

response

Ukie response to Building our Industrial Strategy Green Paper Consultation

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ukie

THE ASSOCIATION FOR UK INTERACTIVE ENTERTAINMENT

About Ukie

Ukie (UK Interactive Entertainment) is the trade body for the UK's games and interactive entertainment industry. A not-for-profit, it represents games businesses of all sizes from small start-ups to large multinational developers, publishers and service companies, working across online, mobile apps, consoles, PC, esports, virtual reality and augmented reality.

Ukie aims to support, grow and promote member businesses and the wider UK games and interactive entertainment industry by optimising the economic, cultural, political and social environment needed for businesses to thrive.

Ukie's activity focuses on:

- Working closely with government on issues surrounding our sector, including lobbying successfully for the 2014 Video Games Tax Relief, education and skills, age ratings, and protecting intellectual property rights
- Securing the talent pipeline by committing to skills development in the industry, continuing through careers via the Digital Schoolhouse programme¹, our student membership, mentoring and professional development training programmes.
- Promoting the industry by working with the media to raise awareness of the industry's positive economic contribution and the societal benefits of games to policy makers, regulators and consumers.
- An intense International Trade programme, running UK stands at the biggest international industry events and recruiting companies for overseas trade missions.

Overview of the UK games sector

The UK games and interactive entertainment industry is an international success story, with the potential to take an ever-larger export share of a global market that will soon be worth more than \$99 billion². The UK is already well positioned as a significant player in this field and is currently estimated to be the sixth largest video games market in terms of consumer revenues, with an estimated worth of £4.33bn³.

Games are now considered mainstream culture, and a big and growing industry akin to Film and TV, with over 1.6 billion people playing games worldwide. The UK games industry blends the best of British technological innovation and creativity, resulting in successful games and technology which are exported around the world and which cross over into other creative sectors. The games industry is playing a leading role in the development of emerging technologies such as artificial intelligence, big data analysis and virtual reality which are expected to be high value growth markets in games and also apply to other sectors like health and education.

Intellectual Property

The games sector is a major generator of IP and a leading example of the UK's growing reputation as a home for creative, high-tech talent. By way of illustration, the globally successful Lego games series and Grand Theft Auto V, the biggest-selling entertainment product of all time (generating \$1 billion in global revenues in just three days following its release), are both made in the UK. At the heart of the success of the sector is its constant innovation. Ground-breaking video games, such as the Batman Arkham trilogy, No Man's Sky and Elite are the brainchildren of UK developers.

¹ <http://www.digitalschoolhouse.org.uk/>

² <https://newzoo.com/insights/articles/global-games-market-reaches-99-6-billion-2016-mobile-generating-37/>

³ <http://ukie.org.uk/research#Market>

Labour, Clusters and Composition

The games industry occupies a prominent place in the UK creative and tech sectors with over 2,000 games firms employing over 24,000 people across 12 established and 6 emerging games clusters across the nation. It is a dynamic and fast-evolving industry with 66% of these companies having been founded since 2010, and 95% of UK video games companies being micro or small businesses. More information can be found at our interactive map.⁴

GVA and Productivity

Games companies generate high-quality, high-productivity jobs with an average GVA per worker in 2014 of £68,250 – approximately £9,000 higher than the third highest industry, sound recording and music publishing. According to Creative Skillset, employment costs account for over 75% of the games development sector's GVA. In labour productivity, games is second only to the television programming and broadcast sector. Thanks to the evolution of mobile gaming, Britain now boasts the highest number of mobile games jobs in the EU, with 5000 full-time employees.⁵ This highly skilled workforce is a benefit not only to games companies, but to other sectors of the UK economy that rely on technical and creative talent to drive innovation.

Trade and Investment

The UK is a leading investment destination for overseas games companies. Examples of overseas investment include Warner Bros' acquisition of Rocksteady (the developers of Batman Arkham series) and TT Games (who developed the LEGO series), as well as recent multi-million-pound investment from Chinese companies acquiring Jagex and Splash Damage. The UK is particularly attractive to international businesses and is home to the EU head offices of several international games businesses including Microsoft, Activision and Sony PlayStation.

