

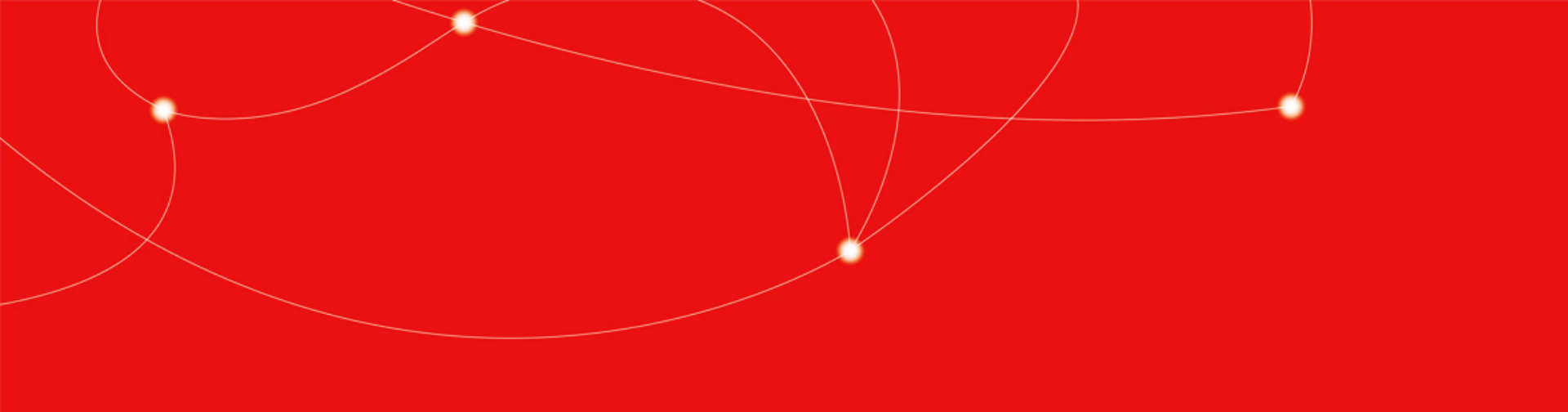
GRUPPO TELECOM ITALIA

W3C Track@WWW2011
Hyderabad

WAC and W3C technologies

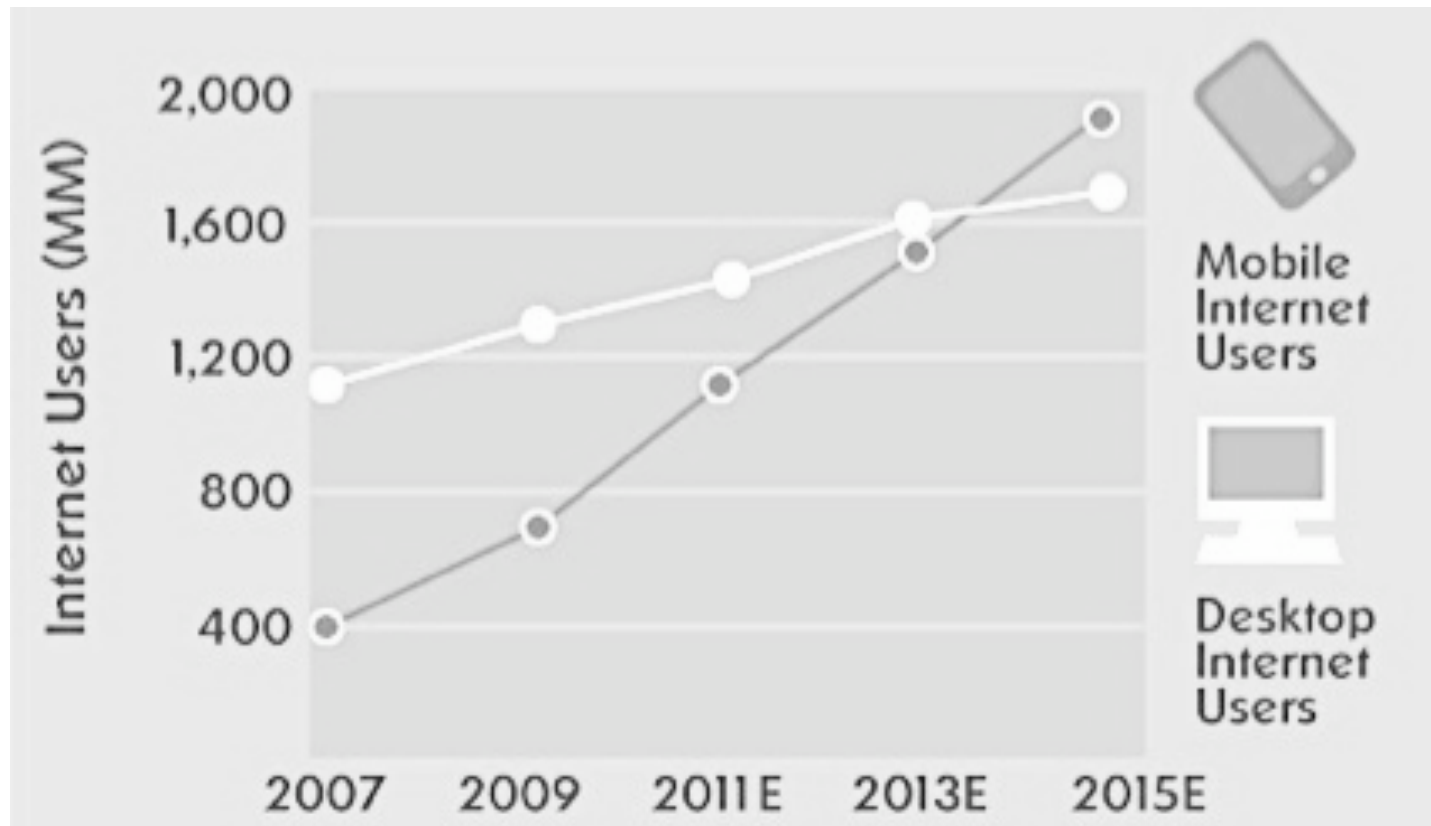
Mobile Web Applications Camp

Telecom Italia
Strategy and Innovation
Claudio Venezia



By 2013, says Herlihy, Google vice president of Global Ad Operations, the desktop PC will be irrelevant, and the smart phone will be the platform of choice for most Internet use

