CBI
Ministry of Foreign Affairs

IT trends in the EU

SOFTWARE

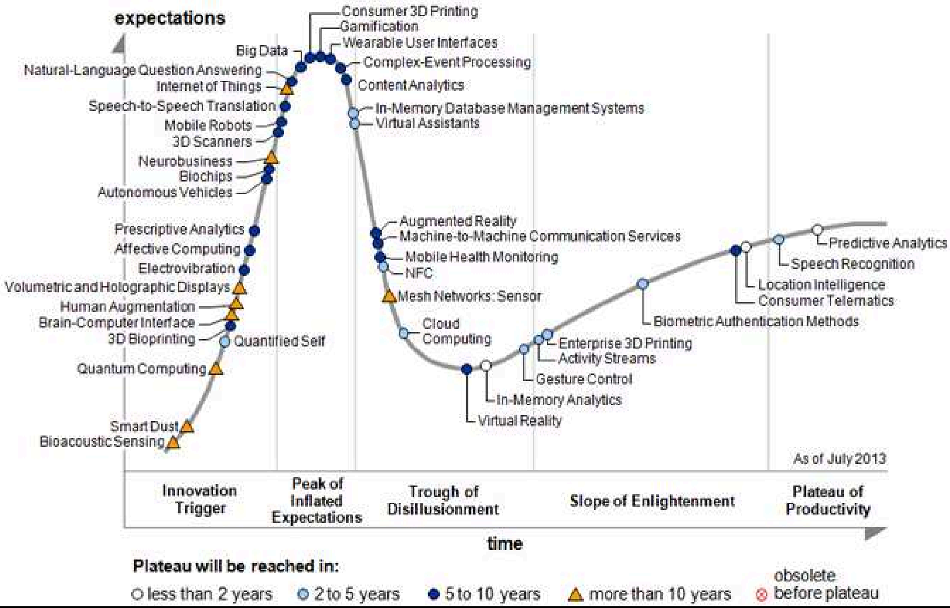
Software and ITO

- Economic crisis: no growth of IT spending in the EU
- **Cloud computing**
- **Mobile applications**
- Social application
- **Big data**
- Information security
- Internet of Things
- EU: 30% of total – global - IT spending (largest: Germany, UK, France)
- Companies want to deal with a local vendor

Software products

Global market for finished software products (based on 2011 figures, assuming a 6,4% CAGR)		Yearly (Billion Euros)		
	2011	2012	2013	2014
Latin-America	40 SaaS: 0,43	43 SaaS: 0,53 24% growth	45	48
Main markets in Europe:				
UK		13,8	14,7	15,7
Germany		14,9	15,8	16,9
France		12,8	13,6	14,5
Benelux		7,4	7,8	8,3
Spain		8,1	8,6	9,2

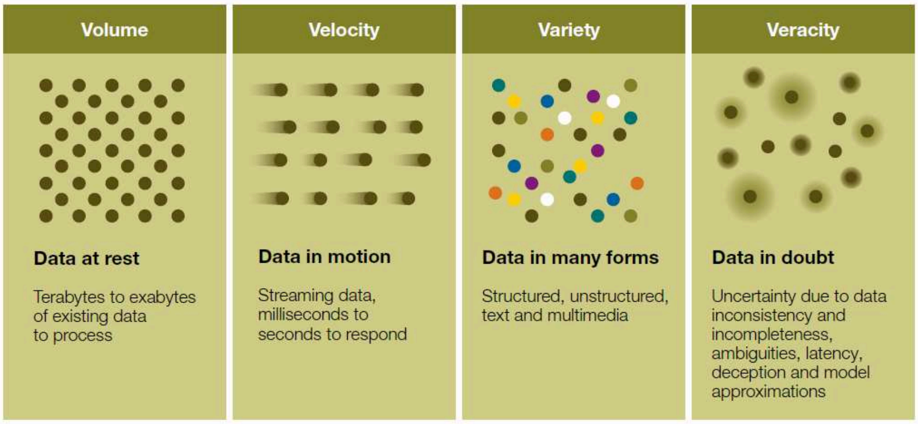
Emerging Technologies Hype Cycle 2013



Cloud computing

The practice of using a network of remote servers hosted on the Internet to store, manage, and process data, rather than a local server or a personal computer.

