UK VIDEO GAMES FACT SHEET

Introduction

The figures and stats mentioned hereafter come from a variety of sources: market research companies, trade press, trade associations and academic research papers. This variety of sources means that you are likely to find different figures for the same topic, due to differences in methodology, sampling, or time spans looked at. We have decided to mention multiple sources and let you decide which you want to quote.

The sources are mostly ranked by date of publication, from most recent to oldest.

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GLOBAL VIDEO GAMES MARKET

Relevance

- The global market for video games will reach $137.9bn in 2018, an increase of 13.3% on 2017. It is estimated to reach $180.1bn by 2021. (Newzoo, Jun 2018)
- The Asia-Pacific region leads the global market and is the fastest growing, increasing 16.8% year-on-year to $71.4bn, or 52% of the total global market. North America represents 23% of the global market, up 10% to $32.7bn. EMEA is 21% of the market, up 8.8% to $28.7bn and Latin America makes up the remaining 4%, up 13.5% to $5bn. (Newzoo, Jun 2018)

- Mobile revenues will be the largest segment of the global games market, representing over half of total global revenues for the first time, generating $70.3bn overall from $56.4bn of smartphone and $13.9bn of tablet revenues. Smartphone games are also the fastest growing segment, increasing 29% year-on-year. (Newzoo, Jun 2018)
- All segments of the games market are growing steadily. Console revenues will increase 4.1% to $34.6bn in 2018 and $39bn by 2021. PC games will reach $32.9bn in 2018, representing 24% of the global market. (Newzoo, Jun 2018)
• The interactive entertainment sector generated a record $108.4bn in 2017, with the three major games revenues split between mobile ($59.2bn), PC ($33bn) and console ($38.3bn). Wider interactive sector made up the rest of the revenues, XR (Extended / Mixed Reality - £4bn), game video content ($3.2bn) and esports ($0.8bn). (Superdata, Jan 2018)

• 2017’s $38.3bn global console game market was dominated by North American and European markets, at $4.2bn and $3.1bn respectively. The Asian console market reached $0.2bn. (Superdata, Jan 2018)

• Consumers spent $14B more on mobile games in 2017 than in 2016. Games such as Arena of Valor and Fantasy Westward Journey from Asian publishers like Tencent and NetEase contributed to a 31% year-over-year growth for the worldwide mobile market. (Superdata, Jan 2018)

• The global video games market is set to grow considerably in the period to 2022. The largest segment will be social / casual games, generating over $80bn by 2022. (PwC, Jun 2018)

**Growth available in all major video games subsegments**

*Global video games and e-sports revenue, 2013-2022 (US$bn)*

*Source: PwC Global Entertainment & Media Outlook: 2016–2020, PwC, Ovum*

• Approximately 2.2bn people play games worldwide (Newzoo, Apr 2017), although some estimates put this as high as 2.6bn. (Unity, Apr 2017)

• The global games market will be worth $116bn in 2017, growing by 10.7% on the previous year. With a projected CAGR of 8.2% over the coming years, it is expected to reach $143.5bn by 2020. (Newzoo, Nov 2017)

• The global mobile revenues will remain just short of half of the market (43%), worth $50.4bn in 2017. Current estimates see this growing to $72.3bn by 2020. (Newzoo, Nov 2017)

• The console market represents 29% of the current market, worth $33.3bn and the PC market a similar share at $32.3bn. (Newzoo, Nov 2017)
Sony's PlayStation 4 console has shipped 82.2m units globally since launch in November 2013 and is projected to reach 90m units by March 2019. (gameasutra, Aug 2018)

Sony’s PlayStation 4 console has sold 67.5m units to date and is projected to sell 79m by the end of March 2018. (GamesIndustry.biz, Oct 2017)

The top 25 public companies by game revenues generated $41.4 billion in the first half of 2017, increasing 20% compared to the same period in 2016. (Newzoo, Sept 2016)

Mobile gaming accounted for 42% of all revenues generated by the top 10 companies ($31.4bn), up from 40% in the first half of last year. Tencent was once again the largest gaming company in the world with revenues of $7.4 billion. Sony grew by 25% year over year to take the #2 spot with revenues of $4.3 billion. (Newzoo, Sept 2016)
• The global video games market generated $91bn in 2016, with mobile sector making up the largest share ($40.6bn), PC accounted for $35.8bn and Console $6.6bn. Esports ($0.9bn), gaming videos ($4.4bn) and VR ($2.7bn) made up the remainder. (SuperData, December 2016, [LINK])

• The top 25 Public Companies by Game Revenues generated $34.5 billion in the first half of 2016, an increase of 22% compared to the same period in 2015. (Newzoo, Oct 2016, [LINK])

• According to Newzoo’s estimation, China has overtaken the US as the as world’s largest gaming market at $24.4bn, vs the US’s $23.6bn. With a larger population and gaming yet to reach a mature penetration, we can expect China’s lead to grow over time. (Newzoo, June 2016, [LINK])

• China is now the largest national market for iOS App Store revenues overall, earning more than $1.7 billion in the Q3 2016, exceeding the US by around 15%. Games make up approximately
75% of that revenue, in which China has been leading since Q2 2016. (App Annie, October 2016, [LINK])

- China is the no.1 national market for iOS App Store Games revenues, exceeding the US and Japan revenues in Q2 2016. (App Annie, October 2016, [LINK])
- The global games market is now worth over $100bn annually, reaching a total of $101.1bn in 2016. With a projected CAGR of 6.2%, it is expected to reach $108.9bn by the end of 2017 and $128.5bn by the end of 2020. (Newzoo, Apr 2017)
- 2017 is expected to be the year mobile revenues become the largest segment of the global market, growing by 19.3% YOY to reach $46.1bn or 32% of the global total. Digital game revenues will account for $94.4bn or 87% of the global market. (Newzoo, Apr 2017)

2016-2020 GLOBAL GAMES MARKET
FORECAST PER SEGMENT TOWARD 2020

- The Asia-Pacific market will generate 47% ($51.2bn) of global revenues in 2017, with China accounting for $27.5bn of the total. In comparison, the US will account for $25.1bn and the EMEA will be make up $26.2bn. (Newzoo, Apr 2017)
- As of December 2016, the Sony PlayStation 4 has sold through over 50 million units worldwide. (including sales of the PlayStation 4 Pro) (Globiz, December 2016, [LINK])
- The Asia-Pacific region dominates the global revenues with 47% share ($46.6bn), North America and the EMEA make up approximately a quarter each (25%, $25.4bn and 24%, $23.5bn). Latin America is the smallest region, but also the fastest growing, up 20.1% yoy to $4.1bn (4%). (Newzoo, June 2016, [LINK])
- Of all console gamers, 87% also plays games on a PC. (Newzoo, June 2016, [LINK])
- In 2014 the two largest markets (US and China) accounted for a 47% market share of global revenues (combined $39.3bn), this concentration is forecasted to grow by 2018, with these 2 nations accounting for 50% of the global revenues (combined $56.8bn). (Newzoo, Sept 2015, [LINK])
- The compound annual growth rate for the period 2014-2018 is +3.1% for the US and +16.1% for China. (Newzoo, Sept 2015, [LINK])
- The 2 leading markets are quite different in their revenue streams. In 2014, while the largest market segment in the US is revenue from consoles and VR (45%, $9.9bn), in China it’s the PC, MMO and casual webgames, all played on PC, that are king covering 68% of the Chinese
market ($15.2bn). Consoles and VR only account for 2% of the Chinese market. (Newzoo, Sept 2015, \[LINK\])

- The market is forecasted to jump to $91.5bn in 2015 (+9.4% year-on-year from $83.6bn in 2014). This growth is driven by China, which with a +23% growth could become the Nbr1 market in 2015, overtaking the US with $22.2bn vs $22bn. Newzoo forecast that in 2017, global revenues will reach $107bn. (Newzoo, April 2015, \[LINK\])

- The largest share of the market is covered by games played on PC (webgames, PC games and MMO) at a total $33.7bn, or 37% of the market. Consoles and VR are second, with $25.1bn, or 27%, then mobile and smartwatches are third ($20.6bn, 23%) and tablet or handheld devices fourth ($12.1bn, 13%). The segment that enjoyed the fastest growth were tablet games (+27%). (Newzoo, April 2015, \[LINK\])

- Looking at regions, Asia-Pacific is the top region, worth $43.1bn, or 47% of the market. China is its largest market, with the estimated $22.2bn. Asia-Pacific revenues are worth close to the combined revenues of North America and EMEA ($23.8bn and $20.5bn respectively). Latin America is the fastest growing region in 2015 with +18% year-on-year, although with its $4bn revenue it still is the smallest regional market. (Newzoo, April 2015, \[LINK\])

- Chinese company Tencent was 2014’s top-grossing games company, with a revenue of $7.2bn, +37% vs 2013 ($5.3bn). It is followed by Sony ($6bn, +27%) who took second spot from Microsoft ($5bn, +3%). Google, ranked 7th with $2.6bn, has grown the fastest at +89% Year-on-Year and progressed by 6 ranks. Tencent owns Riot Games (League of Legends MOBA). (Newzoo, Apr 2015, \[LINK\])

- Revenues for H1 2014: Top 25 games companies revenue was $25bn, a +17% growth (+$3bn) versus H1 2013. (Newzoo, Sept 2014, \[LINK\])
  - Tencent was still number 1 in H1 2014, growing by an impressive +40% versus H1 2013. It has leveraged its strong position in online F2P into the mobile games segment and integrated its WeChat/Weixin (mobile text and voice messaging) services. EA is second, thanks to the performance of titles such as FIFA 14 and Titanfall and mobile titles like the Sims Freel play or Simpsons: Tapped out. (Newzoo, Sept 2014, \[LINK\])
  - Surprising rise of Apple and Google, through the development of the mobile games segment of the industry. Google rose by 5 places, to take the 7th rank in the Top 25. Newzoo thinks that both could be real contenders for a top 5 rank with 2014 full-year results. (Newzoo, Sept 2014, \[LINK\])

**Digital market**

- Global PC game revenue reached $33bn in 2017, of which free-to-play games contributed $15bn. (\[Suppdata\], Jan 2018)

- The top grossing free-to-play PC games in 2017 were League of Legends ($2.1bn), Dungeon Fighter Online ($1.6bn) and CrossFire ($1.4bn). (\[Suppdata\], Jan 2018)

- In 2017, 56% of the PC game market was comprised of RPGs (34%) and Shooters (22%). (\[Suppdata\], Jan 2018)

- Bluehole’s PlayerUnknown’s Battlegrounds was the largest grossing PC paid/premium game revenue, generating $714m or 12% of the sub-sector’s revenues. (\[Suppdata\], Jan 2018)

- According to Steamspy, 7,672 games were released on Valve’s Steam platform in 2017, an increase of 53% on 2016’s 5,006 games. (\[Steamspy / gamesindustry.biz\], Jan 2018)

- In January 6th 2017, Valve’s digital PC games platform Steam reached 18.5m concurrent users. (\[Gamasutra\], Jan 2017)

- Valve’s Steam platform now counts 67 million monthly active players and 33 million daily active players, as of August 2017. At peak, this relates to 14 million concurrent users per day, up from 8.4 million in 2015. (\[Geekwire\], Aug 2017)
• Of Steam sales in January-August 2017, 34% of sales were to North America, 29% Western Europe and 17% Asia, with the remaining split between other regions. (Geekwire, Aug 2017)

• Microsoft’s Xbox Live platform counts 53 million monthly active users, as of Q4 2016/17. They also a quarterly “gaming” revenue of $1.667bn for the same period. (Microsoft, Aug 2017)

• Valve’s Steam platform reported 125m total active lifetime users in 2015, estimated up to 150m by August 2017. (PC Games Insider, Aug 2017)

• 4,727 games on the Steam platform were first released in 2016, making up just over 40% of the total games available on the platform (11,697 games). (SteamSpy, December 2016, link)

• For the first time, Ubisoft has reported that recurring player investment (e.g. the sale of in-game items, DLC, season passes and subscriptions) has outperformed digital full-game sales in Q1/2 2017. (Ubisoft; Oct 2017)

• The global digital games market has reached $5.5bn, a +7% year-on-year increase. All segments except P2P MMO have grown. Digital PC revenues rose to $622m (+6%), driven by Asia spending, while digital console revenues rose to $375m (+14%). (Superdata, Oct 2015, link)

• In terms of monthly active users, this was up +13% totalling 2.3bn in October, the average spending is slowing, which shows in the revenue growing by +7% to $2.1bn. (Superdata, Oct 2015, link)

• The most common global digital payment methods are eWallet (32%), credit/debit cards (25%) and mobile (14%), although this varies by region – eWallets are more popular in the Asia/Pacific region and credit/debit cards more popular in North America, for instance. (Superdata, Apr 2016, link)

• There are currently more than 700 games that entered Early Access since 2013, and 150 (21%) of them got released since. On average, games that use the Early Access spend 14 months in it. (Steam Spy, Oct 2015, link)

• The average game will sell 8,000 copies during Early Access stage if it manages to stay around until release, and another 3,600 in the first month after launch. (Steam Spy, Oct 2015, link)

• 15m Steam players (11% of all Steam players) own at least one paid Early Access game, and people from Germany and France are more likely to own Early Access games, while less so in Poland. (Steam Spy, Oct 2015, link)

• 1% of Steam gamers own 33% of all copies of games on Steam. 20% of Steam gamers own 88%. To be in the 1% group you need to own 107 games or more. To be in the 20% you need to own 4 games or more. (Steam Spy, August 2015, link)

• Valve is estimated to have had over $730m revenues in 2014. Their own titles like DOTA 2, Team Fortress 2 and CS:GO accounted for $400m, the remaining $330m coming from royalties from third-party titles. Valve has not released its own figures. (Superdata, July 2015, link)

• Most popular games on Steam: in 2014 the Nbr 1 title was Unturned, with 12.2m owners and “only” 9.1m players. Average daily sales on Steam: Unturned, is also Nbr1 with 52.5 daily sales, followed by Dead Island: Epidemic (40.2 daily sales) and Robocraft (23 daily sales). In terms of hours played, Football Manager 2015 has reached highest number of mean hours per owner, with an impressive 152.6. It’s followed by Dark Souls II (73.1) and Panzer Corps (71.7). (Ars Technica wasn’t able to retrieve data for DOTA 2 or Team Fortress 2, which are in the Top3 most played games on Steam). (Ars Technica, Mar 2015, link)

• In the last 18 months, Steam has seen as many new games added as its first 10 years combined. (Ars Technica, Mar 2015, link)

• Steam has exceeded 9m concurrent users in March 2015, and there are currently 125m accounts on the platform, more than Mexico’s whole population, close to Japan’s. (TechnoBuffalo, Mar 2015, link)

• Digital console sales: the Top10 US titles by worldwide revenues in Jan 2015 have been published. GTA V is king at $31.8m, followed by CoD: Advanced Warfare ($23.5m) and Destiny
at $14.2m. Dying Light ranked a surprise 4th place at $12m. In terms of console revenue shares between Playstation and Xbox (Gen7 and Gen8 combined), PS leads at 63%. Gen8 consoles grossed 70% more revenues than Gen7. (Superdata, Feb 2015, [link])

- The total for worldwide digital console for 2014 was $2.98bn. The best-selling month since February 2013 was December 2014, at $363m. (Superdata, Feb 2015, [link])
- The worldwide digital console games market was worth $233m in February 2015, slightly down compared to February 2014 (-3.7%). (Superdata, Feb 2015, [link])
- Valve shared that it paid content creators who crafted in-game items for Team Fortress 2, Dota 2 and CG:GO $57m in 2014. This amount was shared by 1,500 contributors from 75 countries. Valve has now expanded the Workshop service to non-Valve games like Dungeon Defenders: Eternity and Chivalry: Medieval Warfare. (IGN, Jan 2015, [link])
- Console players could spend more than PC players in free-to-play games: the MMO DC Universe PS4 version has been making more than 3 times what the PC version has as of Jan 2015. (MCV, Jan 2015, [link])
- In 2014 the global digital market was worth $49bn, with high growth in percentage terms in the Latin America region (+13%) and Digital Consoles (+24%). (Superdata, Dec 2014, [link])