Ukie runs a comprehensive international trade programme to help member companies expand globally; in the last year alone £156 million worth of business deals were done by UK businesses on Ukie-run stands at international trade shows. For every £1 contributed by UKTI to support trade activities organised and managed by Ukie, £743 is generated in trade wins by those companies. Furthermore, preliminary estimates of the economic contribution of the games sector value chain in the UK in 2014 suggest that the total GVA was £1,085 million, with a breakdown of £700 million from development, £235 million from publishing and £151 million from retail.

With their unique fusion of arts, creativity, passion, technology and fresh thinking, we believe games – making them, publish them, playing them, servicing them, producing and reflecting culture through them – are the blueprint for the sort of creative, innovative economy our future and present citizens deserve.

⁴ <https://gamesmap.uk/#/companies>

⁵ http://www.isfe.eu/sites/isfe.eu/files/attachments/deloitte_report_isfe_2015.pdf

Response to consultation questions

Summary section

Q1. Does this document identify the right areas of focus: extending our strengths; closing the gaps; and making the UK one of the most competitive places to start or grow a business?

Broadly speaking, yes.

Ukie believe there are some underlying principles we need to get right for any industrial strategy to work however.

A central part of the UK's attractiveness to international games companies with European headquarters in the UK is Britain's membership of the European Single Market. Harmonised rules, for instance on data protection, copyright and VAT, have enabled games businesses based in the UK to seamlessly export goods and services throughout the EU. Membership of the single market has contributed to the UK games industry's dynamism, and ability to grow, explore new innovative areas, and attract investment into the UK from overseas.

The UK leads Europe in providing games to the new markets created by online platforms which enable games made locally to be sold globally. There has been a surge in games company formation in the UK over the last five years thanks in part to the opening of these new marketplaces to reach global consumers. It is crucial that we maintain the current ease of trade we have with the EU and other international markets.

Equally important to games and interactive entertainment, is the role of data. It is thus critical that the Government ensures there is a robust legal basis in place following our departure from the EU for cross-border data transfers to continue. Any future changes around data must both consider the needs of businesses such as the video games and interactive entertainment sector, and seek not to hinder this flow of data. The government must therefore prioritise obtaining a data adequacy decision from the EU.

References to data in the green paper are predominantly around open data principles and use of government held data to promote SME growth, which we welcome. However, the digital and creative industries, and in particular the games and interactive entertainment sector, are using vast amounts of data to innovate and drive their businesses. The strategy highlights the potential for emerging and future technologies such as Artificial Intelligence which requires huge amounts of data from a variety of sources and territories and is an area in which the games industry is leading innovative and pioneering research and deployment. For the UK to remain at the forefront of technologies like AI, we need to ensure our data laws stay compatible with Europe and the rest of the world for us to have access to this data.

Q2. Are the ten pillars suggested the right ones to tackle low productivity and unbalanced growth? If not, which areas are missing?

Yes. As some of them are more applicable to the games and interactive entertainment sector than others, we have responded below to the most relevant.

Q3 Are the right central Government and local institutions in place to deliver an effective industrial strategy?

Whilst the right institutions are broadly in place we believe that more can be done to ensure that they are joined up. It is essential for the success of the industrial strategy that the central departments,

especially Education, BEIS, Treasury and Trade, are able to act in a coherent and unified way and that the supporting bodies are empowered to take forward policies set at a national level.

We believe industry expertise could be better leveraged particularly in areas of education (from primary through to HE) and in trade/exports. We are developing specific proposals to address this in the sector deal.

Q4. Are there important lessons we can learn from the industrial policies of other countries which are not reflected in these ten pillars.

The importance on place and rebalancing of the UK economy is important and the UK games industry is a good example of a sector that is well spread across the country. However, we caution against ignoring the role London plays, especially in terms of attracting global investment and talent and providing an anchor tenant to the rest of the country. Industrial strategies work best where strengths are supported as well as addressing weaknesses.

Pillar 1: Investing in science, research and innovation

Q5. What should be the priority areas for science, research and innovation investment?

