

SOCIETY

The key role of telcos in constructing the digital world

Telecoms are at the heart of the Digital Revolution. They make it possible for everyone and everything to be connected, generating huge opportunities for the sector. We believe that technology should be at the reach of everyone so anyone can broaden their personal and professional perspectives

In 2013 the figure of 7,000 million mobiles was reached. Already there are more devices than people

The Digital Revolution is coming rapidly and in large numbers. And connectivity, which is at the core of this Revolution and makes it possible, is also advancing. In 2013, the figure of 2,800 million Internet users, 40% of the world's population, was reached. All of them access the Internet via telecoms networks. With 760 million homes connected and 2,200 million mobile broadband connections, we live in a completely connected world.

Social networks reach almost the equivalent of the population of Brazil instantly, and have been decisive in certain recent and deep social and political movements.

Innovation cycles are shorter and consumers want the latest thing. New connected personal devices that are *wearable* (watches, glasses, bracelets, heart rate monitors...), a connected car, meters or smart houses, control *drones* and the new services that make a city smart... *the Internet of things* is taking off.

We are also on the threshold of disruptive change in the model of production, with *big data* and *cloud computing*, and even 3D printers that delocalise production like never before. All this is possible thanks to broadband connectivity and it creates opportunities for reinvention and transformation in multiple sectors and industries. Financial services, security, healthcare, education, advertising, public administrations and content provision are among the sectors that are increasing their efficiency and opening up new markets in this new digital world.

Internet traffic has shot up in the era of smartphones, with video being the service that has most influenced its growth. One fifth of all Internet traffic is now generated from mobile devices. And users and companies demand ever more.

To make this Revolution and the opportunity it represents real, networks need to be renewed and transformed. More than 50% of the people in the



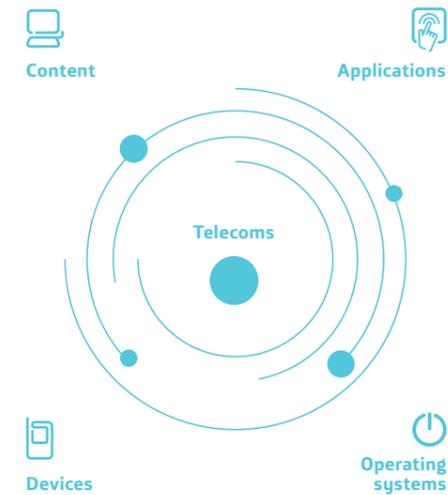
world already enjoy 3G coverage. And users await the speeds offered by LTE. Asia is already thinking of the fifth generation. The technology is available and network renovation is vital to keep up with demand and realise the opportunities in the sector.

And all this is only the beginning. In 2013 we reached 7,000 million mobiles worldwide, but in 2014 there are already more mobiles than people. If only 30% of these devices have broadband connectivity, the potential for growth is enormous. Traffic per user will pass from 440 MB in 2013 to 3.8 GB in 2018, and total traffic is expected to multiply by 11.

The *Internet of things* will be superseded by the *Internet of everything* and according to forecasts, there will be 50,000 million connections by 2020. 99% of these connections are still pending.

There is no doubt: the opportunities generated by the Digital Revolution are real and awaiting the telecoms sector that makes them possible,

Telcos make the Internet and new digital services possible



The digital revolution in figures





The ICT sector, with its new technologies and its capacity for innovation, is heading up the digital revolution

ICT at the heart of the solution

Today, the processing capacity of an average smartphone is greater than that of the technology NASA had to send the first man to the Moon. Technological quantum leaps of this scale do not occur very often. Today, we create in a few days as much data as all previous generations of Humanity have created until the invention of the Internet. It is the ICT sector with new technologies and innovation which is fuelling the Digital Economy and driving this dramatic period of change.

