions' wages. As such, the multiplier ratio for France is 1x.
- The model then uses the multiplier ratio on eligible wage costs before the nominal rates would be applied to determine the weighted claim amount.
- The weighted claim amount is divided by the full budget cost of the Ersatz project to calculate the new weighted effective rate.

The following table illustrates the results of weighted effective of each jurisdiction:

	France	Australia	Ireland	Canada Quebec	UK VGEC	Canada Ontario	UK VGTR	Canada British Columbia
Nominal Rate	30%	30%	32%	37.5%	34%	35%	25%	17.5%
Effective Rate	20.2%	18.4%	17.8%	18.2%	14%	15.8%	12.2%	6.6%
Weighted Effective Rate	20.2%	19.2%	17.8%	13.2%	11.6%	11.5%	10.3%	3.7%

While most other jurisdictions have lower weighted effective rates when the average wage difference is applied to the model, the UK is particularly affected by wage as a variable: both VGEC and the VGTR trail further away from France's initial effective rate.

The weighted effective rates highlight how the change from VGTR to VGEC does not necessarily improve the UK's competitive position vis-à-vis other jurisdictions, especially France, when average labour wages and cost of living are considered in the calculation.

These calculations also point to the fact that it would be difficult for the UK to further modulate relief incentives as to compete with other jurisdictions with (increasingly) more competitive wages. Certain changes to VGEC could reduce the discrepancy and improve the effective rate, but wages would continue to factor into that competitiveness as a precarious variable.

4. Enhancing VGEC: Proposed Changes and Impacts

As the previous sections have shown, the upcoming VGEC relief programme is less competitive when compared to other comparable jurisdictions. Of the seven jurisdictions being compared (UK, Canada – British Columbia, Canada – Ontario, Canada – Quebec, Australia, France, Ireland), the UK's effective rates from the VGTR and VGEC schemes are second-to and last of the group. Even though the VGTR and VGEC effective rates are lower compared to the other jurisdictions, these numbers are specifically for an ersatz project of £10 million. As the VGTR and VGEC does not have a budget cap and minimum spend, the effective rates will change at different budget levels. While the upcoming VGEC measure features improvements aligned with international tax reform and the UK's domestic economy, there are still other improvements that can be made to establish VGEC as a globally competitive and attractive funding mechanism for local and international studios alike.

4.1. Scenarios Considered

The report proposes six different changes that could be leveraged to improve the effective rate and subsequent impacts of VGEC, including:

- Retaining the nominal rate of 34% but allowing 100% of qualified expenditure to be claimed;
- Retaining the nominal rate of 34% but extending eligibility criteria for post-release maintenance and cybersecurity;
- Increasing the nominal rate from 34% to 39%;
- Increasing the nominal rate from 34% to 39% and allowing 100% of qualified expenditure to be claimed;
- Increasing the nominal rate to 53% but only for project budgets equal to or less than £10 million.
- Increasing the nominal rate to 53% but only for projects with budgets equal to or less than £10 million and increasing the nominal rate to 39% on 100% of eligible expenditure for projects with budgets greater than £10 million.

Further, each scenario assumes that all eligible companies that could apply for VGEC will apply, and accounts for all applicable costs therein – this provides more nuanced insights when comparing potential impacts across scenarios.

4.2. Scenario 1: 34% Nominal Rate + 100% Expenditures

What changes? Claims can be made for 100% of expenditures, rather than a limited 80%.

One of the proposed changes is to examine how much VGEC's effective rate will change if the only change is the allowance of 100% of expenditures. The rationale behind this change is similar to the 39% nominal rate plus 100% expenditures proposal. This proposed change also examines what the current VGEC nominal rate would look like if the expenditures are levelled with the rest of the other jurisdictions

4.3. Scenario 2: 34% Nominal Rate + Extended Eligibility Criteria

What changes? The scope of what is eligible is expanded to include post-launch maintenance services and cybersecurity needs.

The proposed change to extend eligibility criteria stems from two main observations. Several of the jurisdictions compared in this report allow a larger scope of eligibility criteria. The larger scope mainly reflects the reality of video games development, specifically on post-launch maintenance services. Consumers are now expecting video games to have regular updates, fixes, and/or community management as part of the engagement process of buying a video game. As such, more video games companies have some form of post-launch strategy to retain or attract more players. Cybersecurity is becoming a critical function for video games and spending has increased and is likely to increase in future years. The tax relief should reflect this change in production priorities.

4.4. Scenario 3: 39% Nominal Rate

What changes? The nominal rate is increased by 5%.

The 39% nominal rate is proposed based on previous feedback from consultations related to the enhancing of the AVEC. The rationale behind the increase to 39% is to align VGEC's current nominal rate with the rate of animation production. The 39% nominal rate increase also acts as a starting conversation on what the rates represent and how much more can be done to improve the current VGEC programme.

4.5. Scenario 4: 39% Nominal Rate + 100% Expenditures

What changes? The nominal rate increases by 5% and eligible expenditures increase from 80% to 100%.

Based on how many other video games tax credits function around the world, another proposed change to increase of nominal rates to 39% with the relief set at 100% of qualifying expenditures. Currently, all the compared jurisdictions allow 100% of eligible expenditures to receive relief. While there are critical reasons for why the UK only allows 80% of qualifying expenditures to receive relief, evaluating 100% inclusion criteria allows for a more levelled comparison between the proposed VGEC changes and the other jurisdictions.

4.6. Scenario 5: 53% Nominal Rate for project budgets up to £10 million + 34% Nominal Rate for project budgets greater than £10m

What changes? The applicable nominal rate for projects with total budgets up to £10 million would be 53%; the existing 34% nominal rate would remain for costs incurred by projects with total budgets greater than £10 million.