Emphasis on R&D and innovation is welcomed. We believe the games and interactive entertainment sector to be a leader in development of technologies which can be applied across the economy (such as artificial intelligence, virtual reality and augmented reality) however the level of engagement with creative companies in current thinking is limited leading to missed opportunities. We believe there is further opportunity for games and interactive entertainment activity to be considered alongside more traditional science and technology research rather than it being treated as a separate strand with separate conditions and opportunities.

Examples of transferring technologies initially developed in the games sector, both in the UK and internationally, include autonomous vehicles where motion sensing controllers were initially developed as the major console producers (Nintendo, Sony and Microsoft) competed for the ever bigger markets through Kinect, Wii and Playstation Move. These innovations led to the technology enabling driverless vehicles to move from science fiction to reality

Q6. Which challenge areas should the Industrial Challenge Strategy Fund focus on to drive maximum economic impact?

The Industrial Strategy identifies the eight great technologies as areas of focus for the challenge fund whilst acknowledging that the creative industries could offer further areas of focus. We believe there is merit in including creative elements to these eight great technologies as well as adding creative industries as a stand alone opportunity.

The overall goal should be positive impacts on productivity across the economy so focus for the challenge fund should be on how innovations in technologies stemming from individual sectors could be readily adopted and commercialised by other sectors. Building therefore creative industries and, in particular, video games innovations in to wider application should be prioritised.

Disciplines such as artificial intelligence, virtual reality, human-computer-interactions are regularly developed and innovated in the video game and interactive entertainment industry and have considerable potential to be further exploited in fields such as healthcare, security and advanced

manufacturing and defence. Cross-disciplinary collaborations should be prioritised and experiential and immersive technologies provide a strong opportunity.

Q7. What else can the UK do to create an environment that supports the commercialisation of ideas?

Further support for business skills, pitching skills and scale-up activity would be instrumental in supporting growth in the creative industries. We believe further consideration by government should also be given towards supporting and facilitating knowledge transfer and exchange across sectors. The UK has the potential and opportunity to establish global leadership in emerging and future technologies particularly because of the strengths inherent in the creative industries.

Q8. How can we best support the next generation of research leaders and entrepreneurs?

Games and Interactive Entertainment are, like other creative industries, reliant on the ability to commercialise the value of their intellectual property and are therefore inherently risky. As such there is need to create space to fail and an acceptance of failure as a necessary condition of creative industries business models.

An extension to existing funding which supports the development of business and financial skills will help support the entrepreneurial success of the sector. This can be achieved through initiatives such as the UK Games Fund which supports games companies at the very early prototype funding stage.

In addition, there is an opportunity through the industrial strategy to adapt definitions of R&D to include some of the more creative elements currently excluded by current definitions. The current exclusion of the creative process can act as a barrier for games and interactive entertainment companies in accessing public funding and to knowledge transfer and exchange between sectors.

Pillar 2: Developing skills

The UK games and interactive entertainment sector benefits from an international employee base which is spread right across the UK.

The industry is a global one where there is fierce competition for specialist skills and for people who have worked on successful individual titles or franchises. In addition, as a global industry, the games sector relies on bringing together top talent from across the world as it is precisely this fusion of diverse backgrounds and experiences which feeds the innovation that the UK games and interactive entertainment sector needs to thrive.

Owing to the often cutting edge and highly technical nature of the workforce our industry largely takes on those trained to degree level and above. Whilst, the UK's higher education system does deliver technically and artistically skilled graduates in numbers that will likely increase with computing now being on the national curriculum, to stay competitive, the UK industry requires access to those with experience to consistently deliver successful global products.

Workers in this sector are increasingly sought-after by other sectors relying on technical and creative talent to drive innovation in the UK and abroad, representing a 'war for talent'. Moreover, market demand for candidates with the skills needed by games companies is significantly outstripping supply, and this risks holding back the UK games industry's growth.

High-skilled talent is thus understandably the number one post-referendum concern for Ukie members with 70% of games firms saying access to talent is "critically" important to the industry. The most detrimental aspects of the referendum result are perceived to be the new difficulties this would

bring in sourcing high-skilled EU workers – such as software engineers – who play a big part the UK's game and tech sectors.