**Mobile market**

- Consumers spent $14B more on mobile games in 2017 ($59.2bn) than in 2016. Games such as Arena of Valor and Fantasy Westward Journey from Asian publishers like Tencent and NetEase contributed to a 31% year-over-year growth for the worldwide mobile market. ([Superdata, Jan 2018])
- In 2017 the global mobile market ($59.2bn) was dominated by the Asian market, comprising $36bn in revenues, compared to $9.1bn in North America and $5.9bn in Europe. ([Superdata, Jan 2018])
- The globally top-earning mobile games by revenues in 2017 were Tencent’s Arena of Valor ($1.9bn), NetEase’s Fantasy Westward Journey ($1.5bn) and Mixi’s Monster Strike ($1.3bn). The leading Western games in joint fourth place were Supercell’s Clash Royale and Clash of Clans (both $1.2bn). The complete top ten can be seen here. ([Superdata, Jan 2018])
- 21.8 billion apps were downloaded from Apple’s App Store and Google Play in Q1 2017-18, a 15.3% increase from the same quarter the previous year. Google Play accounted for the majority of the downloads, up 21.4% to 15.3bn, over double the App Store’s 6.5bn downloads. ([Sensor Tower, Aug 2017])
- In Q1 2017-18, games were by far the most downloaded type of app in both Google Play and the App Store. 6.64bn games were downloaded from Google play in the period, up 26% on the previous year. In the App Store, 1.9bn games were downloaded, an increase of 1.6% year-on-year. ([Sensor Tower, Aug 2017])
- Niantic’s Pokémon GO surpassed 65 million monthly active users in April 2017. ([Niantic, Apr 2017])
- Consumer spend across all mobile app stores will grow at 18% CAGR from $61.8bn in 2016 to reach $139bn by 2021. Games continue to represent the majority of this revenue during the forecast period, growing from $50bn in 2016 to $105bn in 2021. ([App Annie, June 2017])
- In 2016, games represented 11% of time spent in Android apps and 39% of all app downloads, yet generated 81% of consumer spend via stores. ([App Annie, March 2017])
- The mobile Augmented Reality market could hit over a billion users and $60 billion revenue globally by 2021. ([Digi-Capital, June 2017])
• In 2016, games generated 75% of iOS App Store revenue, and 90% of Google Play revenue. (App Annie, March 2017)

• Average revenue per user (ARPU) has significantly increased in the world’s larger markets. In Japan, the top 30 iPhone games monetized over twice as effectively as the top 30 in the United States, increasing from $17 to $30 from Q4 2015 to Q4 2016. The UK saw some increase in ARPU, but is still some distance behind other markets on this metric. (App Annie, March 2017)

• Mobile gaming is gaining momentum globally and disrupting the traditional industry. By 2014, mobile gaming apps saw greater consumer spend than consoles and PC/Mac games. By 2016, mobile increased its lead, with spend at over 25% higher than PC and Mac gaming, and more than double game consoles in 2016. (App Annie, Feb 2017)
Niantic’s ‘Pokémon GO’, released on 6th July 2016 achieved over $950m in consumer spend by the end of 2016. It achieved reaching $800 million in consumer spend in 110 days, 2.3x faster than King’s ‘Candy Crush Saga’. For context, the total consumer spend on ‘Pokémon GO’ exceeded the total worldwide box office gross of ‘Batman v Superman: Dawn of Justice’. (App Annie, Jan 2017, LINK)

China’s Tencent were the No.1 company for combined iOS and Android game revenues in 2016, ahead of Finland’s Supercell (who are 84% owned by Tencent) and NetEase. MZ and Activision Blizzard make up the rest of the top 5. Electronic Arts was the top company for worldwide combines iOS and Android game downloads in 2016. (App Annie, Jan 2017, LINK)

Android phone users worldwide (excluding China) spent nearly 900bn hours in apps in 2016, an increase of 150bn hours from 2015. (App Annie, Jan 2017, LINK)

Apple’s App Store revenues increased by 40% in 2016 to $20bn, with the two largest contributors to growth being Pokémon Go and Super Mario Run, the latter of which was the most downloaded app on Christmas and New Year’s Day. (Gamasutra, January 2017, LINK)

January 1st 2017 was the largest day of sales ever recorded for Apple’s App Store, with $240m spent. (Gamasutra, January 2017, LINK)
- The top 5 mobile games globally accounted for 13% ($5.4bn) of the mobile market ($40.6bn). Three games broke the billion dollar mark: Mixi’s Monster Strike ($1.3bn)) and Supercell’s Clash of the Clans ($1.2bn) and Clash Royale ($1.1bn). (SuperData, December 2016, [Link])
- The Asian market makes up over half ($24.9bn) of global mobile revenue ($40.6bn). North America and Europe make up a distant second and third ($6.9bn and $5.7bn, respectively). (SuperData, December 2016, [Link])
- Mobile gaming accounting for 40% of all revenues made by the top 10 companies in the first half of 2018, up from 34% in the same period of 2015. (Newzoo, Oct 2016, [Link])
- Tencent, the number one gaming company in the world, recorded revenues of $5.3 billion in the first 6 months of 2016, up from $4.1 billion the year before. Its position at the top of the ranking will be solidified even further following the acquisition of Supercell. Between them, they will likely end this year with around $13 billion in game revenues. (Newzoo, Oct 2016, [Link])
- In 2015, 1,436 mobile games generated more than $1m of iOS revenues (net, excluding the 30% platform fee). 191 games generated over $10m and 27 generated more than $100. (Newzoo, July 2016, [Link])
- Mobile gaming will generate greater global revenues ($36.9bn) than PC gaming ($31.9bn) for the first time in 2016. (Newzoo, July 2016, [Link])
- Cumulative annual growth in the global mobile market between 2015-2019 is expected to be 14.6%, significantly outpacing the rest of the market at 6.6%. (Newzoo, July 2016, [Link])
- In April 2016, the top 10 mobile publishers accounted for 44% of iOS App Store and 42% of Google Play revenues. (Newzoo, July 2016, [Link])
- In Q1 2016, 6.65 billion games were downloaded from iOS and Google Play (1.95bn and 4.7bn respectively). The most downloaded game worldwide was ‘Piano Tiles 2’ (Clean Master Games) and ‘Clash Royale’ (Supercell) made the worldwide top 10 for downloads despite launching two months into the quarter, as well as being the fastest game ever to No. 1 in revenue. (SensorTower, Apr 2016, [Link])
• The most installed iOS app in the US for Q1 2016 was ‘Color Switch’, an indie game by Marc Lejeune, made in just two weeks. (SensorTower, Apr 2016, [Link])
• Difference between iOS and Google Play: the first leads in revenue (+80% vs Google Play in Q3) thanks to continued strength in China while the second leads in downloads (+90% vs iOS in Q3) thanks to first-time smartphone users in emerging markets like India and Southeast Asia. (App Annie, Dec 2015, [Link])
• China’s iOS growth was driven by social video apps and games. In games, Tencent saw great revenue growth thanks to two new IP-based releases: The legend of Mir 2 and The King of Fighters’98 Ultimate Match. (App Annie, Dec 2015, [Link])
• Google Play is being helped by its performance in India, with distribution bottleneck for Android OEMs having been removed. The download rates in India drove Google Play’s global performance. (App Annie, Dec 2015, [Link])
• While 70% of app store revenue for Apple and Google originates from games, 95% of revenues from mobile games come from the freemium model. (Deloitte and ISFE Mobile Games in Europe, September 2015, [Link])
• 21m people who downloaded a free or freemium game in Mar-May 2015, while 3m downloaded a paid game. 42% of free/freemium players downloaded 2 to 3 games, while 55% of those who downloaded a paid/paidmium game acquired only 1. (Deloitte and ISFE Mobile Games in Europe, September 2015, [Link])
• 50% of players only played titles that were not on the list of top grossing and most popular games. (Deloitte and ISFE Mobile Games in Europe, September 2015, [Link])
• 78% of freemium players didn’t make any in-app purchase, so 22% did. This share of paying customers varies from company to company, for example 4% of King’s monthly unique users made in-app purchases. The average expenditure of paying users reached £3/month, and spend is concentrated with nearly half made it in a single game. (Deloitte and ISFE Mobile Games in Europe, September 2015, [Link])
• European developers generate more than two thirds of their revenues (35%) outside of the EU-28, in markets such as the USA, China and Japan. (Deloitte and ISFE Mobile Games in Europe, September 2015, [Link])
• 6 out of 10 apps in the iOS and Google Play stores were made by companies headquartered in Europe. (Deloitte and ISFE Mobile Games in Europe, September 2015, [Link])
• The UK is the EU country with the highest mobile games jobs in the EU-28, with 5,000 full-time employees. (Deloitte and ISFE Mobile Games in Europe, September 2015, [Link])
• On mobile, while the non-monetizers represented 97.91% of the sample, monetizers can be split into 3 types: minnows (lowcore, 1.03% of the sample, spending less tha $1 in 3 months), dolphins (midcore, 0.88% of sample, spending $1-$32) and whales (hardcore, 0.20% of sample, spending more than $32). (GameAnalytics, September 2015, [Link])
• Non-monetizers play more games and also more often over the given period of time (up to 8 session per week vs up to 4 for whales). (GameAnalytics, September 2015, [Link])
• Monetizers tend to be loyal to one game (especially whales), and while they are the most engaged of monetizers they also take longer to convert (18 days on average before they start spending, twice the time needed for minnows who take on average 8). (GameAnalytics, September 2015, [Link])
• Comparing operating systems and looking at paying users, iOS has a bigger proportion of whales and dolphins compared to Android. iOS monetizers also make their first purchase in considerable less time than Android ones, especially for lowcore monetizers (minnows) were it takes them 9 times longer on Android. (GameAnalytics, September 2015, [Link])
• The monetizers distribution is quite different when comparing China and the US for example. While there’s more midcore monetizers in the US than China (64% vs 48%), there’s over twice the percentage of whales in China (37.37% in China vs 14.42% in US) who also spend more: an
average of $347 for China vs $283 and a median of $120 vs $67. (GameAnalytics, September 2015, [LINK])

- App Annie and IDC estimate there were in Q1 2015 roughly 1.1bn mobile and tablet, 650m PC and 200 console players worldwide. Android is king in install base with 75% of devices, followed by Apple with close to 20% and Windows, Blackberry and Symbian trailing at a combined 5%. (App Annie and IDC, June 2015, [LINK])
- Games represented 30% of downloads on iOS and 40% on Google Play. While the share of spending consumers grew on Google Play it stayed stable on iOS. Consumer spending on games increased notably in one year, with iOS App Store spending growing by +30% and Google Play growing by +50%. (App Annie and IDC, June 2015, [LINK])
- Among the Top50 mobile games multiplayer games accounted for 60% of consumer spending although they only contributed to 30% of game downloads in Q1 2015. (App Annie and IDC, June 2015, [LINK])
- Looking at differences by region, iOS games gained a +7.4% spending share in Asia-Pacific, while Google Play gained +1.2% in North America (Q1 2015 vs Q1 2014). (App Annie and IDC, June 2015, [LINK])
- Global revenue of mobile (smartphone + tablet) were $24.5bn in 2014, and are forecasted to grow to $30.1bn in 2015 (accounting for one third of the total games industry revenues), $35bn in 2016 and to reach $40.4bn in 2017, an impressive compound annual growth rate of +18%. (GMGC, Apr 2015, [LINK])
- Asia-Pacific region accounts for 56% ($13.6bn) of the global mobile revenues in 2014. This is close to 3 times the revenues of the EMEA region. It also has half of the global players: 760m (51% of the total 1.5bn mobile players). (GMGC, Apr 2015, [LINK])

**Diversity**

- 49% of mobile players are women. ([Newzoo / Google, Dec 2017]
- 65% of women aged 10-65 in the US play mobile games. ([Newzoo / Google, Dec 2017]
- 64% of female mobile players prefer mobile to other games platforms, compared to 38% of men. ([Newzoo / Google, Dec 2017]
- 43% of female mobile players play mobile games 5 times a week or more, compared to 38% of men. ([Newzoo / Google, Dec 2017]
- Of the top 100 grossing games on Google Play, 44% more of the app icons feature male characters than female characters. ([Newzoo / Google, Dec 2017]
- 60% of women who play mobile games think that 30% or fewer of mobile games are made for women. ([Newzoo / Google, Dec 2017]
- 25% of men who play mobile games agree that "I would spend more time playing mobile games if I knew I was playing with or against players of my own gender" vs. only 10% of women. Among men who play mobile games the most (10+ hours/week) the number rises to 47%. For women, this desire remains fairly consistent. ([Newzoo / Google, Dec 2017]
- More men than women pay for mobile games (52% Men; 33% Women) and men talk more frequently about mobile games than women do (44% Men vs. 27% Women). More men than women feel good/excited/satisfied upon payment of a new game (70% Men; 58% Women) while more women than men feel guilt/regret upon payment (23% Women; 16% Men). ([Newzoo / Google, Dec 2017]
- 64% of the US population aged 13+ play games ([Nielsen, Oct 2017]
- 63% of U.S. households are home to at least one person who plays video games regularly (3 hours or more per week) and 48% of U.S. households own a dedicated game console. ([ESA, April 2017]
- The average video game player is 35 years old and has been playing video games for about 13 years. ([ESA, April 2017]
• 41% of all game players are female and 59% male. (ESA, April 2017)
• Women age 18 or older represent a significantly greater portion of the game-playing population (31%) than boys age 18 or younger (17%). (ESA, April 2017)

![Chart: Age and Gender of Game Players]

- AGE of Game Players:
  - 27% under 18 years
  - 29% 18-35 years
  - 18% 36-49 years
  - 26% 50+ years

- GENDER of Game Players:
  - 59% male
  - 41% female

• 54% of the most frequent gamers play with others, including: 40% Friends, 21% Family members, 17% Parent(s), 15% Spouse/partner. (ESA, April 2017)
• 53% of the most frequent game players feel video games help them connect with friends and 42% feel video games help them spend time with family. (ESA, April 2017)
• 75% of the most frequent gamers believe playing video games provides mental stimulation or education. (ESA, April 2017)
• 93% of parents believe that the parental controls available in all new video game consoles are useful. 9 out of 10 require their children to ask permission or are present when their child buys or rents a video game (ESA, April 2017)
• Of the online audience aged 10–65 across 13 countries, 46% of people that play games are women. (Newzoo, May 2017)
• Mobile games are almost equally popular among men and women, with 52% and 48% playing mobile games more than once a month, respectively. In contrast, 46% and 37% of men play on PC and console at least once a month, respectively, compared to 35% and 23% of women. (Newzoo, May 2017)
For female gamers, social circles are key, with 39% of them discovering a game through friends or family, and 20% through social networks. For men, a comparatively low 27% discover games through friends or family. Instead, 26% of men discover new titles through review or game sites and 24% through online video channels. Choice of platform shapes the route by which a player finds a game, rather than gender alone. (Newzoo, May 2017)

Local co-operative gaming is consistently the most appealing form of social gaming across age and gender, easily beating competitive play. (Quantic Foundry, July 2017, Link)

- Co-operative play with friend was roughly equally popular either online or in person, whereas competitive play with friends in person was preferred to online.
- Co-operative play had similar appeal across genders, but more men enjoy competitive play than women.
- Co-operative appeal drops sharply when played with strangers. Competitive appeal is also reduced, especially amongst women.
- The desire for competitive play drop with age, whereas co-operative appeal remains stable. (Quantic Foundry, Feb 2016, [LINK]

- In a survey of Americans aged 50-plus, close to four in ten (38%) are play video games. (AARP, June 2016, [LINK])
  - 40% of 50-plus women are gamers (vs. 35% of men) and are more likely to play daily than male gamers (45% vs. 35%).
  - This increase in female gamers trend looks like it will continue, as women (57%) are significantly more likely than men (43%) to say they play more today than they did five years ago.
  - 75% of 50-plus gamers play video games weekly, with 40% playing every day. A greater proportion of older gamers compared to younger gamers report playing video games weekly or more often (37% of 50-59 year olds compared to 43% of 60-plus say they play every day).
  - 59% play games on computers/laptops compared to 57% on phones/other mobile devices. 59% play games online.
  - The most played game types are card/tile games (48%) and puzzle/logic games (47%).

