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# THE ROAD TO E-SERVICES: ONLINE AND MOBILE GAMES AS ENABLERS

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for Innovation session of the Serious Gaming and Social Connect Conference,
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- by developing science–based responses to policy challenges

- having both socio-economic and scientific /technological dimension

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# Summary

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- A disruptive segment in a dynamic industry
- Value chain and business models evolution
- Online value creation
- Going mobile: the role of platforms for developpers
- Conclusions: e-lab for future e-services

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## A disruptive segment in a dynamic industry

*Source*: Funcom

## Global video game spending



Source: PWC, Entertainment and Media Outlook, 2012

## Regional features



- **The Asia-Pacific region became the largest market as of 2010 (PWC, 2011) and is expected to be the fastest growing during the next five years.**
  - Three of the top four countries are located in that region.
    - ✓ China overtook South Korea that same year and ranks third behind the United States (over 15 US$ billion according to PWC, 2011 but a total of US$ 25 including hardware and accessories according to US industry sources, ESA 2011) and Japan.
  - EMEA is still rating second with a market of 16.9 billion US$ in 2010.
- **Asia leads for on line and mobile games.**
- **PC video games are significant in Europe,**
- **North America is the number one market for console and handheld video games, and**
- **The market remains (1.3 billion US$ in 2010) and will remain modest (1.8 billion in 2015) in Latin America for the size of its economy especially with fast growing economies like Brazil.**

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## Shares of video game market, by segment, 2011 – 2015

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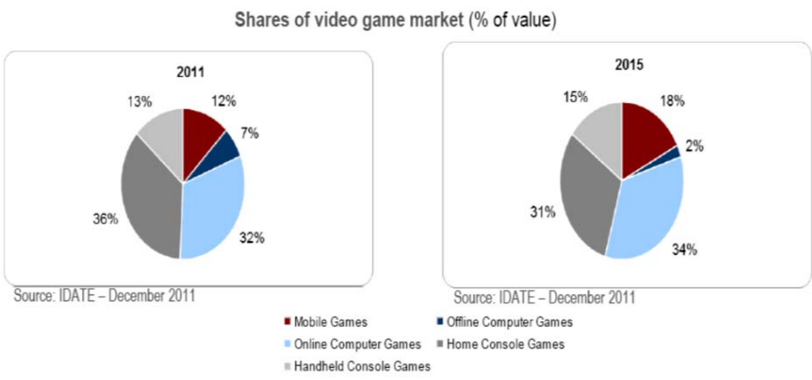


*Source:* IDATE 2011

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## ➢ Online value creation

Source: Funcom

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# The growth of online games

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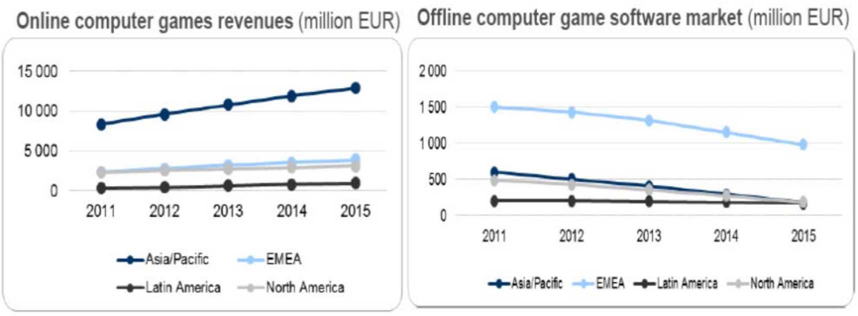


Source: IDATE – December 2011

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# Online games: Bus.models in(re)construction

