SOCIETY

# Innovation at Telefónica_

*Once again, the percentage for innovation regarding the Group's revenues rose (10.8% in 2013 compared to 9.3% in 2012)*

Investment in R&D at Telefónica represents 8% of our total business investment in Spain, and was the biggest investment by an operator in Europe in 2013

## Boosting R&D

2013 was an important year for R&D at Telefónica. On the 25th anniversary of the birth of Telefónica I+D, Telefónica was recognised by the European Commission as the telecommunications operator that last year invested the most in R&D in Europe, while it was ranked second worldwide in this respect. Also noteworthy is the fact that investment in R&D in Spain by the company represented 8% of total business investment.

As at 31 December 2013, Telefónica I+D had a workforce of 689 professionals from 18 nationalities located in Barcelona, Granada, Huesca, Madrid, Valladolid, São Paulo and London. In addition, in 2013 we opened a new innovation centre in Santiago de Chile that will centre on Information and Communication Technology (ICT) and the development of smart cities.

At Telefónica we not only project our innovation-oriented focus into our own activities and products, during 2013 we also promoted innovation by third parties, acting as a

catalyst for the national system for research and development, through policies of open innovation, both with venture capital funds (Amerigo and Innvierte, the latter in collaboration with CDTI) and with Telefónica's accelerator, Wayra, and OpenFuture, our programme to promote entrepreneurship. This role as drivers of innovation is also reflected in our support for and contribution to the various editions of Campus Party and the organisation of different open hackathons and contests, among other initiatives.

Also noteworthy in 2013 was our cooperation with other European operators and institutions as part of different EU-promoted programmes, in addition to our collaboration with over 150 Spanish and foreign universities and research centres.

## Innovation to improve the lives of consumers

During 2013, at Telefónica we focused our innovation activity on key areas for improving the quality of life of consumers, such as Machine-to-Machine (M2M), cloud services, security, video, Big Data, applications and financial services.

Thus, having already launched the first devices with the Firefox OS open source operating system, our objective in 2013 was to democratise smartphones, through increased collaboration with Mozilla to develop more smartphones that are accessible both in emerging markets and to the general public.

In M2M, innovation focused on the management of services primarily related to Smart Cities, energy efficiency and mobility. It was also prominently geared to the Internet of Things and its adoption in the urban and industrial area, as well as being an enabler for the creation of services.

Another remarkable innovation project was Telefónica's leadership in the development of the European Future Internet platform, FI-WARE. Cities that deploy this platform will create an ecosystem where open data and the Internet of Things (IoT) will allow entrepreneurs to create new services. The city of Seville has already chosen this platform to promote developments that improve public services and the quality of life of its citizens and at Telefónica we intend to take the FI-WARE platform to those regions of Latin America where we are already firmly established and committed.

## Patents

At Telefónica we understand that the knowledge and inventions generated through our innovation create an intangible heritage that is reflected, *inter alia*, in patents. During 2013, Telefónica registered 82 patents (87 in 2012), of which 70 were registered at the Spanish Patent and Trademark Office (SPTO) and 12 at the USPTO. Of the patents filed at the SPTO, 57 were European applications (EP) and 13 were international applications (PCT).

## Social and environmental innovation

In the digital telco sector, significant advances are being produced in areas which are fundamental to the future of our company, such as those taking place in Big Data, e-Health, M2M, etc. These developments could have a significant impact on the improvement of society and the environment as well as in the privacy of consumers. As a result, at Telefónica we are taking these environmental and social aspects into account from the early stages of development of research and innovation.

Some clear examples of how social issues become part of the conceptual essence of innovation at Telefónica can be seen in the research on Big Data in the analysis of the impact of the Mexican government's actions to contain the outbreak of the Influenza A (H1N1) virus in 2009, and the study of impacts on mobility of individuals during certain natural disasters in Mexico.

Regarding the role of environmental issues in the research and development of new products and services, noteworthy in 2013 was the selection of Telefónica as the future supplier of smart metering services in the UK, which will be vital for managing energy systems more efficiently and reducing carbon emissions.

## Milestones

➜ Marketing of the first models of Firefox OS

➜ Marketing of 'Radio Me' as an example of services based on social innovation

## Challenges

➜ Management of energy efficiency through smart meters



R&D&i
(€ millions)

Chg.
+6.5%

5,770 (2012)
6,142 (2013)

R&D
(€ millions)

Chg.
-2.3%

1,071 (2012)
1,046 (2013)

R&D&i
income

Chg.
1.5 pp

9.3% (2012)
10.8% (2013)

R&D
income

Chg.
0.1 pp

1.7% (2012)
1.8% (2013)

Patents

Chg.
-5.7%

87 (2012)
82 (2013)