- Sexualisation of female protagonists in games has declined significantly in the 8 years, compared to female protagonists from the 1990-2005, an analysis of 571 titles has shown. (Phys.org, July 2016, [LINK])

- Disney Infinity, the toys-to-life game, has achieved a more diverse audience than they initially expected, with roughly 50% male and 50% female players. John Vignocchi states that they had initially expected more male players than female (70% vs 30%), however the games diverse character set of Disney characters has seen a more equal split. He adds that this also extends the age of players, with as many non-parent and parent adults playing as 6-12 year olds and teens. This has led to a shift in marketing spotlighting both male and female characters. (MCV, September 2015, [LINK])

- Players diversity: while two thirds of surveyed boys identify as gamers and the opposite is true for girls, it can be a pleasant surprise to note the openness of the male demographic to female protagonists and female players. (Polygon, Mar 2015, [LINK])

- Looking at high school results specifically, boys are less likely to prefer to play as male characters (39%) compared to girls preferring to play as female characters (60%), they are also less likely to play a game based on the protagonist’s gender than girls (20% versus 28%). (Polygon, Mar 2015, [LINK])

- High school boys also want to see more girls playing (87% said they’d like that) and 61% agree or strongly agree that females are too often treated as sex objects (25% remained neutral), while 83% of girls agreed or strongly agreed that this happens too often. (Polygon, Mar 2015, [LINK])

- Internationally, 22% of workforce in development is female. (IGDA Infographic, June 2014, [LINK])

**Major acquisitions**

- Tencent Holdings Ltd. has taken a 17.7 million pound ($23.2 million) stake in Frontier Developments. The new shares represent 9 percent of the issued share capital of the company after their issue, making Tencent the largest shareholder behind David Braben, chief executive of Frontier. (Bloomberg, June 2017)

- The combined spending on mergers and acquisitions in 2016 was $21bn, including Blizzard’s acquisition of King ($5.9bn) and Tencent’s majority share in Supercell ($8.6bn). (Gl.biz, December 2016, [LINK])

- The Chinese gaming giant Tencent has bought the majority (84.3%) share of Fiiinland’s ‘Clash of the Clans’ / ‘Clash Royale’ developer Supercell for $8.6bn. Tencent also own ‘League of
Legends’ developer Riot Games as well as a range of investments in other well-known companies. (MCV, June 2016, [link])

- GAME has acquired UK eSports specialist Multiplay in 2015. This is in line with one of the retailers’ key objectives which is to build the most valuable community of gamers. Multiplay will gain access to the 17m Reward Card holders and the 330 shops the retailer owns to hold eSports events, while GAME will benefit from Multiplay’s expertise within the digital PC player market and eSports. (MCV, Mar 2015, [link])

- Microsoft bought Mojang for $2.5bn in 2014, seemingly mainly to get access to its large fanbase of 22m cumulative total install base (Superdata, Sept 2014, [link])

- Amazon bought video game streaming service Twitch for $970m (£585m) in 2014. The service has 55m unique monthly viewers, and brings committed players to Amazon’s potential audience. (BBC, August 2014, [link])

- Facebook bought Oculus Rift for $2bn in 2014. Facebook envisions the virtual reality device could be used more than just for games, for example for social networking. (The Guardian, July 2014, [link])

**Esports**

- The global esports market is set to grow 20.6% year-on-year, from $620m in 2017 to US$1.6bn by 2022. ([PwC](https://www.pwc.com/gx/en/industries/entertainment-media-telecommunications/insights/esports.html), Jun 2018)

- The UK’s second fastest growing entertainment and media sector is esports, growing 21% year on year to reach £48m in revenue by 2022. ([PwC / City AM / digitaltseurope.com](https://www.pwc.com/gx/en/industries/entertainment-media-telecommunications/insights/esports.html), Jun 2018)

- Esports generated $756m in revenue and attracted 258M unique viewers in 2017, with the sector set to worth £1,138bn in 2018. ([Superdata](https://www.superdata.com/), Jan 2018)

- According to Superdata, the $756m esport market in 2017 was split 70% sponsorship and ads, 11% prize pools, 10% amateur tournaments and 9% merchandise and ticket sales. ([Superdata](https://www.superdata.com/), Jan 2018)

- The most popular esport games by viewership in 2017 were League of Legends (157m), PlayerUnknown's Battlegrounds (102m) and Hearthstone (83m). ([Superdata](https://www.superdata.com/), Jan 2018)

- The largest prize pool event held in the UK to date was ESL One Birmingham, with a prize pool of £1 million, held at Arena Birmingham in May 2018. ([ESL](https://esl-one.com/), May 2018)

- 191m people will watch esports at least once a month in 2017, with a further 194m watching less regularly (total: 385m). ([Newzoo](https://www.newzoo.com/), May 2017)

- In 2017, Europe will reach an esports audience size of 77m people and will account for 32% of global esports economy revenues. ([Newzoo](https://www.newzoo.com/), Dec 2017)

- The largest esports event in Europe in 2017 was ESL’s ‘Intel Extreme Masters Season XI’, in Katowice, Poland with an attendance of 173,000. The largest event by hours of streamed via Twitch was PGL’s 2017 Kiev Major, with 23.3m hours watched. ([Newzoo](https://www.newzoo.com/), Dec 2017)

- By September 2017, there have been 90 disclosed eSports funding deals globally worth $1.2B, already ahead of full-year figures in 2015 (which saw 84 deals totaling $942M). At the current run rate, deals are projected to hit a new record of 136 deals totaling $1.9B — representing a 64% uptick in deals and a 23% increase in funding from 2016. ([CBInsights](https://www.cbinsights.com/), Sept 2017)
- At a quarterly level, Q2’17 saw 35 deals, beating the previous quarterly record of 31 deals in Q3’16 and Q1’17. Q3’16 holds the quarterly record for funding, with $934M invested — meaning the quarter singlehandedly accounted for 62% of the full year’s funding. (CBInsights, Sept 2017)
• Esports content reaches consumers that don’t necessarily play the games. 23% of the fanbase of the top 3 esports franchises in North American and Western Europe don’t play the game they watch. (Newzoo, May 2017)
• The UK esports market will see a 27.6% CAGR, reaching £8m in consumer ticket sales by 2021. Digital advertising in esports will increase by 46.2% CAGR to £12m by 2021. (EWC, June 2017)
• The global esports market was worth $0.9bn in 2016 and will grow to $1.4bn by 2019. (SuperData, December 2016, LINK)
• In January 2017, Jens Hilgers categorised the major esports games into three tiers, based on the monthly average users, annual prize pools and monthly hours watched:

![Esports Games Tiers](image)

(All titles/franchises mentioned have existed for more than a year and show a stable fan and pro-player base as well as frequent tournaments. Further, they fulfil the requirements of at least two categories for the appropriate tier.)

<table>
<thead>
<tr>
<th>Tier</th>
<th>MAUs</th>
<th>Annual Prize Pool</th>
<th>Monthly Hours Watched</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tier 1</td>
<td>&gt; 8 Million</td>
<td>&gt; $5 Million</td>
<td>&gt; 20 Million</td>
</tr>
<tr>
<td>Tier 2</td>
<td>&gt; 1.5 Million</td>
<td>&gt; $1 Million</td>
<td>&gt; 2 Million</td>
</tr>
<tr>
<td>Tier 3</td>
<td>&gt; 500 K</td>
<td>&gt; $100 K</td>
<td>&gt; 200 K</td>
</tr>
</tbody>
</table>

Sources: - Company and media reports  
- SuperData  
- The Esports Observer

(The Esports Observer, Jan 2017, LINK)
• US male millennials are just as likely to watch esports (22%) as baseball or hockey. (Newzoo, October 2016, LINK)
• US Esports Enthusiasts will watch esports in preference of traditional sports, with 76% stating that esports viewing is taking away hours they used to spend watching sports. (Newzoo, October 2016, LINK)
• Total global esport revenue will reach $892.8m in 2016, up to $1.1bn in 2018. (Superdata, May 2016, [LINK])
• Although Asia still leads at $328m (37%), North America and Europe are up to $275 (31%) and $269m (30%) respectively. (Superdata, May 2016, [LINK])
• The largest prize pool held in the UK to date was the $765,000 ECS Season One final, held at Wembley SSE Arena in June 2016 and organised by UK-based FacelT and Twitch. (ECS, May 2016)
• The UK esports audience will reach 6.5 million in 2016, with 3.1 million people watching more than once a month. (Newzoo, Aug 2016, [LINK])
• The UK esports audience skews 69% male, 31% female. The 21-35 age group represents 63% of the market. Women most likely to watch esports when aged between 21-35 (making up 21% of the overall market, compared to the 42% share for men of the same age). (Newzoo, Aug 2016, [LINK])
• UK esports fans are far more likely to participate in physical team sports (65%) than the general online population (21%) and are more likely to subscribe to Spotify (48% vs 14%). (Newzoo, Aug 2016, [LINK])
• 35% (18.3m) of UK adults are aware of eSports, split as 48% of males and 23% of females aware. Esports has greater awareness among younger demographics, with 64% of 18-24y/o and 59% of 25-34y/o aware. (YouGov, Sept 2017)
• Of the 7% (3.6m) of the UK population has watched esports, the gender split is more evenly split at 55% male and 45% female. 22% of viewers watch more than once a month and 7% more than once a week. (YouGov, Sept 2017)
• UK football clubs including Manchester City and West Ham have signed professional esports players. (BBC #1 and #2)
• Viewership for esports has grown to 188m in 2015, with more than a third of American esports fans choosing tournaments to watch based on their favorite teams and players. (Superdata, Jan 2016, [LINK])
• The $748m of global revenues were broken down into 77% ($578.6m) from indirect sources like sponsorship and advertising and 23% ($168.9m) from direct sources, such as esports betting and fantasy sites (7%, $55.8m), prize pools (7%, $53.8m), amateur and micro tournaments (4%, $27.7m), merchandise (2%, $17m) and ticket sales (2%, $15.9m). (Superdata, Jan 2016, [LINK])
• 2015 also saw the expansion of esports into the mobile platform. For instance Hearthstone’s revenues and monthly active users have really grown since its launch on smartphones in April 2015: the monthly active users grew by +140% then. Another example is the mobile-only MOBA Vainglory, which was specifically created to be an esport. (Superdata, Jan 2016, LINK)

• According to Newzoo’s quarterly Global esports Market Awareness report, esports awareness will reach 1bn consumers in 2016, up 36% compared to 2015. From the 16 countries studied, the average awareness of esports among gamers increased from 53.7% in 2015 to 65.7% in 2016. (Newzoo, May 2016, LINK)

• The global esports audience will grow to 292 million people in 2016, 148m of which are “enthusiasts”, playing or viewing more than once a month. In 2015, esports “enthusiasts” were split 69% male and 54% aged 21-35yo. (Newzoo, May 2016, LINK)

• esports revenues (from media rights, merchandise & tickets, online advertising, brand partnerships and additional game publisher investment) are set to grow to $463m in 2016, a 43% increase from 2015, and eclipse $1bn by 2019, a 40.7% CAGR from 2014’s $194m. (Newzoo, Mar 2016, LINK)

• esports fans are an attractive audience for marketers, with an average income of $69k and over half comprised of Millennials (51%). (Nielsen, Apr 2016, LINK)

• 21.3% of all hours watched on Twitch from July to December 2015 was esports content, totalling 475.5 million hours of esports watched across all esports franchises. MOBAs account for 58% of the esports viewing and a further 27% for shooters. (Newzoo, Apr 2016, LINK)

• The prize pools for 2015 should be worth $42m, and it appears that the growing prize pools attract more viewers. (Superdata, May 2015, LINK)

• Looking at esports audience gender: 87% is male, 13% female (could be linked to the fact only 2 of the Top 200 esports players are female). (Superdata, May 2015, LINK)

• The average size of a transaction on esports merchandise (apparel, headphones, mice and mousepads) is $42.30 in key western markets. (Superdata, May 2015, LINK)

• US viewers buy 3 full games per month, and have an average $200 monthly budget for games (44% spent on full game, 24% on in-game purchases and 32% on peripheral devices).

Gaming video content (GVC)

• The global Game Video Content reached $3.2bn in 2017. (Superdata, Jan 2018)

• 54% of global GVC revenues were driven by Twitch ($1.7bn), with YouTube contributing 22% ($0.7bn). The remaining 25% ($0.8bn) was made up from other sources. (Superdata, Jan 2018)

• According to Superdata, 51% of GVC revenues on Twitch were generated directly through consumer subscriptions and donations to content creators via the platform. (Superdata, Jan 2018)

• Games are the most popular content category on YouTube, with the most popular games youtuber PewDiePie’s 60m subscribers more than the largest two music channels combined (Justin Beiber and Rihanna). (Superdata, Jan 2018)

• As of January 2018, the most popular games youtubers are PewDiePie (60m subs), elrubiusOMG (27m subs) and Ferranfloo (26m). (Superdata, Jan 2018)

• 665m people watch game video content worldwide, more twice the entire population of the USA. (SuperData, July 2017)

• More people watch GVC than HBO, Netflix, ESPN and Hulu combined. (SuperData, July 2017)
- The current viewer base has a high female representation (46%) and high average income ($58K in the US). (SuperData, July 2017)
- Ads and direct consumer spending will push GVC earnings to $4.6bn in 2017, exceeding the earnings from top association football leagues like Bundesliga ($3.5bn) and La Liga ($3.2bn). (SuperData, July 2017)

- YouTube Gaming, with both a dedicated site and apps across iOS and Android, has been launched. YouTube already dominates in terms of games focused video-on-demand with more people watching games content on YouTube than Twitch so the potential is there for serious competition, but Twitch has brushed off the threat stating that competition is good and validates gaming video as a huge market. (MCV, September 2015, LINK)
- The global games video content market is worth $3.8bn in 2015. The majority of the revenue is located in North America (39%, $1.49bn) and Europe (30%, $1.14bn). (Superdata, July 2015, LINK)
- The $3.8bn revenue comes mostly from indirect sources like advertising revenue and sponsorship (77%, $2.9bn) and from direct sources like paid subscriptions (7%, $252m) and donations (16%, $638m). (Superdata, July 2015, LINK)
- 468m people tune in to watch walkthroughs, trailers and live streams. (Superdata, July 2015, LINK)
- Games video content has also become popular in Asia but piracy and TV competition inhibited revenue growth. (Superdata, July 2015, LINK)
- Top content creators can earn high amounts, PewDiePie for example earned $7.4m in 2014. (Superdata, July 2015, LINK)
- The Top 10 franchises on YouTube earned a combined $4.7bn digital annual revenue in 2014. The 3 franchises with most views were Minecraft (30.8bn views), Grand Theft Auto (11.9bn) and Call of Duty (10.1bn). The 3 franchises that earned most digital revenue in 2014 were League of
• In the US in 2014, viewers donate an average $4.6 a month to content creators. 44% of live stream viewers pay for subscriptions, spending $21 each month on paid content. They also spend $128 per month on games and hardware. (Superdata, July 2015, [LINK])

• In terms of video game content 73% of gamers watch online videos and 54% watch live video stream. A quarter (25%) of those who watch live streams do so on their mobile and 18% use their tablets. (Newzoo, July 2015, [LINK])

