

# Mobile is eating the world

**Benedict Evans**

November 2013

[www.ben-evans.com](http://www.ben-evans.com)

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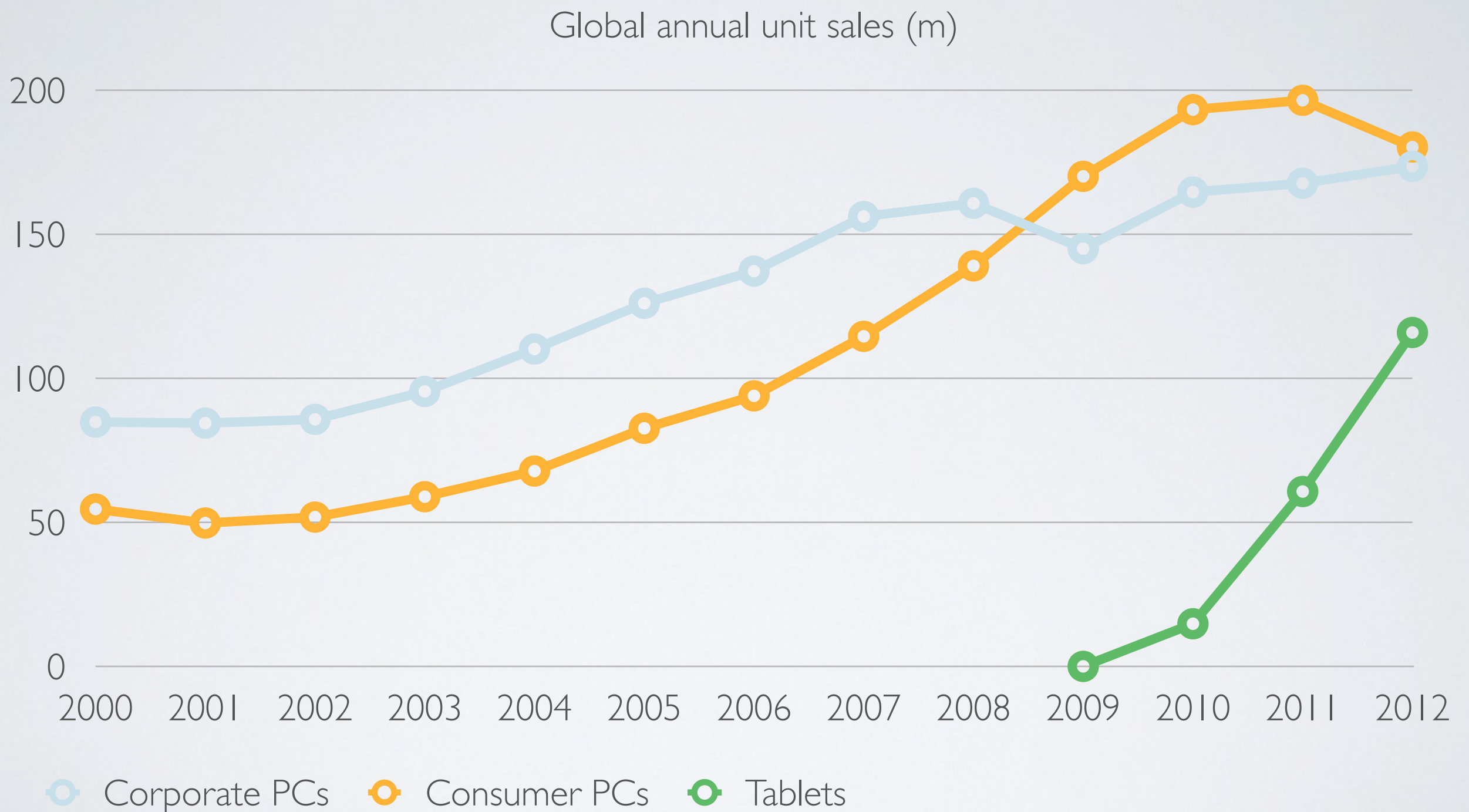
# Mobile is eating the world

November 2013

Benedict Evans  
[@benedictevans](#)

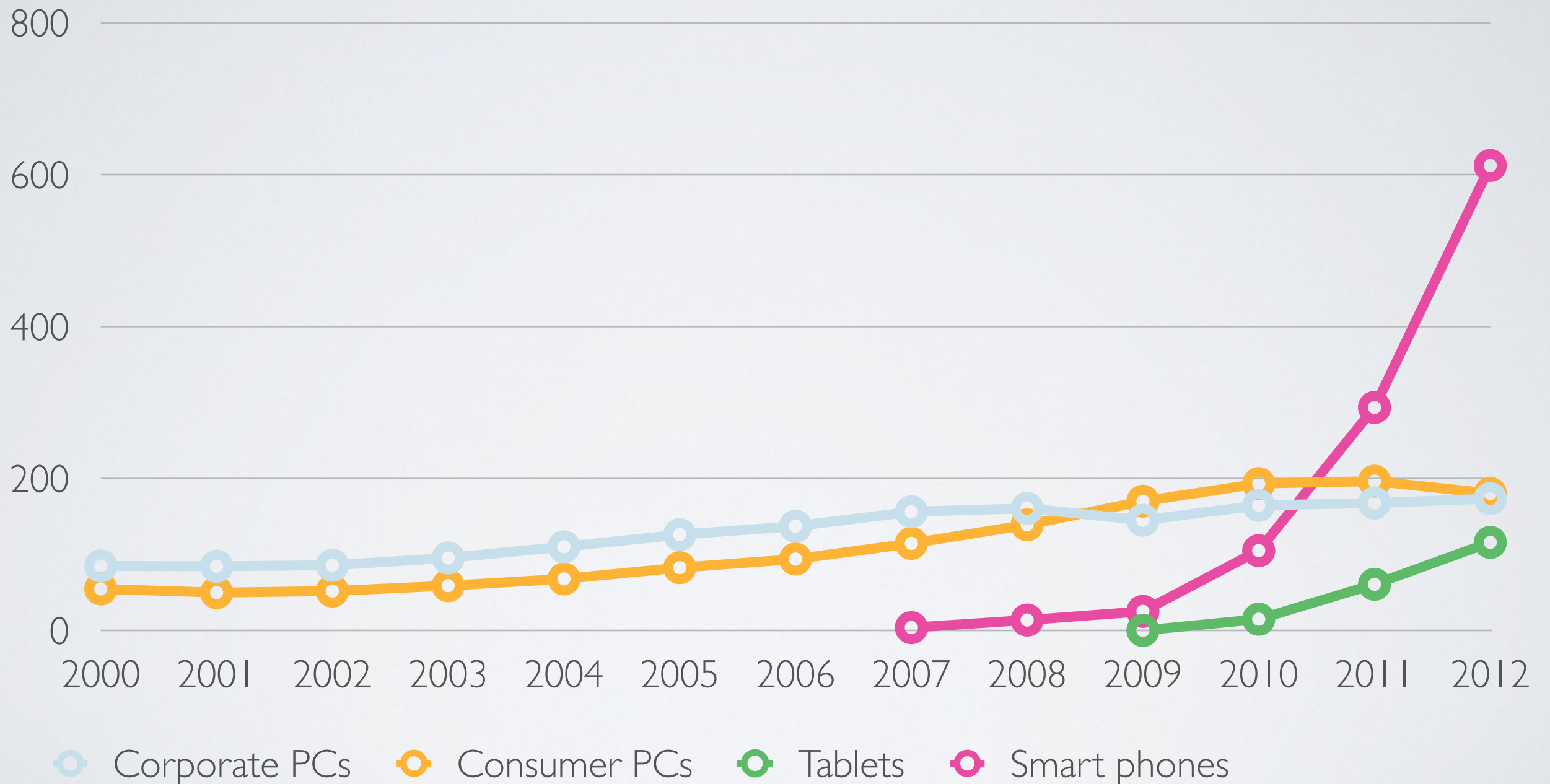
Mobile scale	Tablets	Ecosystems	Mobile social & discovery
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# The state of PCs



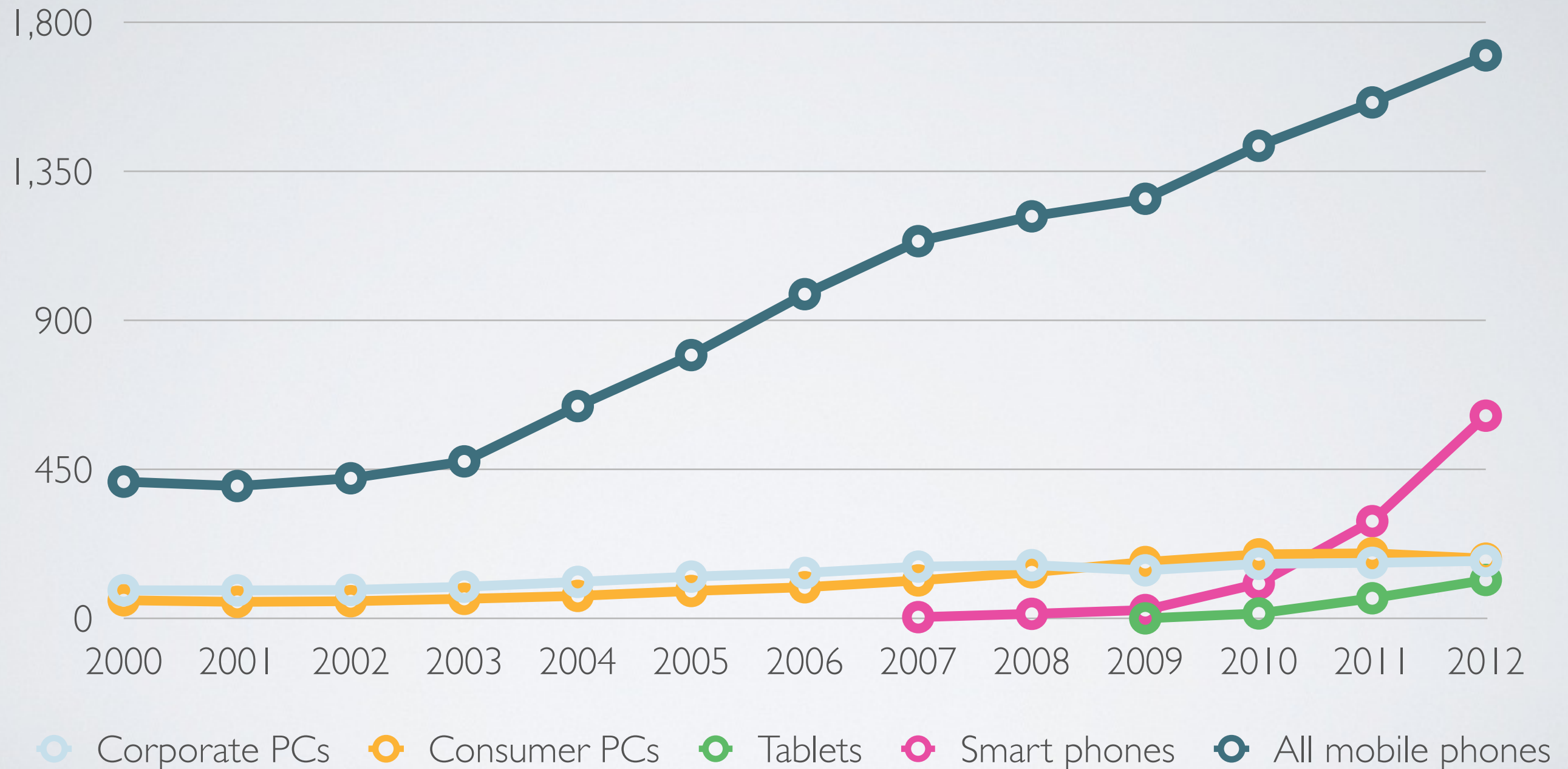
# Smartphones are exploding

Global annual unit sales (m)



# More mobile growth coming

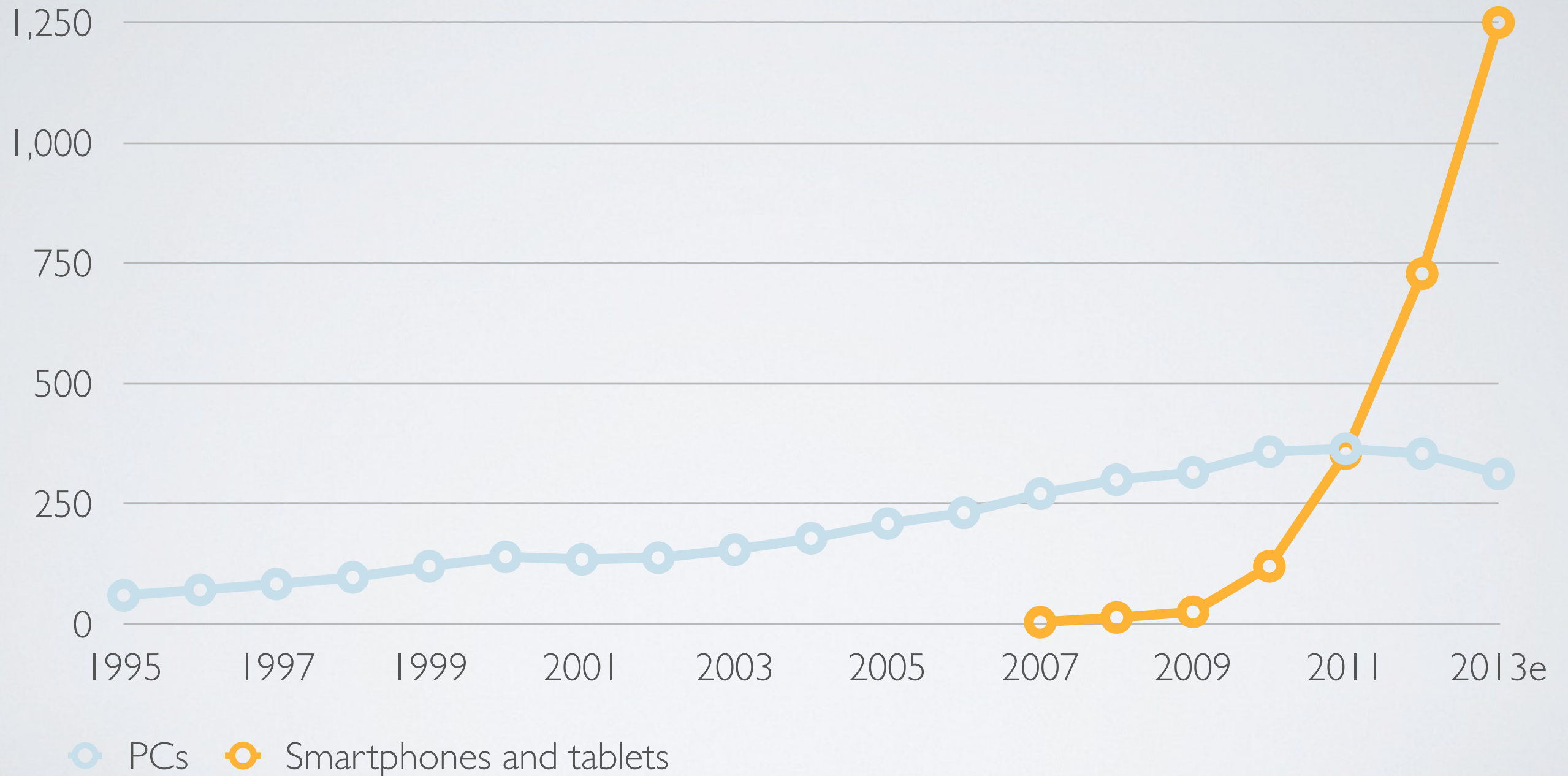
Global annual unit sales (m)





# The future is mobile

Global annual unit sales (m)