Big Data



… is the term for a collection of data sets so large and complex that it becomes difficult
to process using on-hand database management tools or traditional data processing applications. The challenges include capture, curation, storage, search, sharing,

Internet of Things

… refers to uniquely identifiable objects and their virtual representations
in an Internet-like structure.

Trade events

MANY

SOFTWARE SERVICES

Software services - ITO

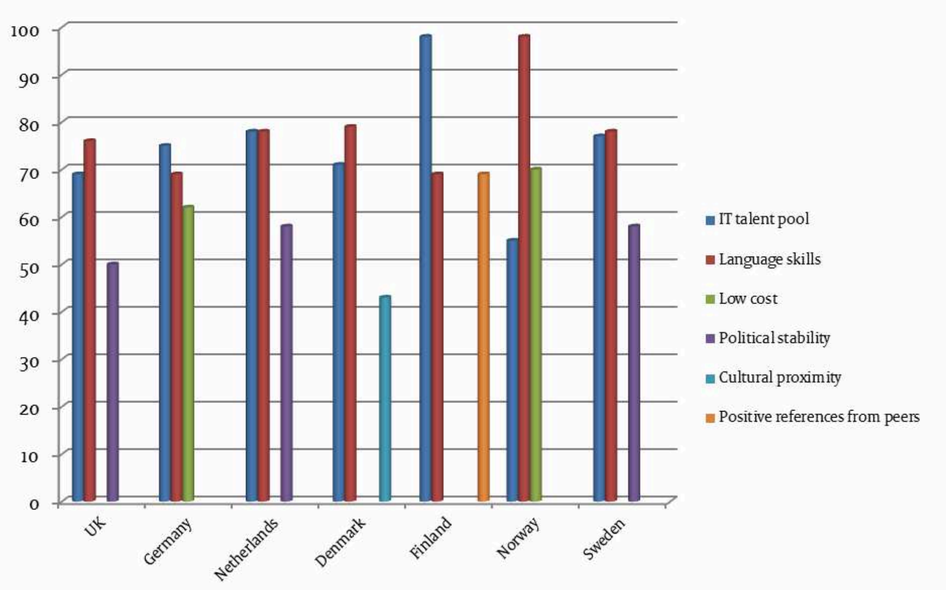
- Price is important but not the first selection criteria
- Quality and access to people are the most important:
  - for instance, Germany was lacking around 88,000 employees with ICT skills in 2011 and 77% of the Austrian companies reported difficulties in recruiting talent in the technology field.
- Size does matter
- Privacy and IPP
- Near-shore is preferred
- Financial crisis:
  - ITO (software) sector growth around 3 %
  - Smaller projects
  - OPPORTUNITIES!