The need for clarity and certainty on the status of EU workforce in the UK is vital in order to ensure that firms do not incur an additional 'uncertainty premium' when recruiting from abroad, and that EU citizens currently working for UK games businesses do not look for work elsewhere in the EU in advance of the UK's exit. Development, and therefore studio investment, decisions are made on where the best global talent and teams are, which makes the recruitment and retention of the best a top priority.

Nevertheless, as the future of the games sector is dependent on maintaining the flow of talent entering the industry, we want to work closely with Government on long-term plans to up skill the UK's population to fill gaps in the future. Further, the referendum result provides an unparalleled opportunity to reform the current visa system, and position the UK as an attractive location for skilled talent from the EU and the rest of the world. Specific proposals in these areas are being worked up as part of the sector deal proposition with the wider creative industries.

Q11. Do you agree with the different elements of the vision for the new technical education system set out here? Are there further lessons from other countries' systems?

Ukie are supportive of the continued focus on science and technology but are concerned that this may come at the expense of the arts and humanities. We believe in an education system that combines these elements as the basis for continued innovation and commercialisation. If technical education system is developed in isolation it will likely have a limited impact or its impact will not be felt across as many sectors as possible. The Games and Interactive Entertainment sector, and indeed the wider creative industries, are capable of driving huge productivity gains (across the economy) but in order to do so there needs to be a genuine dialogue between business/industry and the education system which allows actual business requirements to be reflected in developing qualifications from T-Levels to Apprenticeships.

To achieve this there needs to be greater join up across the skills and education system including teacher training as well as taught courses.

Q13. What skills shortages do we have or expect to have, in particular sectors or local areas, and how can we link the skills needs of industry to skills provision by educational institutions in local areas?

Working with our companion sectors in the creative industries and through the Creative Industries Council we are developing a detailed picture of the current and potential future skills gaps in our sector. In particular there are and will continue to be shortages in digital technologies, in particular around data science, mathematics, physics and engineering.

Q14. How can we enable and encourage people to retrain and upskill throughout their working lives, particularly in places where industries are changing or declining? Are there particular sectors where this could be appropriate?

The Games and interactive entertainment sector has always been at the bleeding edge of innovation, demonstrating an ability to conceive new technologies and deploy them in the products and services we create. As a result it is a sector in constant need of retraining, continued professional development and upskilling.

There is opportunity within the migration system to further enrich the workforce through knowledge exchange and transfer, for example by putting mechanisms in place to ensure that global talent working in the UK leave a lasting positive impact on the skills of our domestic workforce.

There is also opportunity to look again at the definitions and criteria concerning highly skilled talent, an area the sector relies on but that are poorly served by the existing system

Finally we must address the cost to business in navigating the current immigration system, which can be particularly burdensome to the SMEs in the sector.

Specific proposals in these areas are being worked up as part of the sector deal proposition with the wider creative industries.

Apprenticeships and training

Domestically, Apprenticeships, T-Levels and CPD will provide important tools in the continuing training and development of the UK workforce however we have a number of concerns with the current provision.

The games industry recognises that apprenticeships are a critical tool in driving skills and entry-level jobs. Together with others in the creative industries we are keen to work with the government to ensure that the levy is effective to the objectives it hopes to achieve.

The ultimate aim should be to create a fund which supports the specific talent needs of games companies of all sizes. In order to achieve this, the apprenticeship levy must be flexible enough to respond to the factors specific to our high-skilled industry, such as specialist occupations and the desire to develop more degree apprenticeships.

Ensuring the design of the Apprenticeship Levy works for the games industry has gained increasing significance in the wake of the result of the Referendum on Membership of the European Union, as we are likely to face further skills shortages as a result of changes to free movement of labour laws. With the right flexibilities in the new levy arrangements, apprenticeships could play a vital role in tackling our industry's growing skills challenge as well as increasing productivity, growth and social inclusion. However, if the levy model is not designed with the games and other creative industries' needs in mind, it will result in significant skills investment being diverted away from these industries and harming their future growth.