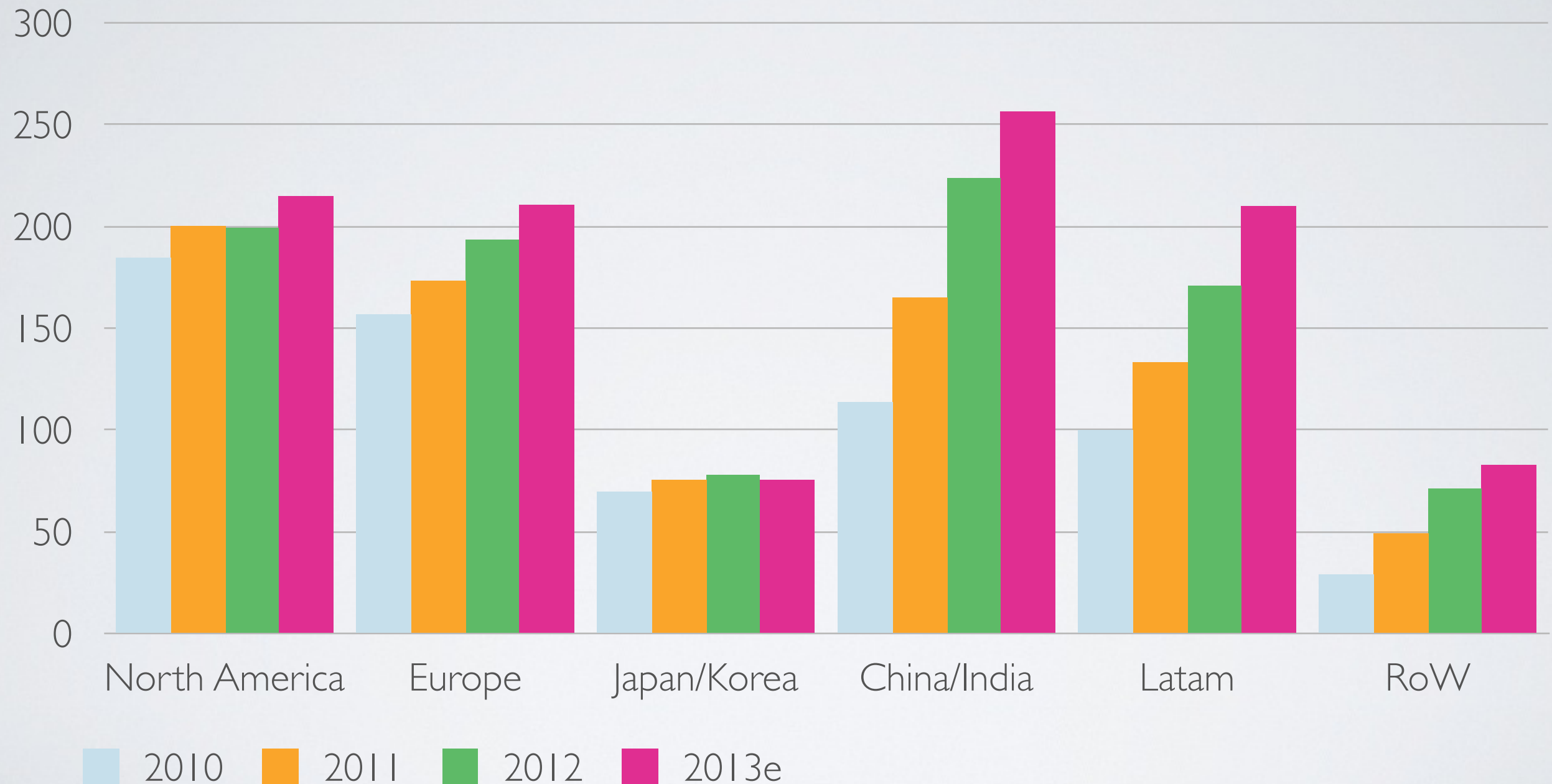
# The world in 2017





# Growth in emerging markets

Global 3G/4G device unit shipments (m)



# Fundamental change

- Mobile was always much bigger than tech, but always separate
- Smartphones mean the Technology and Mobile worlds merge
- Internet and Media are being dragged along
- Tablets accelerate the change
- This is changing everything

# Fundamental change in scale

## PC industry

- 350m PCs sold in 2012
- 1.6bn units in use
- Replaced every 4-5 years
- Shared

## Mobile industry

- 1.7bn phones sold in 2012
- 3.2bn mobile users
- Replaced every 2 years
- One per person
- Data plan penetration/pricing is the only limit to growth

# Fundamental change in use

## PC internet

- Shared, or used at work
- Semi-portable at best
- Web and web search

## Mobile internet

- Personal
- Taken everywhere
- Web, web search, apps, social, location, service integration, prediction, APIs, image recognition, local wireless...



# What does mass mobile internet use really mean? From this...





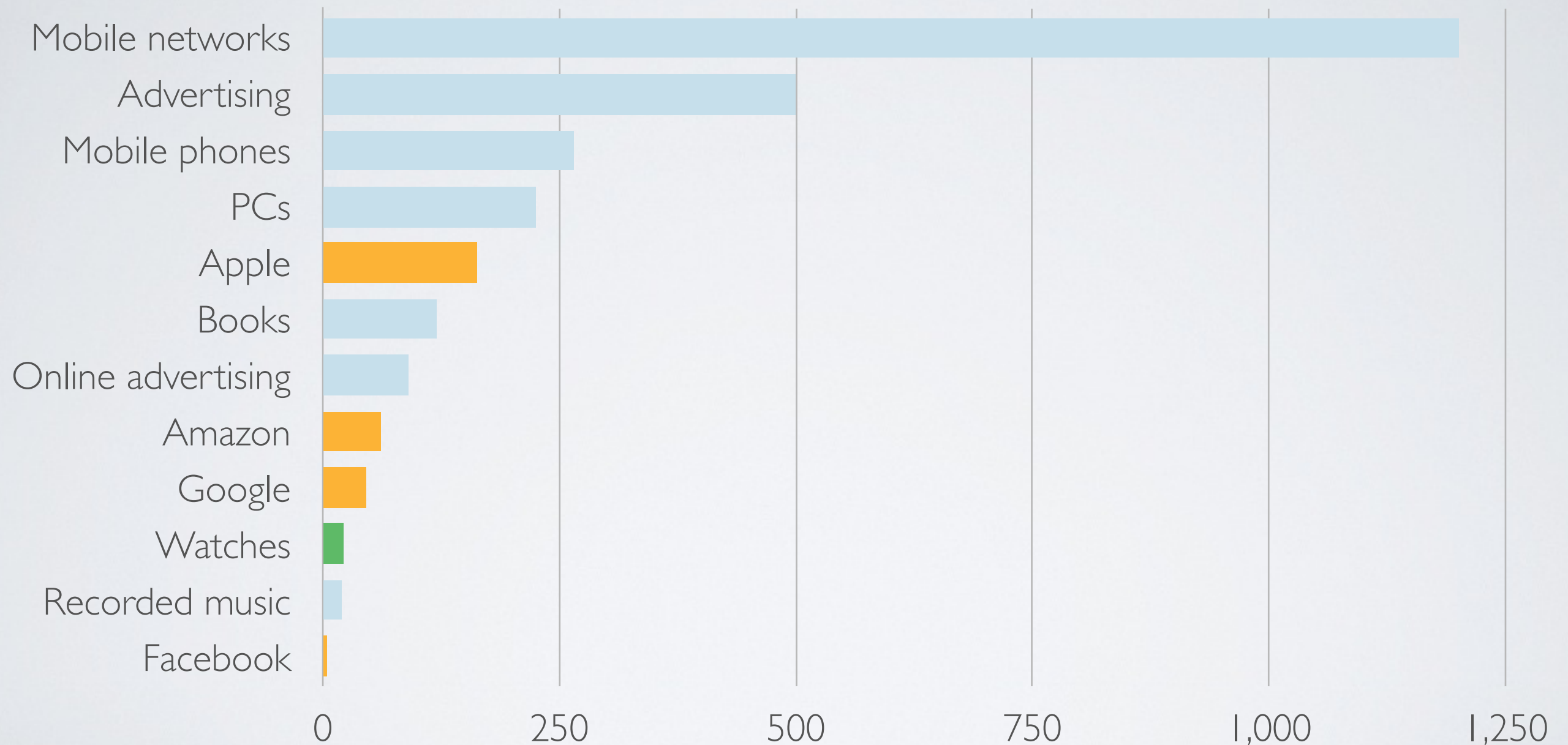
...to this



“I love reading about TV soaps  
so I got the app on my phone”

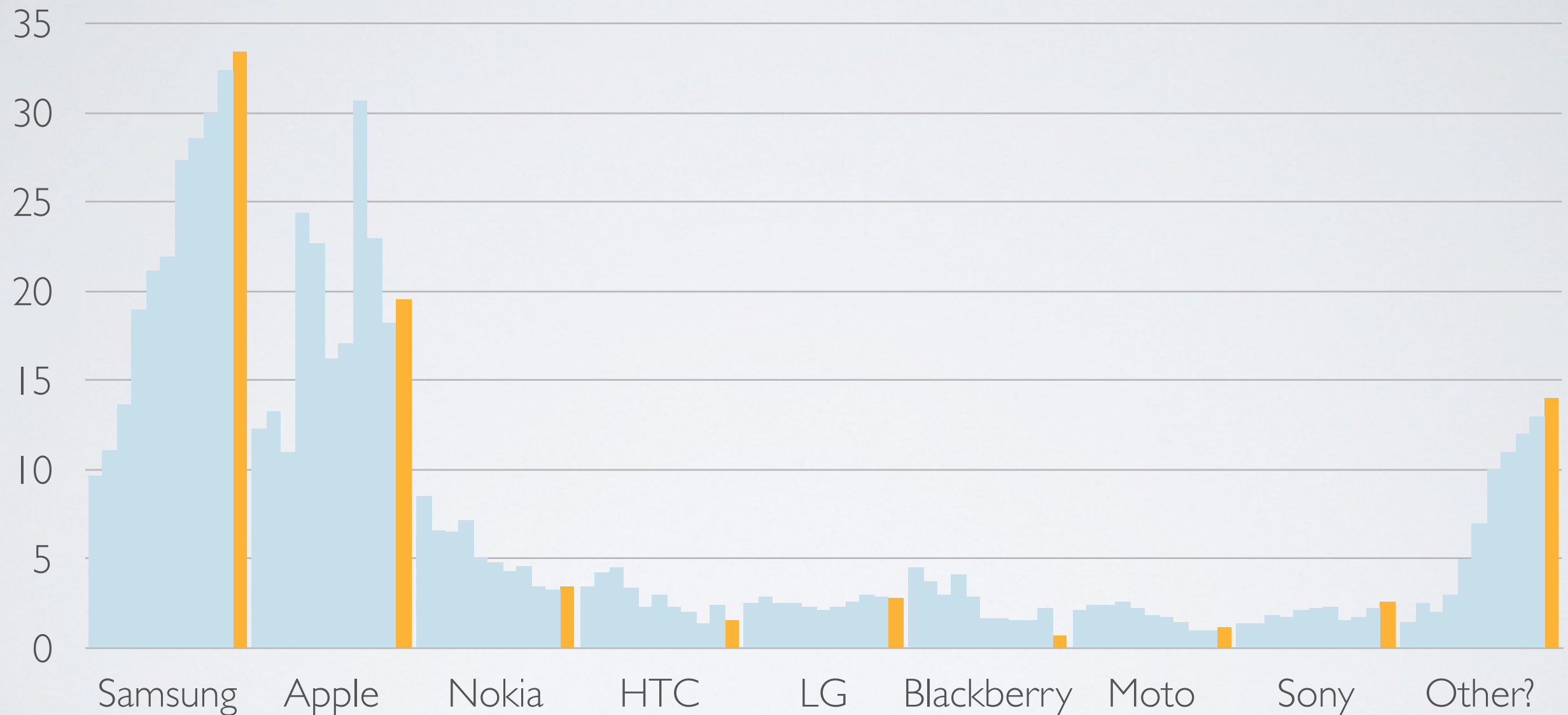
# Industry scale

2012 global revenue (\$bn)



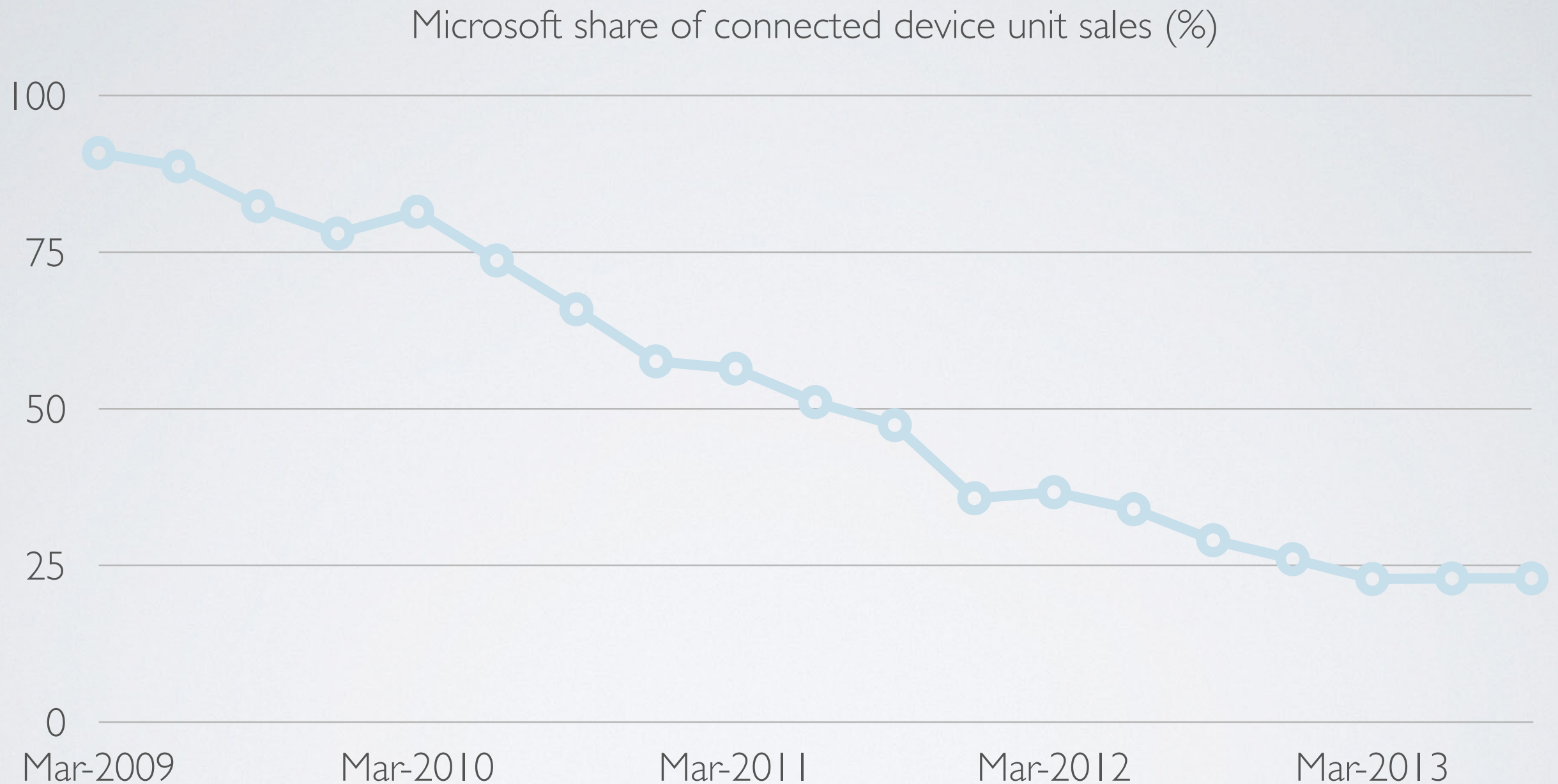
# Polarisation of manufacturers

Quarterly handset revenue, March 2011-Sept 2013 (\$bn)



