



# The economics of the video games industry

#### Prepared by Jean Paul Simon for the Innovation & Regulation in Digital Services Chair/ IPTS workshop Paris September 13, 2011

Based on the teamwork "ASSESSING THE COMPETITIVENESS OF THE EU VIDEOGAMES SOFTWARE" by Marc Bogdanowicz, Giuditta de Prato, Claudio Feijoo, Daniel Nepelski, Jean Paul Simon.

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- by developing science-based responses to policy challenges
- having both socio-economic and scientific /technological dimension









# The global video game market Climbing up the value chain Conclusions





# The global video game market



Source: Funcom



#### Global video games markets, 2010





Source: PWC, Entertainment and Media Outlook, 2011





- > A young industry,
- But already a growing share of the media and content industries.
- The global video game market is estimated at some 55 billion US \$,
- and is expected to grow four times faster than the media and entertainment market to which it belongs.
  - The former one is expected to grow by to over 82 billion US \$ by 2015, whereas the latter one is expected to grow by only 17%.
    - ✓ The video game market already outgrew the cinema market in the US (2001) and in the UK (2009).
    - ✓ Outgrew recorded music in 2006, over twice the size in 2009.





	2006	2007	2008	2009	2010p	2011	2012	2013	2014	2015	2011-15 CAGR
Global video games <sup>†</sup>											
Advertising	660	1,032	1,361	1,574	1,845	2,075	2,310	2,530	2,765	2,967	10.0
End-user spending											
North America	9,981	12,492	15,507	14,426	14,175	14,669	15,155	15,639	16,334	17,568	4.4
EMEA	11,353	14,031	16,555	16,109	16,407	17,180	18,209	19,326	20,532	21,945	6.0
Asia Pacific	11,394	14,449	17,154	19,339	21,866	24,029	27,111	30,651	34,401	38,187	11.8
Latin America	720	940	1,159	1,187	1,237	1,340	1,438	1,547	1,655	1,769	7.4
Total	33,448	41,912	50,375	51,061	53,685	57,218	61,913	67,163	72,922	79,469	8.2
Total	34,108	42,944	51,736	52,635	55,530	59,293	64,223	69,693	75,687	82,436	8.2

†At average 2010 exchange rates.

Sources: PricewaterhouseCoopers LLP, Wilkofsky Gruen Associates

Source: PWC, Entertainment and Media Outlook, 2011





- Asia Pacific is now the biggest market for video games: over 19 billion US \$ as of 2009, over 38 billion forecasted for 2015
  - With three of the top four countries: Japan n°1, China n°2, and South Korea n°3.
  - China became n°2, overtaking S.Korea in 2010.
  - The on line game segment is growing very fast in China, overtaking Japan in 2011
    - ✓ Nearly 15 billion US \$ forecasted for 2015 v. US 17

#### **EMEA** is ranking second: over 16 billion US \$ as of 2009

- France, Germany, Italy, Spain and UK, in 2009, accounted for 15.2 billion dollars nearly 30% of the global video games market (PWC 2009).
- As the market is unevenly developped throughout the EU, there is room for further growth
- As underlined in the European Competitiveness Report 2010, the EU still does not have a clear comparative advantage in the fast-growing video games sector,
- but has nonetheless made considerable progress





