



# Getting to know Telefónica I+D

Who we are and what we have achieved

Fresh news at ...



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<http://www.facebook.com/telefonicaid>

<http://tid.es>

# Telefonica I+D will help Telefónica be competitive in the digital world



# Telefónica activities on Innovation

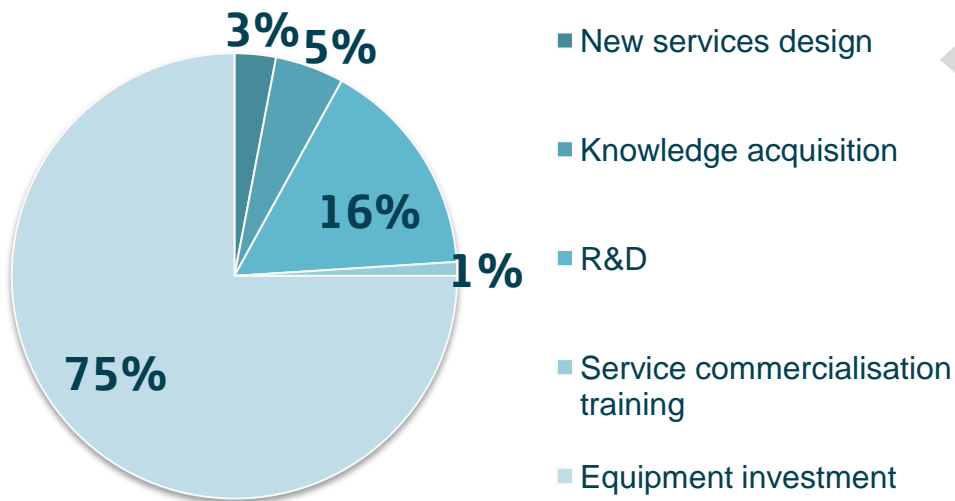


## Telefónica invested **4.814 Mill€** in Tech Innovation (2010)

- 797 Mill in R&D
- 94 Mill in Telefónica I+D (2011)
- Innovating in 25 countries

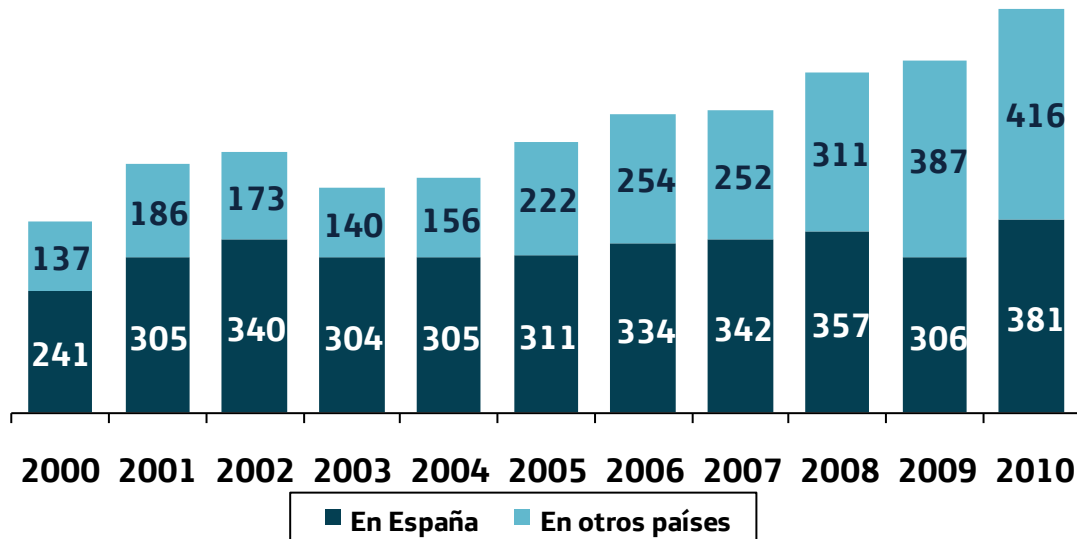
Among the **40 biggest companies** in Europe in R&D investment

## How does Telefónica innovate?



R&D represents **16%** of total innovation investment

# Considering R&D investment, it is the sixth telco in the world



Telco	R&D CAPEX 2009 (M€)
NTT	2.007,89
BT	1.158,14
TELSTRA	883,8
France Telecom	862
Telecom Italia	842
<b>Telefónica</b>	<b>693</b>
AT&T	687,19
Deutsche Telekom	432
Vodafone	341,03
KT	241,46
Portugal Telecom	213
KDDI	201,86
SK	151,92
Swisscom	137,54
TeliaSonera	92,05