• Twitch is the current leader in live streaming gameplay and eSports (has 43m monthly views on its website), but is behind YouTube in number of creators, array of content and audience size. YouTube with its network of fans and influencers can shape and change opinions on games, and YouTube gaming will be a direct competitor to Twitch. Other competitors have appeared, like Azubu, Hitbox.tv or even Steam with Steam Broadcasting. (Newzoo, July 2015, [LINK])

• On Twitch, the Top 5 games by hours watched are League of Legends (81m hours watched, 1420 channels streaming the game), Counter Strike (45.4m hours watched, 839 channels), DOTA 2 (41m hours, 331 channels), Hearthstone (33m, 233 channels) and Minecraft (9.8m hours, 581 channels). (Newzoo, July 2015, [LINK])

Virtual & augmented reality

• By 2022, VR content will generate $21.2bn a year by 2022, with game revenue ($12bn approx.) staying ahead of video ($9bn approx.). (PwC, Jun 2018)

Gaming revenue remains ahead of video revenue

Total VR revenue by category, 2016-2022 (US$mn)

• Total global revenues from VR apps, gaming and video will grow from $3.9bn in 2017 to over $20bn in 2022. (PwC, Jun 2018)

• By 2022, 175.2m VR headsets will be in consumers’ hands across ten major markets, up from an estimated 37.6m at the end of 2017. (see chart below for market list) (PwC, Jun 2018)
The UK’s fastest growing entertainment and media sector is Virtual Reality, growing at 34 per cent annually to reach £1.2bn in revenue by 2022. VR headsets are forecast to sell with more than 7.8m cumulatively by the same period. (PwC / City AM, Jun 2018)

The UK’s VR industry will generate more revenue than any other country in Western Europe over this time. (PwC / digitalsatyeurope.com, Jun 2018)

There are 1,000 immersive-specialist companies in the UK (>50% of income from immersive projects), employing around 4,500 people and generating £660m in sales. This potentially represents as much as 9% of the global market. (ImmerselUK, May 2018)

Half of immersive-specialist businesses in the UK were incorporated since 2012. (ImmerselUK, May 2018)

6 out of 10 of immersive-specialist businesses grew their turnover in the past 12 months and 90% were confident of their future prospects. 70% were exporting immersive-related products and services, with a particular focus on US markets. (ImmerselUK, May 2018)

38% of immersive business are located in London. Other hubs for immersive businesses include Brighton, Bristol, Newcastle, Liverpool, Manchester, Cambridge, Oxford and Edinburgh. (ImmerselUK, May 2018)

253 projects worth a total of £160m were identified in UK Research Councils, Innovate UK and EU Horizon 2020 open datasets. Funding for immersive tech projects was 9 times higher in 2016-2017 than in 2009-2010. (ImmerselUK, May 2018)

3 in 10 immersive specialist companies benefitted from tax incentives in the last 12 months and 2 in 10 received some sort of national grant. (ImmerselUK, May 2018)

Venture capital investment in UK augmented reality increased by around 40% to £48.4m in 217 but investment at seed stage was broadly flat year-on-year. (ImmerselUK, May 2018)

Venture capital investment in UK virtual reality grew +260% from £50m in 2016 to £180m in 2017. Seed stage funding was down from £5m to £2m in the same period. (ImmerselUK, May 2018)
• Extended reality (XR) revenue up by 37% to $4.0bn in 2017. (Superdata, Jan 2018)
• Consumer virtual reality revenue reached $2.2bn in 2017, with $1.7bn from hardware sales and $554m in software sales. In 2018, revenues are expected to increase 105% to $4.5bn. (Superdata, Jan 2018)
• Samsung’s Gear VR was the highest selling mobile headset in 2017 and Sony’s PlayStation VR was the highest selling console/PC headset (see chart below). (Superdata, Jan 2018)

![Annual headset shipments chart]

• $2.3bn of venture investments in XR were made in 2017, with Magic Leap accounting for $0.5bn of total revenues. The remainder was split $0.9bn in VR projects and $0.9bn in AR/MR projects. (see chart below) (Superdata, Jan 2018)

![XR venture investments chart]

• The world consumer VR headset installed base reached 28 million at the end of 2017 and will reach 75.7 million consumer VR headsets installed by 2021. (IHS Markit, Feb 2016)
• World consumer spending on VR headsets reached $2.4 billion in 2017 and is forecast to reach $5.8 billion by 2021. Spend will be driven by continued adoption of PC, console and standalone headsets offset by reduction in price points for these same headsets. (IHS Markit, Feb 2016)
• World consumer spending on VR games, interactive experiences and video reached $803 million in 2017 and is forecasted to reach $2.8 billion by 2021. (IHS Markit, Feb 2016)
• Consumer spending on location-based VR reached $385 million in 2017. This is forecast to grow to $906 million by 2021. In 2017, China’s share of the market was 65%. This is expected
to decrease to 51% by 2021 as other regions and country markets become more established. (IHS Markit, Feb 2016)

- Consumer spend on all AR-related mobile apps is forecast to grow from $1.6bn in 2017 to $7.8bn in 2021. (IHS Markit, Feb 2016)

- Venture funding of VR/AR companies reached at least $1.9bn in 2017. The total number of companies raising venture capital during 2017 outpaced 2016, but the average deal size declined sharply by 35%. (Greenlight Insights, Jan 2018)

- The majority of VR/AR venture funding deals in 2017 were early stage (Seed and Series A). The number of early stage deals in 2017 was up 27% YoY and 105 companies raised $2M or more from VCs. However, the average Seed and Series A deal size declined 9% and 17%, respectively. (Greenlight Insights, Jan 2018)

- Sony’s PlayStation VR headset (PSVR) has sold through 2m units globally. (SIE, Dec 2017)

- There are 463 VR/AR companies operating in the UK, split into 308 in content, 110 in technology and 45 services. (PWC / Immerse UK, July 2017)

- London is the largest hub for VR/AR companies, with 244 businesses located in the capital. These companies have attracted a combined VC investment of $845.7m. (PWC / Immerse UK, July 2017)

- The UK will have the largest and fastest growing VR hardware market in EMEA, worth £0.8m in 2021, growing at 76% CAGR. (PWC, June 2017)

- PlayStation VR has sold more than 1m units worldwide ($399 / £308 approx), Sony Interactive Entertainment have confirmed. (MCV / BBC, June 2017)

- 55% of the most frequent gamers are familiar with virtual reality; among those, 40% say they will likely purchase VR within the next year. (ESA, April 2017)

- The total virtual reality revenues to reach $7.2 billion globally by the end of 2017 with head-mounted displays (HMDs) accounting for $4.7 billion. By 2021, global revenues are expected to reach $74.8bn. (Greenlight Insights, Apr 2017)

- The VR market generated $2.7bn in 2016 and will grow to $17.8bn by 2019. (SuperData, December 2016, LINK)

- Augmented Reality accounted for $1bn in 2016 revenue and Mixed Reality made up $100m. By 2019, Mixed Reality will become the dominant sector of the two, worth $9.4bn to AR’s $4.2bn. (SuperData, December 2016, LINK)
• The Virtual, Augmented and Mixed Reality games market will be worth $1.2bn by the end of 2016 and is projected at up to $8.8bn by the end of 2020, with VR becoming the dominant sector in revenue terms. (Superdata, November 2016, [LINK])

**VR/AR/MR games revenue forecast**

**Estimated games revenue by platform: 2016E–2020E**

Billions of USD, worldwide

• The total value of VR market (including hard- and software) will reach $6.7bn in 2016 and will reach $70bn by 2020. (TrendForce, December 2016, [LINK])
London is the top hub for VR and AR talent in Europe, with the highest number of LinkedIn members with VR/AR skills. As a proportion of total local members, London has the 7th highest density of VR/AR talent, followed by Birmingham at 9th. Oxford and Cambridge also have high level of VR/AR talent. (LinkedIn/ Atomico / Slush, Nov 2016, LINK)

Of more than 800 companies working in the VR sector worldwide, more than 150 are based in Britain. (GrowthEnabler, Sept 2016)

According to 01consulting, as of November 2016, Sony’s PSVR represents around one third (30%) of the total VR market. (01consulting, December 2016, LINK)

Sales of Sony’s PlayStation VR headset are on track to outsell the combined sales of the HTC Vive and Oculus Rift by the end of 2016. (GfK / MCV, November 2016, ARTICLE LINK REPORT LINK)

Consumer spend on VR to hit $11.2bn by 2020, with headsets accounting for $7.9bn and VR entertainment $3.3bn. (IHS Markit, Sept 2016, LINK)

The installed base of VR headsets is set to increase from 4 million in 2015 to 81 million in 2020. (IHS Markit, Sept 2016, LINK)

According to IHS Markit, Samsung Gear VR will be the most widely used VR brand by the end of 2016, making up 30% of owned headsets. Playstation VR is expected to exceed both Oculus and HTC Vive headsets combines, covering 8% of the market. A large segment of the market (40%) is made up of many smaller entrants, mostly smartphone headsets. (IHS Markit, Sept 2016, LINK)

While generally consumers are excited by the potential of VR, many still see a lack of understanding of the products and the potentially high costs as barriers to purchase. 75% of consumers agreed that they do not understand enough about VR products, and 73% would like to wait before investing in the platform. (CONTEXT, July 2016, LINK)

The opportunity to demo VR products is seen as the key factor in the decision to purchase VR by European consumers (79%), ahead of the cost of the product (68%). (CONTEXT, July 2016, LINK)

Cheaper VR products such as Google Cardboard show a higher level of penetration into the market, however, when asked which product they would most likely purchase, the UK’s
consumers favoured the more advanced products from Sony PlayStation VR (18%) and Oculus Rift (10%). (CONTEXT, July 2016, link)

- UK consumers have a high level of awareness of VR (75% stating that they have heard of VR), ahead of Spain (72%), Italy (71%) and France (70%), although awareness is slightly higher in Germany (79.5%). (CONTEXT, July 2016, link)

- Worldwide shipments of Virtual Reality hardware will reach 9.6 million units in 2016, generating revenues of approximately $2.3 billion. (IDC, Apr 2016, link)

- Growing at a cumulative annual rate of 184%, VR shipments will reach 64.8 million units by 2020. Combined with Augmented Reality hardware, shipments will reach 110 million units by 2020. (IDC, Apr 2016, link)

- $2.8B has been invested in VR this year, bringing the total since 2012 up to $8.8B (Superdata, Apr 2016, link)

- As of April 2016, the market data company Superdata have revised their 2016 global VR hardware and software forecast down to $2.9 billion, a 43% drop from their $5.1 billion projection at the beginning of the year. (Superdata, Apr 2016, link)

- Across key countries in North America and Europe, an average of 11% of the online population between 10 and 65 state that they are planning to buy VR products in the next six months. (Newzoo, Apr 2016, link)

- On average, men comprise 68% of those who intend to buy VR. (Newzoo, Apr 2016, link)

- 12% of the online US population is planning to buy VR products in the next 6 months. (Newzoo, Apr 2016, link)

- 10% of online brits intend to purchase VR within the next 6 months, with a further 26% who were undecided. (Newzoo, Apr 2016, link)

- For US eSport enthusiasts, 56% intend to buy in the next 6 months, making up 45% of the group that intends to buy VR in that period. Occasional eSport viewers are also keen, with 24% intending to buy in the next 6 months. (Newzoo, Apr 2016, link)

- Current VR hype is different from past attempts, in that systems will exceed the hype this time, as opposed to systems that can’t live up to the hype. In past VR were more gimmicks than launchable platforms, finally it’s really here. It’s now realistic to do VR at consumer pricing, whereas before it was too expensive. (VR Intelligence, August 2015, link)

- The impact of having many companies involved in VR is that they are releasing products around the same time, so we’ll see a whole industry that wasn’t there before. VR and AR are going to be powerful drivers in PC growth, as you need better hardware to run the new experiences. It will push the ecosystem of PCs and transform the technology landscape. Having major players involved will accelerate things, but considering a 10-year span before the technology is widely available is reasonable, as PCs will be gradually upgraded with powerful hardware. (VR Intelligence, August 2015, link)

- The challenges developers face to develop for VR are the misunderstanding of the medium (need for managing motion sickness, mixing gameplay styles to accommodate…) and the natural behaviour of recreating genres that already exist. Sometimes inspiration can be found in sci-fi books rather than in the current market. (VR Intelligence, August 2015, link)

- Sense of presence will be greatly improved in VR, with ability to manipulate objects directly with our hands. (VR Intelligence, August 2015, link)

- Digi-Capital has forecasted that augmented and virtual reality will be worth $150bn by 2020. Interestingly AR is forecasted to reach 4 times what VR will ($120bn vs $30bn). Digi-capital analysts state that while VR is great for games and 3D films, due to its need for full immersion you won’t be able to play anywhere. AR on the other hand will be easier to play on the tube, and there’s more potential market for the technology beyond games. (Gamesindustry.biz, Apr 2015, link)
UK VIDEO GAMES MARKET

Relevance

- The UK’s entertainment and media sector is predicted to grow by £8bn over the next four years to a total of £76bn, making the UK the second largest market in Europe, the Middle East and Africa (EMEA). (PwC / City AM, Jun 2018)
- By 2020, total UK video games revenue (£5.5bn) is expected to overtake total spend on books (£4.9bn). (PwC / digitalsgamecapsule.com, Jun 2018)
- UK Digital game purchases are forecast to reach £721m within the next four years and overtake physical game spend for the first time. (PwC / City AM, Jun 2018)
- The UK’s fastest growing entertainment and media sector is Virtual Reality, growing at 34 per cent annually to reach £1.2bn in revenue by 2022. VR headsets are forecast to sell with more than 7.8m cumulatively by the same period. (PwC / City AM, Jun 2018)
- The UK’s VR industry will generate more revenue than any other country in Western Europe over this time. (PwC / digitalsgamecapsule.com, Jun 2018)
- The UK’s second fastest growing entertainment and media sector is eSports, growing 21% year on year to reach £48m in revenue by 2022. (PwC / City AM / digitalsgamecapsule.com, Jun 2018)
- Data consumption in the UK will grow by 22% year-on-year till 2022, overtaking France in 2021 to become the biggest market in Western Europe. (PwC / City AM, Jun 2018)
- The UK is ranked as the 6th largest games market globally ($4.453m), after China, USA, Japan, South Korea and Germany. (Newzoo, Jun 2018)
- Combined UK physical and digital sales reached a record £3.35bn in 2017, increasing 9.6% from 2016. The value of the UK games home sales market almost equals that of music and video combined, comprising 46.3% of the overall value of the sector. (ERA, Jan 2017)
- Digital games sales grew 12.1% in the UK to £2.56bn in 2017, while physical game sales reversed recent trends, increasing 2.1% to £792m. (ERA, Jan 2017)
• Valve’s Steam platforms top 100 highest grossing games of 2017 list featured 15 games made or partly made in the UK, including two games in the top “platinum tier”, one in the gold tier and four in silver. *(Steam / Ukie, Jan 2018)*

• Valve’s Steam platforms top 92 games by peak simultaneous players featured 14 games made or partly made in the UK (15.2%), including Rockstar’s ‘Grand Theft Auto V’ in the top “over 100k simultaneous players” tier and six games from the UK (or 40%) in the second “over 50k players” tier. *(Steam / Ukie, Jan 2018)*

• Valve’s Steam platforms top 10 highest grossing VR games featured 11 games made in the UK, including one game partly made in the UK in the top “platinum” tier, one UK-made game in the gold tier and four in silver. *(Steam / Ukie, Jan 2018)*

83% of UK games businesses predict growth in FY2017/18, up from 79% in the previous year. 82% of games companies are also looking to expand their workforce in the same period. *(Ukie, Nov 2017)*

• The UK consumer market for games was valued at a record £4.33bn in 2016, up 1.2% from 2015 (£4.28bn). *(Ukie, Feb 2017)*

• 2016 was the biggest ever year for games software, exceeding £3bn in sales for the first time, driven by record results in both Digital and Online sales (£1.22bn, +11.1%) and Mobile Games, which achieved revenues just short of £1bn (£995.1m, +16.9%). Boxed software remains a substantial factor in software sales, despite the general trend towards digital, achieving £766.7m in sales in 2016 (-15.2%). *(Ukie, Feb 2017)*