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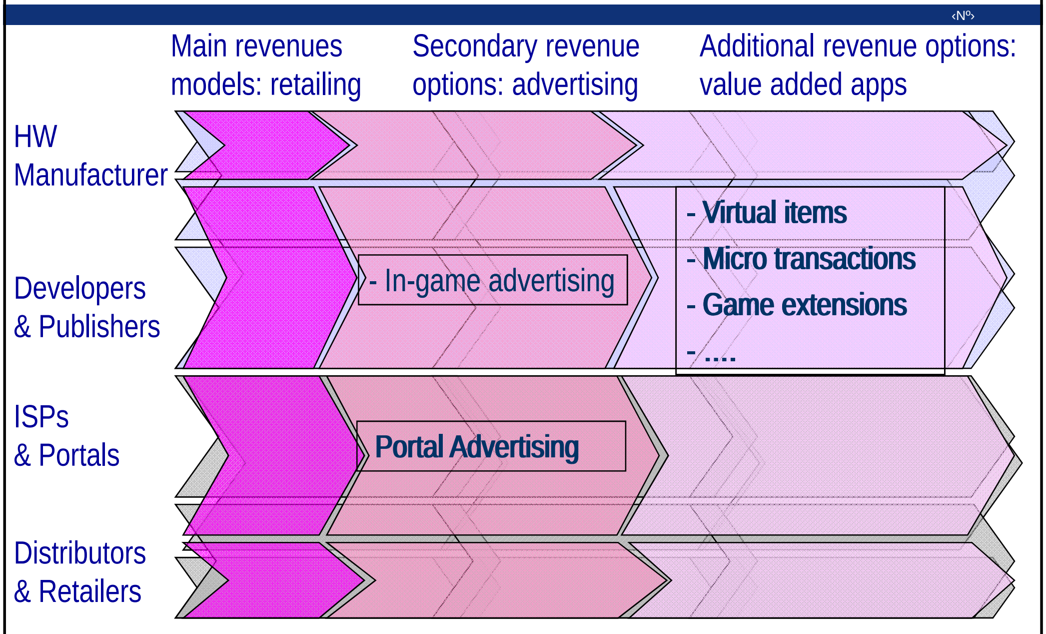

## Online games: trends



| | |
|---|---|
| **Actors:** | new role of portals/aggregators<br>new opportunities for studios |
| **Value chain:** | re-organisation:<br>disintermediation<br>re-intermediation |
| **Business models:** | different distribution of revenues<br>new streams of revenues (virtual items, micro transactions…) |
| **Demand:** | wider age range, higher nr of users, social networks, communities.. |
| **Technologies:** | not technology driven,<br>but technology enabled.. |



- **Going mobile: the role of platforms for developpers**


*Source*: Funcom

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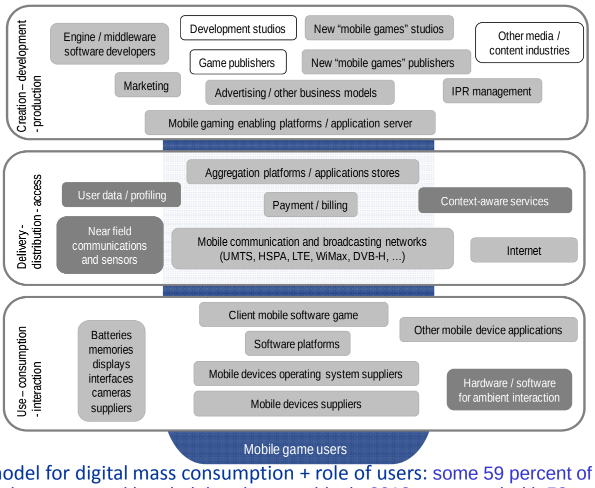
# The ecosystem




- ➔ **Three-stage** model for digital mass consumption + role of users: some 59 percent of mobile device owners have played a game on either their handset or tablet in 2012, compared with 52 percent in 2011
- ➔ **Market power**: game publishers, mobile operators, handset suppliers and app platforms
- ➔ **Complex** structure due to layers of technical and business specifications
- ➔ **Multiple** choices (adv & disadv) for game developers