Software services - ITO

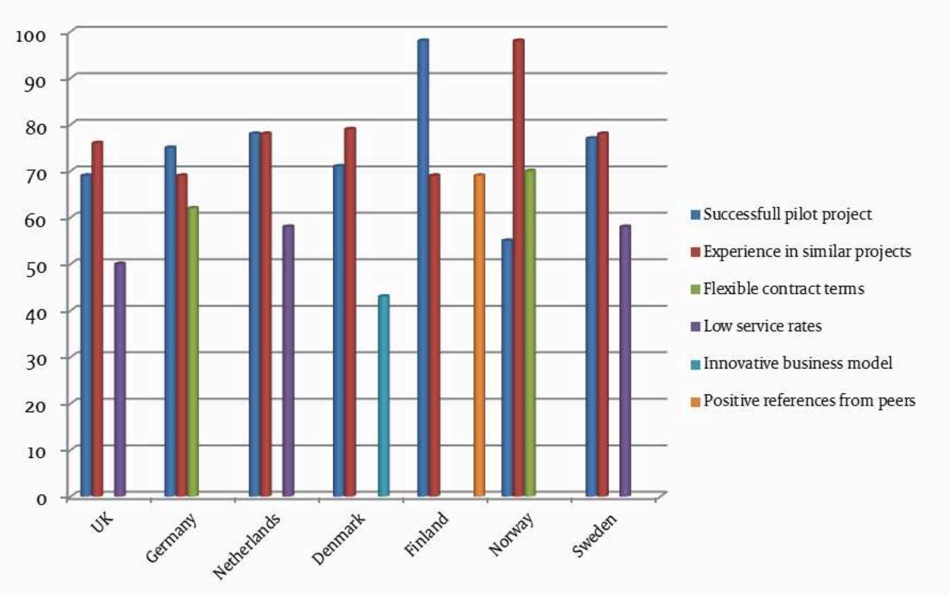
- **Specialist are welcome**!
  - what is a specialist in ITO service provider?
- Agile development is getting popular
- Small ITO projects: Elance, ODesk, Mechanical Turk
- 10% back-sourcing in 2012

Quality models and certification

- It is like your university degree
- Most common ones in ITO
  - ISO 9001: 2008 – generic quality management system
  - ISO 27001 - information security
  - ISO 12207:2008 - software lifecycle process

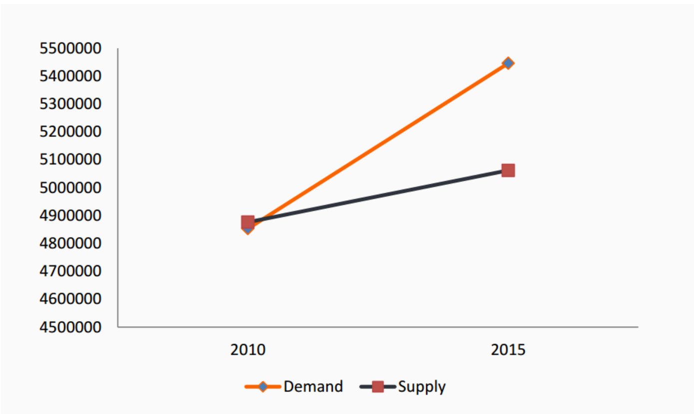


Most important ITO destination selection criteria

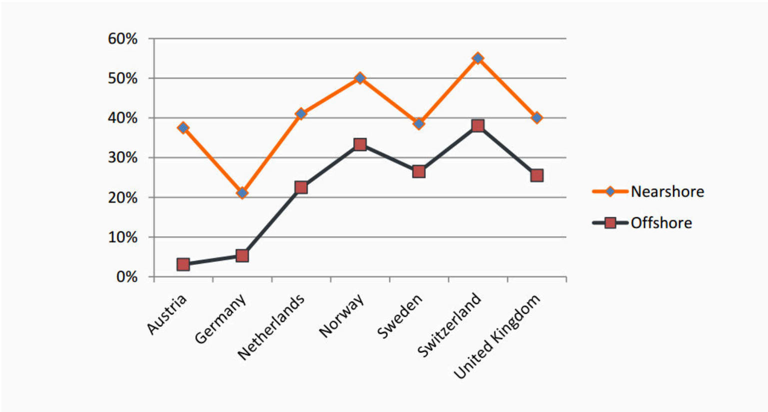


Most important ITO supplier selection criteria

Demand for / supply of e-skills within the EU



Where to outsource (2012 – 2013)



Mobile applications

- Everything goes mobile
- Emerging Mobile OS:
  - (Android, iOS, Windows mobile)
  - Mobile Firefox OS
  - Jolla
  - Mobile Ubuntu
  - Tizen (Samsung + Intel)
- A remote control for the Internet of Things