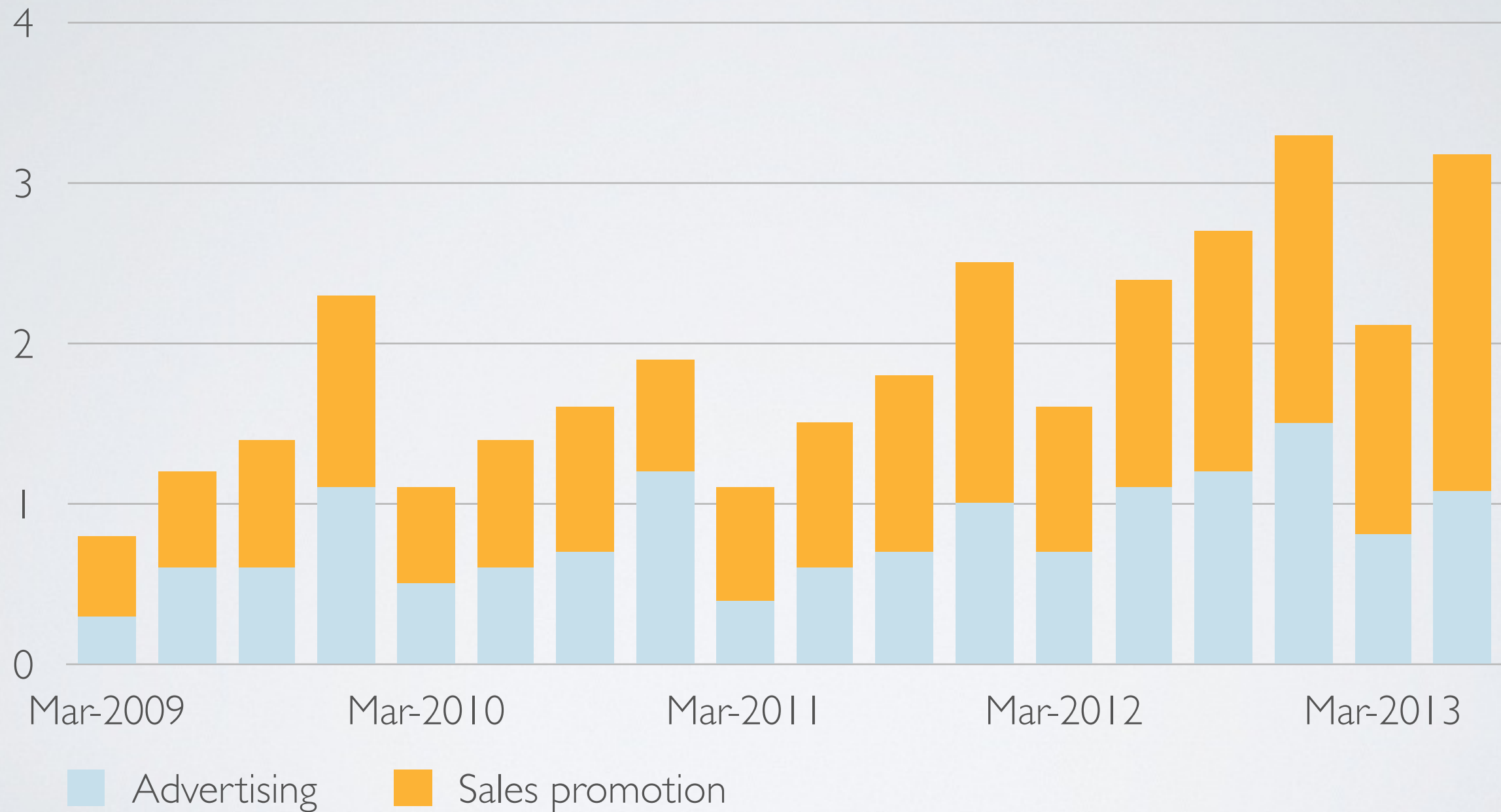


# The irrelevance of Microsoft



# Scale at Samsung...

Samsung Electronics marketing budget (\$bn)





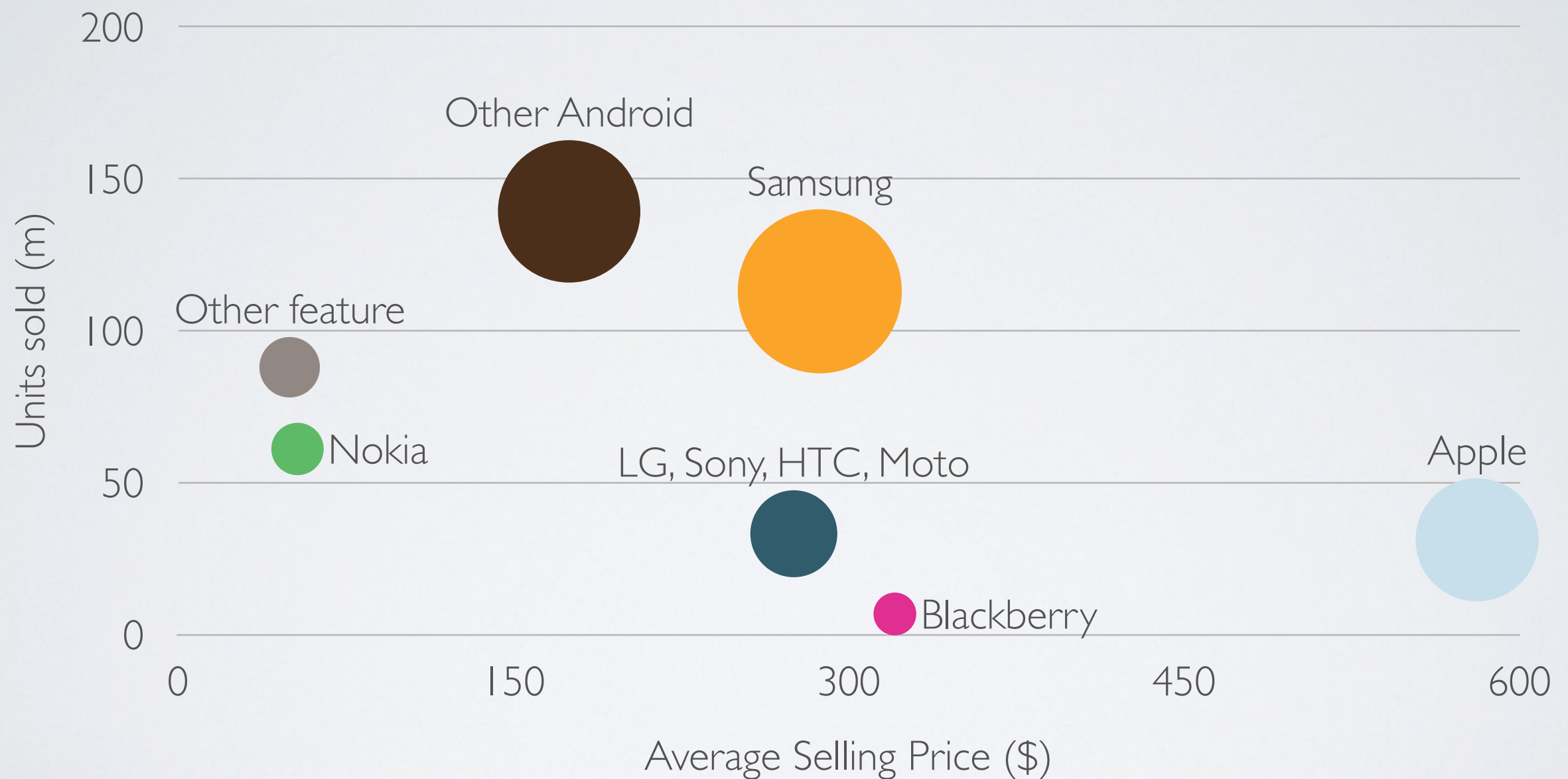
# and scale at Apple

Daily visits to Apple retail stores (m)



# Very different products

Global mobile handset industry, Q2 2013



Bubble area = revenue

# Apple sticking to the high end?



Scale

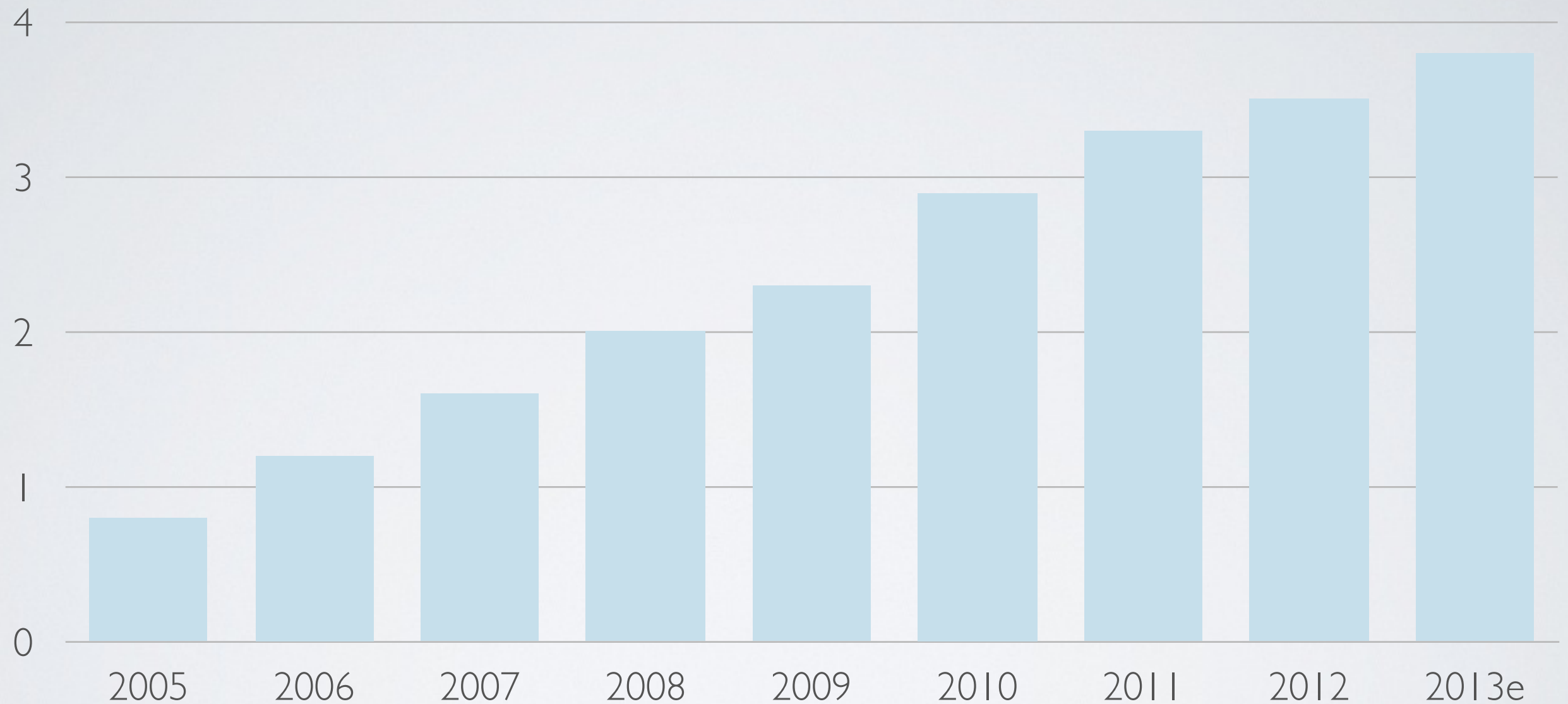
Tablets

Ecosystems

Mobile social &  
discovery

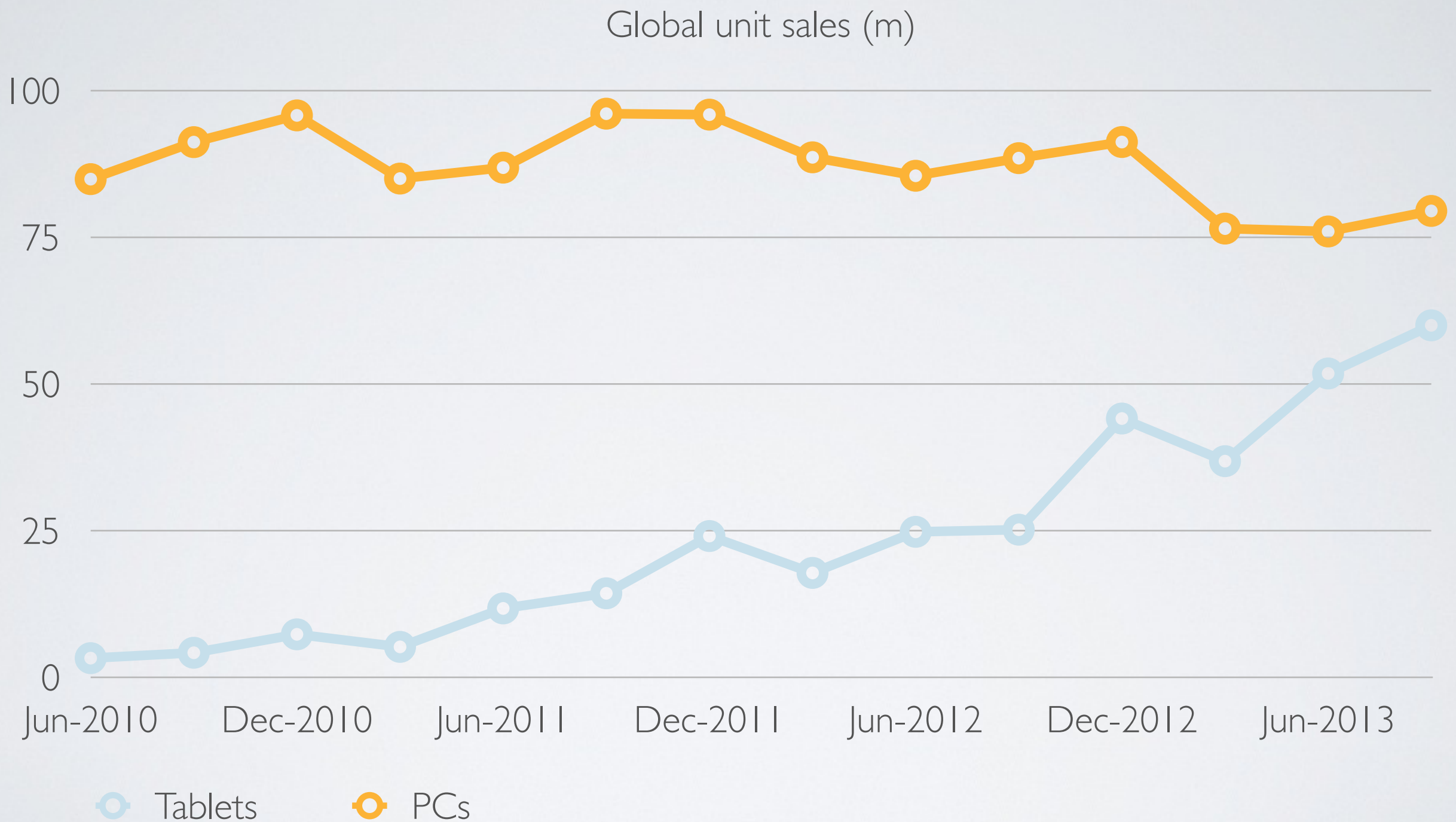
# Glass is eating the world

Global LCD screen sales (billion square feet)