The 53% nominal rate, which specifically targets projects with a budget of up to £10 million is proposed to target video games studios that require the most assistance to sustain or grow their organisation. While studios with larger budgets (and significantly larger development teams in the UK) also require relief to maintain labour competitiveness compared to other industries, studios with smaller budgets typically do not have access to larger funding streams compared to the larger studios. As well, many video games studios are beginning to focus on smaller and more nimble teams to lower development costs and shorten production timelines.²³ The £10 million budget is a combination of HRMC's breakdown of projects with budgets of £10 million and below and Nordicity's assumption of a comfortable budget for a nimbler

 $^{^{23}\} https://www.bloomberg.com/news/articles/2024-10-30/after-era-of-bloat-veteran-video-game-developers-are-going-smaller and the control of the contro$

production pipeline. As such, the significant increase of the nominal rate is to help these smaller companies and provide more financial runway – and opportunities – for current or future production.

4.7. Scenario 6: 'Games Growth' Rate plus Enhanced Primary Rate - 53% Nominal Rate for project budgets up to £10 million and 39% Nominal Rate + 100% Expenditures for project budgets above £10 million

What changes? The applicable nominal rate for projects with total budgets of £10 million or less would be 53% (the Games Growth Rate); and projects with budgets greater than £10 million would incur a 39% nominal rate on 100% of eligible expenditures (the Enhanced Primary Rate).

This combined package based on an enhanced primary rate in scenario 4 and the new 53% rate envisaged on scenario 5 would provide financial incentives suited to the needs of both smaller and larger game studios.

4.8. Impact on Effective Rates

Based on the proposed changes suggested, the Ersatz model calculates the following effective rate as such:

Proposed Criteria	Nominal Rate	Effective Rate
53% Nominal Rate for budgets up to £10M and 39% Nominal Rate +100% Expenditures for budgets greater than £10M	53% and 39%	20.6%
39% Nominal Rate + 100% Expenditures	39%	20.0%
34% Nominal Rate + 100% Expenditures	34%	17.4%
53% Nominal Rate for budgets up to £10M and 34% Nominal Rate for budgets greater than £10M	53% and 34%	16.8%
39% Nominal Rate	39%	16.0%
Extended Eligibility	34%	14.9%
VGEC Baseline	34%	14.0%

Comparing all the different scenarios to the current version of VGEC, the model suggests that these proposed changes can increase the effectiveness of the current VGEC programme. However, the proposed changes have different degrees of effectiveness, with the combination of 53% nominal rate and 39% nominal rate plus 100% expenditure scenario offering the highest "on-paper" effectiveness. While the 53% nominal rate is the highest rate of all the proposed changes, this nominal rate represents 35% of claim amount, to reflect the percentage of claim amount that video games projects with budgets up to £10 million received in 2022. Thus, the effective rate of this proposed change is about 16%, which while still higher than some of the other proposed changes is not as high as the combined enhanced relief envisaged in scenario 6.

When comparing the proposed VGEC changes with other jurisdictions, the effectiveness of these proposed changes (highlighted in green) can be viewed as such:

Jurisdiction	Nominal Rate	Effective Rate
UK (VGEC - Scenario 6)	53% Nominal Rate for budgets up to £10M and 39% Nominal Rate +100% Expenditures for budgets greater than £10M	20.6%
France	30%	20.2%
UK (VGEC - Scenario 4)	39% Nominal Rate + 100% Expenditures	20.0%
Australia	30%	18.4%
Canada (Quebec)	37.5%	18.2%
Ireland	32%	17.8%
UK (VGEC - Scenario 1)	34% Nominal Rate + 100% Expenditures	17.4%
UK (VGEC - Scenario 5)	53% Nominal Rate for budgets up to £10M + 34% Nominal Rate for budgets greater than £10M	16.8%
UK (VGEC - Scenario 3)	39%	16.0%
Canada (Ontario)	35%	15.8%
UK (VGEC - Scenario 2)	34% Nominal Rate + Extended Eligibility	14.9%
UK (VGEC - Existing Scheme)	34% Nominal Rate	14.0%
Canada (British Columbia)	17.5%	6.6%

The results from this modelling demonstrate that not all proposed changes may make VGEC's effective rate more competitive vis-à-vis comparable jurisdictions. Both the "53% Nominal Rate for projects with budgets up to £10M with 39% Nominal Rate +100% Expenditures for over £10M" and "39% nominal rate with 100% Expenditures" result in an effective rate that would enable the UK to leapfrog other jurisdictions (in terms of posted effective rates only).

4.9. Impact on Employment

Because most of the economic input within the video game industry stems from labour, it is possible to discern potential new full-time equivalent (FTE) labour as a measure of previous VGTR/VGEC relief payouts added into the eligible expenditure costs of the following year.

The following FTE growth calculations are based on:

- A relief growth rate of 9.7% based on 2023 data from HM Revenue and Customs (lower than the historic rate due to the large layoffs trend happening in the past two years).
- A 2.2% wage inflation rate per year on full-time equivalent (FTE) wages/salaries.
- Survey data related to reinvestment sent to Ukie members, suggesting that 38% of VGTR relief is used to hire new employees or contractors.

- An 8% increase of qualifying expenditures to accommodate for the loss in European Economic Area (EEA) expenditure coverage and the newly instated subcontractor costs in the transition from the previous VGTR scheme to the current VGEC.
- The calculation of additional indirect and induced FTEs is based on the model from Nordicity's Regional Economic Research for Ukie.