Mobile's internet usage is going to take over desktop's



Source: comScore 2010

Smartphone sales have already overtaken PC Sales



PC: 400M pieces 2010
sales stable

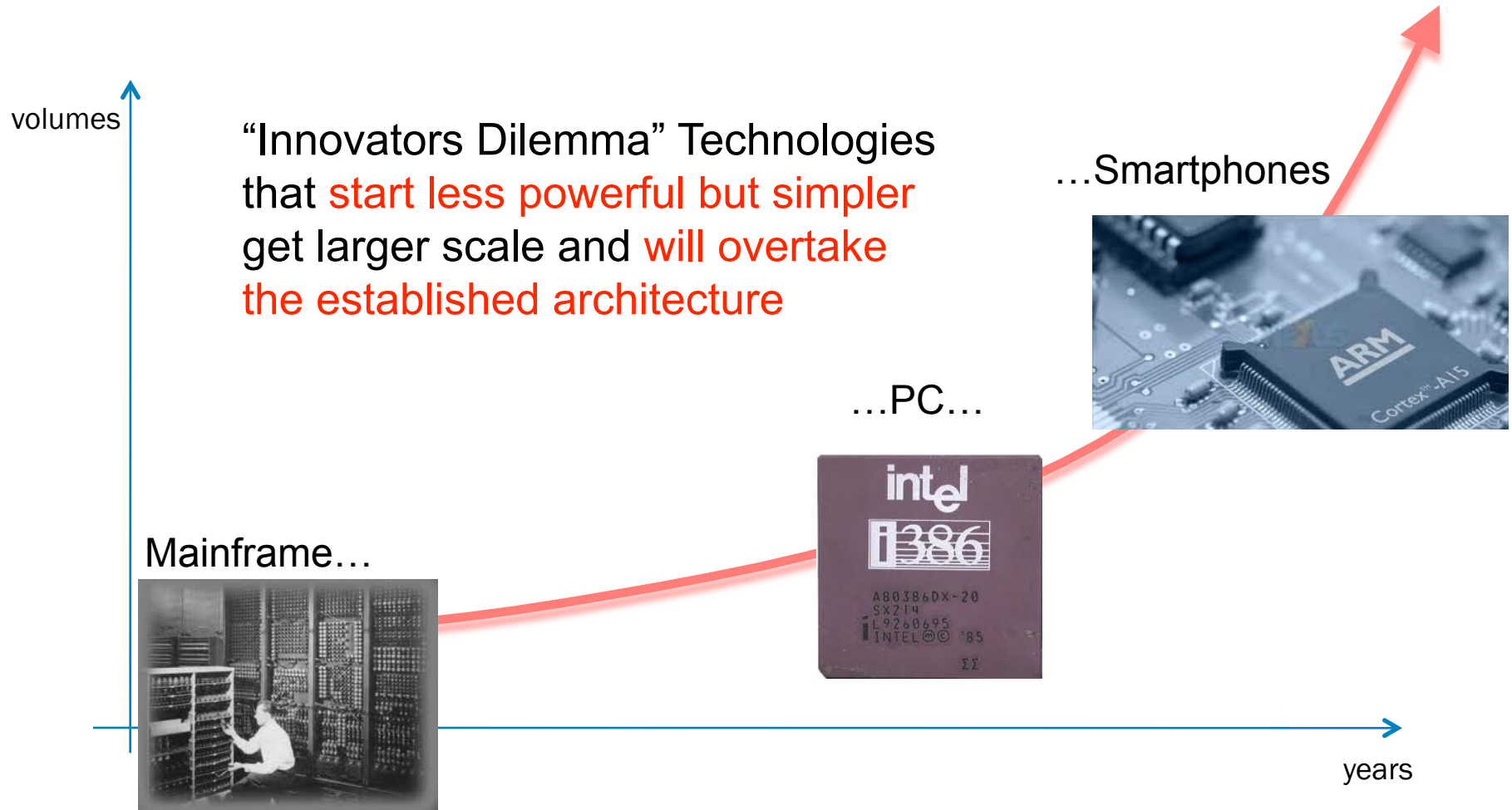
Smartphones: 500M in 2011,
+20% YoY



- Implications on Business Models, Communications, Social Networks, Ecommerce/Transaction
- Strategic implication: Mobile Drives Volumes, Semiconductors, Technology

Source: <http://www.engadget.com/2011/02/08/idc-says-100-9m-smartphones-sold-in-fourth-quarter-pcs-outsold/>

Strategic transformation of ICT driven by mobile technologies



Mobile Web: further indicators

- One half of All local searches are performed on mobile devices
- In US, on average, people spend **more time socializing on their mobile device than eating**
- About 1/3 of Social Networking activity is being performed by mobile devices

Source: comScore 2010

How will the Web Infrastructure Adapt?

Which is the **timing** for that?

Desktop's environments are still a strictly required success criterium for specs?

Fell into temptation to port Browser experience on mobile

Today Experiencing the
Web from mobile browser
is like skiing on the sand

Design's best practices
help but don't solve



Traditional Web browsing through tight and costly pipes

Users accessing the Web via 3G inevitably incur in unwanted costs for the amount of redundant downloaded data while getting to the required information

Apps have much higher usability than Web sites

- Small screens
- Unpractical input
- Download delays even with a 3G service
- Mis-designed sites
- Better exploitation of the available 3G pipe: lower costs, lower waiting time, win win
- Easy to map Web information sources of interest

Mobile Web: what is it about?