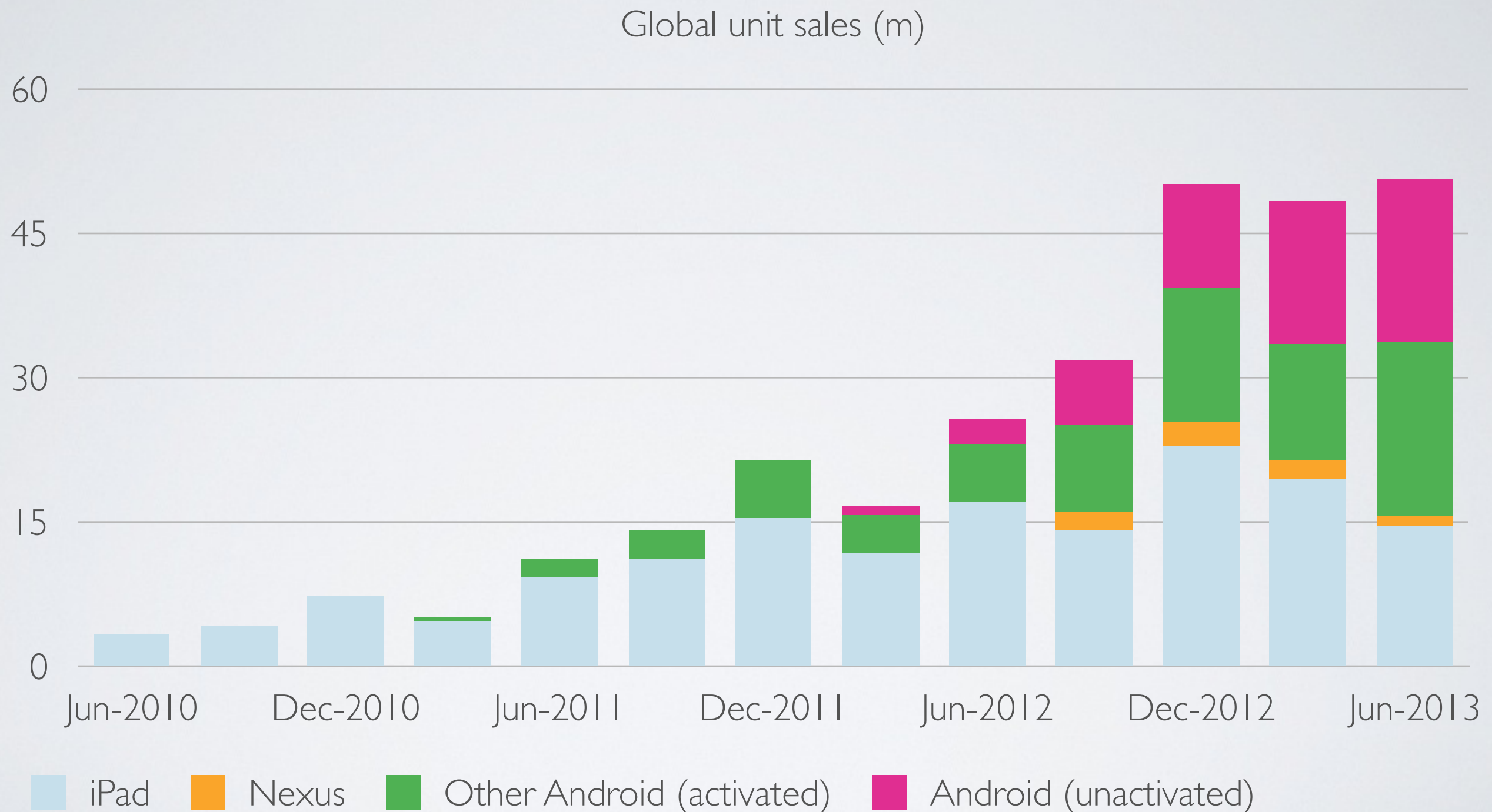


# Tablets overtaking PCs



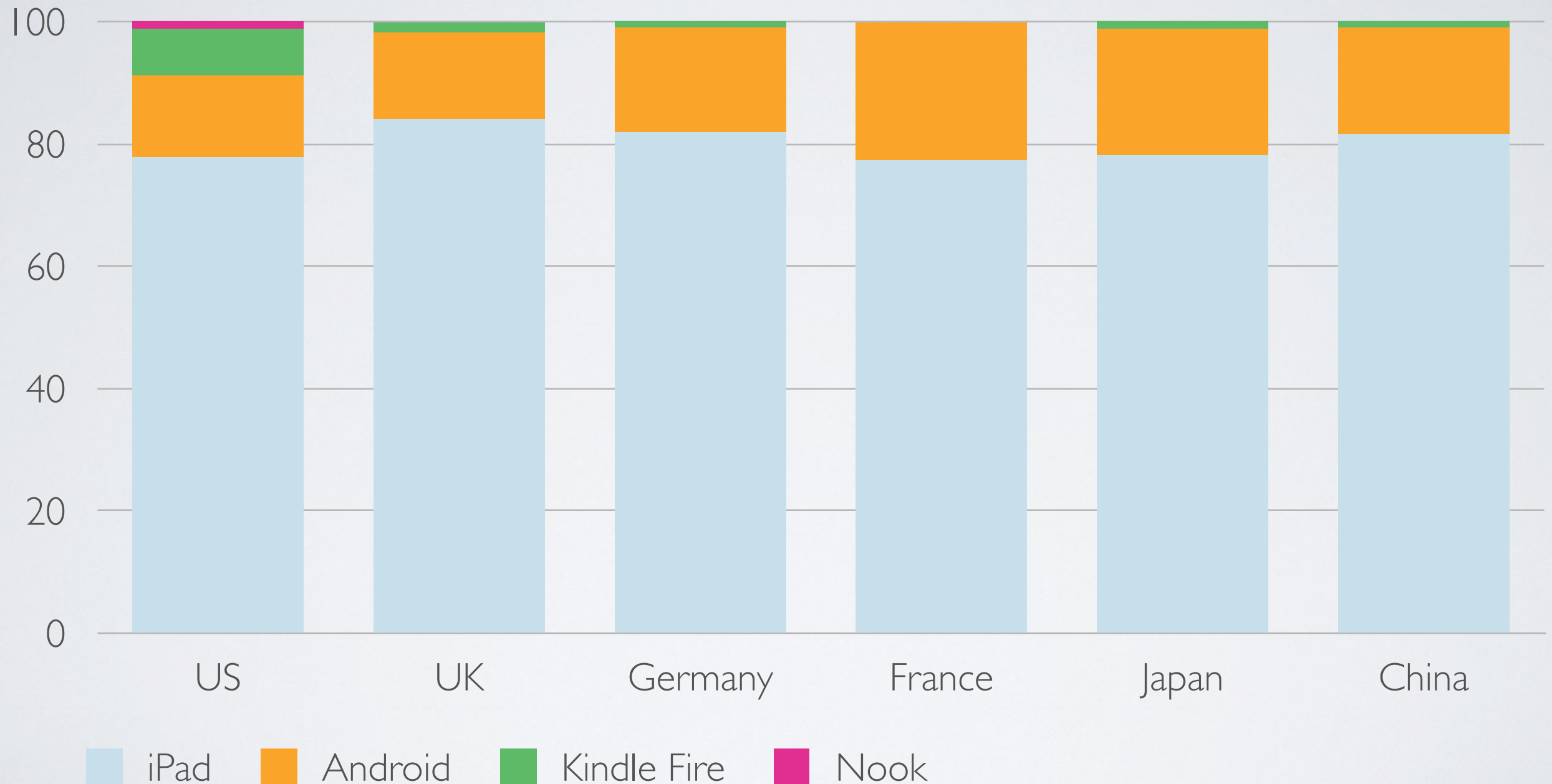
- Tablets are not cannibalising PC sales yet - not exactly
- However, tablets and smartphones are crystalising a rethink of consumer needs
- “Do I really need to upgrade my PC? Do we need another PC? Do I need a laptop as well?”

# Tablet market splitting



# iPad dominates use everywhere

Share of tablet web traffic, February 2013 (%)



# Two distinct 'tablet' markets

## The 'post-PC vision'

- Rich apps and content
- \$250+, 7" & 10"
- Still mostly iPad with some Samsung - Nexus 7 sold just 7m units in 12 months

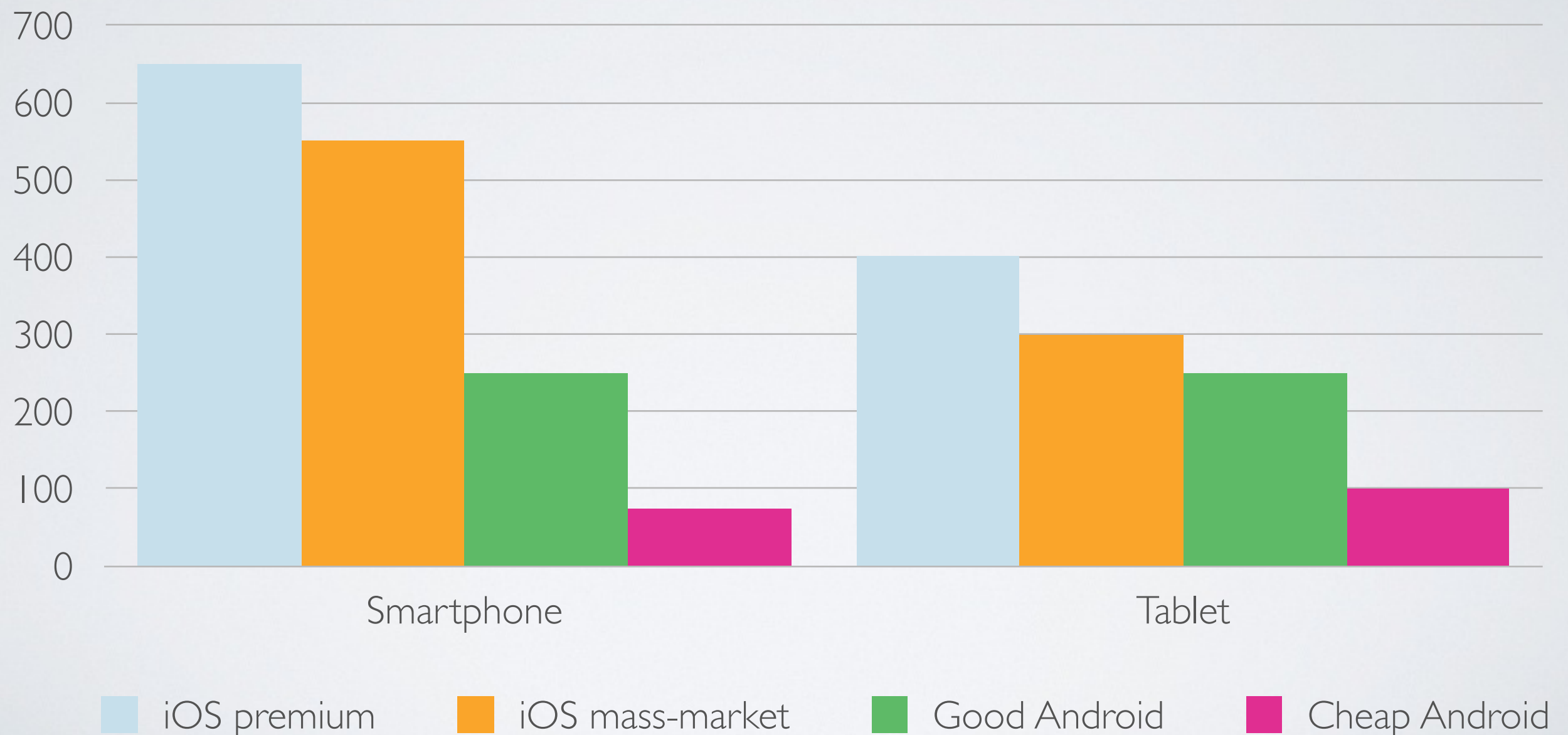
## The \$100 generic

- Black plastic no-brand
- Cheap 7" \$75-\$125
- Massive volume, but usage of apps and web is near-invisible so far
- Mostly TV & free games



# Tablet dynamic quite different to smartphones

Device prices (\$)

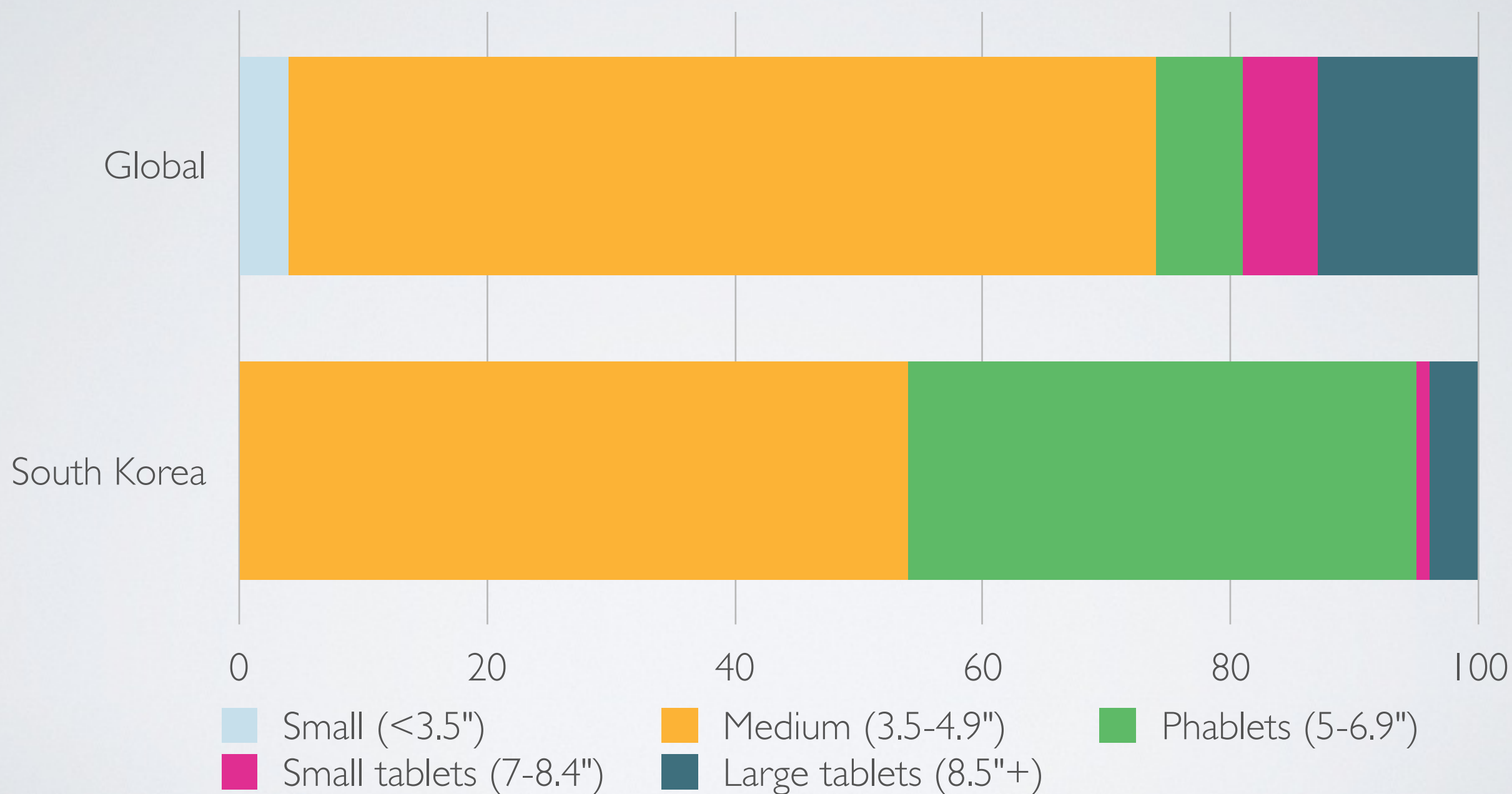


# Tablet dynamic quite different to smartphones

- Price window underneath the iPhone is much larger than that underneath the iPad
- Tablet app gap is much larger - still very few premium apps designed for Android tablet
- So mid-range Android phones are much stronger propositions than mid-range Android tablets

# Blurring definitions

Estimated Android user base, August 2013 (%)



# Tablets in 2013

- Well over 200m tablets will be sold in 2013
- Driven by size and price - 7" screens, \$300 and (far) below
- A flood of cheap generic Chinese Androids - perhaps 125m units in China alone this year, with prices under \$150
- Apple (and Nexus and Samsung) share falling fast - but really there are two markets



# Still lots of unknowns

- One device per person or per household?
- Replaced every 2 years? 5 years?
- 10" tablets stay at home - will 7" ones? Will they become mobile?
- Will Android break into the premium usage segment?