Global market for Software development (IT outsourcing) (based on 2011 figures, assuming a 3.1% CAGR)		Yearly (Billion Euros)		
	2011	2012	2013	2014
North America	84,5	87	90	93
Asia Pacific	77,6	80	83	85
Europe	66	68	70	72

Global market for Software development (IT outsourcing) (based on 2011 figures, assuming a 3.1% CAGR)		Yearly (Billion Euros)		
	2011	2012	2013	2014
Latin-America	42	43	44	46
Main markets in Europe:				
UK	11	11,5	11,9	12,2
Germany	12	12,4	12,8	13,2
France	10,3	10,6	11,0	11,3
Benelux	6	6,1	6,3	6,5
Spain	6,5	6,0	6,2	6,4

Trade events

MANY

for specialists

- Many vertical and horizontal focused events
- Few events for “generalists”

- CEBIT
- Mobile World Congress

Digital animation

Digital animation

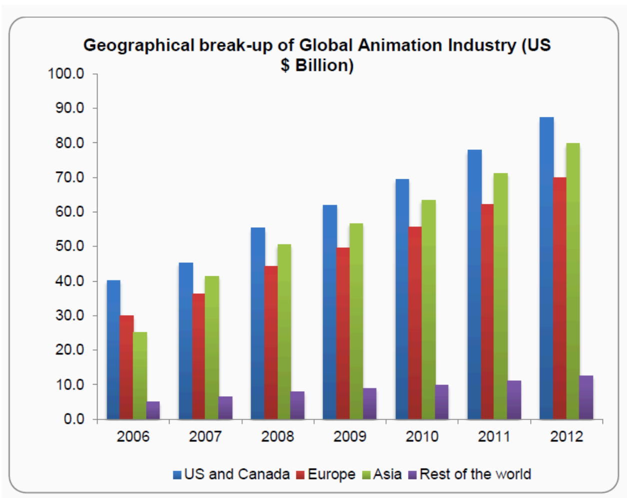
- Convergence with gaming and audio visual production
- One of the fastest growing sub-sector (13%)
- Major markets: France, UK, Germany, Spain
- Government and EU support / tax breaks / funding
- Copyright, IPP
- Outsourcing: “**Everything is happening in Asia**” – mostly 2D and some 3D. Spain is also emerging as an outsourcing destination

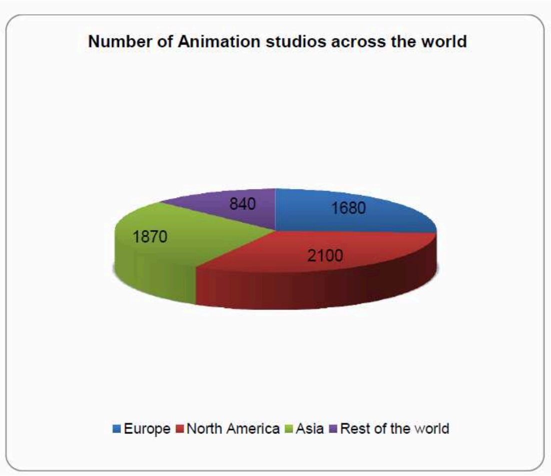
Drivers for outsourcing

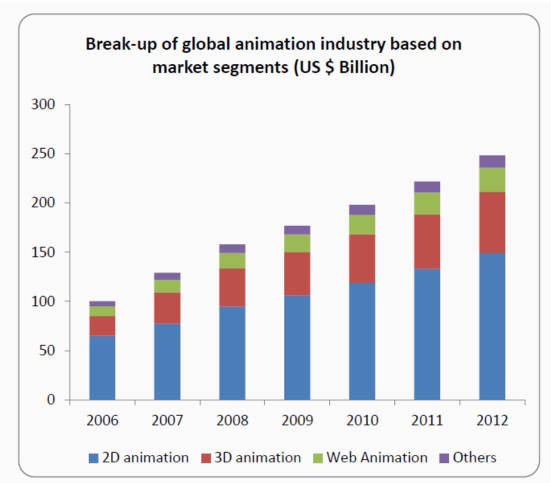
- Lower costs
  - Hardware, software, staff, telecommunication
- Innovation in offshore project management
  - New workflow systems (e.g Digital Production Solutions’)
  - Web based tools (PM, communication…)
- Global skills development online
- Electronic marketplaces (eLance, Odesk…)
- Tools over certification