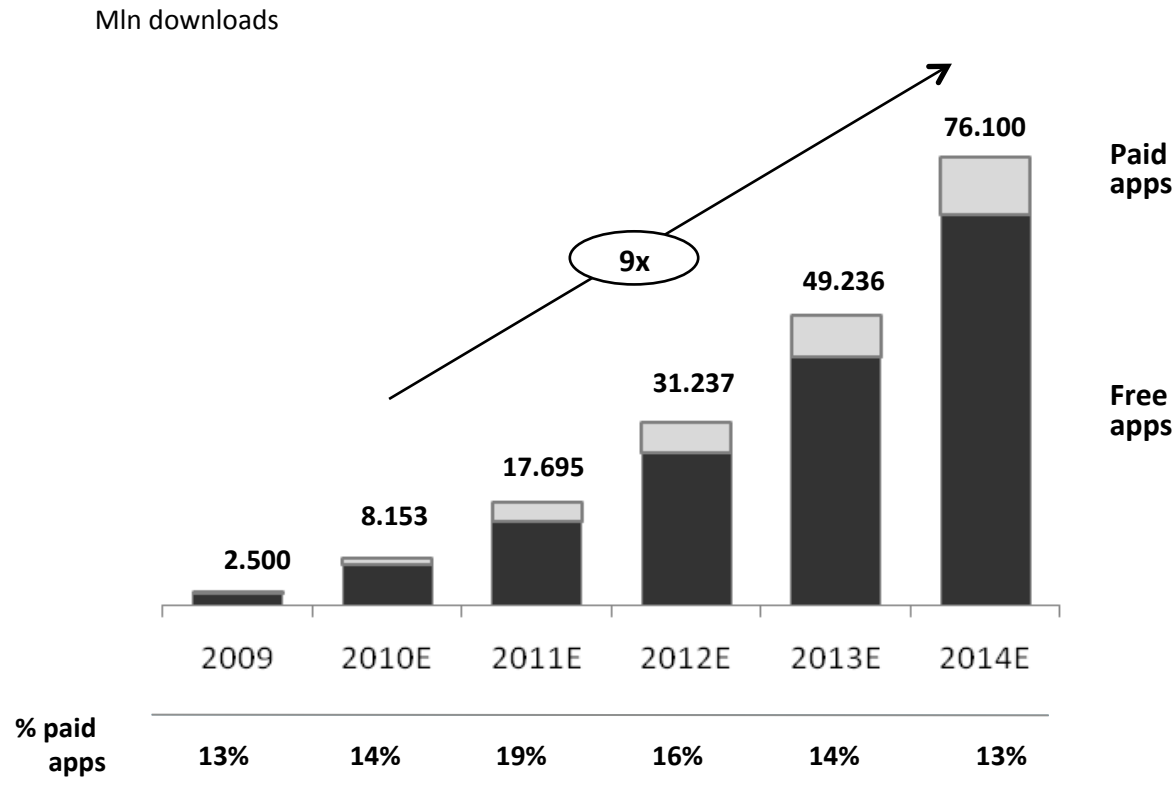
- Adapting the Web to mobile (.mobi, Wap...)
- Or finally bridging Web and mobile experiences?

Mobile Apps: a history of two tales

