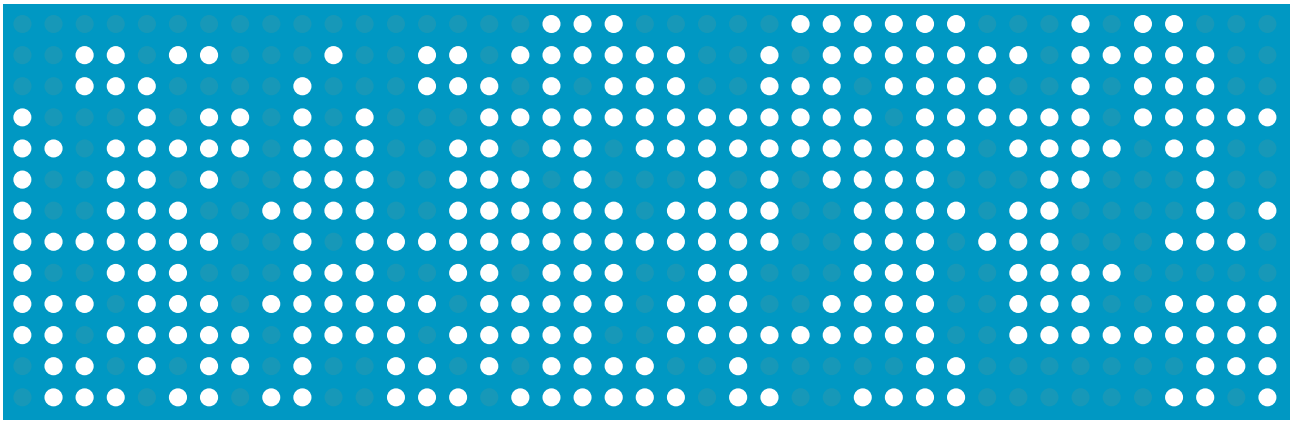
The Networked Society 2010 Annual Report. 2011 Edition

EXECUTIVE SUMMARY



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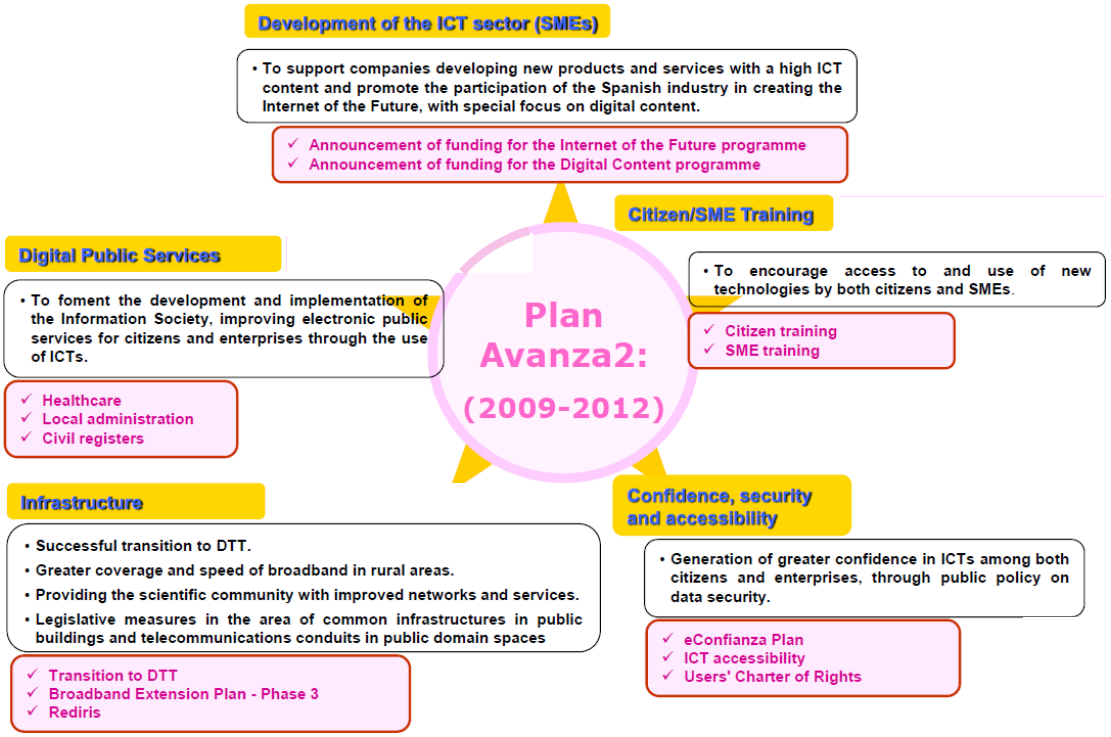
EXECUTIVE SUMMARY

PLAN AVANZA

The Lisbon Strategy, which was agreed at the Spring Council 2005, was followed by the initiative INGENIO 2010, which was presented by the Spanish government in June of the same year. The strategic aim of the initiative was full convergence with the European Union in 2010 in per capita income, employment and the knowledge society. One of the main action lines of the program INGENIO 2010 is Plan Avanza. Plan Avanza was approved by agreement of the Spanish Council of Ministers in November 2005, joining together all the R&D&i policies in the field of the Information Society.

Upon evaluation of results and to reinforce certain strategic lines, Plan Avanza 2 was defined, initially set to run to 2012. On the occasion of the Council of Ministers of 30 January 2009, this second phase of Plan Avanza was presented, aiming at consolidating the milestones achieved during the first phase, while contributing to foster new action lines based on the priorities that had been identified.