Based on these criteria, the model calculates the following estimated growth in additional FTEs for the next five years. VGEC baseline indicates the estimated FTEs impacted by VGEC, while the other proposed changes indicate the additional FTEs added into VGEC baseline estimation.

Tax regime	Impacts	Year 1	Year 2	Year 3	Year 4	Year 5
	Direct FTEs	6,699	7,700	8,851	10,175	11,696
VGEC Baseline	Indirect FTEs	5,326	6,123	7,038	8,090	9,300
(employment sustained by current VGEC)	Induced FTEs	3,659	4,206	4,835	5,558	6,389
	Total FTEs	15,684	18,029	20,724	23,823	27,384
53% Nominal Rate for	Direct FTEs	+1,577	+1,910	+2,116	+2,324	+2,550
budgets up to £10M and	Indirect FTEs	+1,254	+1,519	+1,683	+1,848	+2,027
39% Nominal Rate +100% Expenditures for budgets	Induced FTEs	+861	+1,043	+1,156	+1,269	+1,393
greater than £10M	Total FTEs	+3,691	+4,472	+4,955	+5,441	+5,969 ²⁴
	Direct FTEs	+1,367	+1,580	+1,743	+1,913	+2,098
39% Nominal Rate +	Indirect FTEs	+1,087	+1,257	+1,386	+1,521	+1,668
100% Expenditures	Induced FTEs	+747	+863	+952	+1,045	+1,146
	Total FTEs	+3,202	+3,700	+4,080	+4,478	+4,913
	Direct FTEs	+823	+983	+1,086	+1,192	+1,308
34% Nominal Rate +	Indirect FTEs	+655	+781	+863	+948	+1,040
100% Expenditures	Induced FTEs	+450	+537	+593	+651	+714
	Total FTEs	+1,927	+2,301	+2,542	+2,791	+3,061
53% Nominal Rate for	Direct FTEs	+662	+788	+871	+955	+1,048
budgets up to £10M and 34% Nominal Rate for	Indirect FTEs	+527	+627	+692	+760	+833
budgets greater than	Induced FTEs	+362	+431	+476	+522	+573
£10M	Total FTEs	+1,551	+1,846	+2,038	+2,237	+2,454
	Direct FTEs	+484	+585	+648	+711	+780
39% Nominal Rate	Indirect FTEs	+385	+465	+515	+566	+620
	Induced FTEs	+264	+320	+354	+388	+426

²⁴ The number is non-additive of the two other proposed changes because this proposed change specifically allows projects with total budget of 10 million and below to claim for 53% rate but all other projects with total budget above 10 million to claim for the 39% rate (and 100% expenditures).

	Total FTEs	+1,134	+1,370	+1,517	+1,665	+1,827
	Direct FTEs	+198	+233	+257	+282	+309
34% Nominal + Extra	Indirect FTEs	+157	+185	+204	+224	+246
Eligibility	Induced FTEs	+108	+127	+140	+154	+169
	Total FTEs	+463	+545	+601	+660	+724

All scenarios provide varying amounts of employment growth. However, the volume of employment growth necessarily correlates with how much more in relief claims and payouts each scenario allows/requires. As such, it should be noted that the more FTEs each scenario creates, the higher the associated VGEC programme costs.

4.10. Impact on Top-line GVA

The additional top-line GVA and tax revenue resulting from these proposed changes is based on the potential number of new full-time equivalents (FTEs) that would be created from the relief claimed. Assuming the rest of the GVA will remain the same, the proposed changes would create additional GVA based on the relief claims that would later be reinvested into hiring more FTEs into the industry.

Tax Regime	Impacts	Year 1	Year 2	Year 3	Year 4	Year 5
VGEC Baseline	Baseline VGEC Cost	£492.1M	£578.1M	£679.1M	£797.8M	£937.3M
	Baseline Top-line GVA	£1,259.3M	£1,447.5M	£1,664M	£1,912.7M	£2,198.7M
	Baseline Top-line Tax Revenue	£382.3M	£439.5M	£505.2M	£580.7M	£667.5M
53% Nominal Rate	Additional VGEC Cost	+£251M	+£278.2M	+£305.4M	+£335.5M	+£367.6M
for budgets up to £10M and 39%	Total Top-line GVA	+£296.4M	+£359M	+£397.8M	+£436.9M	+£479.3M
Nominal Rate +100% Expenditures for budgets greater than £10M	Total Top-line Tax Revenue	+£90M	+£109M	+£120.7M	+£132.6M	+£145.5M
39% Nominal Rate	Additional VGEC Cost	+£207.7M	+£229.1M	+£251.4M	+£275.8M	+£302.6M
+ 100% Expenditures	Total Top-line GVA	+£257.1M	+£297.1M	+£327.6M	+£359.5M	+£394.4M
	Total Top-line Tax Revenue	+£78.0M	+£90.2M	+£99.5M	+£109.2M	+£119.7M
34% Nominal Rate	Additional VGEC Cost	+£129.2M	+£142.7M	+£156.7M	+£171.9M	+£188.5M
+ 100% Expenditures	Total Top-line GVA	+£154.7M	+£184.7M	+£204.1M	+£224.1M	+£245.8M
	Total Top-line Tax Revenue	+£47.0M	+£56.1M	+£62.0M	+£68.0M	+£74.6M
53% Nominal Rate	Additional VGEC Cost	+£103.6M	+£114.4M	+£125.6M	+£137.8M	+£151.2M
for budgets up to £10M and 34%	Total Top-line GVA	+£124.5M	+£148.2M	+£163.6M	+£179.6M	+£197.1M
Nominal Rate for budgets greater than £10M	Total Top-line Tax Revenue	+£37.8M	+£45.0M	+£49.7M	+£54.5M	+£59.8M
39% Nominal Rate	Additional VGEC Cost	+£76.9M	+£85.1M	+£93.5M	+£102.6M	+£112.5M
	Total Top-line GVA	+£91.0M	+£110.0M	+£121.8M	+£133.7M	+£146.7M
	Total Top-line Tax Revenue	+£27.6M	+£33.4M	+£37.0M	+£40.6M	+£44.5M
34% Nominal +	Additional VGEC Cost	+£30.6M	+£33.8M	+£37.1M	+£40.7M	+£44.6M
Extra Eligibility	Total Top-line GVA	+£37.1M	+£43.8M	+£48.3M	+£53.0M	+£58.1M
	Total Top-line Tax Revenue	+£11.3M	+£13.3M	+£14.7M	+£16.1M	+£17.6M