# In 1988

... Telefónica I+D was redefined as an standalone company

- The new company was created from the R&D department in Telefónica de España
- It was designed with Bell Labs as a reference
- First president was a former Bell Labs executive and was responsible of introducing new procedures of doing things different from European tradition
- ITT was the technological reference partner



# Telefónica I+D is an international network of innovation centres



## A network of innovation centres:

- 5 centres in **Spain**: Madrid, Barcelona, Valladolid , Granada and Huesca
- A center in **Brazil** (Sao Paulo) jointly with the local operator (Telefonica Brasil)
- A center in **UK** formed by **TID - O2 UK - Jajah**

An  
**International**  
company



Telefónica I+D has a staff of **researchers, technologists, developers and designers**, from **18 nationalities**.

A  
**multidisciplinary**  
and **international**  
staff



**97%** university graduates, **10% PhDs**, from **34 international** universities with 10+ years of average industry experience.

**Highly**  
**qualified**

# And creating one of the largest European network of innovation in the ICT sector

## Participating in **European** initiatives

### Innovation Programmes



### Technology Platforms



### Cluster programmes to promote cooperative R & D



## Participating in **Spanish** initiatives

### Innovation Programmes (National)



### Technology Platforms (Regional)



### Technology Platforms



## Participating in **international** forums and bodies



**Telefónica I+D has a long tradition  
of successful innovations**



# 40 years ago ...

... telcos began to think about creating data communication services in addition to voice

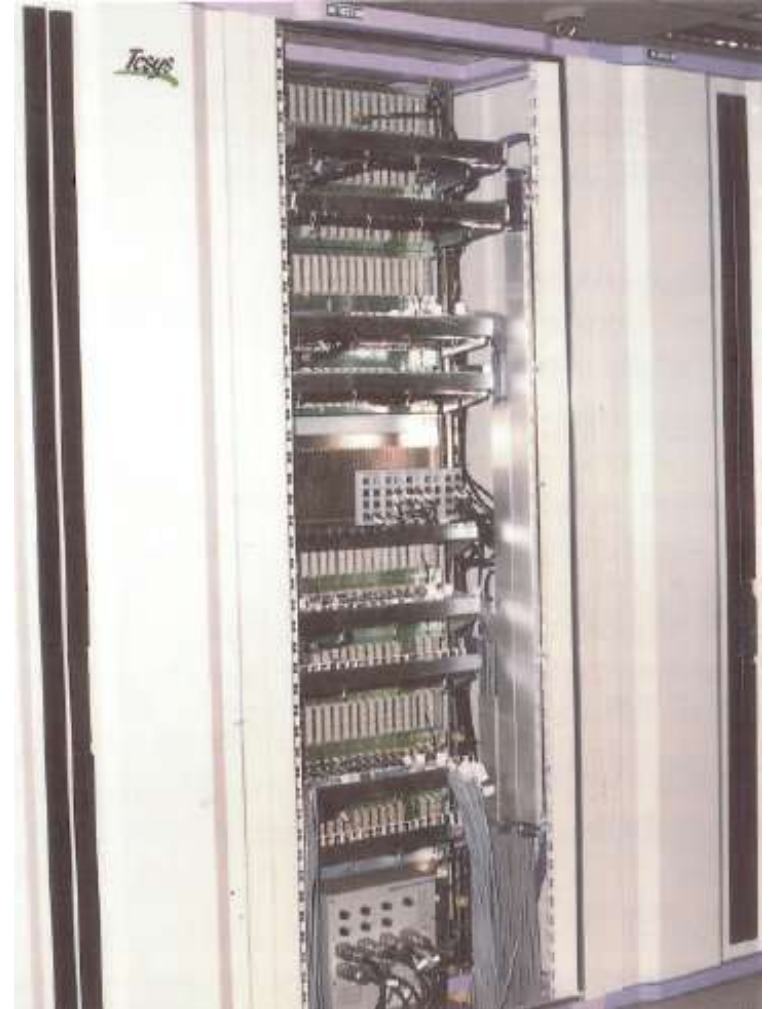
- Telefónica created the first public data communication network in the world
- As a consequence the first data communication network for a bank was created (Banesto)
- As a consequence, first ATM where designed in Spain
- And, as a consequence, Spain is the leading country in the world in ATM