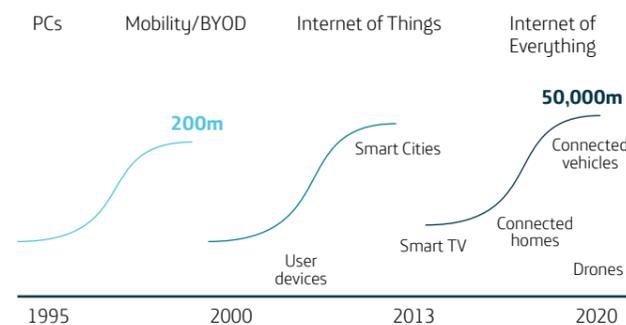
The Internet is present in our everyday life: at home, at work or in our entertainment. Internet networks connect today over one third of Humanity and this is transforming all societies from an economic, environmental and social perspective.

The range of potential applications for a more sustainable world is wide: smart cities, clean tech, intelligent shopping solutions, smart metering, home automation, energy saving, remote security products, and e-Health applications.

Many international studies have shown how Broadband and the Internet improve economic growth and productivity. [More information](#)

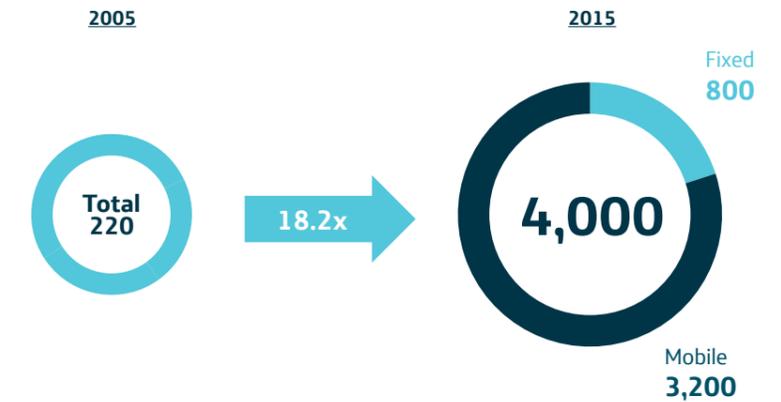
- A 10% higher penetration for Broadband Internet Access increases GDP by up to 1.5% [More information](#)
- Investments in ICT generate more productivity growth than other capital investments [More information](#)

Connected objects

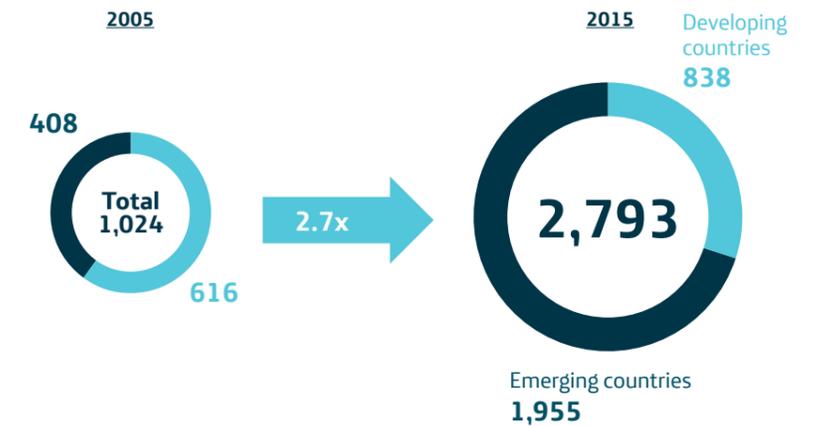


The New Internet is born

From the fixed line to 'from anywhere'
Broadband connections (in millions)



From developed countries to emerging economies
Internet users around the world (millions)



- Digitization has boosted world economic output by €141 billion over the past two years and created 6 million jobs during that period [More information](#)
- An increase of 10% in a country's digitization score fuels a 0.75% growth in its GDP per capita and a 1.02% drop in a State's unemployment rate. [More information](#)
- In emerging economies digitization could help lift over half billion people out of poverty over the next decade [More information](#)
- The Digital Economy is creating new jobs, is making labour markets more inclusive and is creating completely new business models [More information](#)

The data explosion
Global traffic on IP (Exabytes/month)



At Telefonica, we aim to provide the digital products and services which will help to improve the lives of our customers by leveraging the power of technology. This ranges from developing new technologies for consumers to communicate with friends and family through to helping businesses and governments address new opportunities, improve operations and increase efficiencies.

Among the most relevant sustainability services by Telefónica we highlight those related to education, e-health, accessibility, Smart cities and green telecommunications services.