Large number of tools to master

- **2D**: CAS Animo, Toon Boom Digital Pro, Toon Boom Storyboard, TV Paint TVP Animation
- **3D**: Autodesk Maya, 3ds Max und Softimage XSI, Maxxon Cinema 4D, NewTek Lightwave, Side Effects Houdini
- **Compositing**: Adobe After Effects, Autodesk Toxic & Combustion, Eyeon Digital Fusion, The Foundry Nuke
- **Games**: Adobe CS5 Flash, Crytek CryEngine 3, iPhone Developer Kit, Natural Motion Endorphine & Morpheme, Unity Pro Game Development
- **Interface Design**: Arduino Boards, Meso Digital vvvv, Troikatronix Isadora, University of Genoa Eyes Web
- **Rendering**: Chaos Group V-Ray, Mental Images Mental Ray, Pixar Renderman, Solid Angle Arnold
- **Software Development**: Microsoft Visual Studio, The MathWorks Matlab, Xoreax IncrediBuild




Number of Animation studios across the world
840
1680
1870
2100
Europe
North America
Asia
Rest of the world

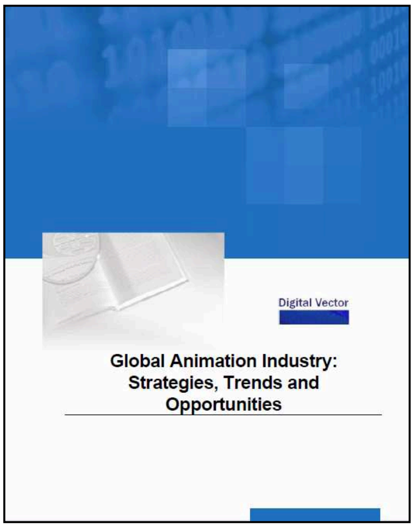

Break-up of global animation industry based on market segments (US $ Billion)
300
250
200
150
100
50
0
2006
2007
2008
2009
2010
2011
2012
2D animation
3D animation
Web Animation
Others

Animation outsourcing

	IPR and Content Development	Pre Production	Production	Post Production	Marketing Distribution and Exhibition
Activities	• Identification of an existing IP or generation of a new idea • Involves asset procurement, fund scheduling, and integration of resources	• Preparation of the script, character design, storyboard layout development	• Development of specifica-tions regarding the character, background paint, inking and painting and visual effects	• Final sound recording, color editing, testing and special sound effects	• Promotion, distribution video DVD release and cinema and TV screening
Percentage Effort	5%	10%	45%	30%	–
Outsourcing	Emerging	Emerging	High	Medium	–