# 20 years ago ...

... data communication services provided by telcos were commonplace

- But router technology were no mature enough
- So Telefónica created and designed router technology for data communication within its networks (Tesy nodes) when no competitive offer from manufacturers exist
- When new strong manufacturers appeared able to produce network equipment with scale, intellectual property was sold to Nortel Networks



# 10 years ago ...

... television was distributed using special purpose networks

- Telefónica I+D created one of the first platform for distribution of television over a general purpose network, using ADSL as the access technology
- Thus creating one of the first IPTV technologies in the world anticipating later products of other companies
- To gain scale economies in manufacturing, the technology was sold in 2006 to Lucent and it is still used as a basis for the IPTV solution of Telefónica
- Nowadays Telefónica I+D has developed an Over The Top solution to complement IPTV Imagenio product (see later on)



## 5 years ago ...

... technology for integrating business requirements within networks elements was expensive and complex

- Telefónica I+D created a platform for real time processing of charging information using general purpose workstations achieving a notable reduction in costs
- Platform was evolved and implemented across the company.
- When technology was mature enough it was sold to Ericsson to continue evolution for Telefónica and offer to other companies.

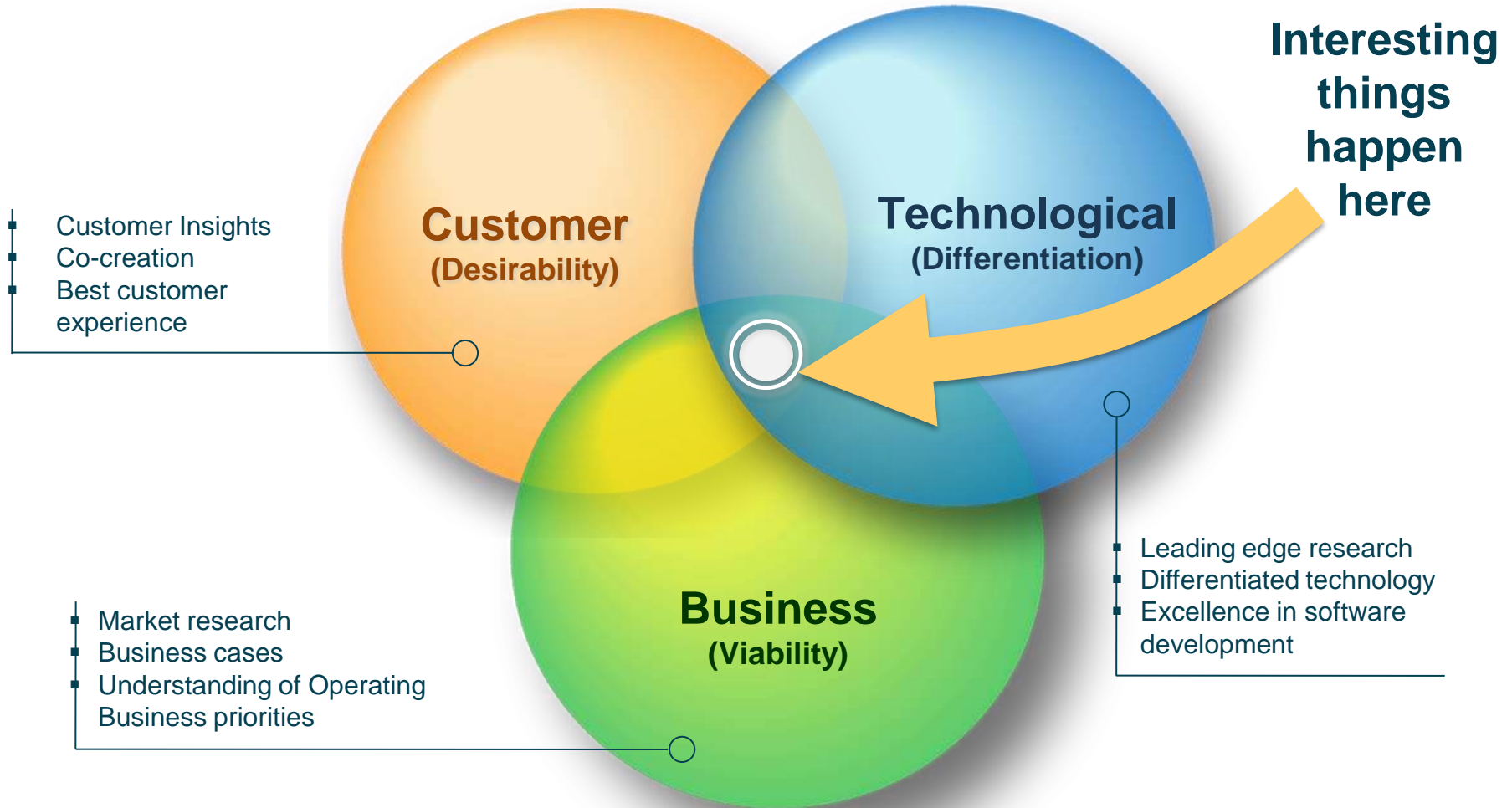


Telefonica I+D has reinvented its innovation process to adapt itself to the new reality: focusing on **differentiating technologies** while thinking about **delighting the customer**.



# Significant innovation happens at the intersection...

... of customer, technology and business. Working with each area at the same time leads to maximum impact and differentiation.



# Customer insights and customer engagement

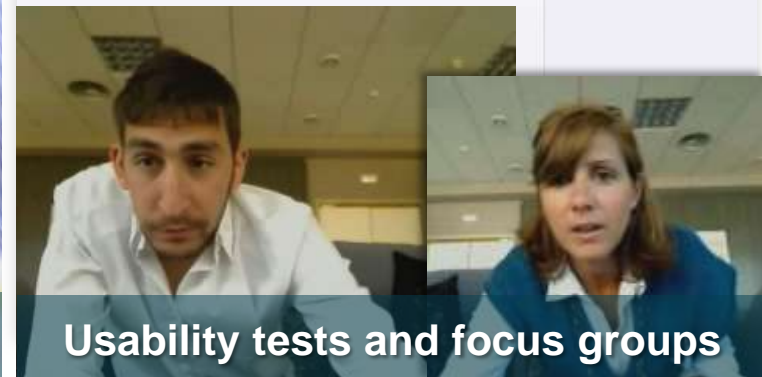
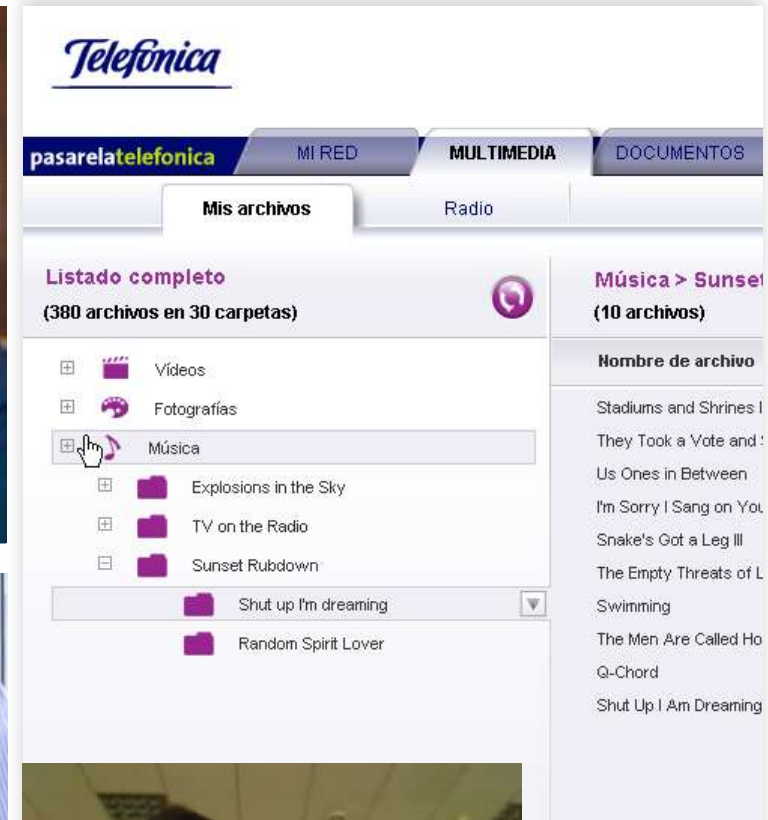
Customers are engaged throughout the innovation and product development process.