2006	2007	2008	2009	2010p	2011	2012	2013	2014	2015	2011-15 CAGR
660	1,032	1,361	1,574	1,845	2,075	2,310	2,530	2,765	2,967	10.0
20,041	25,793	30,690	28,817	28,066	28,605	29,626	30,832	32,326	34,815	4.4
5,458	7,500	9,866	11,858	14,190	16,327	18,945	21,972	25,224	28,390	14.9
4,746	4,604	4,297	3,900	3,902	3,794	3,747	3,707	3,637	3,574	-1.7
3,203	4,015	5,522	6,486	7,527	8,492	9,595	10,652	11,735	12,684	11.0
33,448	41,912	50,375	51,061	53,685	57,218	61,913	67,163	72,922	79,469	8.2
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	660 20,041 5,458 4,746 3,203 33,448	660      1,032        20,041      25,793        5,458      7,500        4,746      4,604        3,203      4,015        33,448      41,912	660      1,032      1,361        20,041      25,793      30,690        5,458      7,500      9,866        4,746      4,604      4,297        3,203      4,015      5,522        33,448      41,912      50,375	660      1,032      1,361      1,574        20,041      25,793      30,690      28,817        5,458      7,500      9,866      11,858        4,746      4,604      4,297      3,900        3,203      4,015      5,522      6,486        33,448      41,912      50,375      51,061	660      1,032      1,361      1,574      1,845        20,041      25,793      30,690      28,817      28,066        5,458      7,500      9,866      11,858      14,190        4,746      4,604      4,297      3,900      3,902        3,203      4,015      5,522      6,486      7,527        33,448      41,912      50,375      51,061      53,685	660      1,032      1,361      1,574      1,845      2,075        20,041      25,793      30,690      28,817      28,066      28,605        5,458      7,500      9,866      11,858      14,190      16,327        4,746      4,604      4,297      3,900      3,902      3,794        3,203      4,015      5,522      6,486      7,527      8,492        33,448      41,912      50,375      51,061      53,685      57,218	6601,0321,3611,5741,8452,0752,31020,04125,79330,69028,81728,06628,60529,6265,4587,5009,86611,85814,19016,32718,9454,7464,6044,2973,9003,9023,7943,7473,2034,0155,5226,4867,5278,4929,59533,44841,91250,37551,06153,68557,21861,913	660      1,032      1,361      1,574      1,845      2,075      2,310      2,530        20,041      25,793      30,690      28,817      28,066      28,605      29,626      30,832        5,458      7,500      9,866      11,858      14,190      16,327      18,945      21,972        4,746      4,604      4,297      3,900      3,902      3,794      3,747      3,707        3,203      4,015      5,522      6,486      7,527      8,492      9,595      10,652        33,448      41,912      50,375      51,061      53,685      57,218      61,913      67,163	6601,0321,3611,5741,8452,0752,3102,5302,76520,04125,79330,69028,81728,06628,60529,62630,83232,3265,4587,5009,86611,85814,19016,32718,94521,97225,2244,7464,6044,2973,9003,9023,7943,7473,7073,6373,2034,0155,5226,4867,5278,4929,59510,65211,73533,44841,91250,37551,06153,68557,21861,91367,16372,922	660      1,032      1,361      1,574      1,845      2,075      2,310      2,530      2,765      2,967        20,041      25,793      30,690      28,817      28,066      28,605      29,626      30,832      32,326      34,815        5,458      7,500      9,866      11,858      14,190      16,327      18,945      21,972      25,224      28,390        4,746      4,604      4,297      3,900      3,902      3,794      3,747      3,707      3,637      3,574        3,203      4,015      5,522      6,486      7,527      8,492      9,595      10,652      11,735      (2,684)        33,448      41,912      50,375      51,061      53,685      57,218      61,913      67,163      72,922      79,469

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Sources: PricewaterhouseCoopers LLP, Wilkofsky Gruen Associates

Source: PWC, Entertainment and Media Outlook, 2011





- The North America is the biggest market for console and handheld video games: almost 12 billion US \$.
- The EMEA region is the second and the Asia-Pacific region third largest market for console and handheld video games.
- Online and wireless video games are the fastest growing segments
  - surpassing off-line PC games, handheld video games, trailing only console games in the medium-term future.
- Online games will total US \$28.4 billion in 2015 (from \$ 11.8 in 2009, and wireless games US \$12.7 billion (from \$ 6.5 billion in 2009) (PWC).
  - A compound annual growth of 14.9 % for on line and 11% for wireless(2011-2015).



# Value of hardware and software by segment, 2011-2015



11

#### World video game market, 2011-2015

(Millions EUR)



Source: IDATE, 2011





- The value of console hardware is dropping
- The value of console software increasing and exceeding hardware, the gap will grow
- Similar relations are to be found for handheld devices
- With an even greater gap





# Climbing up the value chain



**Source: Funcom** 



#### The traditional view



14









- Small studios, gathering multidisciplinary teams around the creation of the games.
- Companies are numerous:
  - a highly fragmented segment
  - This is a common feature of most « creative industries »
- European companies are rather well represented among the top developer companies worldwide.
- A numerous population of highly creative small development studios is observed mainly in the UK, France, Germany, the Nordic countries and to a lesser extent in Spain.
  - Within Europe, UK is an absolute leader with 23 out of the 27 European top ranking companies.
  - Ubisoft (France) comes as first non-UK European developer company at rank 39.
- Some developers, publish their own games and therefore can be regarded as publishers and developers.
  - This is for example the case for a majority of the Norwegian developers



