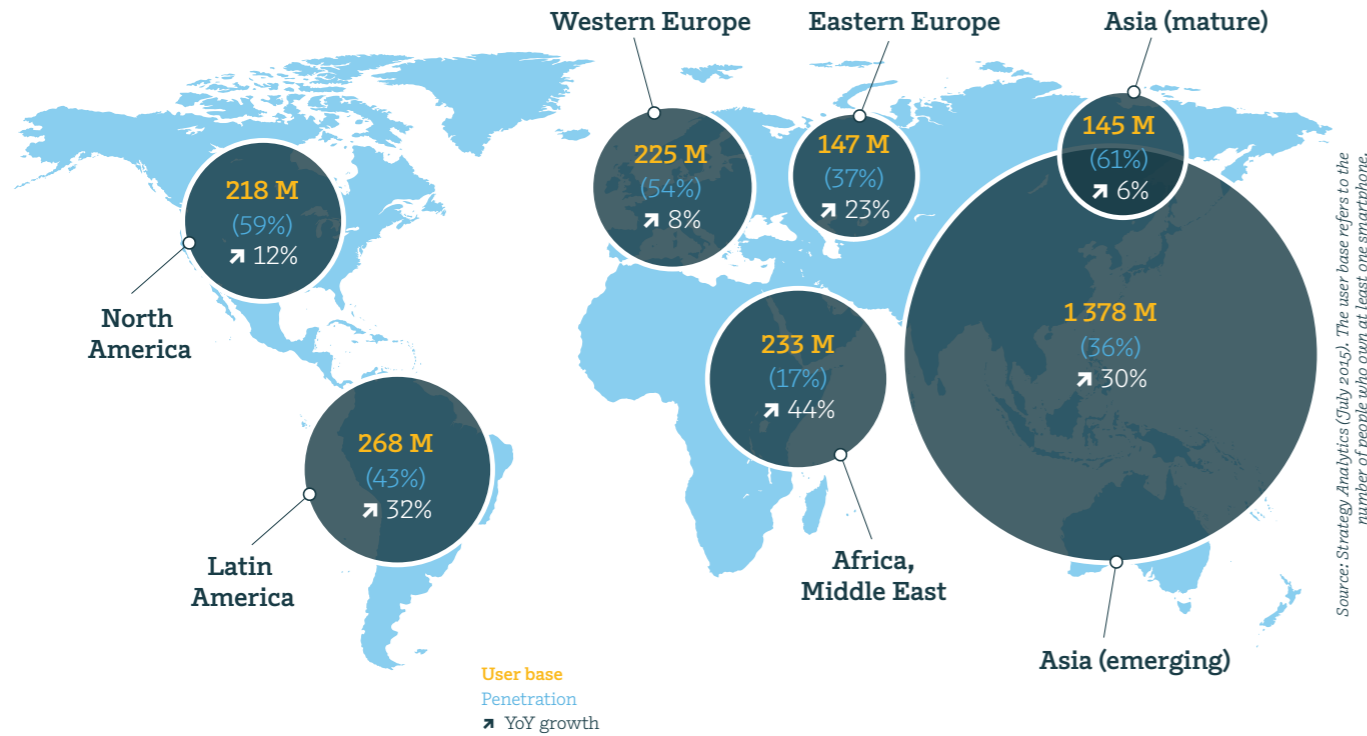


# Mobiles handsets and usages

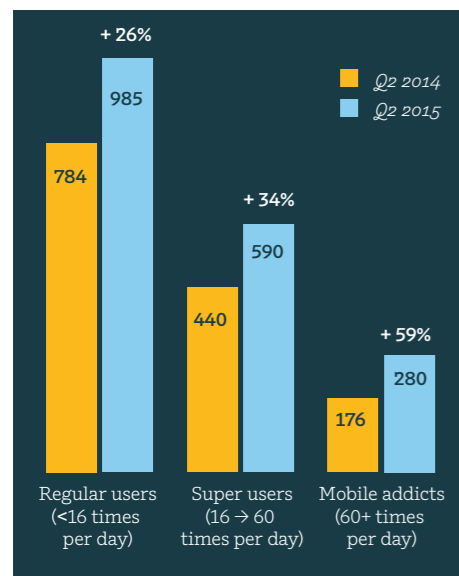
## THE SMARTPHONE IS NO LONGER THE RESERVE OF RICH NATIONS

Smartphone users worldwide (millions and % of the population, end of 2015)