Scale	Tablets	Ecosystems	Mobile social & discovery
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# ‘Four horsemen’ driving the agenda

Google

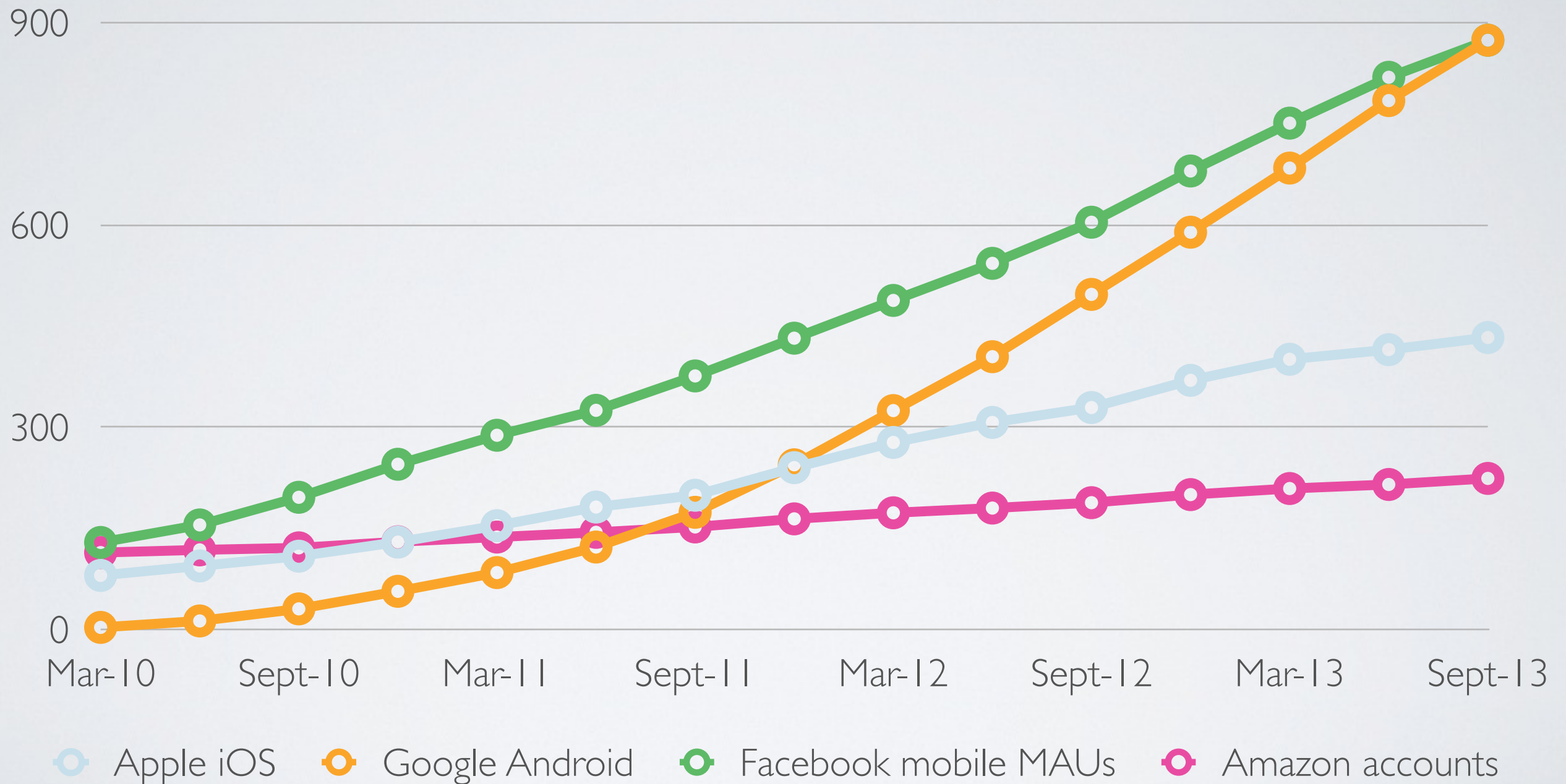
Apple

Facebook

Amazon

# Ecosystem sizes

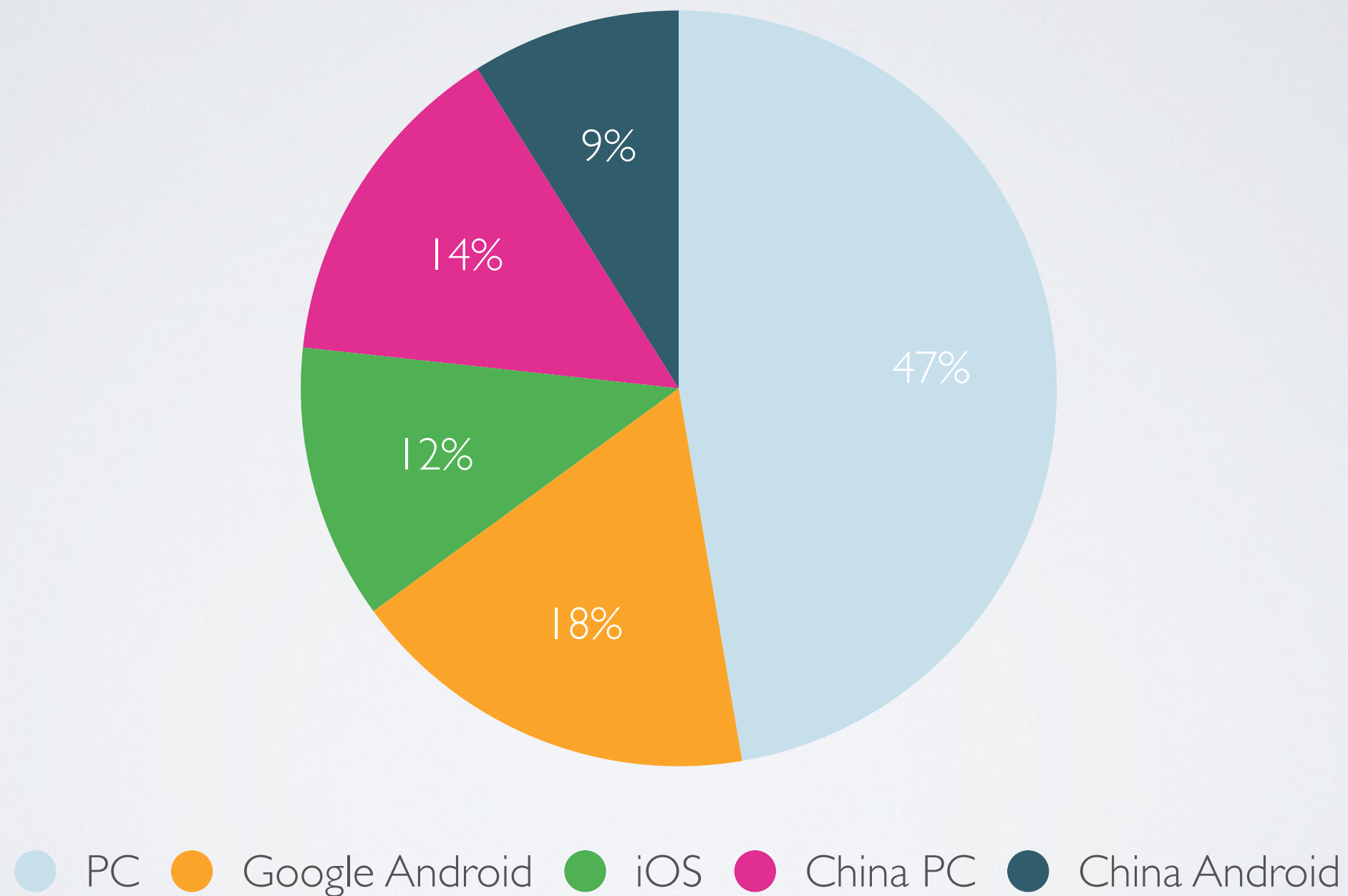
Active users (m)





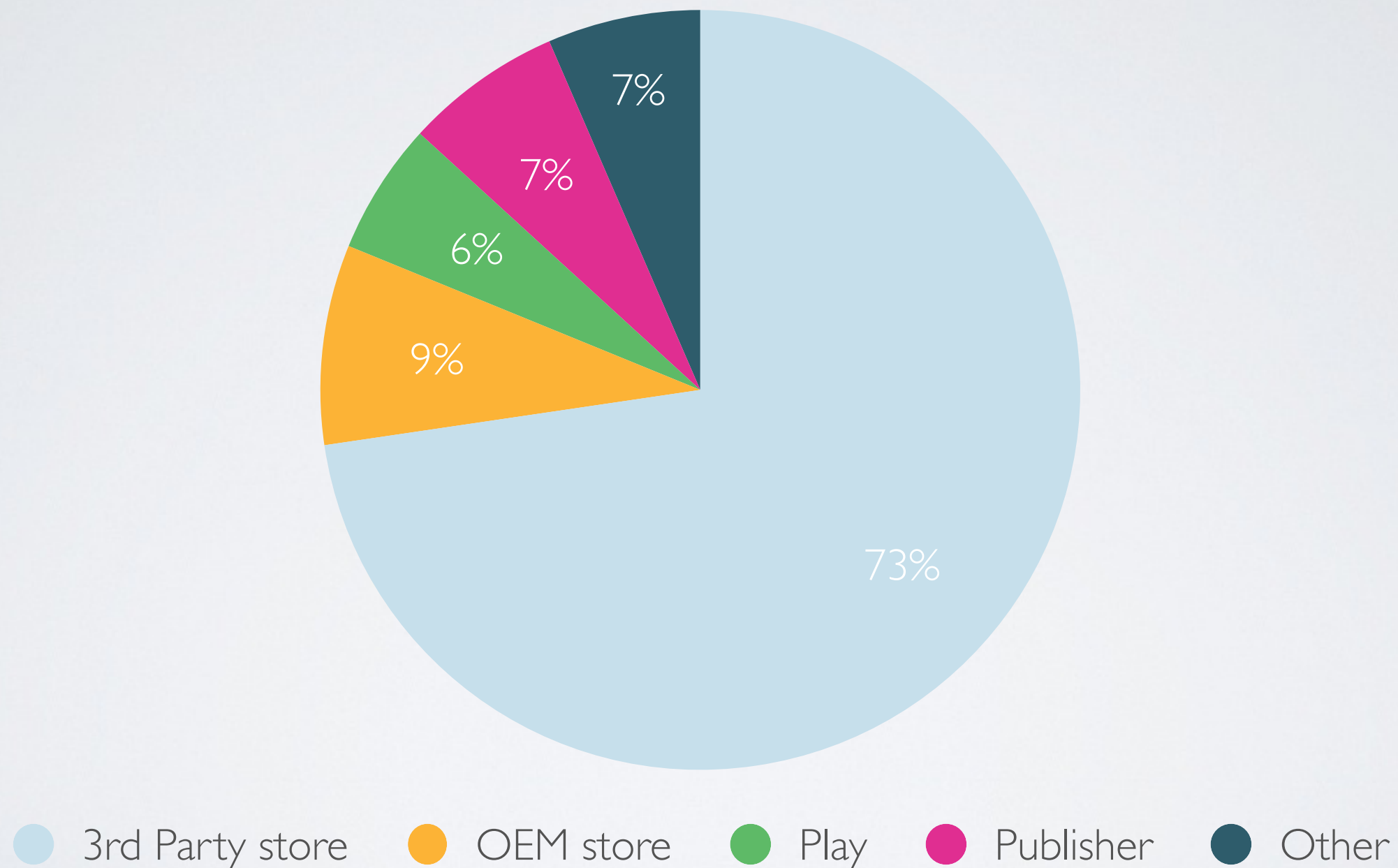
# Reach ( $\neq$ value)

Global internet audience, Q2 2013



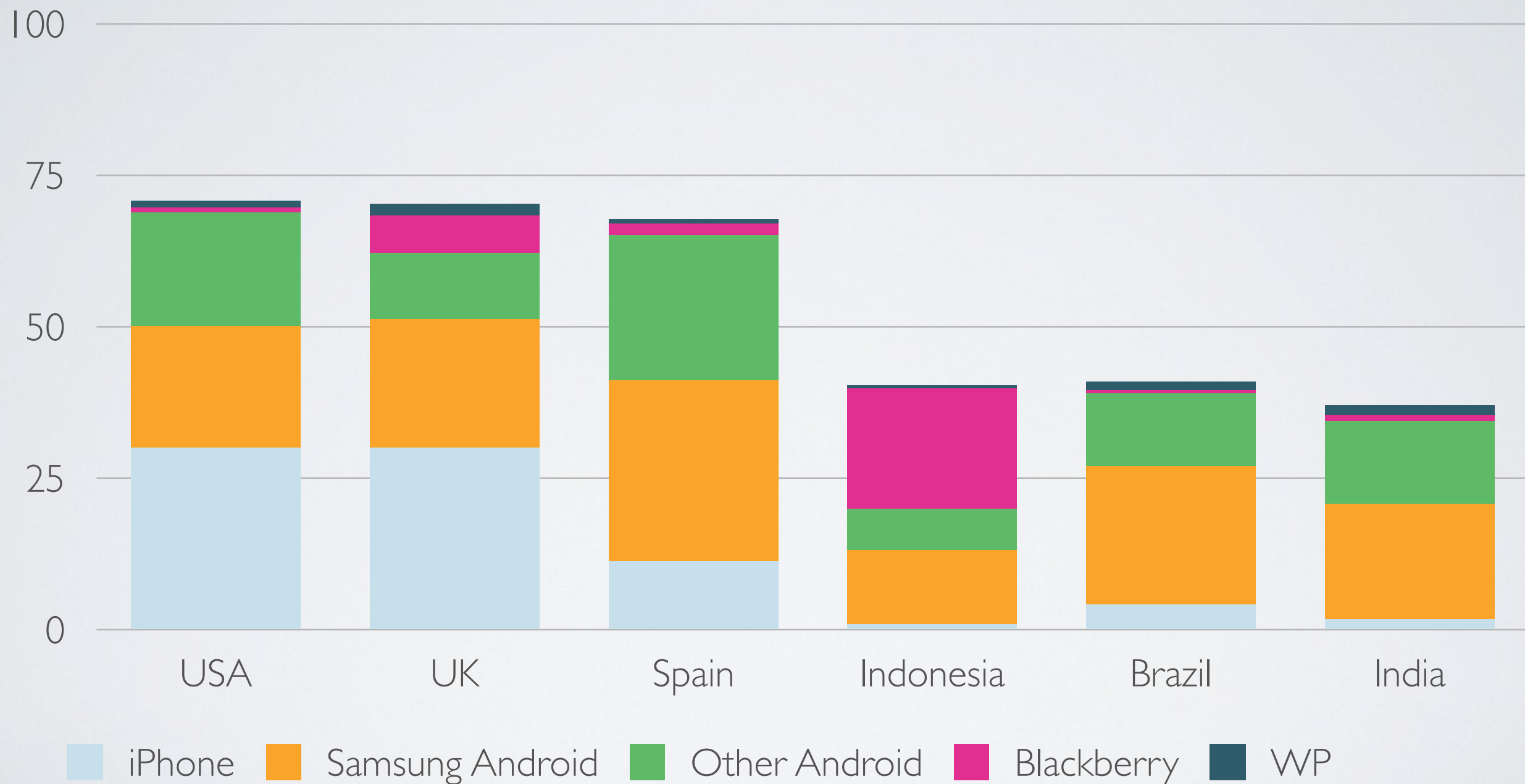
# (Chinese Android isn't Google)