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# The software platforms (1/2)

| Platform | Main constituents | Main strategies | Main gate-keeping roles |
|---|---|---|---|
| Apple | iPhone-iPod-iPad + OS X<br>App Store<br>iTunes<br>SDK | Closed model with tight control over hardware, software and applications | Development environment<br>Provisioning / brokerage<br>Charging and billing |
| Nokia | Nokia devices<br>Ovi<br>Symbian / SDK | Increasingly open model with control of software and hardware developemnt | Development environment<br>Provisioning / brokerage |
| Google | Nexus One + other devices<br>Android marketplace<br>Android / SDK | Open model with control of software development | Development environment<br>Profile / identity / context<br>Provisioning / brokerage |
| RIM | Blackberry<br>Blackberry Store<br>RIM / SDK | Closed model with tight control over hardware, software and applications | Development environment<br>Provisioning / brokerage<br>Charging and billing |
| Microsoft | Windows Marketplace<br>Windows Mobile / SDK | Closed model with tight control over software development | Development environment |
| Linux | Linux for mobile | Open model with loose control over software development | Development environment |
| Sun | J2ME | Relatively open model with control over software development | Development environment |
| Qualcomm | BREW | Closed model with control over software development | Development environment |
| Mobile operators in general | Mobile networks<br>Portals<br>Handsets subsidising | Closed model with control over hardware and networks | Provisioning / brokerage<br>Profile / identity / context<br>Charging and billing |

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# Smartphones, the new platform

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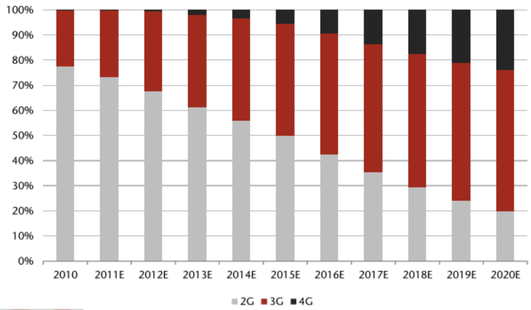
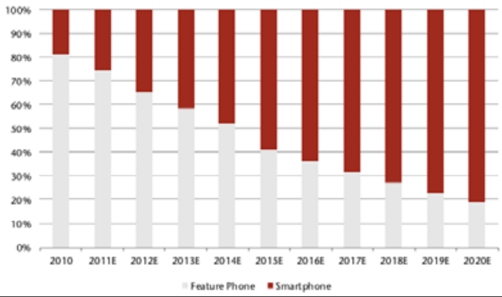
- Increasing availability (and affordability) of mobile broadband
- In 2015 half of the subscriber base will be in 3G/4G, and 80% in 2020 (27% in 2011)
- 7.6 billion mobile users by 2020 (5.4 billion in 2011). Mobile subscribers per 100 inhabitants: 99%.




Source: Jefferies (2011)




- Increasing availability (and affordability) of smartphones
- In 2020 81% of phones sold globally will be smartphones (2.5 billion) from 26% in 2011 (400 million)
- 595 million tablets in 2020 (70 million in 2011)



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# The rise of the app economy

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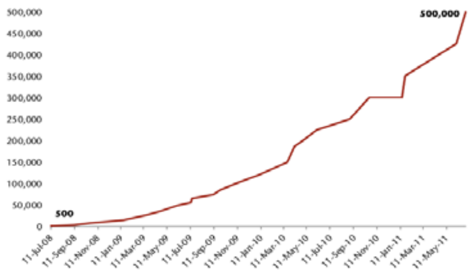
- In three years (2008-2011) the number of apps available for download in the Apple platform has grown from 500 to 500,000

- App stores have changed the value chain of software (distribution and pricing), and also the industries of music, books, games, …
- How to control a platform? Proprietary vs. "open but not open". The gateway roles (customers, developers, advertisers, …)




Source: Apple (2011)

➔ App stores vs. mobile web browsers

➔ Mobile platforms as multi-sided markets

➔ Market power with regard to developers, advertisers and consumers

# Conclusions



## ➢ e-lab for future e-services


*Source*: Karl M. Kapp



# e-lab for future e-services



- ➢ <u>very advanced technologies</u>
  - motion recognition, engines, virtualisation..
    .. and much more
- ➢ It may change rapidly: WILDCARD
- ➢ Affecting business and market

Let the showdown of video-game motion sensors begin

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Enlarge MTV Games/Microsoft Game Studios

Feel the rhythm: The Xbox 360's Kinect system puts your moves on-screen as you play *Dance Central*.