Trade events

- IBC
- LIAF

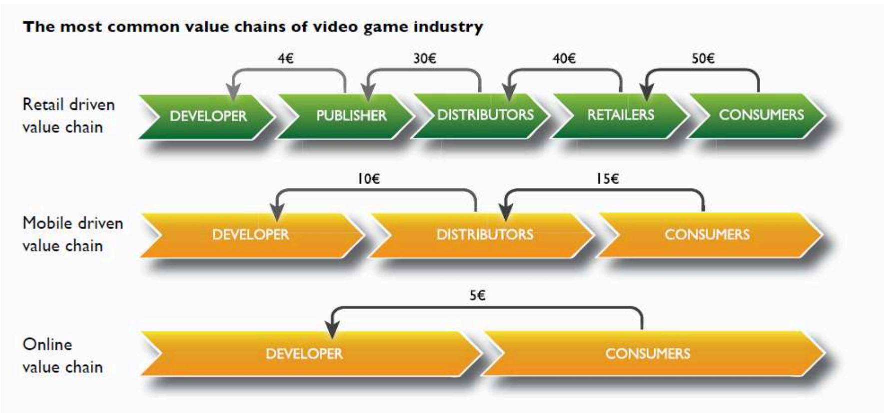

Digital Vector

Global Animation Industry:
Strategies, Trends and
Opportunities

VIDEO GAMES

Video games

- Most publishers are;
  - Japanese (Nintendo, Sega, Sony…)
  - American (Microsoft, Activision - Blizzard, EA…)
- Online, mobile and social are the most important platforms
- Over the past decade, Europe has measurably lost much ground to countries such as Canada and South Korea
- Main EU markets: Germany, UK, France, Italy, Spain
- Major console platforms: Wii - Nintendo, Play Station - Sony, X-Box - Microsoft,