- Native apps (iPhone, iPad, Android, RIM, Symbian etc)
- HTML5 Apps (Mobile Web, Widgets)

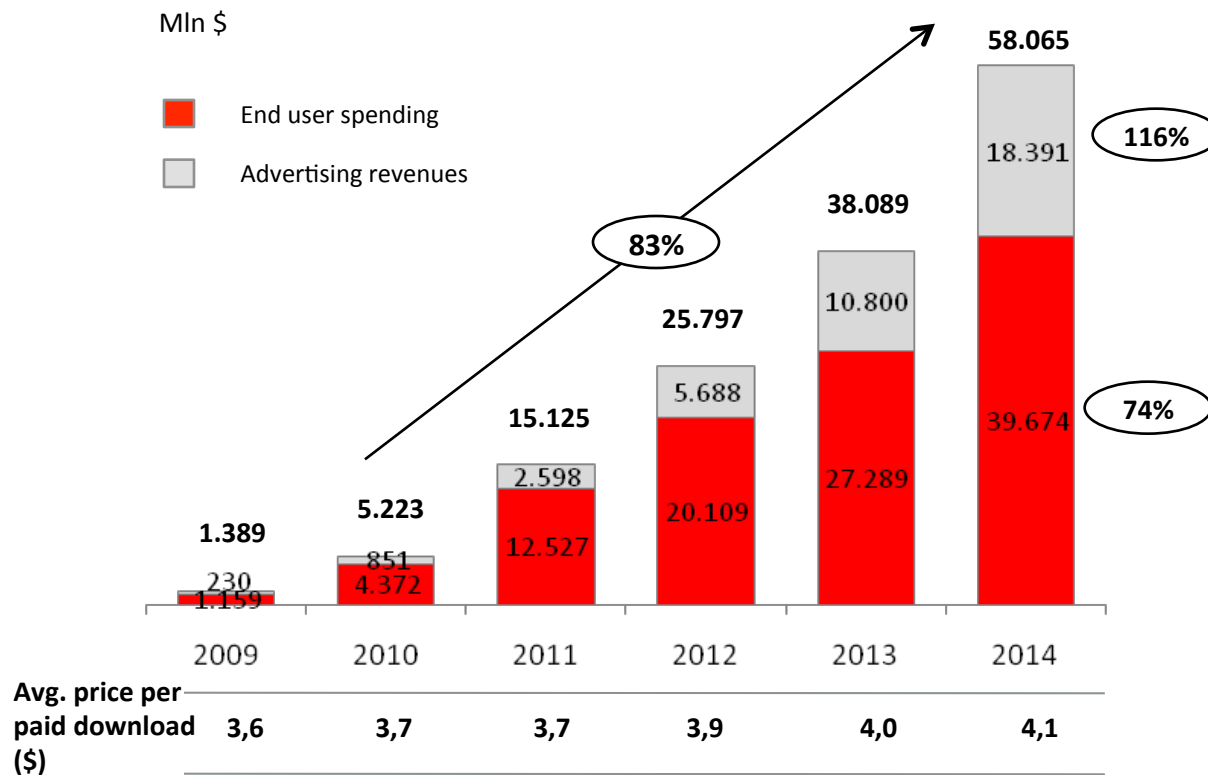
And the second has to be concretely started