The best way to enable the Government to reach its ambitious target of 3 million new apprenticeships over the next Parliament would be to make the levy as flexible as possible. In particular, the design of the levy should incorporate the needs of the large numbers of SMEs in the games industry. In sectors where apprenticeships have not been a traditional entry route, like games, sufficient standards are not yet in place and employers must thus be able use their digital vouchers in the most effective way possible. Further thoughts are being developed with the Creative industries Council as part of the sector deal.

Pillar 3: Upgrading infrastructure

Q16. How can local infrastructure needs be incorporated within national infrastructure policy most effectively?

Games and Interactive Entertainment (and creative digital content more generally) can act as a catalyst to drive demand for connectivity.

Fast, reliable ubiquitous broadband is critical to the games industry, both for developers/publishers and for consumers. Government must priorities the move to a full-fibre network prioritizing both upload and download speeds and capacity across the UK whilst supporting mobile and wireless. In doing so the UK must also become a global leader in 5G.

Pillar 4: Supporting businesses to start and grow

Q22. What are the barriers faced by those businesses that have the potential to scale-up and achieve greater growth, and how can we address these barriers? Where are the outstanding examples of business networks for fast growing firms which we could learn from or spread?

Whilst the UK video games industry is a global success story with a long and proven track record in producing ground breaking, genre defining games attractive to global audiences. However, growth has slowed and there is an increasing risk that content will become homogenised at the expense of original British content. Investment in sports and ‘shoot em up’ titles remains strong, as does the potential of ‘free to play’ mobile games, but, largely due to a lack of investor intelligence and an unwillingness to back innovative titles, the UK is failing to capitalise on the increasing demand for cerebral and creative titles such as *Minecraft*, *Portal* and *Cities: Skyline*. This market failure is stalling the industry’s attempts to appeal to the widest possible demographic.

Games are a relatively new creative industry, and despite progress over the last Parliament, public funding for the sector is still poorly understood, coordinated and designed. This inhibits further investment, growth and exports in one of the UK’s fastest growing export sectors.

95% of UK games businesses are Small and Medium-sized Enterprises (SMEs), with 64% of these being first registered in the last five years – further resources are needed to scale these businesses up and continue to develop supportive clusters outside of London.

Many advances in games hardware and software that could benefit other sectors of the UK’s knowledge-based economy can only come through experimentation. In a globally competitive sector such as the games sector, small games companies have very few resources available to devote to such experimentation, let alone to complex funding application processes. Smaller scale but active intervention to stimulate start-ups is available through the newly-extended Prototype Fund, which provides grants of up to £25,000 for small companies for the development of games or other forms of interactive digital content. The Prototype Fund goes some way to making experimentation more viable for small companies, and initial evidence suggests that it is having success in helping companies develop technologies, content and IP for use outside their original games-based application.

The original Abertay University-based programme gave finance and business development support to over 70 of the UK’s game development companies between 2010 and 2014, with nearly 400 applications assessed along the way. Many of those supported were in the start-up / micro studio category vital to building the critical mass needed to create original games IP in the UK. The Video Games Prototype Fund has been renewed with a £4m investment announced in the July 2015 Budget, following a track record of significant additionality in the pilot programme. We believe this model should be extended.

Games companies also benefit from a range of measures open to other tech and creative sectors, ranging from R&D credits and Enterprise Investment Scheme (EIS) through to Skills Investment Fund (SIF) support. However, in comparison the relatively recent growth of the games sector has meant that public interventions to support the industry lag behind other industries, particularly film, and consultees noted that these do not address specific market failures identified by the industry.

Pillar 6: Encouraging trade and inward investment

Q25. What can the Government do to improve our support for firms wanting to start exporting? What can the Government do to improve support for firms in increasing their exports?

We believe that over time there will be considerable new global opportunities for the game industry to exploit by negotiating new trade deals with high-growth countries like China and Brazil, which will enable the UK's game industry to deliver even greater value to the UK economy than it currently does. Nevertheless, in the more immediate term, action must be taken to mitigate the direct drawbacks of leaving the EU and having to establish new trading relationships with the EU and rest of the world.