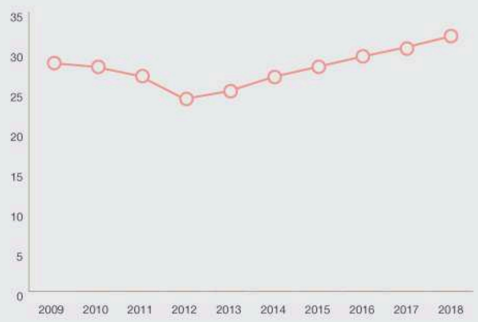


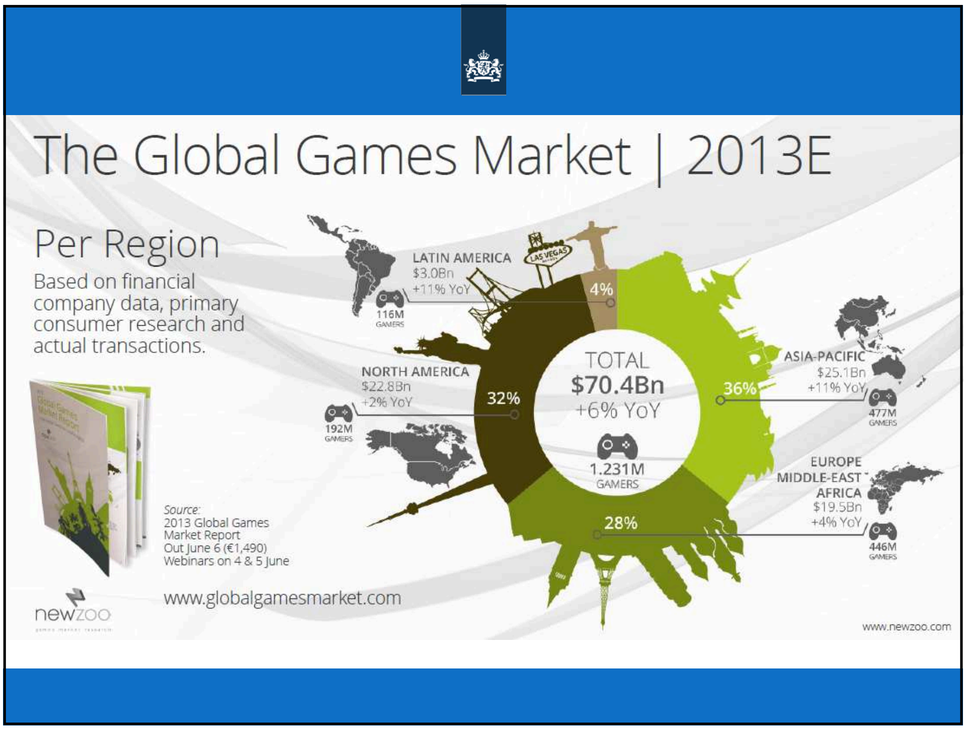
Gaming value chain

Concept creation & feasibility testing	Pre Production	Development	Post production & testing	Gold release	Final Testing / Porting	Consumer
• Involves concept creation • Publisher validates the concept and identifies the market opportunity	• Creation of story board 3-D Pre-production, character drawing • Game engine decision (for console, PC and online)	• Programming • 3-D Art asset building: This includes character modeling, se design & modeling texturing	• Involves final sound recording, color testing and special sound effects	• The final build is delivered to the publisher	• Game made compatible with various graphic cards/ mobile handsets (for mobile games)	

Fig. 2: Console games revenue to shake off decline and see growth throughout the forecast period

Total console games revenue (US$bn), 2009–2018




The Global Games Market | 2013E
Per Region
Based on financial company data, primary consumer research and actual transactions.
LATIN AMERICA
$3.0Bn
+11% YoY
116M GAMERS
4%
NORTH AMERICA
$22.8Bn
+2% YoY
192M GAMERS
32%
TOTAL
$70.4Bn
+6% YoY
1.231M GAMERS
ASIA-PACIFIC
$25.1Bn
+11% YoY
477M GAMERS
36%
EUROPE
MIDDLE-EAST
AFRICA
$19.5Bn
+4% YoY
446M GAMERS
28%
Source:
2013 Global Games Market Report
Out June 6 (€1,490)
Webinars on 4 & 5 June
www.globalgamesmarket.com
newzoo
www.newzoo.com


The Global Games Market | 2013E
Per Segment
Based on financial company data, primary consumer research and actual transactions.
PC BOXED
DOWNLOAD
$6.0Bn
-7% YoY
9%
CASUAL / SOCIAL
$6.6Bn
-2% YoY
9%
MOBILE
$12.3Bn
+35% YoY
18%
TOTAL
$70.4Bn
+6% YoY
1.231M GAMERS
CONSOLES
$30.6Bn
-1% YoY
43%
MMO'S
$14.9Bn
+14% YoY
21%
Source:
2013 Global Games Market Report
Out June 6 (€1,490)
Webinars on 4 & 5 June
www.globalgamesmarket.com
newzoo
www.newzoo.com

Number (in million) and percentage of gamers per 'platform'													
	PC/Mac boxed				Console games					Mobile devices			
	2011		2012		2011		2012			2011		2012	
GER	26	73%	24,7	64%	25	70%	22,4	58%		22	62%	23,5	61%
UK	16	52%	16	47%	21	66%	25	76%		20	65%	24	71%
FR	13	55%	10,9	43%	18	75%	19	75%		13	55%	14,3	56%
IT	9,2	66%	8,5	46%	10,1	72%	13,3	72%		8,2	59%	12,1	65%
ESP	9,3	62%	7,9	46%	12,2	81%	13,0	76%		10,2	68%	12,9	76%
NL	3,7	47%	3,0	38%	4,4	55%	4,6	58%		3,2	40%	4,4	55%
BE	2,1	53%	1,9	43%	2,4	60%	2,6	59%		1,9	48%	2	46%

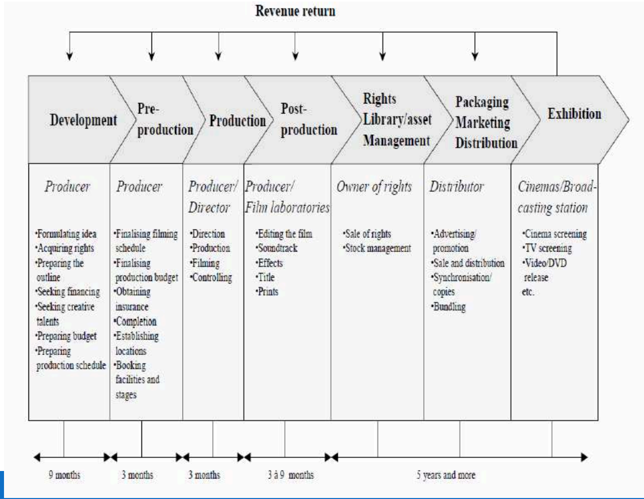
Trade events

- Game Developer Conference
- GamesCOM
- Nordic Games
- Festival of Games
- EGX London
- E3 Expo – Electronic Entertainment Expo(USA)