Much like the modelling conducted for employment, each scenario demonstrates an increase in GVA and tax revenue generation but will also incur additional costs related to the implementation of these proposed changes.

The ratio of the additional benefits gained relative to the additional costs needed to implement them can be summarised in two return-on-investment (ROI) charts below:

Figure 8: Chart of top-line tax GVA ROI over five years for six different proposed changes

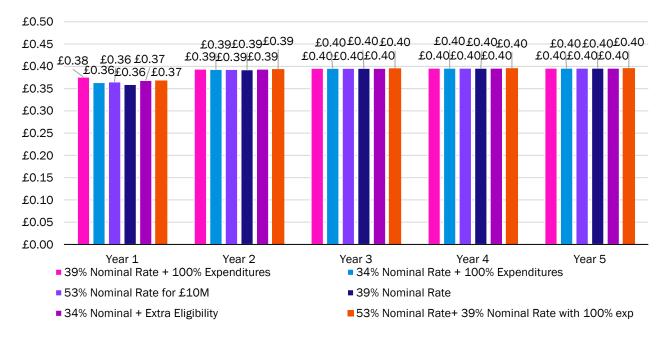
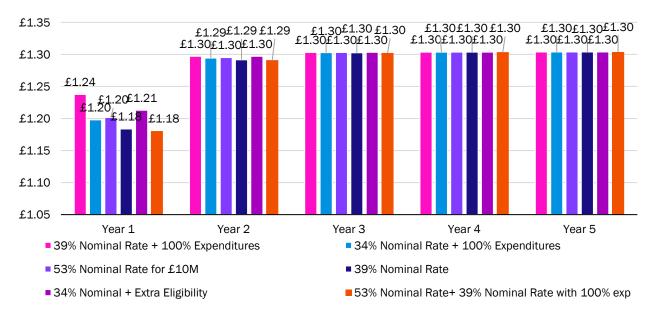


Figure 9: Chart of Top-line ROI over five years for six different proposed changes



These charts illustrate that even though there are some variations in ROIs for both tax and GVA ROI in the first year, the ROI value plateaus similarly to a GVA ROI of £1.30 and Tax ROI of £0.40 for all proposed changes. While the proposed changes have massive differences in terms of employment, GVA, and tax output based on the nominal rates and specific eligibility, the related costs of implementing these changes mean that there are no top-line differences across scenarios.

4.11. Impact on Smaller UK-owned Projects

Nordicity's modelling includes the reinvestment impact of additional project development on the part of smaller (and mostly local) studios. Reinvestment impact refers to the additional revenue generated from the sale of new games created by studios using the relief provided from incentive programs like VGEC. The rationale is that smaller studios can now develop, market, and distribute their own titles without necessarily depending on traditional third-party game publishing entities from the outset.

As more funding is made available via relief claims, small British video games companies can utilise acquired funds to accelerate current project development or to facilitate the start of a new project. Thus, relief claims enable small British companies to optimise development efforts, de-risk the creation of new games/content they might not otherwise have made. The reinvestment represents the GVA generated from the additional sale of and revenue from games made by small studios using the relief scheme. This reinvestment GVA is added to the GVA and tax revenue already attributable to increases in employment and effective rates.

The model provides estimates of reinvestment revenue from an increase in development (and potential sales) across the six different scenarios. To do so, Nordicity makes the following assumptions regarding how the additional paid relief would be utilised. As noted earlier these assumptions are based on the Ersatz model and supplemented by further interviews and surveys conducted with UK games studios:

- The model assumes that VGTR and VGEC relief payouts do not affect the production cycles of publishers and larger AA and AAA companies.
- Publishing does not automatically impact additional sales reinvestment, because publishers largely only benefit through new projects/contents being created.
- Larger AA and AAA companies tend to have large, complex, and tightly scheduled production pipelines
 that make it difficult to plan new additional projects. Instead, larger companies tend to use relief claims
 to retain or expand labour on ongoing projects.
- Mid-sized or small British companies are likely to add to or accelerate their project development efforts in their pipeline with the relief they receive through hiring permanent or temporary staff.
- The model uses HM Revenue and Custom's 2019-2023 breakdown of project types and budget sizes; based on the information supplied by applicants, 36% of amount claims are attributed to projects with budgets of less than £10 million. Projects with less than £10 million in budget that successfully claimed the VGTR relief from 2019 to 2022 had an average budget cost of £1.1 million per project.
- The only exception to the 36% reinvestment figure is the proposed change of a 53% nominal rate applied to projects budgeted at £10 million or less. In this case, the model assumes that 100% of relief goes into new project development.
- 50% of projects by small, UK-owned studios (i.e., projects of less than £10 million budget) will not generate profit, 40% will break-even or barely profit, and about 10% will generate revenue 3 times their costs in the first year.
- Based on some reports on longtail sales of indie games²⁵, the model assumes that the 10% that generate 3 times revenue of their costs will subsequently generate about the same amount of their cost for year 2 and about 0.5 times their cost in year 3.