By Brett Molina and Mike Snider, USA TODAY

With today's arrival of Microsoft's hands-free Kinect, each of the latest generation of video-game systems has caught the more intuitive motion-sensing wave the Wii started four years ago. Analyst Michael Pachter of Wedbush Securities estimates 2 million Kinect and PS3 Move control units could be sold this holiday season, enticing new players. USA TODAY compares and contrasts the systems.

MICROSOFT KINECT

**Price:** Out today, $150 for Kinect sensor and *Kinect Adventures* game, which has activities such as obstacle courses, river rafting and a full-body Breakout game called Rallyball. Sensor works with all current Xbox 360 systems.

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## e-lab for future e-services

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- **Spillovers in services !**
  - eHealth
  - edutainment
  - e-gov services
  - “applied games”

**innovative business models allowing novel ways to monetize the service**

- **Convergence is happening..**
  - Sony PlayStation 3 can use DVD or Blu-ray
  - Havok engine was used for the Matrix trilogy
  - Singer Lady Gaga and Zynga created Gagaville
  - Gaming on connected TV
  - Machinima.com: annual video views, 2.3 billion in 2010 on YouTube

- **The functioning interactive content in a 3D internet world..**
  - 3D technology finding its way in mobile devices and handheld consoles: 11 million units forecasted in 2014

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## Paving the way toward e-services

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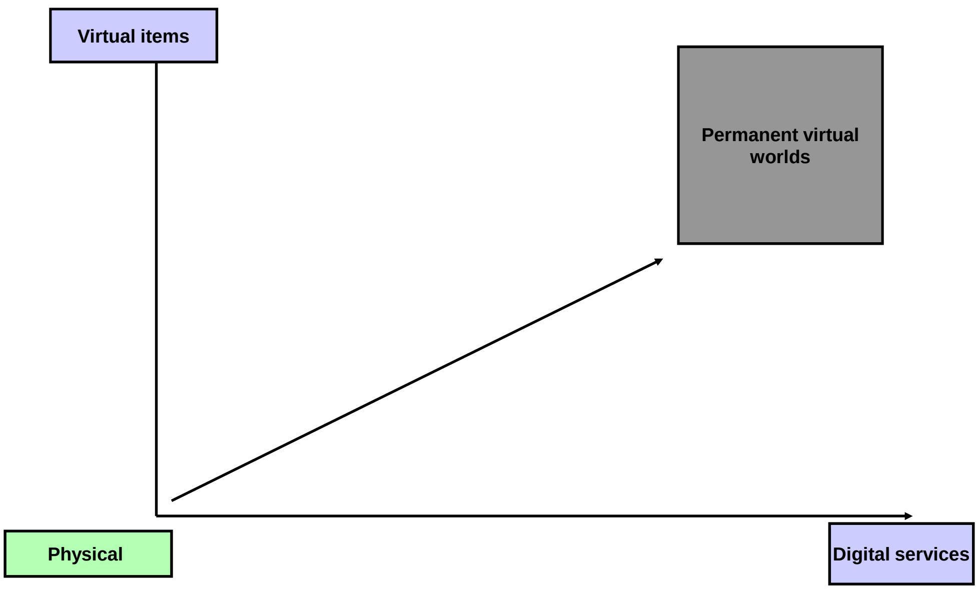

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Full report available at:
**http://is.jrc.ec.europa.eu/pages/ISG/COMPLETE.html**

## Thanks

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*Source*: Desclozeaux

## The COMPLETE Project

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The report is part of the COMPLETE Project (2007-2010):

Objectives: Analyse the future competitiveness of the EU ICT sector in emerging ICT technologies.
COMPLETE aims at producing 6 reports, focused on the future industrial European competitiveness in the following emerging technologies:


WEB 2.0,
Displays,
RFID,
Robotics,
Video Games Software
Embedded Software in automotive
Semiconductor design with DG INFSO.

COMPLETE is co-financed by JRC-IPTS and DG ENTREPRISE and INDUSTRY of the EC.

Related Publications and more information at: http://is.jrc.ec.europa.eu/pages/ISG/COMPLETE.html
More on the Information Society (IS) Unit: http://is.jrc.ec.europa.eu