Source: IPTS

- US: produced 43,9% of the total of middleware modules. EU: produced 39,6% of modules
- ROW: 16,5% (14 out of 35 being developed by firms in Canada). The EU has an enviable range of actors in software layers (OS,  $\succ$
- middleware)
  - An important population of middleware producers
  - It also supplies a large share of world's middleware needs e.g almost dominant in South Korea (EGDF)





- The high initial fixed cost for developing video games make the publishers the financial operators of the industry
  - Basically, the publisher's position is one of taking the financial risks. Under two main models:
    - ✓ Work-for-hire
    - ✓ Royalty advance
  - Diversifying the risk through portfolio management, Some independent publishers.
- They act as "gatekeepers" to select the product reaching the market
- US and Japanese companies (Microsoft, Sony...) hold the lead in the publishing stage of the video games value chain.
- > Among the top world 20 video games publishers, there are only two European firms: Ubisoft and Atari, both headquartered in France
  - In sharp contrast to the newspaper and books industries
  - Paris-headquartered Vivendi is the majority owner of Activision-Blizzard, the world's largest game publisher and owner of the Call Of Duty & World Of Warcraft franchises.





- No specialised « integrated » outlets under the brand name of big companies
  - As opposed to say Disney stores
- Role of big retailers (Wal-Mart, FNAC) v. specialised shops for « aficionados »:
  - still room for independant retailers?
- The switch to digital distribution drastically cuts the need for physical logistics.
  - altering the cost structure.
- A whole part of the legacy business is disappearing, this segment is heavily impacted
- Independent applications stores are growing
- And online retailers and game sites replacing off line retailers: e.g Gameforge





#### The most common value chains of video game industry



Source: EGDF, 2011





- 70% of the market (economic weight)
- The overall importance of PC video games have been decreasing and this trend is likely to continue.
- The size of the console and handheld video games market is expected to grow.
  - For example, by 2013 the value of console and handheld video games sold in the North America and EMEA regions is expected to reach 15,535 and 14,497 million US dollars respectively.
- High entry barriers still reduce the competition in the handheld market to two big players: Nintendo and Sony.
- Three main actors in the console market: Microsoft joins the two other giants of handheld devices games.
- Tablets and smartphones will play a growing role introducing some competition







## An oligopolistic of structure of the market/ High entry barriers

- In the handheld market, two big players: Nintendo and Sony.
- Three main actors in the console market: Microsoft being added.

## > The structure of the industry is still a work in

- progress:
  - The relative position of each player in the value chain is not stabilized (hardware producers, game developers, publishers, software producers)

✓ Publishers and platform hardware owners tend to dominate





#### One of the disruptive trends in the video games business is the emergence of new actors

- coming from different businesses,
- or the short-cutting of existing actors in oligopolistic position.
- With emerging opportunities, new companies might become essential intermediaries in the video games value chain,
  - such as on-line portals (Google, Yahoo, pogo.com),
  - On-line social networks: see the key role of Facebook for the success of Zynga
  - internet service providers,
  - or Telecom Services or Telecom equipment manufacturers companies (e.g. Nokia),
  - and IT manufacturer (Apple) with the growing role of smartphones and tablets

#### The emerging games ecosystem (2)







## **Conclusion**



Source: Funcom





- Born digital/ grown digital, the digital native is growing fast
- In less than 40 years, software games developed from scratch into a significant industry
- With revenues and investments giving the video games industry a relevant position among other mainstream media industries
- and may become one of the lead engine for growth for the entertainment segment
  - Paving the way for new immersive form of entertaiment?







### A new market dynamic is created

- as it also allows entering new partnerships with other organizations (movie industry, sports organizers...)
- and more lifestyle partners, opening up new experiences.

#### > The business model is a key issue:

- Finding the appropriate business model : on-line, mobile
  ✓ Role of advertising?
- or renovating an (already) former one
- Technological achievements, gaming diffusion across ages and competitive pressure ended up changing the market,
- Disruptive technologies on the horizon?
  - Natural user interfaces removing the last barrier to gaming and entertainment ?



#### Technology: the wild card



27



Source: Eli Noam





# Thanks

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