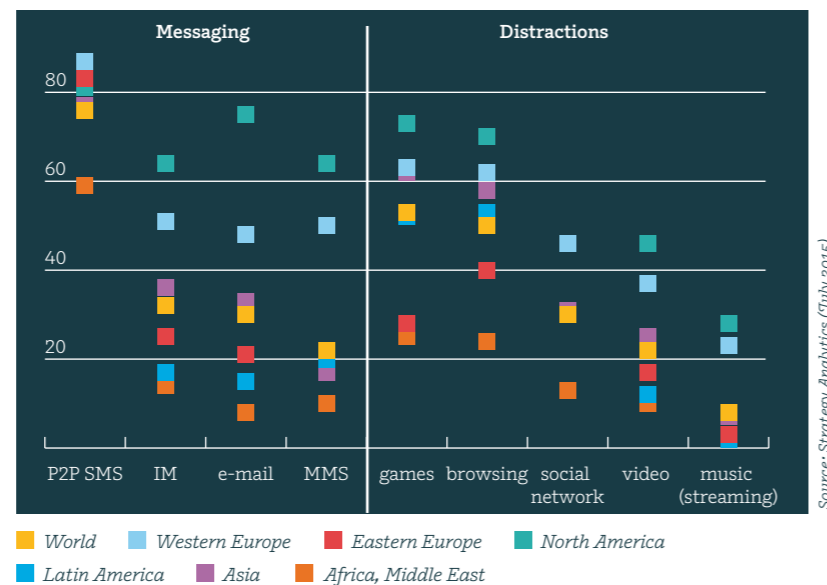
## AN INCREASINGLY MOBILE WORLD

Daily users of mobile apps (millions)



## PENETRATION AND USAGES OF POPULAR MOBILE SERVICES

Service penetration (% of unique mobile users)



27%

Proportion of smartphones deliveries priced under \$100 to Africa and the Middle East. (wholesale price, Strategy Analytics, July 2015)

900 M

Active monthly users of WhatsApp in September 2015 (+300 M year-on-year). The Facebook subsidiary is the world's most dynamic and popular OTT messaging service. (Source: WhatsApp, Sept. 2015)

26%

Proportion of purchases made using a cellphone on Cyber Monday (30<sup>th</sup> November) in the United States, or \$799 M out of a total of \$3.1 Bn. (Adobe Systems, Dec. 2015)

\$26 Bn

Value of the world mobile games market in 2015, up from \$10 Bn in 2012. (Deutsche Bank, June 2015)

The GAFA - Google, Apple, Facebook and Amazon - are multiplying their initiatives to connect the next billion internauts and to be present along the entire mobile value chain

In November 2015, Facebook claimed to have 1.5 billion users worldwide, or a fifth of the global population! To continue their expansion, Mark Zuckerberg and the other web giants are now targeting emerging countries. With their handsets, applications and networks, their goal is to ultimately connect the 4 billion people who do not yet have Internet access.

### After the handsets ...

The GAFA have not been slow to emulate Chinese manufacturers and propose super-affordable, entry-level smartphones: in 2015 they launched models under \$100 first in Asia and then in Africa. Microsoft and Mozilla released several models early in the year and in August Google extended its Android One program with the Infinix Hot 2 smartphone launched in Nigeria through the operator MTN.

### ... and the apps

The arrival of these low-cost smartphones is accompanied by "lite", less data-greedy versions of popular applications. Google has developed an optimized variant of its search engine and is preparing to integrate in YouTube a function that will allow offline video viewing. The Facebook Lite app adapted for 2G networks was launched in Asia and Africa in January 2015, and Facebook has extended its Free Basics by Facebook app to another nine African countries.

### ... the networks!

The new challenge for all these big web players is network infrastructures. Google and Facebook have started challenging telecoms network operators in order to sell broadband Internet access in "white areas". Google is pursuing its development of alternative solutions, for example its "Loon" project to deploy a network of high altitude stratospheric balloons, already tested in New Zealand, Brazil, Sri Lanka and Indonesia. In January 2015, it invested \$1 Bn in SpaceX which plans to put 4,000 micro-satellites into orbit. In July, Facebook unveiled its "Aquila" project to deploy a network of solar-powered drones equipped with a high-precision laser transmission system carrying data at up to several tens of gigabytes per second. It will be tested in real conditions in the coming months. In October, Facebook announced a partnership with Eutelsat to launch a geostationary satellite in mid-2016 to cover Sub-Saharan Africa. As we see, there is no shortage of initiatives by the GAFA giants. However, a number of crucial questions remain unanswered, not least the allocation of spectrum.