• The impact of VR and esports drove a huge increase in PC Game Hardware (£258m, +64.3%), with UK VR Hardware (headset) sales tracked for the first time, valued at £61.3m in 2016. *(Ukie, Feb 2017)*

• The games industry’s impact on broader sectors also showed a record year, with increased sales across game-related toys, merchandise, books, movies and soundtracks, as well as game-based events around the UK, contributing to a record £100.5m in revenues across these segments. *(Ukie, Feb 2017)*

• The UK is the 5th largest video game market in 2017 in terms of consumer revenues, after China, USA, Japan, South Korea and Germany. *(Newzoo, June 2017)*

• The UK games market will be Europe’s largest market and the fifth largest globally behind the US, China, Japan and South Korea, growing at 6.7% CAGR and worth £5.2bn in 2021. *(PwC, June 2017)*

• By December 2017, 70.6m PS4 consoles and 617.8m PS4 games have been sold to date. *(SIE, Dec 2017)*

• As of November 2017, the number of PS4 and Xbox One consoles now sold in the UK (the ‘installed base’) stands at 7.5 million, 14% ahead of the installed base at the same point in the previous console generation. *(GAME / GfK, Nov 2017)*

• Since launch on 3rd March 2017, over 469,000 Nintendo Switches have been sold in the UK & Spain, despite a limited supply. *(GAME / GfK, Nov 2017)*

• The UK will have the largest and fastest growing VR hardware market in EMEA, worth £0.8m in 2021, growing at 76% CAGR. *(PwC, June 2017)*

• Console gaming leads the market at £2bn (52%), nearly double mobile’s £1.1bn (28%). PC gaming makes up the remaining 20% at £800m. *(Newzoo, Aug 2016)*

• The UK is estimated to be the sixth largest video game market in 2015 in terms of consumer revenues, after the China, the US, Japan, South Korean and Germany. The UK market is estimated to be worth £3.5bn. This figure excludes hardware sales and tax *(Newzoo, Aug 2016)*

• In 2016, games sales in the UK generated more revenue than either video or music, increasing by +2.9% to £2.96bn. This record figure makes the games market 1.3 times the size of the video market (£2.25bn) and 2.8 times the size of music (£1.1bn). *(EPIA, Jan 2017)*
• While physical sales of games declined -16.4% from £927m to £776 in 2016, digital sales increased +12.1% to £2.18bn, more than making up the difference. Physical sales were also down in both video and music, with video seeing a greater decline of -17.1% and music down -7.3%. (ERA, Jan 2017)

• ERA also found that the 2016 digital sales of games (£2.2bn) was larger than the combined digital sales of video and music (£1.9bn). (ERA, Jan 2017)

• Electronic Art’s FIFA 17 was the highest selling entertainment product in 2016, selling 2.5m units, approximately 9% more sales than Star Wars: The Force Awakens, which sold 2.3m units. (ERA, Jan 2017)

• European games industry professionals rate the UK as the place in Europe where both the best games are made today and the best games will be made in five year’s time. (GDC, Aug 2016)

• The UK’s creative industries are now worth a record £84.1 billion to the UK economy. The figures show the sector growing at almost twice the rate of the wider UK economy - generating £9.6million per hour. (Gov.co.uk, Jan 2016)

• The UK games industry grew by 5% to £4.19bn in 2015, up from £3.94bn in 2014. Growth has slowed slightly from 2013-2014, when it was up 13% from £3.48bn (MCV and Ukie, Feb 2016, LINKS for 2015, 2014)

• Games sold more than video or music in 2015. The games market grew by +10% to reach £2.8bn, while video grew by +1.5% to reach £2.2bn and music by +3.5% to reach £1bn. (ERA, Jan 2016, link)

• While physical boxed software sales decreased by -2.2% (to reach £928m), the digital sales grew by +17.1% (to reach £1,899m). (ERA, Jan 2016, link)

• Games represented 46% of the combined games, video and music entertainment market in 2015. (ERA, Jan 2016, link)

• The UK games industry was worth nearly £4.2bn in consumer spend in 2015, up 7.4% from £3.94bn in 2014 (Ukie, March 2016)

• The industry’s biggest consumer market revenue streams in 2015 were Digital Console and PC (£1,224m, +13.2%), Boxed Software (£904m, -3%), Consoles hardware (£689m, -28% after the initial sales peak for next-gen consoles) and Mobile gaming (£664m, +21.2%). (Ukie, March 2016)

• Full infographic of the 2015 UK Consumer Spend on games:
In the 6 months prior to 10th April 2016, people who bought Toys to Life spent an average of £59.77 on figures. 61% of people who bought a starter pack in the last 6 months also bought at least one additional figure. TTL shoppers also spent £36.99 on average on other new boxed games. (Kantar, May 2015)

- UK is the Nbr1 territory for pre-orders across EU (23% of UK players stated they pre-ordered a title in the last year). (MCV and Ipsos MediaCT, Apr 2015, [LINK])
- The Entertainment Retailers Association found that games sold more than video or music in 2014. The games market grew by +7.5% to reach £2.5bn, while video decreased by -1.4% to reach £2.2bn and music by -1.6% to reach £1bn. (ERA, January 2015, [LINK])
- ERA also found the digital sales of games (£1.5bn) to be bigger than the combined digital sales of video and music (£1.3bn). (ERA, January 2015, [LINK])
The games industry’s economic contribution to the UK can be compared to other screen sectors in the below infographic (BF, Feb 2015)
Geography of the UK industry

- There are 2,175 active games companies in the UK (listed in the map, as of August 2017)
- 2,625 UK games companies have been mapped to date
- The map also lists 149 games industry service companies and 231 games-related courses across 94 universities and academic institutions.
- As of August 2017, there are 23 towns / cities that are home to more than 20 games companies, the top 10 of which are listed below
- There are 2,044 active video game companies in the UK, as of October 2016. (UK Games Map, Oct 2016, [LINK])
- 68% of UK games companies were founded since the beginning of 2010. (UK Games Map, Oct 2016, [LINK])
- Only 41% of UK games companies use the right Standard Industrial Classification codes. (UK Games Map, Oct 2016, [LINK])
- Between 2011 and 2013, the number of games companies grew yearly by 22%. (Ukie/Nesta, Sept 2014, [LINK])
- Amongst 18 travel to work area (TTWA) identified as having a critical mass of more than 20 games companies, 12 have been identified as having high levels of games concentration (in employment or company number) in 2014:
  - Brighton, Cambrige, Cardiff,
  - Guildford and Aldershot, Edinburgh,
  - Dundee, Liverpool, London, Manchester,
  - Oxford, Sheffield and Rotherham, and
  - Warwick and Stratford-upon-Avon. (Ukie/Nesta, Sept 2014, [LINK])
- 29% (578) of UK games companies are located in London, with the South East accounting for a further 18% (370).
- The Top 10 towns and cities (TTWAs) by number of games companies are:

<table>
<thead>
<tr>
<th>Town / City</th>
<th>No. Companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>London</td>
<td>563</td>
</tr>
<tr>
<td>Manchester</td>
<td>85</td>
</tr>
<tr>
<td>Slough and Heathrow</td>
<td>62</td>
</tr>
<tr>
<td>Guildford and Aldershot</td>
<td>60</td>
</tr>
<tr>
<td>Brighton</td>
<td>60</td>
</tr>
<tr>
<td>Cambridge</td>
<td>49</td>
</tr>
<tr>
<td>Bristol</td>
<td>44</td>
</tr>
<tr>
<td>Sheffield</td>
<td>36</td>
</tr>
<tr>
<td>Birmingham</td>
<td>33</td>
</tr>
<tr>
<td>Liverpool / Nottingham</td>
<td>32</td>
</tr>
</tbody>
</table>

(UK Games Map, Oct 2016, [LINK])

- 95% of UK video games companies are micro or small businesses in 2014 (Gov.uk, Mar 2014, [Ukie]). This is corroborated by Nesta, when they state that the majority of firms in their dataset are micro and small businesses in 2014. (Ukie/Nesta, Sept 2014, [Ukie])
- For companies that report employee data (6% of Nesta dataset), the mean number of employees is 120 and the median 49 in 2014. (Ukie/Nesta, Sept 2014, [Ukie])
UK Investment

- The UK’s technology sector drew more investment than that of any other European country in 2016, with more than $6.7 billion ($9.5bn) was invested into UK tech firms in 2016 in private equity and venture capital deals. (London & Partners, Jan 2017, Link)
- The UK remains attractive to investors despite the vote to leave the EU, with UK tech firms receiving more venture capital investment than any European country post-referendum. (London & Partners, Jan 2017, Link)
- Major US tech firms have also recently expanded operations in the UK since the EU referendum: Google announced a £1bn investment plan for a new headquarters in King’s Cross, Facebook announced an additional 500 jobs for London and Apple plans a new headquarters in Battersea. Snap Inc, the company behind messaging app Snapchat, also announced it has established its international Headquarters in London. (London & Partners, Jan 2017, Link)
- In the immediate post-Brexit period, the UK saw $509m of investment by US VCs, far exceeding that of other European nations (2nd was Germany at $94.2m). London saw $426.7m of that investment, again far exceeding other European cities (2nd was Dublin at $64m). (London & Partners, Sept 2016, Link)
- London is the top European city for US venture capital investment, with $4.36bn invested in the last 5 years. Berlin was second at $3.76bn. (London & Partners, Sept 2016, Link)
- London is Europe’s leading city for technology and financial services, according a Mayor of London-driven survey of US tech executives conducted by London & Partners. London came out top in nearly all categories, including leading financial hub, leading tech hub, most likely place to set up European operations and the easiest city in which to do business. (London & Partners, Sept 2016, Link)
- In the period 2011Q1-2016Q3, the UK Gaming sector saw 44 capital investments, second only to Finland in the same period. By comparison, the UK Music sector saw 45 capital investments in the same period. (LinkedIn/Atomico/Slush, Nov 2016, Link)

UK Crowdfunding

- Globally, $20m was pledged across 330 crowdfunded video games in 2016. (Gl.biz / ICO Partners, December 2016, Link)
- Looking at UK Kickstarter video games projects, between Sept 2011 and Jan 2015, 119 (18% of total) projects were successful in reaching funding target, raising £5.5m. (Nesta, Feb 2015, Link)
- 5 projects raised 60% of the total funds. They were (Nesta, Feb 2015, Link):
  - Elite: Dangerous (£1.6m)
  - Project GODUS (£527k)
  - Broken Sword – the Serpent’s Curse Adventure (£479k)
  - Carmageddon: Reincarnation (£402k)
  - War for the Overlord (£211k)
- The top 25% of projects raised 91% of the funds, similar to other creative markets usually dominated by a few blockbusters followed by projects with smaller budgets. While shooters, sports games and adventure arcade games dominate the consumer charts, it’s strategy, adventure, “other” and multigenre that lead on Kickstarter, which hints at platform’s potential for niche games. (Nesta, Feb 2015, Link)
UK Digital market

- The PC digital market in 2014 was worth £741m (this includes DLC, MMO and social games revenue), the console digital market £118m and mobile £548m. (Superdata, MCV Issue 829, Apr 2015)
- Digital segments’ audience that grew most over the past 4 years (until 2014) have been the social segment (from 13m monthly active users to 31m users, and free-to-play MMO going from 8m to 13m users). (Superdata, MCV Issue 829, Apr 2015)
- 81% of Total War: Attila units sold in its 1st week were digital copies. (MCV, Mar 2015, Link)
- Digital and online game sales were up from £891m to £1,048m in 2014, an 18% increase. (MCV and Ukie, Feb 2015, Link for 2014 and Link for 2013)
- Digital points cards were worth £158m in 2014, of which £26m were generated by points cards for specific individual titles. (MCV and Ukie, Feb 2015, Link for 2014 and Link for 2013)
- The digital sales of games (£1.9bn) are bigger than the combined digital sales of video and music (£1.3bn). (ERA, Jan 2016, Link)

UK Mobile market

- Pokémon GO was the most frequently-used gaming app in the UK and was opened an average of 4.82 times per day by its users, in the period 27 Sept - 23rd Dec 2016. (Ofcom Aug 2017)
- The UK is the 4th largest market for iOS apps & games, both in terms of downloads and revenues. It also places 6th for Google Play revenues. (App Annie, Jan 2017, Link)
- The UK is the EU country with the highest mobile games jobs in the EU-28, with 5,000 full-time employees. (Deloitte and ISFE Mobile Games in Europe, September 2015, Link)
- 47% of UK smartphone owners use apps on their phones to play games – more that use apps for online banking (40%) or reading the news (33%). (Deloitte, Oct 2016)

![Top Ten App Activities](image)

- Household device ownership in Q1 2015: 44% households own an iPhone, 46% an Android phone and 12% a Windows phone (GameTrack ISFE/Ipsos MediaCT – Quarter 1 2015)
- Mobile gaming revenue stream (download-to-own apps and in-app purchases) grew by 21.2% to £664m in 2015, up from £548m in 2014. Similar growth was seen 2013-2014, up 21% from £452m (MCV and Ukie, Feb 2016, Link for 2015 and Link for 2014)
- In the UK in 2014, 41% of players pay when playing mobile games. 5% of these players are big spenders, lower than the 6% average for the 10 countries displayed in the report. It’s apparently
opinion that gets people playing a game: 36% of UK players start a game because a friend or relative recommended it, and 35% because it had good reviews. Interestingly the UK is the country amongst the 4 measured on this where audience rely the most on good reviews to play. (Newzoo, Dec 2014, Link)

- The free apps with in-app purchase model is king, representing 76% of the revenue share of the UK for apps (Distimo/AppAnnie)
- Looking at smartphones sales in the UK, for August-October 2014, the sales share was 52.3% for Android, 39.5% for iOS (iPhone 6 launch boosted sales), 7.7% for Windows phone and 0.3% for Blackberry and Others. (Kantar Worldpanel, Dec 2014, Link)
- 30% of the total UK game revenue is generated via apps games in Q3 2015. (GameTrack (ISFE/Ipsos MediaCT) – Quarter 3 2015)
- 10.2m (21%) of 6-64 year old play on smartphones and 8.4m (18%) on tablets in Q3 2015. (GameTrack(ISFE/Ipsos MediaCT) – Quarter 3 2015)

Exports and Imports
- On average UK games businesses generate 63.4% of their turnover from outside the UK. (Ukie, Nov 2017)
- UK games companies employing more than 50 people average 80% of revenue generated overseas. (Ukie, Nov 2017)
- Approximately half of all UK games companies (48%) generate 80% of their revenue from overseas and almost three quarters (73%) generate more than 50% of their income from outside the UK. (Ukie, Nov 2017)

During 2016 fiscal year, what percentage of your turnover was generated from revenue streams outside of the UK?