Mobile Application Stores Downloads trends, Worldwide, 2009-2014



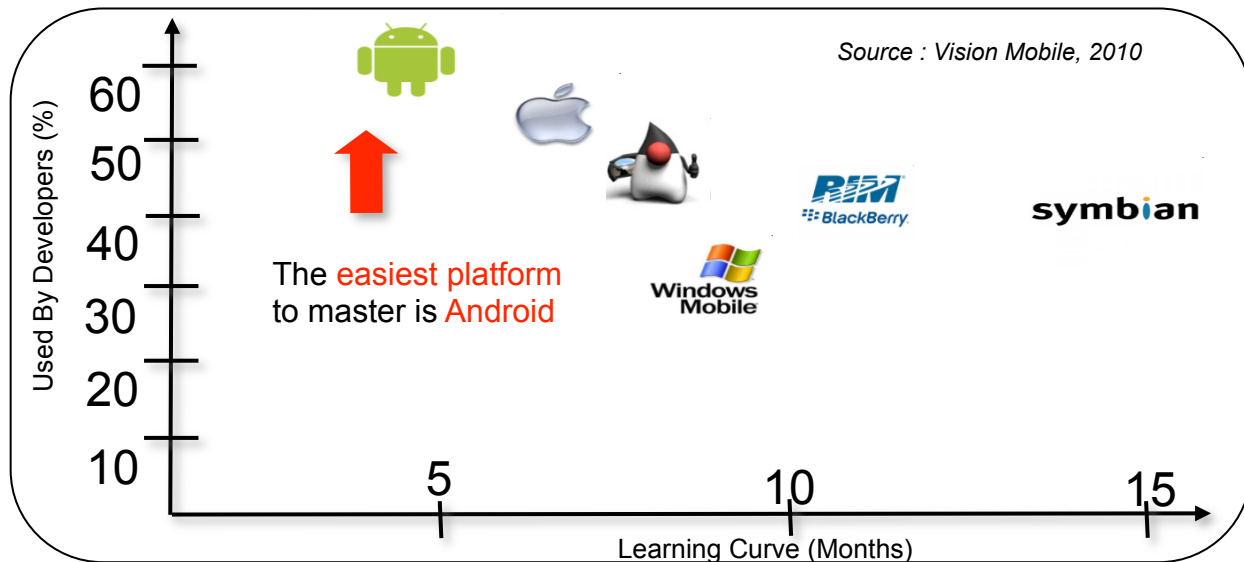
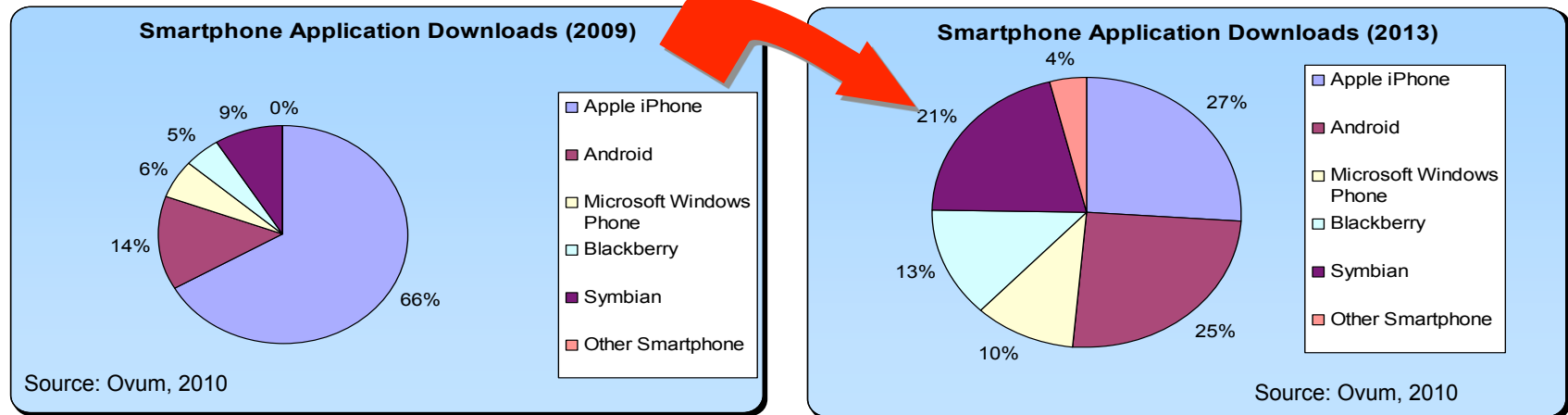
Source: Gartner dec. 2010