A chief concern of our sector according to recent surveying is the lack of certainty created by the EU referendum. A stable regulatory environment is very desirable for businesses across the UK, but is particularly important for the games industry given the highly mobile nature of global investment. Uncertainty on policy challenges a lack of strategic and inward investment decisions are contributing to the potentially damaging business climate in the UK. The government must provide greater certainty to businesses over which EU laws will continue to apply and their stance on access to the single market in order to minimise potential disruption.

The UK video games sector operates on a regional and global basis – following the referendum we recognise that in some countries around the world the UK is now perceived as 'pulling up the drawbridge'. In the weeks following the referendum, a significant number of Ukie members informed us that they 'had considered' or 'had been approached' about relocating business abroad. We fully support positive messages from trade bodies such as the CBI and from individuals including the Mayor of London, that the UK is 'open for business.' However, we recommend that the government should change emphasis from how the UK is 'open for business' to celebrating its excellence and attractiveness for domestic and foreign investment.

Since 2008 the games industries of Canada, South Korea and the Nordic countries have grown fast – clusters in these countries all benefit from consistent support and incentives from their national and regional governments.

Q26. What can we learn from other countries to improve our support for inward investment and how we measure its success? Should we put more emphasis on measuring

Greater emphasis on establishing a sound baseline set of figures for the creative industries are needed before additional measuring of trade is attempted. Our own industry surveying, along with Nesta created the Games Map. One of the issue the map has highlighted is that only 41% of companies listed use the games industry SIC codes, indicating a significant inaccuracy in the measurement of the sector.

Pillar 8: Cultivating world-leading sectors

Q31. How can the Government and industry help sectors come together to identify the opportunities for a 'sector deal' to address – especially where industries are fragmented or not well defined?

Ukie welcome the invitation to the creative industries to come together to develop a sector deal and we continue to work through representation on the Creative Industries Council for example.

As stated elsewhere in this paper, we look to government to help facilitate and convene conversations across wider sectors, bringing the games and interactive entertainment sector in to closer conversation with other sectors, particularly where R&D in future and emerging transferable technologies are concerned.

Pillar 9: Driving growth across the whole country

Q34. Do you agree the principles set out above are the right ones? If not what is missing?

The competitiveness of our economy has never been more important. As such, Ukie welcome the Government's ambition to promote this through an industrial strategy. The principles outlined are encouraging but we reiterate the need to prioritise issues relating to the global flow of data, access to global talent, access to global markets and targeted public funding.

Pillar 10: Creating the right institutions to bring together sectors and places

Q36. Recognising the need for local initiative and leadership, how should we best work with local areas to create and strengthen key local institutions?

Ukie recently published a new strategy for growing the local games cluster and the wider digital creative sector with Coventry and Warwickshire Local Enterprise Partnership (CWLEP). '[The Games Industry in Coventry and Warwickshire - a Blueprint for Growth](#)'⁶ highlights the cultural and economic contribution made to the region by the games industry and makes recommendations for how to grow the games sector in the area to benefit the wider digital creative sector.

Ukie have been working with CWLEP to produce the report, which directly responds to most of the ten pillars laid out in [the government's recent industrial strategy white paper](#). In particular, it addresses the call to consider the best structures to support local industries, places and people, in order to maximise the UK's digital creative industry.

This is part of Ukie supporting the growth of games businesses across the UK. We very much want this to be blueprint for how other clusters can support the games and wider digital/creative industries and is an approach that we will look to replicate in other games clusters.

The report makes recommendations to support, promote and grow this local games sector to create more jobs and increase the highly skilled workforce that is needed to make the UK's world-leading games, unlock investment in the area, and celebrate games created in Coventry and Warwickshire as cultural artefacts. It is designed to be a blueprint for other emerging - and existing - games clusters across the UK to consider to maximise the impact of games on the wider digital economy.

6

<http://ukie.org.uk/sites/default/files/cms/docs/Games%20Industry%20in%20Coventry%20and%20Warwickshire%20-%20A%20Blueprint%20for%20Growth.pdf>