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 $^{^{\}rm 25}$ https://www.gamesindustry.biz/what-might-your-steam-long-tail-revenue-be

From these assumptions, the model calculates the following additional GVA and corporate tax generated from new projects developed by companies working on £10 million budgets or less:

Proposed Change	Additional Dev. Reinvestment	Year 1	Year 2	Year 3	Year 4	Year 5
VGEC Baseline	GVA from Additional Dev.	£35.2M	£59M	£78.1M	£91.8M	£107.9M
	Tax from Additional Dev.	£8.8M	£14.7M	£19.5M	£23M	£27M
53% Nominal Rate for budgets up to £10M	Additional GVA from New Revenue	+£20.7M	+£33.2M	+£41.7M	+£45.8M	+£50.3M
and 39% Nominal Rate + 100% Expenditures for budgets greater than £10M	Additional Tax from New Revenue	+£5.2M	+£8.3M	+£10.4M	+£11.5M	+£12.6M
39% Nominal Rate + 100% Expenditures	Additional GVA from New Revenue	+£14.9M	+£23.8M	+£29.9M	+£32.9M	+£36.0M
	Additional Tax from New Revenue	+£3.7M	+£6.0M	+£7.5M	+£8.2M	+£9.0M
34% Nominal Rate + 100% Expenditures	Additional GVA from New Revenue	+£9.3M	+£14.8M	+£18.6M	+£20.5M	+£22.5M
	Additional Tax from New Revenue	+£2.3M	+£3.7M	+£4.7M	+£5.1M	+£5.6M
53% Nominal Rate for budgets up to £10M	Additional GVA from New Revenue	+£20.7M	+£33.2M	+£41.7M	+£45.8M	+£50.3M
and 34% Nominal Rate for budgets greater than £10M	Additional Tax from New Revenue	+£5.2M	+£8.3M	+£10.4M	+£11.5M	+£12.6M
39% Nominal Rate	Additional GVA from New Revenue	+£5.5M	+£8.9M	+£11.1M	+£12.2M	+£13.4M
	Additional Tax from New Revenue	+£1.4M	+£2.2M	+£2.8M	+£3.1M	+£3.4M
34% Nominal + Extra Eligibility	Additional GVA from New Revenue	+£2.2M	+£3.5M	+£4.4M	+£4.8M	+£5.3M
	Additional Tax from New Revenue	+£0.5M	+£0.9M	+£1.1M	+£1.2M	+£1.3M

When adding the additional reinvestment GVA and tax impact to the top-line GVA and tax impact, the result looks as follows:

Proposed Change	Total Impact/GVA	Year 1	Year 2	Year 3	Year 4	Year 5
VGEC Baseline	Baseline VGEC Cost	£492.1M	£578.1M	£679.1M	£797.8M	£937.3M
	Total GVA	£1,294.5M	£1,506.5M	£1,742.1M	£2,004.5M	£2,306.6M
	Total Tax revenue	£391.1M	£454.2M	£524.7M	£603.6M	£694.5M
53% Nominal Rate for budgets up to	Additional VGEC Cost	+£251M	+£278.2M	+£305.4M	+£335.5M	+£367.6M
£10M and 39% Nominal Rate	Total GVA	+£346.5M	+£439.9M	+£499.3M	+£548.3M	+£601.6M
+100% Expenditures for budgets greater than £10M	Total Tax Revenue	+£102.5M	+£129.2M	+£146.1M	+£160.5M	+£176.1M
39% Nominal Rate + 100% Expenditures	Additional VGEC Cost	+£207.7M	+£229,1M	+£251.4M	+£275.8M	+£302.6M
	Total GVA	+£271.9M	+£320.9M	+£357.5M	+£392.4M	+£430.5M
	Total Tax Revenue	+£81.8M	+£96.2M	+£106.9M	+£117.4M	+£128.8M
34% Nominal Rate + 100% Expenditures	Additional VGEC Cost	+£129.2M	+£142.7M	+£156.7M	+£171.9M	+£188.5M
Experiences	Total GVA	+£164.0M	+£199.6M	+£222.8M	+£244.5M	+£268.3M
	Total Tax Revenue	+£49.3M	+£59.8M	+£66.6M	+£73.1M	+£80.2M
53% Nominal Rate for budgets up to	Additional VGEC Cost	+£103.6M	+£114.4M	+£125.6M	+£137.8M	+£151.2M
£10M and 34% Nominal Rate	Total GVA	+£145.2M	+£181.4M	+£205.4M	+£225.5M	+£247.3M

for budgets greater than £10M	Total Tax Revenue	+£43.0M	+£53.3M	+£60.1M	+£66.0M	+£72.4M
39% Nominal Rate	Additional VGEC Cost	+£76.9M	+£85.1M	+£93.5M	+£102.6M	+£112.5M
	Total GVA	+£96.5M	+£118.8M	+£132.9M	+£145.9M	+£160.1M
	Total Tax Revenue	+£29.0M	+£35.6M	+£39.7M	+£43.6M	+£47.9M
34% Nominal + Extra Eligibility	Additional VGEC Cost	+£30.6M	+£33.8M	+£37.1M	+£40.7M	+£44.6M
	Total GVA	+£39.3M	+£47.3M	+£52.7M	+£57.8M	+£63.4M
	Total Tax Revenue	+£11.8M	+£14.2M	+£15.8M	+£17.3M	+£19.0M