- The UK games sector generates £2bn in global sales each year in 2010 (32) and contributes more than £1bn to national GDP in 2013. (TIGA, June 2014, Link)
• 95% of UK games businesses export at least some of their products/services to overseas markets in 2012. On average, 45% of a UK games company's turnover is generated from international sales (TIGA, 2012, [LINK])

• UK game developers export their products all over the world. The USA, China and Japan are the top three target markets for UK developers wanting to expand their business in 2010. (Nesta, Feb 2011, [LINK])

• The UK is a leading investment destination for overseas games companies. Recent examples of overseas investment include Warner Bros’ acquisition of Traveller’s Tales, makers of such titles as LEGO Batman, LEGO Star Wars and LEGO Harry Potter. (Ukie)
STRENGTHS OF THE UK MARKET

Job market and economic contribution

- Overall in 2016, the UK games industry provided 47,620 FTE jobs and contributed £2.87bn in GVA to the UK economy. (Olsberg SPI / BFI, Oct 2016)
- The UK games industry directly employs 20,430 FTEs in development, publishing and retail roles, which contribute £1.52bn in direct GVA to the economy. (Olsberg SPI / BFI, Oct 2016)

Direct economic contribution of the UK Games Industry in 2016

<table>
<thead>
<tr>
<th>Subsector</th>
<th>Employment (FTEs)</th>
<th>GVA (£m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development</td>
<td>13,840</td>
<td>826.0</td>
</tr>
<tr>
<td>Publishing</td>
<td>2,300</td>
<td>526.6</td>
</tr>
<tr>
<td>Digital Retail</td>
<td>310</td>
<td>31.7</td>
</tr>
<tr>
<td>Physical Retail</td>
<td>3,980</td>
<td>132.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>20,430</strong></td>
<td><strong>1.52</strong></td>
</tr>
</tbody>
</table>

- The economic impact of the growing UK Esports sector was also assessed for the first time and was shown to have supported 470 FTE jobs and contributed £18.4m in GVA in 2016. (Olsberg SPI / BFI, Oct 2016)
- In 2016, the UK games industry spent £1.25bn on game development. (Olsberg SPI / BFI, Oct 2016)
- In the period 2015-2017, there was at least £1.75bn of inward investment in the UK games industry. (Olsberg SPI / BFI, Oct 2016)
- The VGTR supports 9,240 FTE jobs across the UK games industry, including 4,320 directly in development roles (31% of the total UK development workforce). (Olsberg SPI / BFI, Oct 2016)
- VGTR games represented £389.9m of UK development spend, 31% of the total development spend. Overall, projects supported by the VGTR contributed £525m in GVA to the UK economy and £156m in tax revenue. (Olsberg SPI / BFI, Oct 2016)
- 68% of VGTR-supported games would not be made in the UK, or at all, without the relief in place. (Olsberg SPI / BFI, Oct 2016)
- For every £1 the Government invested into the games sector via VGTR, an additional £4 in GVA was generated for the UK economy. (Olsberg SPI / BFI, Oct 2016)
- Of all the screen sector tax reliefs, the games sector was shown to have the highest rate of productivity, where each employee generated an average of £83,800 in GVA for the economy, significantly above the national industrial average of £62,100. (Olsberg SPI / BFI, Oct 2016)
- There are 2,182 active video game companies in the UK, as of October 2017. (UK Games Map, Oct 2017)
- The UK has been ranked as third best country in the world for the ability to attract, retain, train and educate skilled workers, according to the Global Talent Competitiveness Index (INSEAD, Jan 2017; LINK and LINK)
- London, Birmingham and Cardiff act as talent magnets, helping the UK attract more highly-skilled workers. Cardiff is the 11th best city worldwide at attracting, growing and retaining talent, with London listed 16th and Birmingham 17th. (INSEAD, Jan 2017; LINK and LINK)
• In 2013, the core UK video games sector (video games made wholly or partially in the UK) supported 12,100 FTEs of direct employment. This is split into 9,400 FTEs in development, 900 in publishing and 1,800 in retail. (BFI, Feb 2015, link)

• In 2013, the core UK video games sector (video games made wholly or partially in the UK) contributed £755m in direct GVA. This is split into £639.1m in development, £63.3m in publishing and £53m in retail. (BFI, Feb 2015, link)

• In 2013, taking into account the total economic contribution (including multiplier and spillover effects) the core UK video games sector (video games made wholly or partially in the UK) supported 23,900 FTEs of employment, generated £1.4bn in GVA and contributed £429m to the Exchequer. (BFI, Feb 2015, link)

• When looking at regional distribution of employment in 2013: for development most FTEs are in London (27%), the South East (21%), the East of England (10%) and West Midlands (10%). For publishing most FTEs are in the South East (32%), London (31%), the East of England (18%) and West Midlands (7%). (BFI, Feb 2015, link)

• According to Creative Assembly, their game ‘Halo Wars 2’ contained 1,023,574 lines of code in 146,605 blocks. Their game ‘Alien: Isolation’ contained 691,685 lines of code in 159,050 blocks. (Creative Assembly, 2017)

• Creative Assembly employed 133 people in their art teams in 2017, 2.3 times larger than in 2012. The ratio of women employed has increased by 5.7 times in the same period. (Creative Assembly, 2017)

• Environment Artists are the largest group of specialists in the Creative Assembly art team, representing 23% of the workforce. Character Artists (15%), Animators (14%) and Concept Artists (12%) are large parts of the overall team. (Creative Assembly, 2017)

• In terms of time spent across the three main art areas, 51.6% of time is spent on environment art, 28% on character art and 20% on concept art. (Creative Assembly, 2017)
Qualified workforce

- The number of UK-based students undertaking degree-level games courses increased from 3,100 in the academic year 2012/13 to 5,210 in 2015/16, an increase from 0.46% of the total student body to 0.72%. With a CAGR of 18.9%, we can expect this trend to continue in line with the increasing popularity of games courses. *(Department for Education, April 2017)*

Full-person-equivalent1 First Degree enrolments2 in STEM3 (including computer games) subjects by domicile4 UK Higher Education Institutions (HEIs) Academic years 2010/11 to 2015/16

<table>
<thead>
<tr>
<th>Academic Year UK</th>
<th>Total Students</th>
<th>....Of which studied Computer Games</th>
<th>% of Students</th>
<th>Year-on-year Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012/13</td>
<td>676,710</td>
<td>3,100</td>
<td>0.46%</td>
<td>-</td>
</tr>
<tr>
<td>2013/14</td>
<td>692,525</td>
<td>3,445</td>
<td>0.50%</td>
<td>11.1%</td>
</tr>
<tr>
<td>2014/15</td>
<td>699,855</td>
<td>4,165</td>
<td>0.60%</td>
<td>20.9%</td>
</tr>
<tr>
<td>2015/16</td>
<td>723,225</td>
<td>5,210</td>
<td>0.72%</td>
<td>25.1%</td>
</tr>
</tbody>
</table>

CAGR 18.9%

Source: DfE analysis of HESA Student Record 2010/11-2015/16

- The UK games industry workforce was 10,300 in 2015, with freelancers represent 16% of the 2015 workforce. Freelancers tend to feature more in technical roles, such as audio, sound and music (49%), animators (39%) and production (30%). *(Creative Skillset, Apr 2016, [LINK](#))
- London has the largest population of professional developers in Europe, home to over 300k developers (not limited to gaming-related developers). This is over double the second-place city, Paris, at 113k. It also beats New York, at 250k. *(LinkedIn/ Atomico / Slush, Nov 2016, [LINK](#))
- The UK is the No.1 destination for international tech talent migrants from both inside and outside of Europe, when looking at tech workers who moved countries for their most recent roles. *(LinkedIn/ Atomico / Slush, Nov 2016, [LINK](#))
- London is the top hub for VR and AR talent in Europe, with the highest number of LinkedIn members with VR/AR skills. As a proportion of total local members, London has the 7th highest density of VR/AR talent, followed by Birmingham at 9th. Oxford and Cambridge also have high level of VR/AR talent. *(LinkedIn/ Atomico / Slush, Nov 2016, [LINK](#))
- London is also the top hub for Artificial Intelligence talent in Europe, with the highest number of LinkedIn members with AI skills. As a proportion of total local members, London has the 7th highest density of AI talent. Again, Oxford and Cambridge also feature strongly. *(LinkedIn/ Atomico / Slush, Nov 2016, [LINK](#))
- In 2014, 86% of the workforce is permanent staff, and 14% freelance. This 14% is amongst the lowest of the creative media sectors. *(Creative Skillset, May 2015, [LINK](#))
- The average annual income in the games workforce is £34,200, a +11% increase since 2010 and £300 higher than the creative media industry average (£33,900). *(Creative Skillset, May 2015, [LINK](#))
- UK higher education is a strong supporter of the games industry, 60 universities/colleges provide 215 undergraduate and 40 master video game courses throughout the UK in 2014. 23% of the courses are in London, 18% in the West Midlands and 16% in Yorkshire and the Humber; these 3 regions cover 57% of all courses provided. The top 3 universities in number of courses provided are: Staffordshire University (29 courses), University of East London (17 courses) and Sheffield Hallam University (16 courses). *(Creative Skillset, Jan 2015) Providers include the University of Abertay in Dundee, widely regarded as a centre of excellence for the games industry. *(Ukie)*
Diversity

- 19% of the industry workforce is female, compared to the UK average of 45%
  - Women tend to be under-represented in more technical roles, such as technical development (9%), in audio, sound and music (7%) and in creative development (5%).
  - Women tend to be better represented in more business-oriented roles, such as legal (56%), business management (36%) and distribution, sales and marketing (31%).
  - In the strategic management roles, women are represented more (27%) than the industry average but still less than the average across the UK workforce. (Creative Skillset, Apr 2016, Link)

- 4% of the industry workforce is from BAME groups, lower than the UK average (10%) and much lower than the London average (35%). Considering the industry’s concentration in London (37%), this highlights the underrepresentation of these groups.
  - Representation for BAME groups is low in art and design (2%), animation (2%) technical development (2%) and production (2%) and is reported at 0% for content development roles.
  - BAME groups tend to be represented better in legal roles (11%) and in strategic management positions (13%), both above the UK average but still below the London average for these groups. (Creative Skillset, Apr 2016, Link)

- The games workforce has the youngest profile in the creative media industry: 68% are below 35 years old, compared to 48% in the overall creative media industry or 35% of the UK working population. The age profile of women working in games is even younger, with 79% being under 35 years old. (Creative Skillset, May 2015, Link)

- 45% of women in the industry feel that their gender is a limiting factor in their career progression. (Next Gen Skills Academy, Jan 2015, Link)

- 33% of women experienced direct harassment or bullying because of their gender. (Next Gen Skills Academy, Jan 2015, Link)

- 84% women believe good practices are in place to ensure equal treatment of men and women. (Next Gen Skills Academy, Jan 2015, Link)

- 94% women feel more is needed to help women establish their personal brands and find their voice in industry. (Next Gen Skills Academy, Jan 2015, Link)

Success stories

- As of Q3 2016, GTA V has sold-in (shipped to retailers) 70 million copies since launch. (GameSpot, Nov 2016, Link)

- In 2014, GTA V became the number 1 title of all time in the UK, both in terms of units sold (5m) and revenues (£208m). (UK Chart-Track, All time Top 10 Individual Format Games, Q4 2014)

- When looking at the Top 20 Entertainment Products of 2013 in the UK, Grand Theft Auto V was the leader with 3.67m units sold, ahead of Skyfall (2.96m units on DVD and Blu-ray). The third product in units sold was FIFA 14 (2.66m units sold) ahead of The Hobbit DVD and Blu-ray (2.07m units) (MCV, Jan 2014, Link)

- The success of GTA V is also impressive when compared to box office ticket sales: if we look at sales for GTA V in 2013, boxed sales for XB360 and PS3 only, it reached £137.8m in 2013 (GfK Chart-Track as source). Now, this is higher than the 3 biggest box office movies of 2013 (Despicable Me 2, The Hobbit: The Desolation of Smaug and Les Misérables). These 3 movies totalled a £129.9m (BFI as source). (Ukde, 2014)

- GTA V made $1bn worldwide in 3 days in 2013, faster than any other entertainment product including movies (MCV, Sept 2013, Link)
• Leading video games such as Elite, Tomb Raider, Grand Theft Auto, RuneScape, LittleBigPlanet, Moshi Monsters, Tearaway, Batman Arkham trilogy, Thomas was Alone, Worms, Until Dawn, Fable, Populous and GoldenEye are the brainchildren of UK developers. (Ukie)
• The UK hosts the European headquarters for a large number of overseas games companies, including Microsoft, Sony, Konami, Take-Two, to name just a few. (Ukie)
UK PLAYERS DEMOGRAPHICS

Players
There are several different estimations for UK player demographics available.

- In 2017, 32.4 million people play games in the UK. Spending $4.2 billion this year, they make the UK the 5th largest games market in the world. (Newzoo, Jun 2017)
- The UK mobile market is very evenly represented between the genders, with a 48% female / 52% male split between those who are playing more than once a month. (Newzoo, Jun 2017)
- 32% of UK players play PC, mobile and console games. (Newzoo, Jun 2017)

THE U.K. GAMER
KEY CONSUMER INSIGHTS

NUMBER OF GAMERS 32.4M
TOTAL GAME REVENUES $4.2Bn

AGE/GENDER
ACTIVE MOBILE PLAYERS*

M10-20
M21-35
M36-50
M51-65
F10-20
F21-35
F36-50
F51-65
12%
7%
15%
10%
7%
17%
14%
7%
52%
MALE

WALKS VIDEO CONTENT
50%
OF PEOPLE WHO WATCH GAMING VIDEO CONTENT
WATCH LET’S PLAYS & WALKTHROUGHS

CROSS-PLATFORM GAMERS
32%
OF GAMERS PLAY PC, MOBILE & CONSOLE GAMES

OWNS A GAMING HEADSET
35%
OF ALL GAMERS OWN A GAMING HEADSET

- In 2016 there were 31.6m players in the UK, approximately 50% of the total population. Of those that play games, 59% of them spend money on games, annually spending an average of $206 per player. (Newzoo, Aug 2016)

- Women are more likely to play games than men – although they play less frequently – and the average age of a player is 43 years old. (Nesta, July 2017)
- Overall, half the population of gamers are at least in their 40s, while a quarter of all players are ages 56 years or above. (Nesta, July 2017)
- Of the people who play games in the UK, there are no significant effects of nationality, ethnic or religious background, or sexual orientation on whether people are likely to play. (Nesta, July 2017)
• People who play games are greater consumers of culture, such as reading, painting, attending performing arts and visiting heritage sites and libraries. Players are also more likely to actively participate in the creation of culture (writing, dancing, or creating forms of digital art) than non-games players. (Nesta, July 2017)

• People who played games growing up obtain better educational qualifications than those that did not. (Nesta, July 2017)

• In 2014, the IAB estimated there were 33.5m video game players aged 8-74 in the UK. (IAB, 2014)

• There are 18m people of the 6-64 old population playing games in the UK in Q3 2016, or around 38% of the population of that age bracket. (GameTrack, Nov 2016)

• Games are most popular with the UK’s 11 to 14 year-olds, with 81% playing games, followed by children aged 6-10 (69%). (GameTrack, Nov 2016)

• The UK player population is 42% Female / 58% Male. The largest demographic, within the player base if 15-24 year old males, making up 16% of players, compared to 8% for similarly aged females. (GameTrack, Nov 2016)

<table>
<thead>
<tr>
<th>Demographic</th>
<th>% of Players</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Male</td>
<td>58%</td>
</tr>
<tr>
<td>Male 6-10</td>
<td>7%</td>
</tr>
<tr>
<td>Male 11-14</td>
<td>6%</td>
</tr>
<tr>
<td>Male 15-24</td>
<td>16%</td>
</tr>
<tr>
<td>Male 25-34</td>
<td>9%</td>
</tr>
<tr>
<td>Male 35-44</td>
<td>10%</td>
</tr>
<tr>
<td>Male 45-64</td>
<td>9%</td>
</tr>
<tr>
<td>% Female</td>
<td>42%</td>
</tr>
<tr>
<td>Female 6-10</td>
<td>7%</td>
</tr>
<tr>
<td>Female 11-14</td>
<td>6%</td>
</tr>
<tr>
<td>Female 15-24</td>
<td>8%</td>
</tr>
<tr>
<td>Female 25-34</td>
<td>7%</td>
</tr>
<tr>
<td>Female 35-44</td>
<td>5%</td>
</tr>
<tr>
<td>Female 45-64</td>
<td>9%</td>
</tr>
</tbody>
</table>

On average, 11-64 year-old UK players spend 8.2 hours per week playing games, compared to 7.2 hours for German players, 6.8 hours for France and 6.4 hours for Spain. (GameTrack, Nov 2016)

• Formats (for all 6-64 year olds): 20% (9.7m) play packaged games, 19% app games (8.9m) and 20% (9.4m) online games in Q3 2015. (GameTrack, Nov 2016)