Chinese Android app install vectors



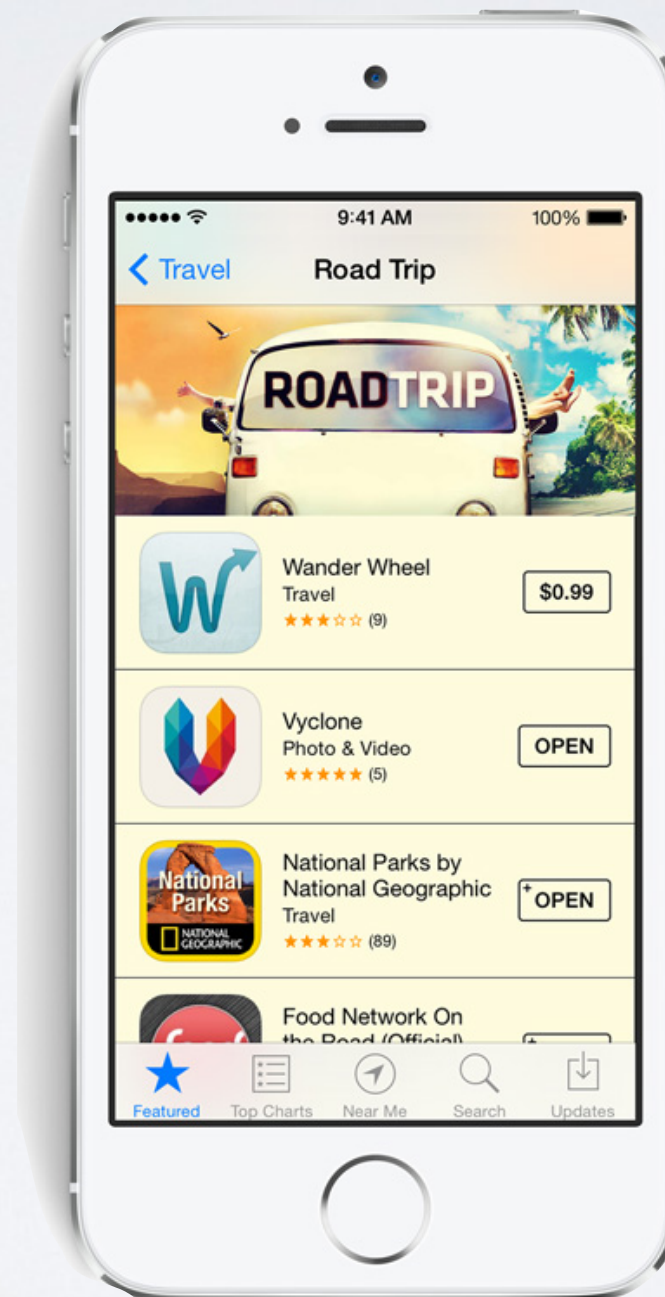
# Geographic variation

Facebook smartphone users by % of the base, November 2013



# Ecosystem is the key leverage point

For Apple, the ecosystem is what sells hardware

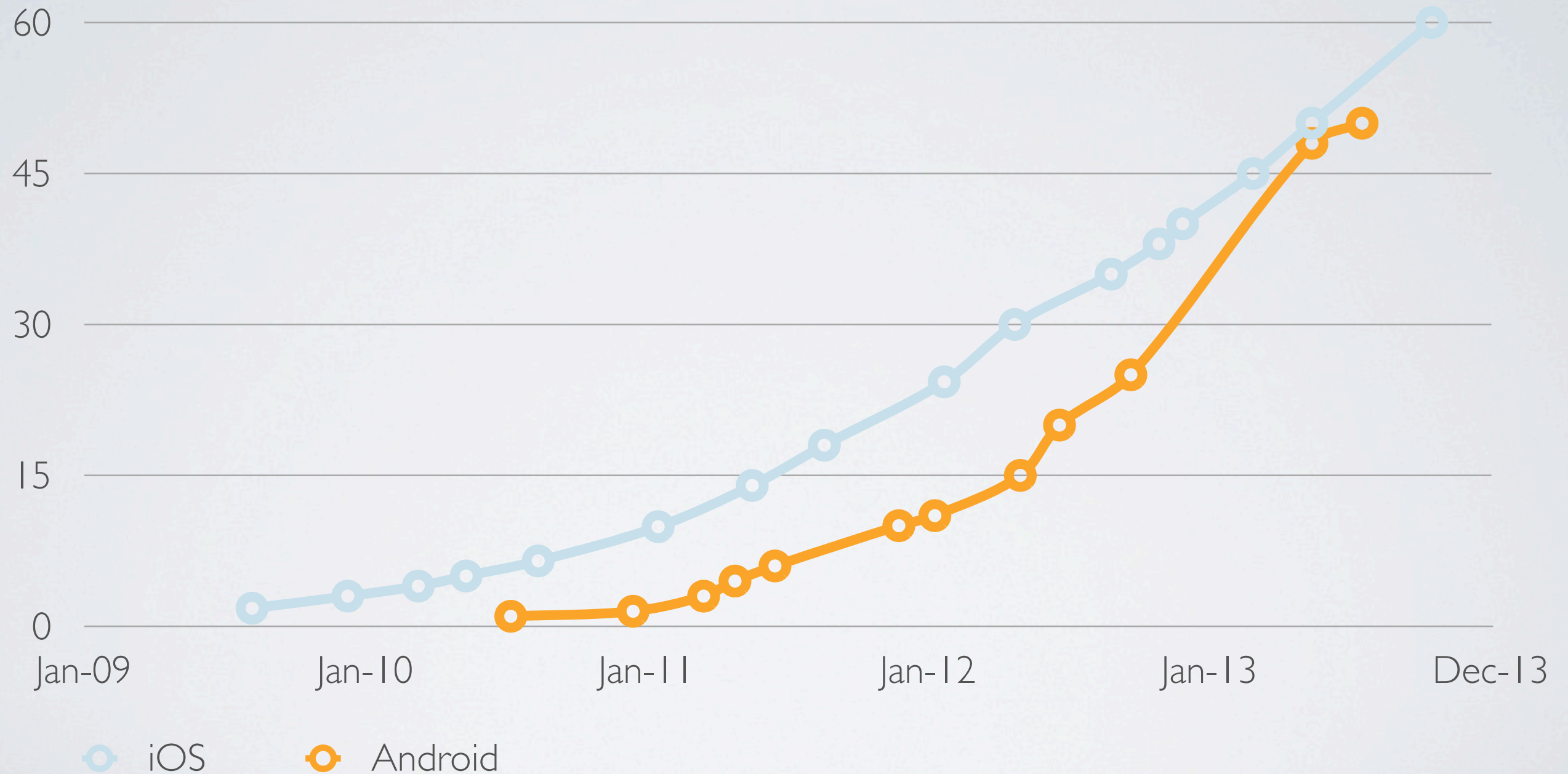


For Amazon, Google and Facebook, the experience on the phone is what drives engagement with all their services



# People like apps

Stated cumulative app downloads (bn)

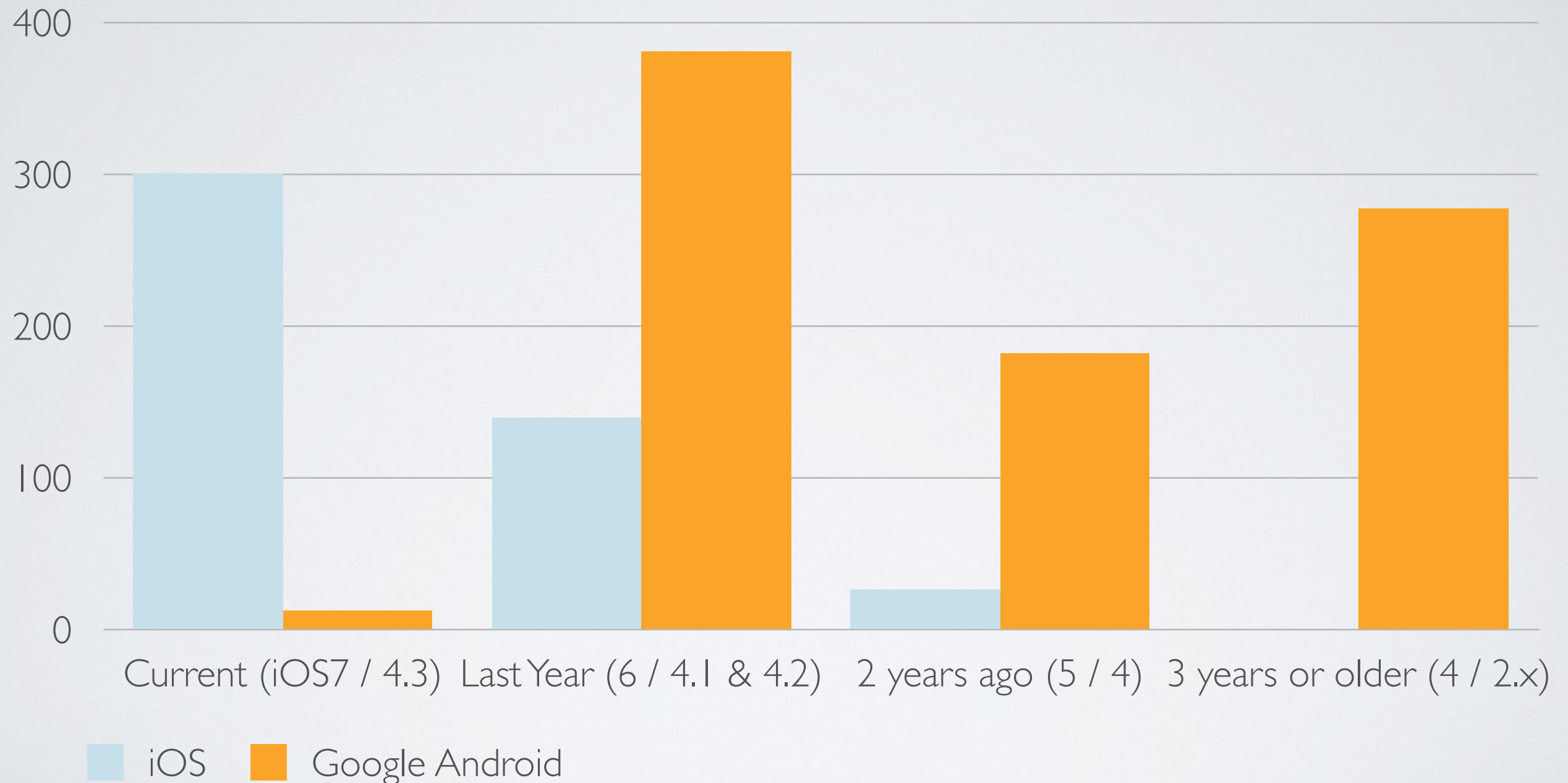


# Mobile platform wars over?

- Apple and Google's Android have won: unlikely that other platforms will be relevant
- Apple camped out at the high end, Android taking the rest
- But Google's control of Android is partial
- Facebook and Amazon trying to extract value
- Samsung's position uncertain

# Speed of innovation?

Active install base by operating system version, October 2013 (m)



# Different focus for innovation

## Apple

- Integrated hardware & software
- Fingerprints, Bluetooth, Airdrop, 64 bit etc
- Move innovation down the stack (hard for Google)

## Google

- Systemic fragmentation, little hardware control
- Google Now, Maps, Plus, semantic search etc
- Move innovation up the stack (hard for Apple)



# App engagement

## iOS

- 2bn downloads and \$1.1bn gross revenue per month
- Average of 4-5 apps and \$2 spent per active device per month
- Smaller, more engaged base

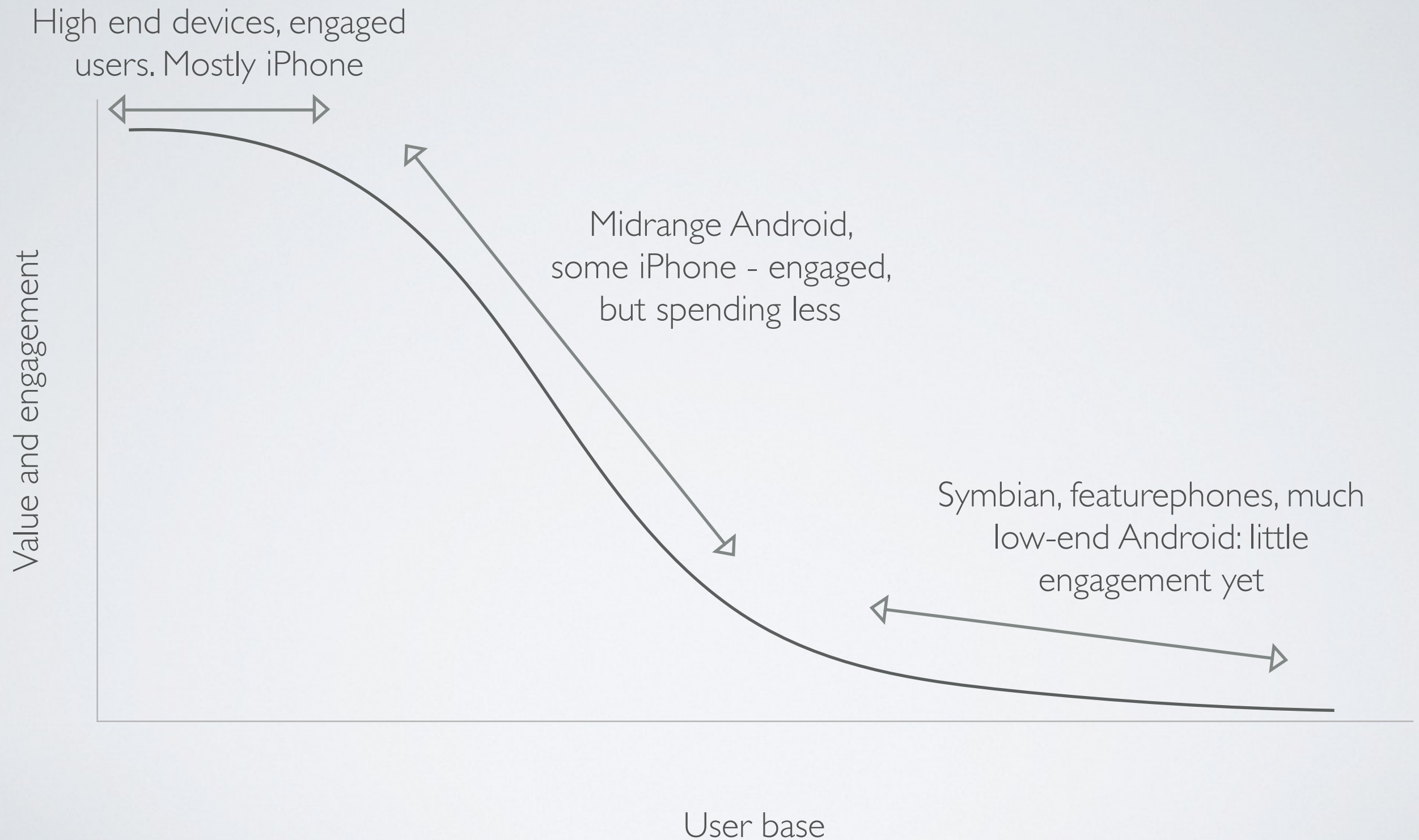
## Google Android

- ~2-3bn downloads per month
- Average of 3-4 apps (perhaps) per active device per month
- Much lower payment rates (but no data from Google)