By adding both top-line and reinvestment impacts, the additional reinvestment does not shift the rankings of the different proposed changes. However, when converted into an ROI of GVA (or tax) per cost, the adjusted ROI of the GVA and tax of these proposed changes are as follows:

Figure 10: Total Tax GVA ROI over five years for the six proposed changes

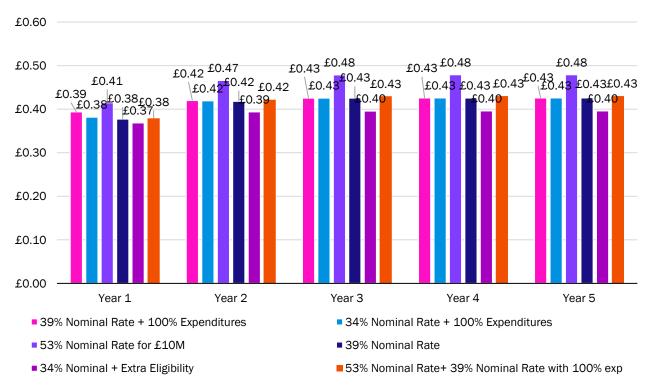




Figure 11: Total GVA ROI over five years for the six proposed changes including small developer reinvestment revenue

The model's calculation demonstrates that the addition of GVA and tax generated from small developer reinvestment creates differences in the ROI over a five-year period. Although the top-line GVA and tax ROIs indicate that the cost per output are the same regardless of the proposed change, the reinvestment GVA and tax ROIs otherwise indicate that significant differences do appear between the six proposed changes.

4.12. Total Impacts in Year 5 of Implementation

The following table demonstrates GVA, tax revenue, and employment additionalities for all six scenarios as they would appear in the fifth year of implementation relative to the currently projected impacts for the UK game industry under the current VGEC programme. Note that this table does not represent a cumulative total, but rather, what each scenario would generate in that given (hypothetical) fifth year.

Figure 12. Comparison of VGEC Enhancement Scenarios by Impacts Generated in a Hypothetical Fifth Year since Implementation

	Industry Impacts Projected for Year 5 (Current VGEC)	53% Nominal Rate for budgets up to £10M and 39% Nominal Rate +100% Expenditures for budgets greater than £10M	39% Nominal Rate + 100% Expenditures	34% Nominal Rate + 100% Expenditures	53% Nominal Rate for budgets up to £10M and 34% for budges greater than £10M	39% Nominal Rate	34% Nominal + Extra Eligibility
VGEC Disbursement Costs	£937.3M	+£367.6M	+£302.6M	+£188.5M	+£151.2M	+£112.5M	+£188.5M
Total GVA	£6,167.9M	+£479.3M	+£394.4M	+£245.8M	+£197.1M	+£146.7M	+£245.8M
Total Tax Revenue	£1,872.5M	+£145.5M	+£119.7M	+£74.6M	+£59.8M	+£44.5M	+£74.6M
VGEC GVA ROI	£2.46	+£1.44	+£1.42	+£1.42	+£1.64	+£1.42	+£1.42
VGEC Tax ROI	£0.74	+£0.43	+£0.43	+£0.43	+£0.48	+£0.43	+£0.43
VGEC Total ROI	£3.20	+£1.87	+£1.85	+£1.85	+£2.12	+£1.85	+£1.85
Total Direct FTEs	32,810 ²⁶	+2,550	+2,098	+1,308	+1,048	+780	+1,308
Total Indirect FTEs	26,08933	+2,027	+1,668	+1,040	+833	+620	+1,040
Total Induced FTEs	17,92233	+1,393	+1,146	+714	+573	+426	+714
Total FTEs	76,820 ³³	+5,969	+4,913	+3,061	+2,454	+1,827	+3,061

²⁶ The FTE number listed here is the projected Direct FTEs supported by VGEC on year 5 plus the direct FTEs that are not supported by VGEC (21,114). The remaining indirect, and induced FTEs are based on the employment ratio calculation from Nordicity's previous research engagement with Ukie.

5. VGEC+: Enhancing Competitiveness and Economic Growth

The modelling conducted in the preceding section outlines how each of the six different scenarios would impact changes to effective rates, employment growth, GVA and tax revenue, and reinvestment impacts. This modelling exercise highlights how modulating nominal rates, eligibility criteria, and expenditure claims can lead to different outputs: for example, one scenario leads to a substantive increase in employment growth by volume, while another scenario enables the effective rate to overtake competing jurisdictions. It is important to note, however, that all these impacts must be assessed relative to scaling costs for each VGEC scenario, as well as the reality of the UK games industry in its current form. This final section contextualises the results of the modelling around key industry trends and then builds a business case for an enhanced VGEC based on the scenario that provides the highest relative return on investment.

5.1. Reflecting on Current Market Realities

Labour-based incentives have long been used to support the growth of a given jurisdiction's video game industry. Considering the labour-intensive nature of making games, the premise of these incentives is that offsetting labour costs would provide support for (smaller) domestic game developers, but more importantly, attract (large) multinational studios to the region

5.2. Small teams make big games

Employment has always contributed to the measure of the game industry's performance. Jurisdictions have often sought to bolster their own industries by appealing to multinational companies by offsetting the costs of establishing roles for domestic talent in new subsidiary studios.