• Devices (for all 6-64 year olds): 21% (10.1m) play on consoles, 21% (10.1m) on computers, 19% (9m) on smartphones, 15% (7.2m) on tablets and 8% on hand-helds (3.8m) in Q4 2016. (GameTrack, Nov 2016)

**Purchasing behaviour**

• By mid-November 2014, the majority of spend on boxed games comes from games bought to give to others, and in December 2014 alone gifted games were worth £128m. (Kantar Worldpanel, Dec 2015)
• The pre-owned games market is worth £126.3m in the latest year (52w 2nd August 2015), growing by 25%. There are 3.2m pre-owned games buyers. Pre-owned games buyers are increasing their spend on this format - they have on average spent an extra £10 each, with the average spend per buyer on preowned up to £40 from £30 last year. They are important across video games markets, with nearly ¾ (72%) of pre-owned video games shoppers having also bought mint physical games in the last year. (Kantar Worldpanel, Oct 2015, data looking at 52 w/e 2nd August 2015)

• Pre-ordering plays a significant part in today’s game market, with 1 in 4 gamers opting to pre-order a game over the last year. The level of interest found in gaming, which equates to £145m in annual sales, is vastly higher to that of other home entertainment markets; pre-ordering levels in games are 5 times bigger than in both music and film markets. Online is the key channel for pre-orders, accounting for 65% of orders versus its usual market share of 32%. Customers that pre-order are incredibly valuable to the market, spending £235 on games in the last year (more than double that of the average games consumer). (Kantar Worldpanel, Oct 2015, data looking at 52 w/e 2nd August 2015)

• If you look at the entire games market, across physical and digital, mint and pre-owned, women account for 40% of all shoppers, which is the equivalent of 4.3 million shoppers. (Kantar Worldpanel, June 2015, data looking at 52 w/e 12th April 2015)

• On average they spend less in total than their male counterparts, £78 a year on average vs. £119 for men. The stark contrast in spend is in turn driven by simply buying fewer titles, around 4 a year for women and 7 for men. (Kantar Worldpanel, June 2015, data looking at 52 w/e 12th April 2015)

• Women are generally less likely to personally use Generation 8 consoles (Xbox One and PS4): 2% vs. 12% for men, but are more likely to use handheld devices (11% vs. 9% for men). However, 12% of women have a Generation 8 console in their household available to them, 27% for handheld. (Kantar Worldpanel, June 2015, data looking at 52 w/e 12th April 2015)

• 55% of female game buyers are only ever buying games for other people. (Kantar Worldpanel, June 2015, data looking at 52 w/e 12th April 2015)

• 35% of all games buyers bought a pre-owned title in 2014 – on average buying 3 pre-owned games throughout the year. Those who did purchase a pre-owned title spent on average £32.50 and 41% of the pre-owned purchases last year were planned purchases. (Kantar Worldpanel, Feb 2015)

Education and serious games

• Parents and games in 2012: (ISFE, Nov 2012, Link)
  ○ 61% of parents have children who play games.
  ○ 43% of parents play games with their children.
  ○ 5 main reasons why parents play games with their children: 42% play to spend time with them, 41% play because their children ask them to, 39% play because it’s a fun activity for all the family, 36% play because they enjoy playing with them and 20% play because it has health and fitness benefits.
  ○ 70% believe that their children have more fun by playing games.
  ○ 62% believe that their children are more competitive by playing games.
  ○ 55% believe that their children develop more skills by playing games.
  ○ 46% believe that their children spend more time alone by playing games
  ○ 39% believe that their children are more creative by playing games.

• The UK games industry is one of the leading players in the use of gaming technologies in education. Its interactive learning software is distributed around the world, and the UK showcase event, Bett, is the one-stop shop for both curriculum-based and lifelong learning content. (Ukie)
• The UK is a world leader in creating games that both entertain and educate children. Key examples include Moshi Monsters, a globally successful online game made by British entertainment company Mind Candy, and games made by Yellow House English, which help teach English as a foreign language to very young children. (Ukie)
• The UK hosts the best-established serious games scene in the world. A fifth of UK games developers produce serious or educational games, including Caspian Learning, Digital 2.0, PIXELeaming and PlayGen (TIGA, 2010, link). The Serious Games Institute at Coventry University aims to develop and distribute games for learning throughout the world and studies the crossing of games into learning experiences for other industries, while organisations such as Learning Without Frontiers are committed to bringing developers and educators together, as well as highlighting the role of video games in learning. (Ukie)
• The UK games industry engages with social issues, working with charitable organisations, leading academics and government bodies to produce widely distributed research. It also contributes to the voluntary Pan-European Game Information (PEGI) ratings system. (Ukie)

PEGI Awareness
• Only 9% of PEGI rated games were classified as 18+ in 2017. In 2016, 11% of games were rated 18. (Figures provided by PEGI, Jan 2018. 2016 data here)

<table>
<thead>
<tr>
<th>Count of Product Id</th>
<th>Age Rating</th>
<th>3</th>
<th>7</th>
<th>12</th>
<th>16</th>
<th>18</th>
<th>Grand Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Row Labels</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td></td>
<td>21%</td>
<td>23%</td>
<td>28%</td>
<td>17%</td>
<td>11%</td>
<td>100%</td>
</tr>
<tr>
<td>2017</td>
<td></td>
<td>22%</td>
<td>23%</td>
<td>27%</td>
<td>18%</td>
<td>9%</td>
<td>100%</td>
</tr>
<tr>
<td>Grand Total</td>
<td></td>
<td>22%</td>
<td>23%</td>
<td>27%</td>
<td>18%</td>
<td>10%</td>
<td>100%</td>
</tr>
</tbody>
</table>

• In 2014, a total 1,665 games received a PEGI rating (1,542 in 2013). There were 254 games rated 16+ and 188 rated 18+, respectively 15% and 11.1%. This means close to three quarters of new games released: 1,243 (73.9%) were rated fit for a 12+ or younger audience. (ISFE, PEGI Annual Report 2014)
• In terms of PEGI game content descriptors, the 5 that appeared most in games in 2014 were “Violence” (64.9% of games released in 2014), “Online” (29.3%), “Bad Language” (21.5%), “Fear” (10.9%) and “Sex” (3.8%). (ISFE, PEGI Annual Report 2014).
• In 2012, 67% of survey respondents are aware of ANY age rating system for videogames (ISFE, Nov 2012, Link).
• In 2012, 20% are aware of PEGI age rating system for videogames. So it can be said that while 2/3 respondents are aware of an age rating system for games, only 1 in 5 are aware of PEGI ratings. (ISFE, Nov 2012, Link).
• However awareness of the PEGI age ratings increases to 50% after prompting with images. When prompted:
  • In 2012, 50% are aware of PEGI age rating symbols (ISFE, Nov 2012, Link).
• In 2012, 22% are aware of PEGI content symbols (ISFE, Nov 2012, [LINK])
• In 2012, vast majority of respondents agree that both sets of symbols are CLEAR and USEFUL (ISFE, Nov 2012, [LINK])
• In 2012, 71% agree PEGI ratings should apply to app games and games on social network sites (ISFE, Nov 2012, [LINK])
• In 2012, 1 in 5 believe that the age rating system for games should be stricter than movies, although the majority (55%) believe the same level of strictness should be applied to both. (ISFE, Nov 2012, [LINK])
OFCOM COMMUNICATIONS REPORT

- 82% of UK adults have now access to the internet in 2014. (Ofcom, Aug 2014, link)
- Households with broadband were 16% in 2004 compared to 77% in 2014, and there are 6.1 superfast broadband connections in the UK (26.7% of all connections). (Ofcom, Aug 2014, link)
- 4G in 2014 is available on all four mobile network operators and has 6m subscriptions. (Ofcom, Aug 2014, link)
- Device-wise in 2014, tablet computers are growing fast: take-up has almost doubled over the past year, from 24% to 44% households and 60% of children 6-11 years old use them each week. (Ofcom, Aug 2014, link)
- In 2014, while there doesn’t seem to be a difference in the take-up of various communication platforms there is one in their use, as 60% of the 16-24s use internet for news, while only 21% of the 55+ do so. Also, they spend longer on social media: 1h24mn compared to 51mn for all adults. (Ofcom, Aug 2014, link)

OTHER INTERNATIONAL MARKETS

North America

- North America is the second largest region with estimated revenues of $25.4 billion in 2016, a YoY growth rate of 4.1%. (Newzoo, May 2016, link)
- In 2015, PayPal (32%) and Visa (21%) dominate the popular payment brands in the US for digital games. Mastercard comes a distant third at 8.2%. (Superdata, Apr 2016, link)
- Mobile gaming market continues to grow with 141.9m gamers (+27% from 2013) who spent an average $32.65 in 2014, for a total $4.6bn revenue. Gamers that play both on smartphone and tablet drive majority of revenues, as they have a higher average yearly spend ($48.45). The majority of revenue is indeed still generated by 6% of spenders (8m, spending an average of $293.70 per month), who generate half (51%) of mobile gaming revenue. Close to half (45.7%) of players don’t pay to play. (EEDAR, June 2015, link)
- In the US audiences for iOS, Android and PC/Mac, for the period Q3 2015 there was an almost exactly evenly-split between male and female players. PC/Mac players were statistically older, with 59% aged 45+. (App Annie / IDC, Mar 2016, link).
- In North America, more than half of mobile and tablet players are female (56%). The average age of player is 27.7 years old, a decrease from the previous data, which is attributed to more affordable smartphone devices on the market becoming available to younger consumers. (EEDAR, June 2015, link)
- Casual mobile gamers tend to be younger (26 years old) and more likely to be female (70%) while core gamers tend to be older (30 years old) males (58%). These core gamers tend to be the biggest evangelists for mobile games (75% are also active sharers compared to 23% of casual mobile gamers). (EEDAR, June 2015, link)

USA

- The US video game industry’s value added to US GDP is more than $11.7 billion. (ESA, July 2018)
- There are 2,711 video game company locations across 84 percent of the congressional districts in America. (ESA, July 2018)
- There are now 65,678 workers directly employed at game software publisher and developer locations in the US. (ESA, July 2018)
- Employees in the industry earned an average compensation of $97,000 per year. (ESA, July 2018)
- The total consumer spend on the video game industry was $36 billion in 2017. (ESA, July 2018)
  - Content: $29.1bn
  - Hardware: $4.7bn
  - Accessories, including VR: $2.2bn
- 64% of the US population aged 13+ play games (Nielsen, Oct 2017)
- There are 3,090 games companies in the USA, 935 of which are based in California. (ESA, July 2017)
- The US games industry directly and indirectly employed more than 220,000 people and contributed $11.7bn in GVA to the US economy in 2015. (ESA USA, Jan 2017, LINK)
- The U.S. computer and video game industry generated $30.4 billion in revenue in 2016. This is an increase in total consumer spend from reported 2015 sales, which were at $30.2 billion. (ESA USA, Jan 2017, LINK)
- Video game software revenue grew 6% to $24.5 billion in 2016, up from $23.2 billion in 2015. (ESA USA, Jan 2017, LINK)

![Total Consumer Spend on Games Industry 2015](image)

Source: The NPD Group/Games Market Dynamics: U.S.

- US digital console revenues grew 16% year-on-year for December 2016, compared with a 16% drop year-on-year in retail sales during the same period. Combined physical and digital sales hit a record $1bn revenue in the final quarter of the year. (SuperData, Jan 2017)

### Canada
- In 2016, the Canadian games industry comprised 472 games companies, with 20,400 directly employed on a $71,300 (Canadian) average salary (£43k approx.) (ESA Canada, Jan 2017, LINK)
- Canadian games companies added $3bn Canadian to GDP (£1.8bn approx.) (ESA Canada, Jan 2017, LINK)

### Latin America
- Latin America will reach $4.1 billion in 2016, an impressive 20.1% YoY increase. Mobile games will generate $1.4 billion, up significantly from $900 million last year. (Newzoo, May 2016, LINK)
- Digital games market in Latin America was worth $3.6bn in 2013 and is estimated to be worth $4.5bn in 2014 and $5.3bn in 2015. The $4.5bn in 2014 represents 10% of the worldwide digital games market and is forecasted to grow to become 16% in 2015 (Superdata, Oct 2014, LINK)
• In 2014, Mobile gaming in the largest segment in digital, at 43%, followed by social (Facebook for example) gaming at 27%. (Superdata, Oct 2014, [link])

• In 2014, the digital spender in Latin America pays an average of $88 during time spent on a game, which lasts 5.5 months on average. Bank transfer payments are the most popular payment method (24%), closely followed by mobile payment (21%) whose popularity is rising, and credit cards (20%). (Superdata, Oct 2014, [link])

• In 2014, Brazil has a market share of 35%, followed by Mexico at 22% and Argentina at 15%. (Superdata, Oct 2014, [link])

• In 2014, Brazil has seen amazing growth in social (+35%) and mobile (+25%) digital gaming in 2014, and pay-to-play MMO is losing players to free-to-play titles such as Planetside 2. In this specific F2P segment, MOBAs have grown their market share the most, from 12% in 2013 to 23% in 2014. (Superdata, Oct 2014, [link])

• In 2014, Brazil dominance in market share is slightly decreasing due to higher than average spending in other Latin America countries and a boom in broadband and smartphone penetration which allow them to grow their market share. (Superdata, Oct 2014, [link])

• In 2014, in the region high import taxes on consoles and PC games inflate prices, which are 60%-150% higher than in the US. (Superdata, Oct 2014, [link])

Eastern Europe

• The Digital market is worth $2.2bn in 2014. Interestingly the 3 key countries cover a 84% share at $1.9bn. Russia is a clear leader, with a 50% share ($1.1bn). (Superdata, Dec 2014, [link])

• The digital market saw a +7% growth in 2014 vs 2013, with free-to-play MMOs ($794m, +6%) and social games ($451m, +16%) having the largest market share. Social games also grew strongly - localization seems to be key. Pay-to-play MMO decreased by -6%, but shows a slower decline than in other regions. Digital PC ($267m, +9%) grew thanks to full game conversion and average revenue per paying user - there’s wariness toward regular in-game payment and full game spending is preferred. (Superdata, Dec 2014, [link])

• In 2014, Digital Console, smallest market share in region, still grew the most in percentage terms (+23%). (Superdata, Dec 2014, [link])

• In 2014, Mobile, a hype segment in Asia (+30% there) and the third largest in Eastern Europe (mostly Android), still has potential for growth in Eastern Europe, which faced small mobile penetration and doubts about payment security so far. (Superdata, Dec 2014, [link])

Asia digital market

• In Q3 2016, China became the largest national market for iOS App Store revenues overall, earning more than $1.7 billion in the Q3 2016, exceeding the US by around 15%. Games make up approximately 75% of that revenue, in which China has been leading since Q2 2016. (App Annie, October 2016, [link])

• China is the no.1 national market for iOS App Store Games revenues, exceeding the US and Japan revenues in Q2 2016. (App Annie, October 2016, [link])

• The fastest growing public companies by game revenues are all Asian and include Sony, NetEase, Mixi, and Konami. (Newzoo, Oct 2016, [link])

• Asia’s digital games market is expected for 2015 to be worth $19.6bn (+5% from 2014, expected to grow by +8% in 2016) and is dominated by Japan (45% market share, driven by high spending on mobile), followed by China (38%) and South Korea (11%). (Superdata, Apr 2015, [link])

• These 3 countries represent the vast majority of revenues for the region (94%). Mobile (especially in Japan) is the highest revenue generator (59%) followed by F2P MMO (17%, 4 times its P2P
counterpart) and Social (Online, browser-based games played on social platform) (11%).
(Superdata, Apr 2015, Link)

- eWallet is the preferred payment method in Asia (a third of players, 32%, use it) with brands like Alibaba’s Alipay or Tencent’s Tenpay, followed by credit and debit Card (21%) and mobile (16%). (Superdata, Apr 2015, Link)
- Looking at the average mobile revenue per spender in Asia, it’s estimated to be $32.4 in 2015, which is almost 30% higher than the global average, but the conversion rate is one of the lowest globally – it’s high spenders in Japan that drive the ARPPU up. (Superdata, Apr 2015, Link)