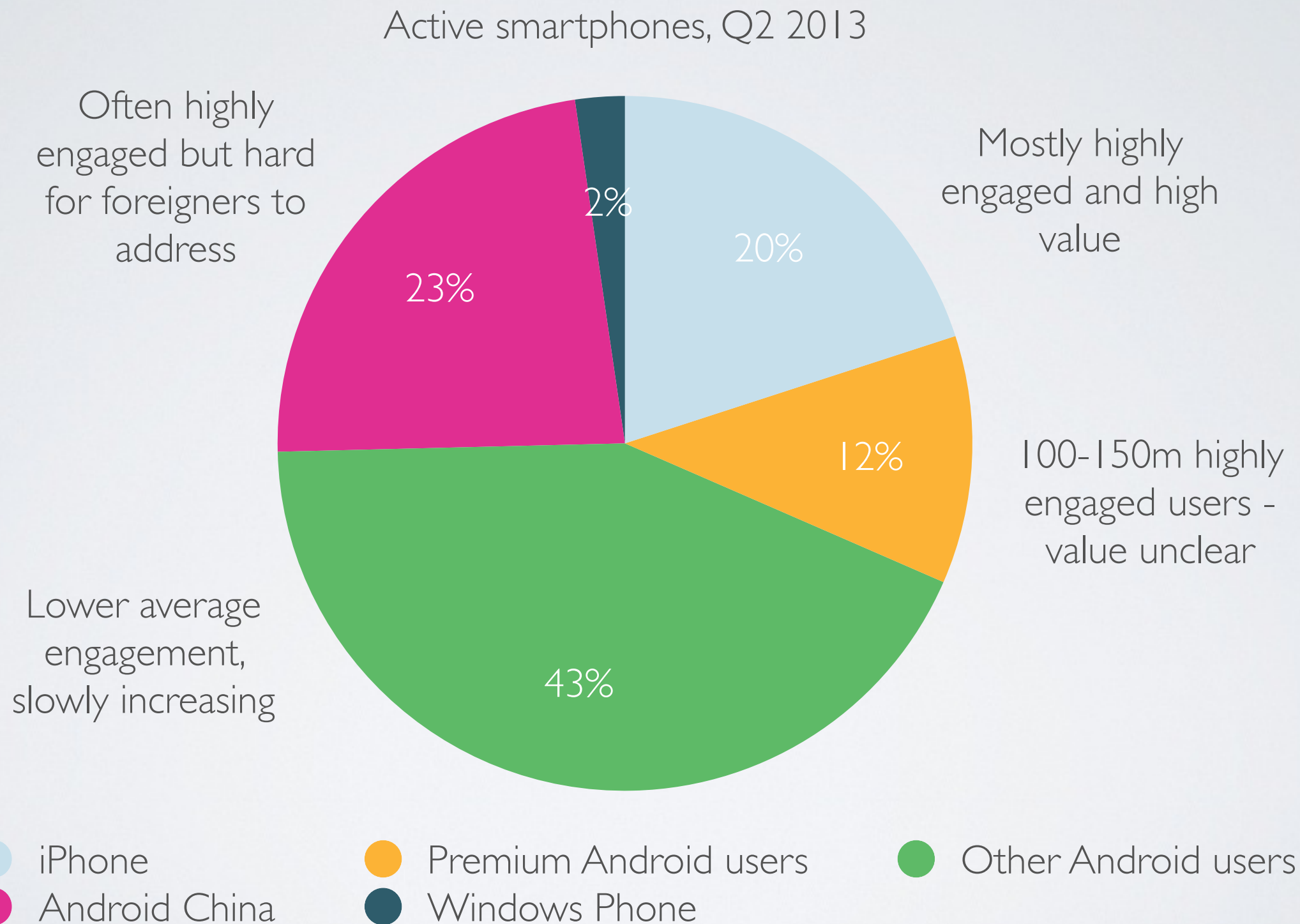
# Self-selection

- The iPhone averages \$575 and gets most of the high-end
- Android sells at anything from \$800 to \$50, but averages \$250-\$300
- Apple only sells to people with money to spend who (mostly) value apps and a good experience - Android sells to everyone
- Hence average engagement levels for iOS are far higher than average for Android - but not all of Android is low
- Wide geographic variation: a US \$150 Android sees much lower engagement than a Chinese or Indonesian one

# Ecosystem cohorts



# Ecosystem cohorts?





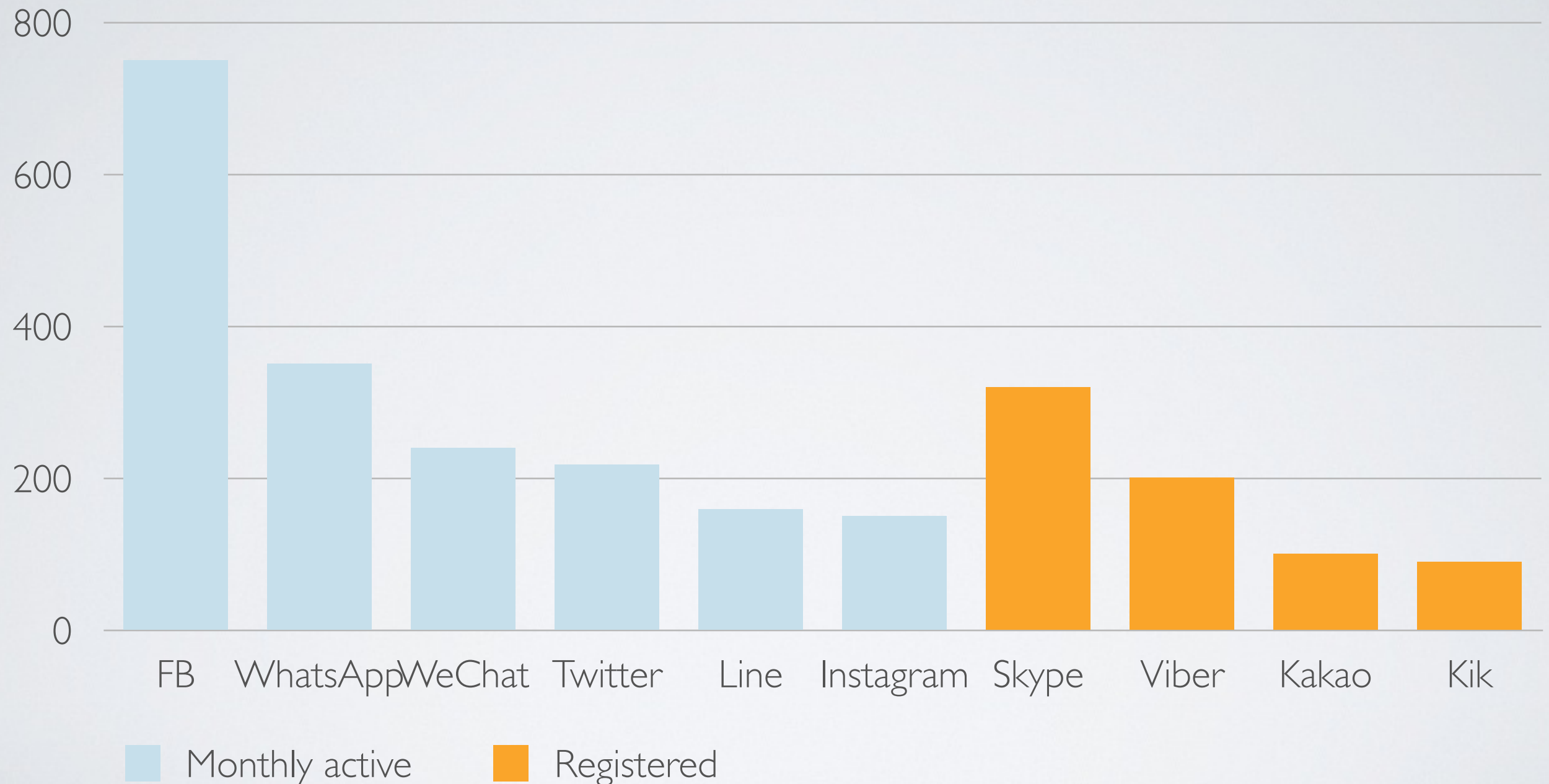
# Future of Android

- 'Android' is many things
- Forks, different versions, Google layering tools on top, Amazon, Xiaomi, Samsung playing with the value chain in different ways
- For Google, Android began as 'Webkit everywhere' - a tool for reach - which it gets on iOS and Kindle Fire as well
- So how much control does it want? What happens to Chrome? Where does Google want to sit in the stack?

Scale	Tablets	Ecosystems	Mobile social & discovery
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# Mobile social scale

Mobile social messaging users (m)



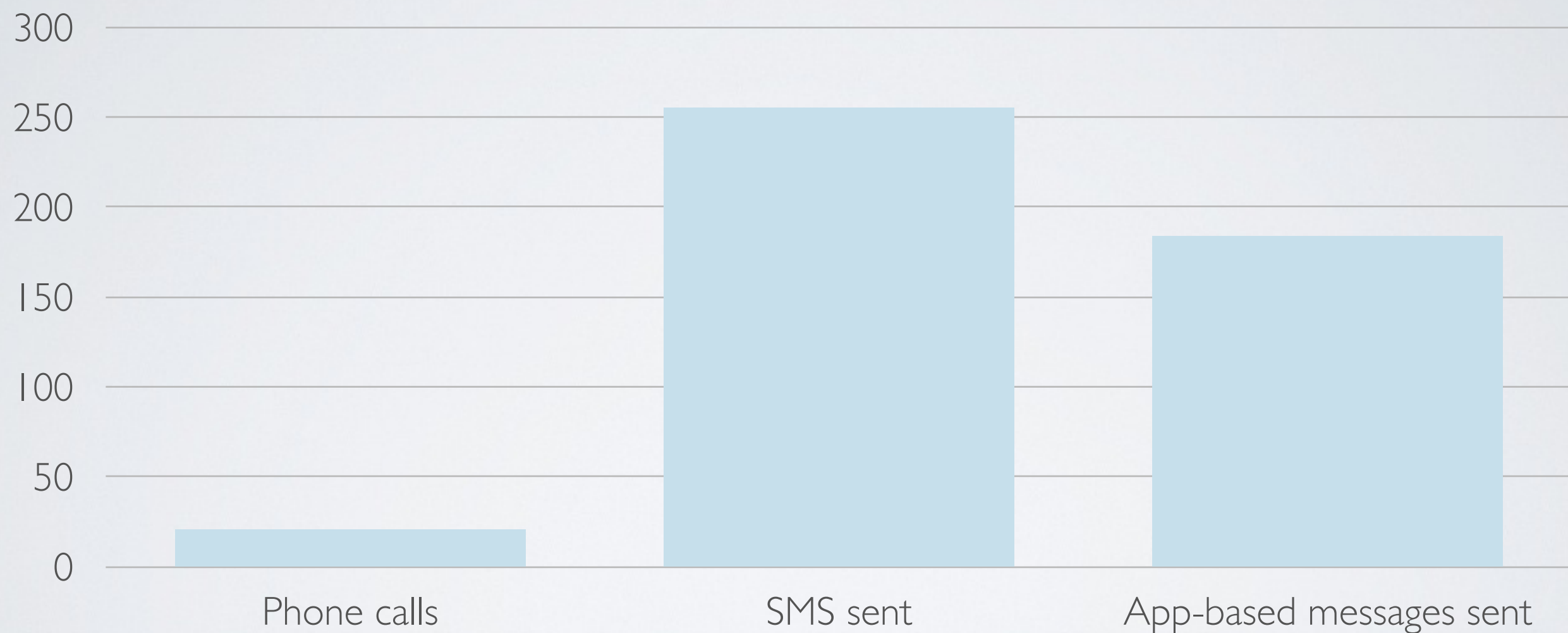
# Mobile social scale

- Over 50 social messaging apps have had more than a million downloads on Google Play
- A dozen have had over 50m downloads
- Whatsapp now sends 14bn messages/day: global SMS volume is ~20bn
- 400m photos/day shared on Whatsapp, 350m on Snapchat, 350m on Facebook, 55m on Instagram



# Children's use of messaging

UK 12-15 year old children's messaging per week, 2013



# Smartphones are inherently social, unlike the desktop web

- Smartphone address book is a ready-made social graph that all apps can tap into
- Photo library is open to all apps
- Push notifications remove the need to check multiple sites
- Home screen icons are easier to switch between than different websites

# People happily abandon history

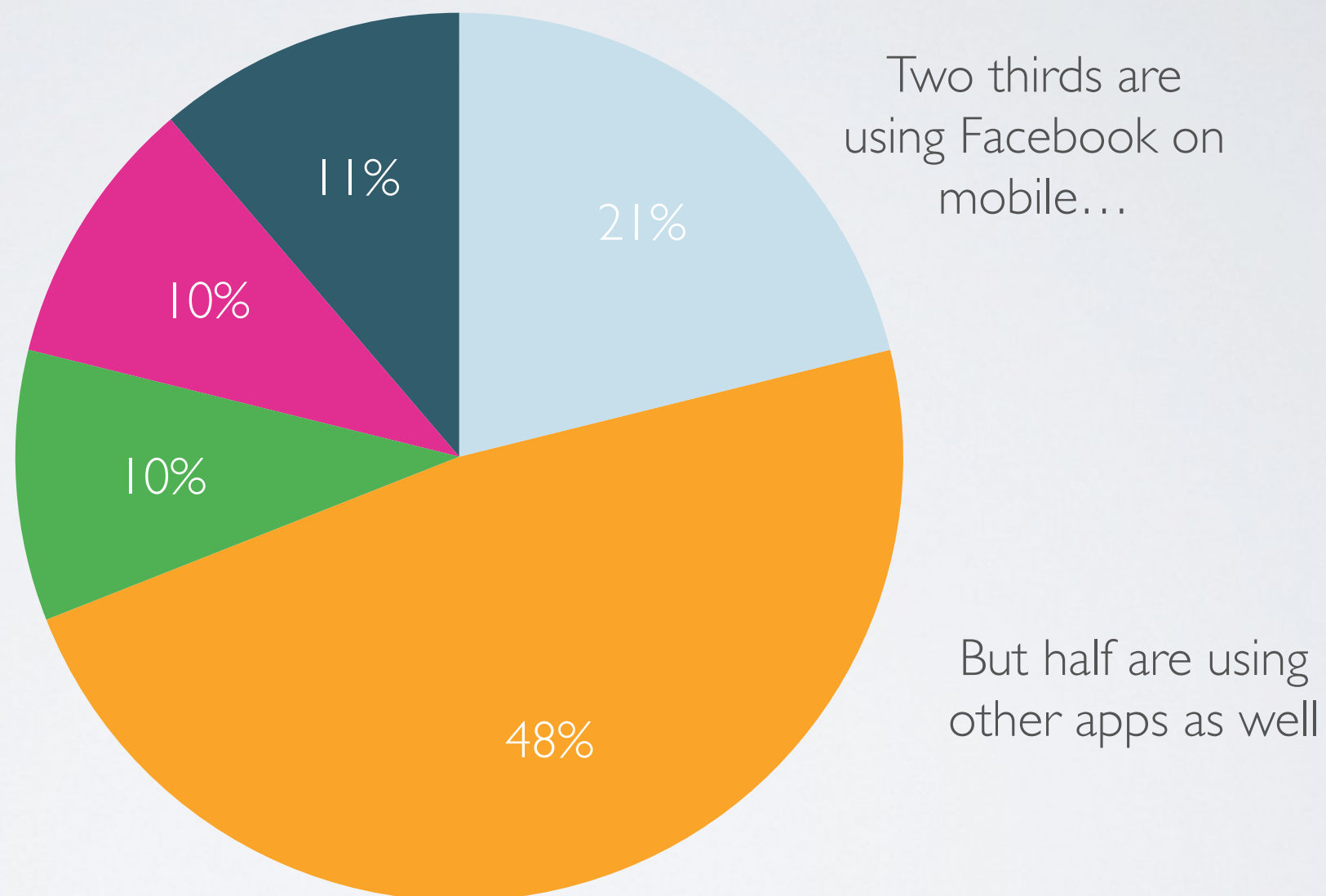
- Remember Myspace, Bebo, Tuenti, Orkut...
- People appear to regard almost all of what they share on a social network as transitory - and not just for Snapchat
- People walk away from the archive - social detox
- Perhaps social networks are sticky like nightclubs, not banks
- This makes mobile social potentially very volatile