Jurisdictions can however capitalise on the globalised nature of the industry by turning to other pathways to industry success to compliment this established model – specifically, by supporting scalable projects and companies that can generate export revenue from the sale of commercially viable products. Today, small teams can make big games: with more accessible and easy-to-use game engines, new audience development strategies, digital storefronts and early-access affordances, it is possible for small teams to make large, highly monetizable games with continuously exploitable IP, rivalling the success of games made by traditional AAA developers. The increasing prominence of solo-developer success stories, high-performing titles from independent studios, and live-service games built and maintained by small teams all point to the importance of audience-engaged IP development – namely, the ability to tailor IP and projects themselves according to consumer preferences, player feedback and market trends.

Smaller teams have been able to benefit from labour-based relief programmes, but generally as a secondorder effect. Relief incentives should have to account for the sale of IP-rich titles developed by smaller, more nimble teams and the export revenue these titles yield in the globalised video game market.

An influx of export revenue represents an influx of "new money", which can be reinvested into a domestic ecosystem in a more scalable way. Export revenue allows game companies to recoup their initial development costs, re-invest more into their own IP, and work on new projects while being less dependent

on public funding or support programmes (all the while contributing in corporate, personal, and sales taxes to the local economy). By moving the imperative away from employment (measures of success based on FTEs) towards the sale of IP-rich game titles (measures of success based on export revenue and reinvestment effects), jurisdictions can more strategically tailor their incentive programmes.

5.3. A Cost-Benefit Analysis

The modelling presented in Section 3 of this report outlines how different scenarios fare in relation to effective rates, employment growth, and top-line GVA and tax revenue additionalities. Some of the modelling, at face value, may indicate that a certain change to VGEC scheme would result in, for example, a higher volume of employment or a higher gross model of added GVA. However, each scenario is also subject to their relative costs – therefore we have also assessed the relative strength of any proposed scenario by observing the relationship between the cost and its benefit; that is, the economic return on investment (EROI).

The EROI presented in this report differs from previous reporting found in publications like Screen Business. This discrepancy stems from the fact that Screen Business calculates economic impact based on historical industry data and trends. The reporting found below utilises additionality modelling based on present data and anticipated growth, and accounts for small developer reinvestment revenue (potential sales from local developers using additional relief claims) as part of the economic return on investment. Calculating growth based on current industry data and trajectories provides more novel insights, especially when considering how rapidly the landscape of the game industry has changed due to macroeconomic conditions and new industry standards in the last five years alone.

When calculating the additional GVA and tax revenue with reinvestment effects (potential sales from new projects generated from relief claims), one scenario presented a higher EROI compared to others. Nordicity's modelling indicates that enhancing VGEC to a 53% nominal rate for project budgets up to £10 million (with the existing 34% nominal rate applying to projects with budgets greater than £10 million) would yield a higher per-pound return on investment than any other scenario because of potential gains from an increase in reinvestment and potential game sales.

Each scenario scales employment, effective rates and VGEC costs in a similar way, so regardless of volume, the resulting ROI for GVA and tax revenue remain constant. However, each scenario modulates the amount of potential revenue from the sale of new games and services made possible by relief claims. This reinvestment accounts for export revenue that – mostly small British – companies can generate as they use relief claims to add, accelerate or expand their production pipelines and release more commercially viable games more quickly and effectively. Further, reinvestment effects are generated more prominently by smaller studios (in this case, more likely to be UK-owned) that work on projects that can scale up monetisation based on critical reception and IP exploitation.

Topline-only GVA and tax revenue in all scenarios plateau to a £1.70 ROI by year five. However, accounting for reinvestment effects – i.e., the additional revenue from games created or accelerated from relief claims one specific scenario provides a significantly higher economic return on investment: a VGEC enhancement that offers a 53% nominal rate on budgets up to £10 million. This scenario demonstrates that for every pound spent on additional VGEC funding, the UK could see an additional return of approximately £2.12 by the fifth year of implementation (up to £5.32 when accounting for baseline VGEC) from generated GVA and fiscal returns from taxation. In other words, the 53% nominal rate on budgets up to £10m scenario has higher combined estimated ROI (£2.12) compared to ROIs of other scenarios because this proposed scenario is specifically targeting a growing segment of the video games industry rather than a broader and costlier change.

Tax and GVA ROI from reinvestment	Year 1	Year 2	Year 3	Year 4	Year 5
34% Nominal Rate + 100% Expenditures	+£1.65	+£1.82	+£1.85	+£1.85	+£1.85
34% Nominal + Extra Eligibility	+£1.65	+£1.79	+£1.82	+£1.82	+£1.82
39% Nominal Rate	+£1.63	+£1.81	+£1.85	+£1.85	+£1.85
39% Nominal Rate + 100% Expenditures	+£1.70	+£1.82	+£1.85	+£1.85	+£1.85
53% Nominal Rate for budgets up to £10M and 34% for budgets greater than £10M	+£1.82	+£2.05	+£2.11	+£2.12	+£2.12
53% Nominal Rate for budgets up to £10M and 39% Nominal Rate +100% Expenditures for budgets greater than £10M	+£1.64	+£1.83	+£1.87	+£1.87	+£1.87
VGEC Baseline (34% Nominal Rate)	£3.43	£3.39	£3.34	£3.27	£3.20

Many of the companies making relief claims under the current VGEC are large companies with high headcounts. Characteristically, these companies tend to be foreign-owned studios (by multinational companies) or companies that are too big to add new projects to their production pipelines. Small developers often work with project budgets under £10 million and have the capacity to produce and release new titles more efficiently – that is, to release smaller, original IP games more quickly.