Southeast Asia

- “Big 6” countries in region: Indonesia, Malaysia, Philippines, Singapore, Thailand and Vietnam. These 6 cover 88% of the region’s population. (Newzoo, Feb 2015, Link)
- Region’s total games revenues reached $1bn in 2014, Newzoo expects it to reach $2.2bn, more than double, in the 3 years leading to 2017 (an impressive 2013-2017 CAGR of +29%). (Newzoo, Feb 2015, Link)
- In terms of market share: while Thailand will remain first by still growing its market (from 21% in 2013 to 22% market share in 2017), Singapore will lose (from 19% to 12% mkt share) to faster growing countries like Indonesia (from 16% to 21% mkt share) and the Philippines (from 9% to 11% mkt share). (Newzoo, Feb 2015, Link)
- Malaysia: SEA country where playing on multiple screens is the most popular: 26.5% players do so. (Newzoo, Feb 2015, Link)
- Philippines: between 2004 And 2014 internet access grew by more than 800%, the fastest rate in SEA meaning that in 2014 their online population was 42 million. (Newzoo, Feb 2015, Link)
- Singapore: unique in that it has more players aged 36 to 50 than 10 to 20. (Newzoo, Feb 2015, Link)
- Thailand’s games market is expected to more than double in 3 years, from $230m in 2014 to $491m in 2017, for a +31% CAGR. (Newzoo, Feb 2015, Link)

India

- In 2017, mobile game downloads in India are forecast to grow by 111%, while generating less than 1% of global consumer spend. Game developers may need to consider alternative monetization models, like advertising, to thrive in this market. (App Annie, March 2017)

Sweden

- There were 287 active games studios in Sweden in 2016, an increase of 22% on the previous year. (Dataspelsbranschen, September 2017)
- These companies employed 4,267 full-time positions, increasing 15% (558 FTEs) from 2015. The Swedish games workforce is 82% male, 18% female. (Dataspelsbranschen, September 2017)
- Revenue (turnover) of Swedish game developers increased to €1.4 billion in 2016, representing a 100% percent increase since 2010. (Dataspelsbranschen, September 2017)
- Nearly 10 percent of Swedish games companies are working on virtual reality experiences. (Dataspelsbranschen, September 2017)
- 1 in 10 players worldwide have played a game made in Sweden. (Dataspelsbranschen, September 2017)
- Swedish game development looks in good shape: in 2014 its turnover increased by +35%, to reach €930m. The compound annual growth rate for the 2006-2014 period is an impressive +39%. The majority of companies were profitable, and the combined profits were also the largest so far, with a record €353m (+35% vs 2013). (Dataspelsbranschen, Game Developer Index Sept 2015, Link)
• Employment increased by +23%, an additional 583 full-time positions, of which 17% (roughly 100) were hired by newly established companies. This brings the total of employees to 3,117, of which over three quarters (78%) are located in 2 cities: Stockholm and Malmö. (Dataspelsbranschen, Game Developer Index Sept 2015, Link)

• In terms of diversity the number of women has grown by +39%, compared to a +17% for men, and since 2010 the number of women working in games development has increased by nearly 5 times in 5 years. They are mainly found in mid- to large-sized companies. The largest companies are multicultural and have employees representing over 30 different nationalities. (Dataspelsbranschen, Game Developer Index Sept 2015, Link)

• The 5 biggest companies in number of employees represented 52% of all employment and the 5 biggest in turnover accounted for 77% of the whole turnover. (Dataspelsbranschen, Game Developer Index Sept 2015, Link)

• The total value of Swedish game developers was estimated to be over €2.75bn in 2014 (this includes the value of acquisitions). (Dataspelsbranschen, Game Developer Index Sept 2015, Link)

Germany

• As of July 2018, there are 35 games companies in Germany employing over 50 people. The largest employer is Nintendo of Europe at 850 people and the largest developer is InnoGames at 420 employees. (gameswirtschaft.de, Jul 2108)

• 12,726 people were employed in the development and publishing of games at 450 companies in Germany. (BIU, Jan 2017, Link)
As of 31 March 2015, 12,726 people were employed in the development and publishing of games at 450 companies in Germany. ([BLU, Jan 2017](#), [LINK](#))

Of the 450 games companies in Germany, 276 primarily focus on development, while 67 concentrate on publishing. The remaining 107 companies are both developers and publishers. ([BLU, Jan 2017](#), [LINK](#))

Considering the multiplier effect of associated roles such as journalists, government agencies and retail sales people, the number of jobs created by the computer and video games industry in Germany totals 30,231. ([BLU, Jan 2017](#), [LINK](#))

**France**

- In 2015, the turnover of the video game amounted to 2.87 billion euros, making France the third European market for the sector after Germany and the United Kingdom. ([SELL, Jan 2017](#), [LINK](#))

**Italy**

- The Italian trade body AESVI has revealed that the Italian games market was worth $1.8 billion in 2017. ([AESVI, GI.biz, Apr 2018](#))
- €1.05 billion was made from video game software, with a further €428 million from hardware and accessories. ([AESVI, GI.biz, Apr 2018](#))

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• The accessories sector was worth €94 million (driven primarily by controller sales), while console hardware generated €333 million (portable sales made up €16 million of that number). In total, 1.115 million home consoles were sold in Italy last year, and 135,747 portable machines. Retro games devices (such as Nintendo’s SNES Mini) accounted for 86,946 machines. (AESVI, Gi.biz, Apr 2018)

• Physical sales make up 1/3 of the market and generating €370 million. Mobile is the largest segment, accounting for 37% of all game revenue and generating €385 million. Digital console and PC is the smallest area, with a 28% market share, or €294 million. (AESVI, Gi.biz, Apr 2018)

• In Italy 17 million people have had a gaming experience in the last 12 months, of which 59% are men and 41% women. Gaming is a practice that is widespread across all age groups, with a particular concentration on the 25-34 years old group. (AESVI, Gi.biz, Apr 2018)

Turkey

• Turkey has more than 30 million active gamers, spending 70% of their gaming time on PC. (GamingInTurkey, Jun 2018)

• Total Turkish game generated revenue in 2017 was $810m, increasing from $755m in 2016. The 2017 figure is split $437.6m PC / console revenues, $372.4m mobile. (GamingInTurkey, Jun 2018)

• There are approximately 20,000 cyber cafes in Turkey, visited by 7.5m players a month. (GamingInTurkey, Jun 2018)

China

• China will remain the largest market globally, reaching $50.7bn in revenues by 2021. (Newzoo, Jun 2018)

• In 2017, Chinese company Tencent, the largest games company in the world in revenue terms, achieved 97.9bn RMB (approx. $15.35bn) in global online game revenues, growing 38% year-on-year.

• The Chinese video game market was worth $25.6bn in 2016 and is projected to grow to $29bn for 2017. (IHS Markit, June 2017)

• PC accounted for 51 per cent of the total 2016 spend. However, the mobile market grew by 55 per cent last year and is expected to overtake PC before the end of 2017. The console install base remains at under 500k units. (IHS Markit, June 2017)

• Microtransactions account for 88 per cent of the total PC spend. Spending on full PC game downloads has grown from $54m in 2015 to $220m in 2016. China is the fourth biggest global market for full PC game downloads. (IHS Markit, June 2017)

• The Chinese gaming giant Tencent alone claimed 59 per cent of all PC spending in China. (IHS Markit, June 2017)

• Chinese revenues will account for a quarter of all global revenue, growing 9.2% YOY to reach $27.5bn in 2017. (Newzoo, Apr 2017)

• Most of China’s growth will come from mobile gaming, with Tencent and NetEase leading the way. Mobile gaming revenues from these two companies alone reached $7.7 billion in 2016. (Newzoo, Apr 2017)
‘Fantasy Westward Journey’ is perhaps the most successful example of a role-playing game in China, having earned publisher NetEase over $800 million in China alone since its release in 2015. (App Annie, Jan 2017, LINK)

According to Newzoo’s estimation, China has overtaken the US as the world’s largest gaming market at $24.4bn, vs the US’s $23.6bn. With a larger population and gaming yet to reach a mature penetration, we can expect China’s lead to grow over time. (Newzoo, June 2016, LINK)

The Chinese mobile eSports market is dominated by Tencent, one of the largest gaming companies in the world. They currently control 63% of the iOS market and 50% for Android. Their nearest competitor, NetEase controls 5% of iOS and 8% for Android. (Newzoo, June 2016, LINK)

APAC territories will generate $46.6 billion in 2016, or 47% of total global game revenues. This growth represents a 10.7% YoY increase. China alone accounts for half of APAC’s revenues, reaching $24.4 billion. (Newzoo, May 2016, LINK)

The mobile segment in China is growing even faster than estimated and will reach $10.0 billion this year, up 41% from $7.1 billion in 2015. (Newzoo, May 2016, LINK)

China will remain the largest games market for the foreseeable future, growing to $28.9 billion by 2019. (Newzoo, May 2016, LINK)

In 2014, Microsoft reported Xbox One sales of 100k units in China in its first week and aims to sell 1m in its first year. (MCV, Oct 2014, Link)

In 2014, Sony is also expanding in China, aiming to sell 200k machines annually and will start selling Dec 2014. Sony has 2 joint ventures in China’s free trade zone for hardware and software. (MCV, Oct 2014, Link)

In 2014, After 14 years of console ban in China, Xbox One launched there for about $600, without Kinect included. All games on platform need to be approved by Chinese government prior to launch. (GamePolitics.com, Sept 2014, Link)

In 2014, China’s mobile market has exploded and is expected to grow by 93% in 2014 to reach $2.9bn. The strong expansion is forecast to continue with a 2013-2018 impressive 37.6% compound annual growth rate. (Venturebeat, Aug 2014, Link)
South Korea

- The South Korean online gaming sector grew by 14.9 percent to reach 83 billion won ($76.2m / £56.2m) as of 2016. It was 60 billion won (£40.6m) in 2014 and 72.3 billion won (£48.9m) in 2015, according to a report jointly published by the Ministry of Culture, Sports and Tourism and the Korean Creative Content Agency. Korea takes up 14.9 percent of the global market, which is estimated to be worth around $557 billion as of 2016. (Korea Herald, Nov 2017)
- The South Korean online gaming sector’s contribution to the local economy has increased, too, by producing economic production activities worth 163.7 billion won (£110.8m) in 2016, as well as 63.3 billion won (£42.8m) in added value (GVA). In 2015, the figures were 141 billion won (£96.5m) and 54.4 billion won (£36.8m), respectively. (Korea Herald, Nov 2017)
- Mobile sector has grown to become core of the games market (£1.4bn in 2014). (KOCCA, July 2015)
- Trend-oriented game market: some particular genres, especially RPGs, show consistent popularity. Teens, 20s, 30s are main trend setters. (KOCCA, July 2015)
- Main business model is the Free-To-Play model with in-app purchases. Main source of revenue for games is via payments made to access additional content. (KOCCA, July 2015)
- 3rd biggest android game market worldwide. (KOCCA, July 2015)
- Transparent market with verified marketing effect: marketing and promotion are an important factor in forming game trends. (KOCCA, July 2015)
- Influence on other countries: China and South-East Asian countries. (KOCCA, July 2015)
- Essential strategies to enter the Korean market: Marketing, as this is a key factor to get game known, influence trend setters and succeed. The free-to-play model with in-app purchases is king. Localisation is important, in language but also user interface for example. Transform games titles into a brand. (KOCCA, July 2015)
- In 2014, social casual gaming is really strong in South Korea, four of the country’s most influential developers (Com2uS, NCSoft, Nexon, Smugate) are valued at more than $1bn each by investors. Mobile game distribution platforms like Kakao and Line are valued at over $9bn. (Pocketgamer.biz, Oct 2014, [link](http://www.pocketgamer.biz))

Japan

- The console hardware sales experienced a huge spike in 2017 compared to the previous year. In 2016, Japanese hardware sales were 117.05 billion yen (£776m), while in 2017, they jumped to 202.37 billion yen (£1.34bn). Software sales also increased: in 2016, they were 182.4 billion yen (£1.20bn) and the following year, they were 189.3 billion yen (£1.25bn). The last time the Japanese gaming market saw an uptick was in 2006, when the Nintendo DS Lite, the Nintendo Wii, the PS3 launched. (Kotaku/Famitsu, Jan 2017)
- The PS Vita has met success in Japan, selling over 4m units in the country, way more than it has in North America. While Nintendo’s 3DS is the handheld leader, the Vita is not far away. This could be in part due to the success of the PS4, expected to surpass the sales of the best-selling Sony console in history, the PS2. Sony has developed a feature called “Remote Play”, which allows users to stream PS4 games on the Vita. Other reasons to explain success re the work culture of the country, where people don’t get to spend much time at home. Vita may be Sony’s last handheld console, meaning that Nintendo could have a monopoly in the future – unless the Vita sales in Japan continue to grow. (InsideGamesAsia.biz, August 2015, [link](http://www.insidegamesasia.biz))
- In 2014 Japan’s games revenue hit its highest level, at $9.6bn. 60% is made of mobile games businesses, getting a revenue $5.8 (+18% Year-on-Year). When looking at the “online games “ component defined as smart and feature phones, tablets and PC, it was worth $6.4bn (+13% Year-on-Year). (Insidegamesasia.biz and Famitsu, June 2015, [link](http://www.insidegamesasia.biz))
Australia

- In Australia, digital games developers employed 734 people at the end of June 2016, an increase of 26.3% since 2012. 63% of those roles were made up of visual effects/animation, game designers and computer programmers. (ABS, June 2017)
- 15% of the Australian digital game developer workforce is female, increasing from 8.7% in 2012. (ABS, June 2017)
- Australia’s game development industry earned $114.9 million in the 2015-16 financial year, with 81% of revenue derived from overseas markets.
- 78% of Australian game developers project business growth in FY2016-17, with nearly two-thirds planning to employ additional staff.
- The industry employed 842 people in FY2015-16, of which programmers (33%), artists (24%) and management, administration and marketing (20%) made up the majority.
  The Australian game development industry is concentrated in Melbourne, with 51% based in the Victorian capital, followed by Sydney (14%) and Brisbane (13%). 24% of respondents started their studio in 2012, and 14% in 2014. (IGEA GDA, December 2016, LINK)
Australian Video Game Development

AN INDUSTRY SNAPSHOT FY 2015-16

# OF STUDIOS: 63  # OF EMPLOYEES: 842  TOTAL REVENUE: $114.9M

81% OF INCOME WAS FROM O/SEAS SALES/ACTIVITIES (EXPORT)

78% ARE PREDICTING GROWTH NEXT YEAR, WITH 41% EXPECTING SIGNIFICANT GROWTH

51% OF COMPANIES ARE INDEPENDENT GAME DEVELOPERS, EXCLUSIVELY DEVELOPING OWN IP

42% OF COMPANIES ARE DEVELOPING THEIR OWN IP AND ALSO PRODUCING GAMES OR PROVIDING SERVICES FOR CLIENTS

EMPLOYEES

33% ARE PROGRAMMERS

24% ARE ARTISTS

8% ARE DESIGNERS

2% ARE AUDIO ENGINEERS

20% ARE IN MANAGEMENT, ADMIN AND MARKETING

CHALLENGES FACING THE INDUSTRY

LACK OF GOVERNMENT SUPPORT AND UNDERSTANDING

HIGH SPEED INTERNET ACCESS

ATTRACTING INVESTMENT FOR EXPANSION

EARLY STAGE DEVELOPMENT FUNDING

SKILLS SHORTAGES

DIGITAL GAMES DEVELOPMENT FOCUS

60% IOS

45% ANDROID

40% CONSOLE

21% PC

9% VIRTUAL REALITY

POPULAR MARKETS

USA  EUROPE  ASIA

COMPANY LOCATION

13% BRISBANE

14% SYDNEY

51% MELBOURNE

(IGEA GDAA, December 2016, [LINK])