- Vastly less friction to adopt social apps on mobile
- People jump from network to network and abandon old ones
- All that matters is what your friends use today



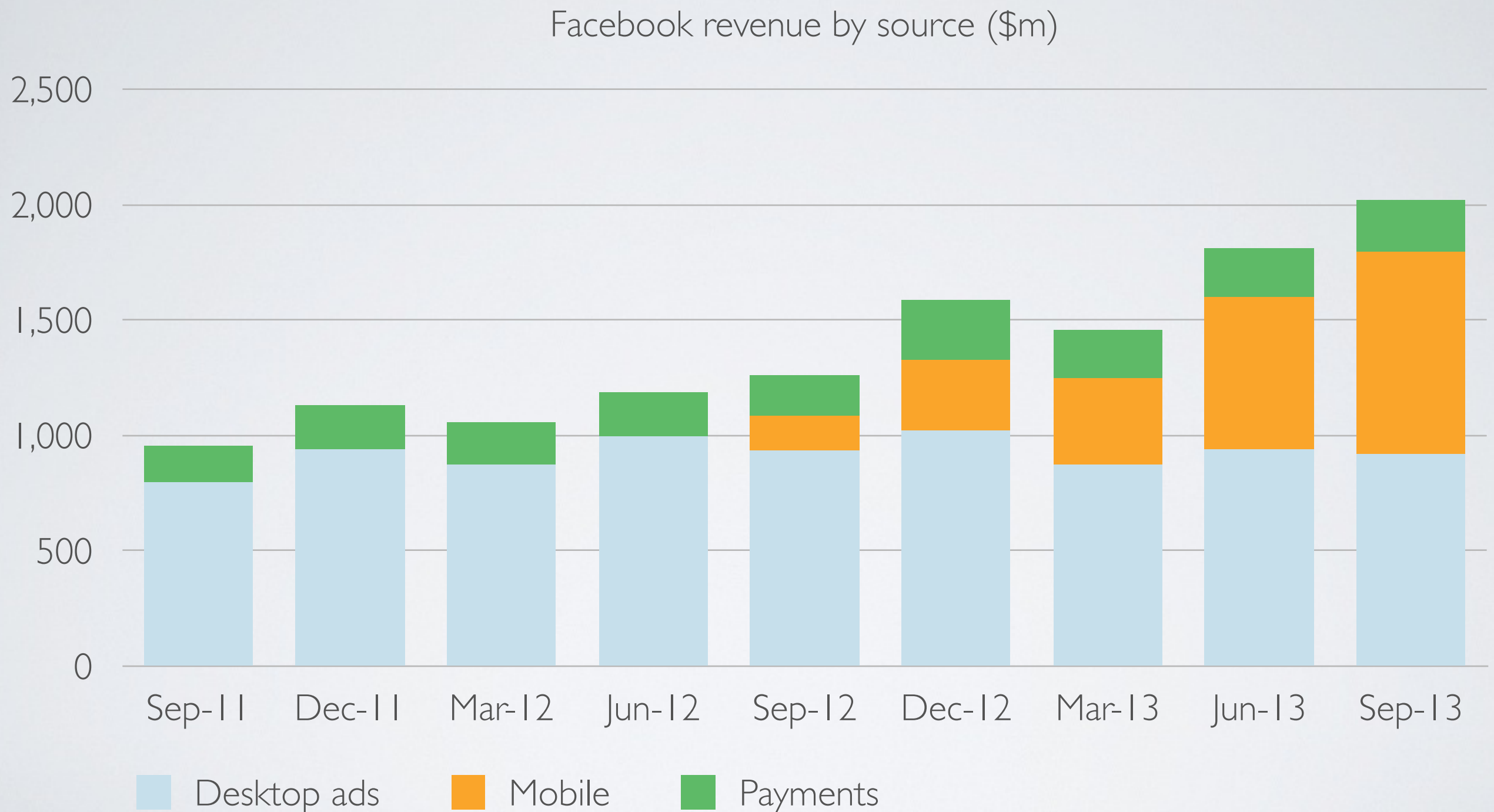
# Facebook is one of many

UK 15-24 year old mobile users, May 2013

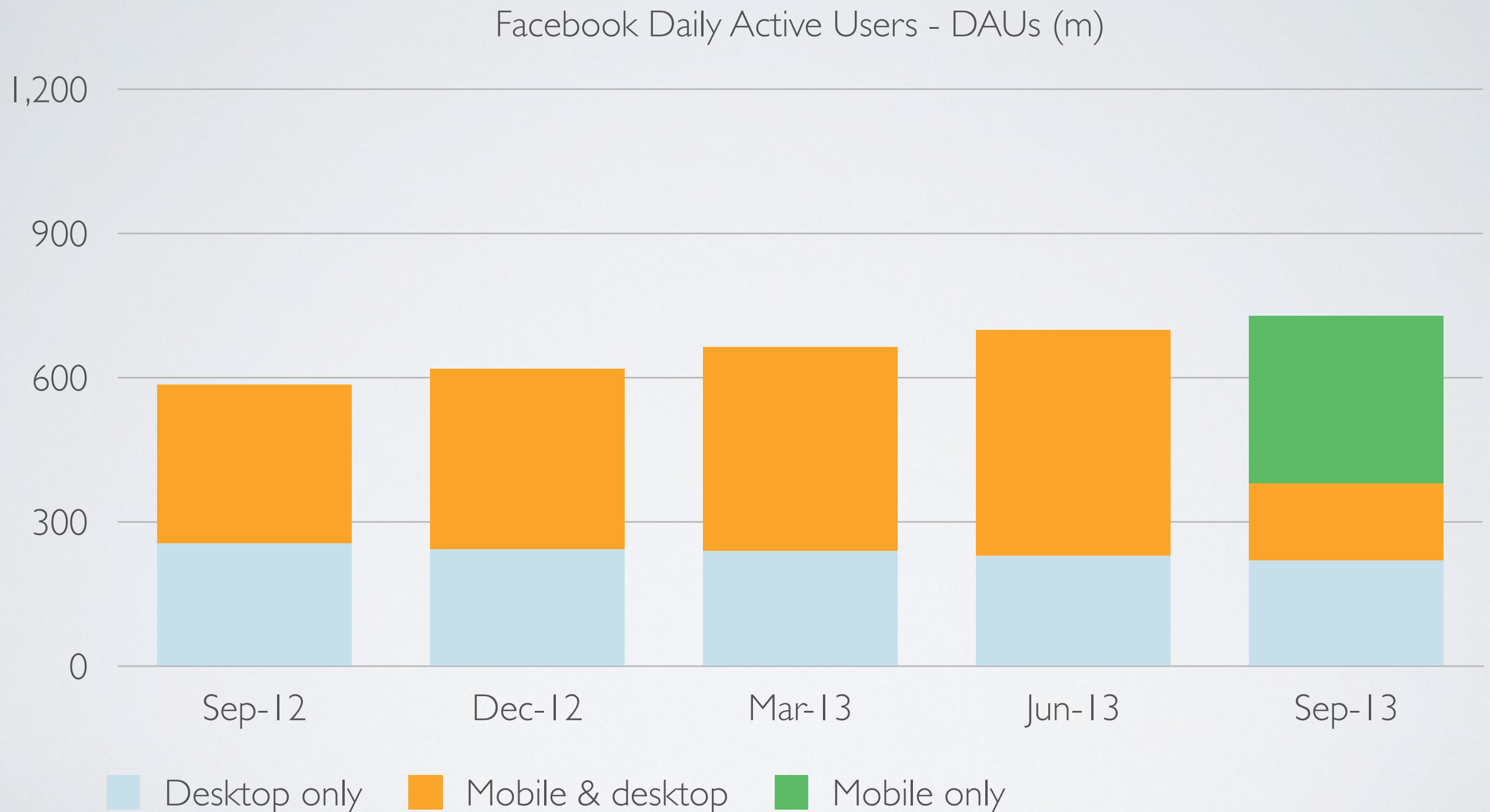


- Facebook
- No social apps
- Facebook and other social apps
- No smartphone
- Other social apps, no Facebook

# Facebook is doing well on mobile



# Half of DAUs are mobile-only



Is the mobile opportunity so big  
that it doesn't matter to  
Facebook if it isn't dominant?



# Unbundling

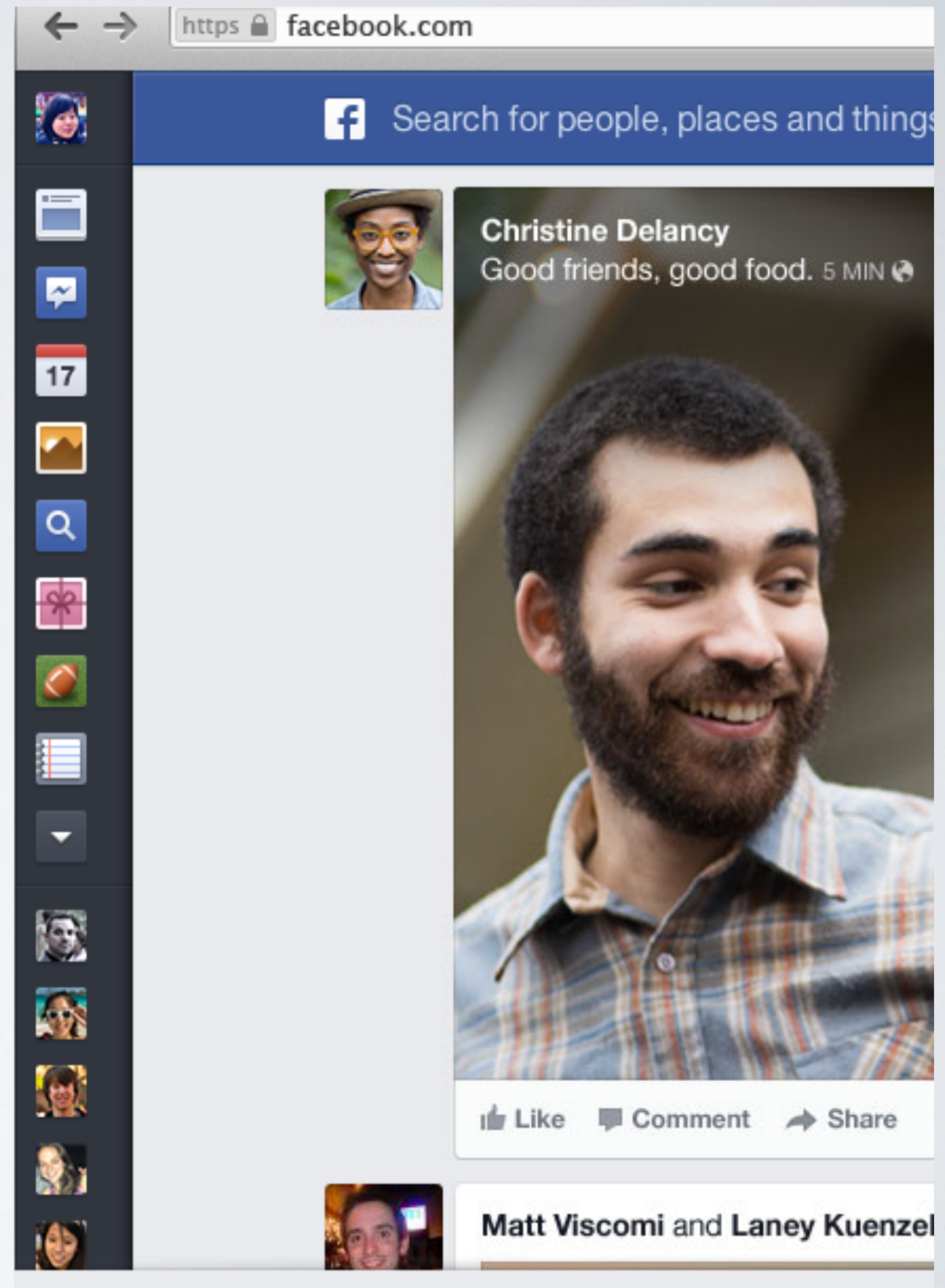


# The aggregation cycle

- Value to aggregating all your needs/services/content/messaging/friends in one place
- Over time, the gravity well sucks in more and more adjacencies
- Category killers emerge, lock-ins turn out not to matter so much and the aggregator is unbundled
- And then the cycle repeats

# Unbundling Facebook

- Each part of the Facebook experience gets peeled away on mobile
- Photos, text, music, video...





# Unbundling functions or unbundling friends?

- People aren't using Instagram for photos, WhatsApp for text, Line for stickers...
- They're using everything for everything
- Overlapping Venn Diagrams of networks, use cases and social groups
- Not really any different from choosing between SMS, email and voice - just more options



# Mobile social is still in flux

- Facebook nailed the desktop social experience - no-one has nailed it on mobile yet
- Start with messaging & photos, but what then?
- Searching for new models of interaction
- Interconnect with PSTN? Stickers? Disappearing photos? Channel for brands? API? Payments?
- Embedded content, sharing, discovery and distribution

# There's money in stickers


Line revenue (\$m)




# The real opportunity is creating the next platform

- Role of mobile social in discovery & distribution still undefined
- Line and Wechat now mounting expensive marketing campaigns - global and local
- Snapchat attracting a \$3-4bn valuation, Instagram looks cheap?
- Building the next distribution and advertising platform


# Cards as content packets - social as discovery

**Brendan Donohoe** @bdonohoe 1h

This is interesting... [t.co/uETCnMDdo8](https://t.co/uETCnMDdo8)  
[Hide Summary](#) [Reply](#) [Retweet](#) [Favorite](#) [More](#)

 **Etsy**

**Backpack No.5 Dual Look -- Natural Waxed Canvas with Leather**  
By buluchu



**\$195.00**  
USD


**San Francisco, CA**  
LOCATION

This is a dual look backpack. You can change the look of your backpack in a second. Great for those day when you need to carry your laptop...


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Status: On-time

LAX  
April 10, 14:55



FRA  
April 11, 10:40

Flight **LH457** Terminal **4** Gate **23C**



# Two trends for mobile content

## Atomised content

- Split content into individual packets that can be routed across multiple networks
- Pinterest, Tumblr, Twitter cards, Line, Kik, Facebook embeds
- Every piece of content is the home page

## App silos

- Tablet apps can get 30 minute sessions
- Very tough to do SEO, SEM, acquisition data, sharing, social
- Deep linking in very early stages
- Tough acquisition but valuable users once acquired

# Again, all this is in flux

## Atomised content

- Future role of Facebook?
- Consolidation? Local winners?
- Simplicity (Whatsapp) or rich platforms (Line, Wechat)?
- Indexing? Search? Deep linking? Federation? APIs?

## App silos

- App discovery?
- Deep linking?
- OS integration?
- HTML5/hybrid/native?
- Disaggregation and return to the web model?

# Broader uncertainty and opportunity

- The basic interaction model of the web was set by the late 1990s - web page linking to web page
- Mobile isn't nearly as clear yet: web, web apps, native apps, push notifications, deep links, OS integration (Siri, Now, Maps etc) - and much more to come
- Not just apps - all mobile service discovery is in a pre-PageRank state
- Not clear at all what mobile will look like in 5 years
- Very likely social apps could be a major part of the glue

# Blurring boundaries

- The things that link and drive service use and discovery on mobile are still evolving - but social will be an important part
- What is the identity platform - if any?
- Pay attention to things that act both as protocols and services
- Pay attention to blank canvases, where users can create new services







# Thank you

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