5.4. Towards a Business Case

Ultimately, Nordicity's modelling and research found that there is a **distinct business case to be made for the enhancement of the current VGEC scheme.** The approach yielding the **highest overall volume increase in employment, GVA and tax revenue would be to increase the nominal rate to 53% for project budgets up to £10 million and increase the nominal rate to 39% on 100% of expenditures for project budgets greater than £10 million.**

The proposed changes would result in higher lump-sum amounts of relief disbursed to companies to cover expanded claims which would, in turn, be reflected in higher volumes of employment (additional FTE generation), tax revenue, and GVA additionality. Based on Ukie's knowledge of the UK's games industry, this package of measures would more acutely address the needs of the UK video games industry at large, from multinational studios, many of whom have a significant UK footprint following historic investment and higher employment which has contributed substantially the overall GVA of the UK industry to smaller, growing British studios trying to scale, develop new IP, export and compete internationally.

Within this potential change the new 53% nominal rate change for project budgets up to £10m that is included in this proposal would provide the highest per-pound economic return on investment of all of the scenarios we have considered, representing a return of £2.12 per £1 in additional VGEC spend by the fifth year of implementation. This EROI figure reflects the potential reinvestment effect from local studio development, as smaller studios would be able to use the increased VGEC disbursements to fund new projects or accelerate current projects – in turn, generating more game sales and associated export revenue. This Games Growth Rate would increase the "on-paper" appeal and utility of the VGEC scheme for smaller studios in the UK. When this Games Growth Rate is combined with the enhanced 39% rate of relief on 100% of expenditure for projects with budgets greater than £10m (the Enhanced Primary Rate), the combined package would create one of the most competitive tax incentives available to the video games industry,

generate an additional £479m in GVA annually (over that which would be generated by the existing VGEC scheme), and pave the way for the creation of an additional 5,969 jobs in the UK.

The following table demonstrates the anticipated outcomes related to the combined business case in a hypothetical fifth year of implementation:

Figure 13. Baseline VGEC vs Proposed VGEC Enhancements Impacts in Year 5

	Industry Impacts Projects for Year 5 of Implementation (Current VGEC)	53% Nominal Rate for £10M and below with 39% Nominal Rate + 100% Expenditures for over £10M	53% Nominal Rate for £10M and below	39% Nominal Rate + 100% Expenditures
VGEC Disbursement Costs	£937.3M	+£367.6M	+£151.2M	+£302.6M
Total GVA	£6,167.9M	+£479.3M	+£197.1M	+£394.4M
Total Tax Revenue	£1,872.5M	+£145.5M	+£59.8M	+£119.7M
VGEC GVA ROI	£2.46	+£1.44	+£1.64	+£1.42
VGEC Tax ROI	£0.74	+£0.43	+£0.48	+£0.43
VGEC Total ROI	£3.20	+£1.87	+£2.12	+£1.85
Total Direct FTEs	32,810	+2,550	+1,048	+2,098
Total Indirect FTEs	26,089	+2,027	+833	+1,668
Total Induced FTEs	17,922	+1,393	+573	+1,146
Total FTEs	76,820	+5,969	+2,454	+4,913

The case for an enhanced VGEC at 53% for £10 million (as part of a combined overall package of enhancements to VGEC) is that it increases the competitiveness of the UK as a game-making country while bolstering support for smaller, domestic studios enabling them to produce more commercially viable titles, contributing more effectively to the UK economy with every successful release. The 53% for £10 million budgets and additional 39% enhancement for 100% of expenditures, whilst it would require more costly VGEC disbursements, would yield relative employment, GVA and tax revenue increases. The latter 'enhanced primary' rate is more consummate with the traditional role of a labour-based relief programme.

Blazing Griffin: A Case Study on Domestic Company Support

Blazing Griffin Games is a multi-award-winning independent studio making games out of Glasgow since 2011. Originally focusing on self-financed, self-publishing online multiplayer games, Blazing Griffin has pivoted away from this in an effort to de-risk and move towards a focus on sustainability, opening themselves up to other revenue streams and markets, in a more client-focused model. Following the merger of three start-ups in 2015, it now operates a hybrid - not necessarily resource based - work for hire, project-based model, where Blazing Griffin owns the full creative brief, but the development and publishing components are funded by international clients. With their annual development spend on games generally falling in the £1.2-1.5 million range, Blazing Griffin represents the smaller end of the UK Games sector.

For a relatively small enterprise in the games' ecosystem, VGTR is serves as the mechanism by which Blazing Griffin can continue to make games. It operates with a large permanent workforce which makes up the majority of their expenses, seeing its staff as a key business asset, it does not have a large freelance or contractor base, preferring to invest in its staff and retain them, even in the downtime between projects. This means that when it is operating at full allocation, it will make a slight margin, but then during downtime this represents a significant overhead cost, a loss that is not completely covered by profit margins, and this is where VGTR steps in to cover the gap. VGTR allows Blazing Griffin to guarantee it will have its key members of staff available for any RFPs it wins. This creates an environment that is more focussed on retention than hiring, which naturally inhibits growth.

VGTR is integral for the company to remain in business, it governs the RFPs the company can bid for. As it works predominantly with international clients, it needs to remain competitive in an international market, and this means competing with companies that operate within different tax-incentive frameworks. It cannot afford to bid for contracts where it does not retain an element of creative control as then it is not eligible for VGTR, which means it cannot operate at breakeven.

For companies like Blazing Griffin that use the VGTR to survive, not to enable growth, a larger, internationally competitive, incentive can break the "hand-to-mouth" cycle for companies of its size, as stated by a Blazing Griffin representative. A company like Blazing Griffin can stay at similar size for quite a long time and that is not necessarily what the VGTR is designed for, "it should be to incentivise growth, not to subsidise for zero growth". Enhancements can help companies within Blazing Griffin's cohort shift from sustainability to a growth strategy.