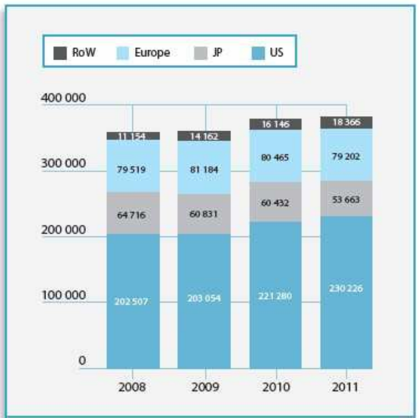
Film - Television - Video on Demand

AUDIO - VISUALS

Value chain – film industry



Global AV market



2008-2011 USD million.

	2007	2008	2009	2010	2011	2011/10	Sources
Broadcasters net revenues	71 359	69 678	68 806	72 445	73 134	*1.0%*	OBS
Public broadcasters (incl. radio)	33 463	32 139	33 177	33 709	33 650	*-0.2%*	OBS
Advertising TV	21 063	20 732	18 905	21 150	21 381	*1.1%*	OBS
Thematic channels	9 317	9 484	9 900	10 592	11 224	*6.0%*	OBS
Home shopping channels	2 564	2 393	2 384	2 443	2503	*2.5%*	OBS
Regional and local TV *est.*	1 255	1 360	1 309	1 317	1 203	*-8.7%*	OBS
Private radio (est.)	3 696	3 570	3 131	3 234	3 172	*-1.9%*	OBS
Consumers expenses for AVMS distribution services (incl. taxes) [1]	25 750	26 667	28 159	31 956	33 738	*5.6%*	OBS
Cable	10 867	11 214	11 368	12 081	12 478	*3.3%*	IHS Screen Digest
Satellite	13 561	13 473	13 821	15 570	16 082	*3.3%*	IHS Screen Digest
IPTV	882	1 382	2 016	2 866	3 653	*27.5%*	IHS Screen Digest
DTT	440	598	954	1 439	1 525	*5.9%*	IHS Screen Digest
Cinema gross box-office	5 596	5 613	6 080	6 372	6 431	*0.9%*	OBS
Physical video (incl. taxes)	10 367	9 347	8 429	8 117	7 538	*-7.1%*	OBS
DVD retail [2]	8 661	7 741	6 740	6217	5 555	*-10.6%*	IHS Screen Digest
DVD rental [2]	1 646	1 360	1 143	1010	873	*-13.6%*	
Blu-ray disc retail [2]	58	231	506	808	998	*23.6%*	IHS Screen Digest
Blu-ray disc rental [3]	2	16	41	83	112	*35.5%*	
VoD Online revenues (incl. taxes)	61	124	221	422	616	*45.7%*	OBS
On line on demand TV revenues	46	97	162	304	421	*38.6%*	IHS Screen Digest
On line on demand film revenues	15,2	27,2	59,6	118,7	194,9	*64.1%*	IHS Screen Digest
Games (offline and online)	8 817	10 430	10 168	10 496	10 464	*-0.3%*	IHS Screen Digest
Total	*121 950*	*121 858*	*121 864*	*129 809*	*131 920*	*1.6%*	OBS

[1] Includes TV subscription, PPV and VoD revenues.
[2] Data related to 17 countries.
[3] Data related to 15 countries.

European Audiovisual Observatory

European audio – visual market (2007 – 2011)

Trade event

- IBC

http://www.obs.coe.int/