Worldwide Mobile apps revenues trends, Worldwide, 2009-2014



Source: Gartner dec. 2010

Mobile App Frameworks: Downloads and Development



Mobile Native Apps are setting the pace and providing the requirements

- Access to device API
- Micropayments
- Offline usage
- Distribution via app stores – trustiness – Identity Management
- Handling of heavy graphics
- Bridging between virtual and physical spaces

Choosing between Native and Web App

Without at least **standard and secure access to device services** it is an unfair competition since the beginning

Mobile HTML5 Apps (Mobile Web, Widgets)

- Are supposed to fill the gap, HTML5 is doing great (Web Workers, Local Storage, Video, Web Sockets, New Semantic Elements)
- Interoperability is painful even on desktops
- Work is fragmented (Web App WG, HTML5, DAP WG)
- Coordination is not easy
- Timing is a problem
- Best practices' identification may not be enough to provide a consolidated view

WAC

- Launched in February 2010, the Wholesale Applications Community (WAC) is an open global alliance formed from leading organisations **within the telecoms sector**.
- Telecom Italia is part of the Board of Directors

WAC
wholesale applications community

Why WAC?

WAC's goal is creating a unified and open platform to allow mobile software developers to more easily write applications usable on a variety of devices, operating systems and networks.

WAC 2.0 Principles

- Reuse web standards as much as possible
- Create a Wide Mobile Web developer base
- Create an Open Process
- Propose Consolidated compliance programs

What is WAC doing in concrete?

- Adopting HTML5 as a core element of the platform.
- Combining HTML5 and W3C's widget packaging standard with mobile specific functionalities
- Extensive reuse of CSS3 and DOM

WAC's vs W3C's APIs mapping

Accelerometer (w3c geolocation wg)	using the device accelerometer sensor.
Orientation (w3c geolocation wg)	using the device orientation sensor.
Camera (w3c dap wg)	capturing media through the device camera.
Devicestatus	access to the device status information.
Filesystem (w3c web App wg)	accessing the device file system.
Messaging	message sending and retrieval.
Geolocation (w3c geolocation wg)	device location (as specified in W3C).
Contact (w3c dap wg)	management of contact information.
Calendar (w3c dap wg)	management of calendar information.
Task	management of task information.
Deviceinteraction	interaction with the end user through different device capabilities



What is WAC aiming to?

- allow developers to write mobile applications that rival native applications in terms of feature richness leveraging pure web technologies know how
- allow users to leverage WAC 2.0 **security**, privacy monitoring and parental control enablers

What specs is WAC defining?

- the core requirements for WAC-compliant web runtime environment
- execution of standard Web applications running in Web browser or widget contexts
- supplemental functions such as **security framework**, application lifecycle, user interface, and terminal integration

Conclusions

- Bridging Web and Mobile experience, virtual and physical, is the next frontier
- Current Mobile Internet usage forecasts imply increased focus on mobile
- Fragmentation and lack of interoperability are threats
- Shipping HTML5 to mobile is great perspective but devices' services access and security features come first