Understanding customers in context



Co-creation sessions



Usability tests and focus groups

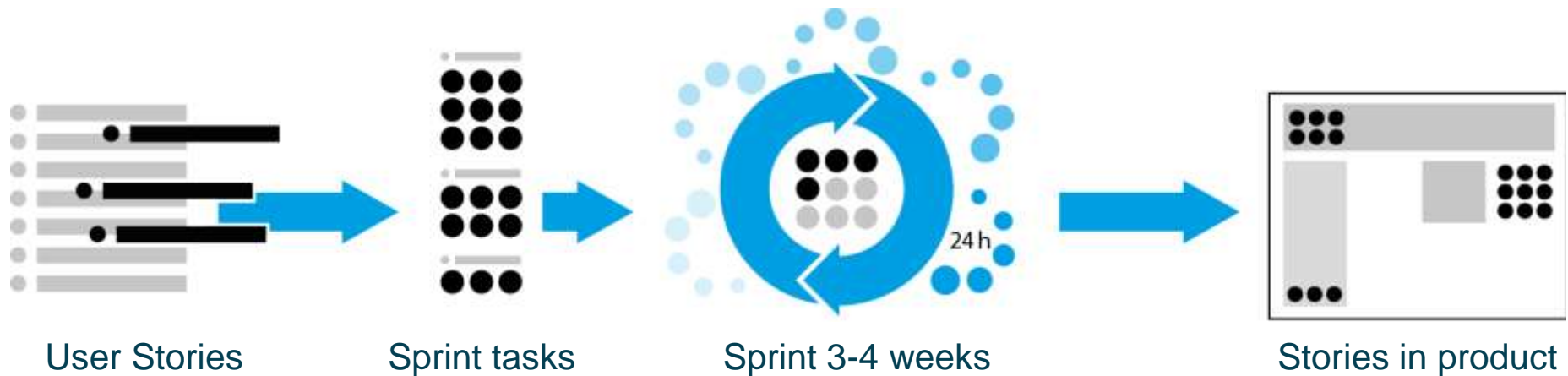
# Research Organization

It seeds the Innovation process with scientific expert knowledge, and strong IPR generation. Focus is on user modeling, M2M learning, HCI, distributed systems & networks, video distribution and more.



# Best of class software

Agile methodologies are used for engaging stakeholders, reviewing progress, and developing best of class software.



User Stories

Sprint tasks

Sprint 3-4 weeks

Stories in product

# TID follows an Open Innovation Framework

Identifying emerging technologies and partnering with companies around the world to complement in-home created know-how and differentiation. This approach includes licensing our technologies or spinning off new companies.



**And this model is already  
producing plenty of results**



# Only in 2010 the more relevant results were ...

## Giff-Gaff (UK)



9 months from idea to beta  
60.000 users, 95% of user  
problems are solved in less  
than 2h by another user

## O2 Priority (UK)



Top #1 on Apple's AppStore in  
Music Category (UK)  
119.000 registered users. Soon in  
Germany (iPhone and Android)

## TocAd (Spain)



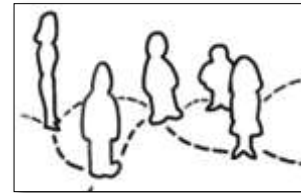
62.000 users receiving 50.000  
messages/week

## Bluevia (Spain, UK, Mx, ARG, Brasil)



500+ developers

## Social Network Analysis (Mexico, Spain & Argentina)



MM€€ in cost savings from  
social churn reduction

## Mediabox (Brasil , Spain)



Close to 500K units ordered

## TvApps (Spain)



Close to 20% IPTV  
Spain customers  
have it

## Global Video CDN



Pilot with TIWS  
Chosen to be the global  
CDN in partnership with  
HP

# ... we have recognized by the industry

... when Gartner identified two products of Telefónica R&D among the five most innovative in the year

<http://www.gartner.com/DisplayDocument?id=1546114>



GiffGaff GiffGaff is an innovative virtual mobile operator, built on web 2.0 principles and oriented to participation and direct involvement of its user community in the success and strategy of the company, rewarding users for it.

See Telefónica I+D participation in:

<http://tid.es/en/Tecnologia/Pages/TIDFichaProducto.aspx?IDElemento=4>



3GBox is an USB modem that provides 3G connectivity and virtually unlimited storage. It looks like a flash drive, but the difference is that instead of saving content locally, it “uploads” it to the Internet..

See Telefónica I+D participation in:

<http://tid.es/en/Tecnologia/Pages/TIDInternetTecnologiaFichaProject.aspx?IDElemento=26>

*Telefónica*

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