Plan Avanza2 lines of action and objectives



Source: SETSI

The main objectives of Plan Avanza 2 include promoting the intensive, productive and generalised use of ICTs which will benefit the country's economic recovery. The initiatives of the plan can be summarised into 5 major lines of action: development of the ICT sector, ICT training for citizens and enterprises, digital public services, and confidence, security and accessibility.

Afterwards, on 16 July 2010, the Council of Ministers approved the strategy 2011-2015 of Plan Avanza 2. This extension of time was framed in the context of the Digital Agenda for Europe, which was proposed by the European Commission on 19 May 2010, aiming at promoting the development of the Information Society and ICTs to spur economic recovery and job creation in the EU. The time horizon of the Digital Agenda is 2015 and took over from the i2010 Program.

Thirty four specific challenges have been identified that must be addressed by Spain during the extension of the plan, together with ten objectives aimed at facilitating success in overcoming these challenges. Additionally, more than a hundred specific measures have been defined and a set of indicators to monitor the degree of accomplishment. Lastly, a series of normative reforms have been identified, to remove barriers to the extension and the use of ICTs, and to guarantee the rights of citizens in the Information Society.

THE INFORMATION SOCIETY IN THE WORLD

In 2010, there was a new boost in Information Society development at the global level, with increases in equipment, infrastructure and use, most notably in mobile broadband, but also in social networks and user-generated content, which has led to a more 'social' Internet.

As for access to the Information Society via the telephone, we observe -using data of 2010- that the use of fixed telephones has decreased slightly and tends to remain stable, while mobile telephones continue to grow, registering a value of around 15.5% over the last year. At the same time, the number of Internet users in the world has increased by 13.2% over the same period.

Specifically, the number of Internet users in the world reached 2 billion in 2010, recording an average annual growth rate of 12% with respect to 2005. In absolute terms, Asia accounted for the greatest number of Internet users with around 875 million. America and Europe recorded around 471 million and 412 million users respectively. In relative terms, Europe stands out with 67 Internet users per 100 inhabitants. It is followed by America with 51 Internet users per 100 inhabitants. The lowest density is found in Africa, where the ratio is 11 users per 100 inhabitants, way below the world average of 29.7 users per 100 inhabitants. Less advanced regions account for the sharpest rises in average annual growth rate, while the most developed regions account for the lowest rates, except the Commonwealth of Independent States (CIS) –a regional organization whose participating countries are former Soviet Republics, formed during the breakup of the Soviet Union– that records a great increase over the last year (of 43.9% from 2009 to 2010) and is the third region of the world in ratio of Internet users to total population (34 users per 100 inhabitants).

Internet users in the world by region

Region	Internet Users (millions)			AAGR 05-10 (%)	Growth 09/10 (%)	Internet users/100 inhab. 2010
	2005	2009	2010			
Africa	17	73	86	38.3%	17.8%	10.8
Arab States	25	73	85	27.7%	16.4%	24.1
Asia and Pacific	344	741	874	20.5%	17.9%	22.5
CIS	28	66	95	27.7%	43.9%	34.0
Europe	278	388	412	8.2%	6.2%	67.0
America	316	445	471	8.3%	5.8%	50.7
Total in the World	1,023	1,805	2,044	12.0%	13.2%	29.7

AAGR: Average Annual Growth Rate *Source: Own elaboration based on ITU data*

Analysis at the global level reveals the importance of the language parameter. According to World Stats, the most popular language used on the World Wide Web in 2010 was English, with 537 million users, which represents 27.3% of the global Internet population. It is followed by Chinese with 445 million users (22.6% of the total) and Spanish with 153 million users (7.8%). The language recording the greatest growth over the last year is Russian (+31.8%), and Spanish also records an important growth of 9.7%.

According to the International Telecommunication Union, in 2010 the number of mobile broadband users per 100 inhabitants (12.6 per 100) surpasses the number of fixed broadband users per 100 inhabitants (7.6 per 100). Mobile technologies have experienced an increase of 64% over the last year, while fixed broadband has been growing at a rate of around 19% over the last few years, and specifically, by 11.7% in the last year.

Mobile broadband users in the world by region

Region	Mobile telephony subscribers (millions)			TMCA 07-10 (%)	Cto. 09/10 (%)	Mobile subscribers / 100 inhabitants - 2010
	2007	2009	2010			
Africa	2	11	20	115.4%	81.8%	2.5
Arab States	3	15	36	128.9%	140.0%	10.2
Asia and Pacific	116	182	290	35.7%	59.3%	7.5
CIS	1	18	31	214.1%	72.2%	11.2
Europe	89	170	254	41.8%	49.4%	41.3
America	58	136	224	56.9%	64.7%	24.1
Total in the World	268	531	872	48.2%	64.2%	12.6

Source: Own elaboration based on ITU data

The turnover of the global ICT market in 2010 reached €2,750 billion, 3.3% more than in 2009 when there was a slight market contraction of -2.1%. After the recovery in 2010, the upward trend is expected to continue in 2011. The estimations for 2011 predict a growth rate of 3.9% for the ICT sector. While in 2009 market falls were affecting North America and Europe, at rates of -3.9% and -4.2% respectively, in 2010 these markets grew by 2.7% and 0.7% respectively. In recent years, the most dynamic markets are those of Africa and the Middle East, that experienced an increase of 8.7% in 2010 with respect to 2009, and also the Latin American Market, which recorded a growth of 8.2% in this period.

World ICT market

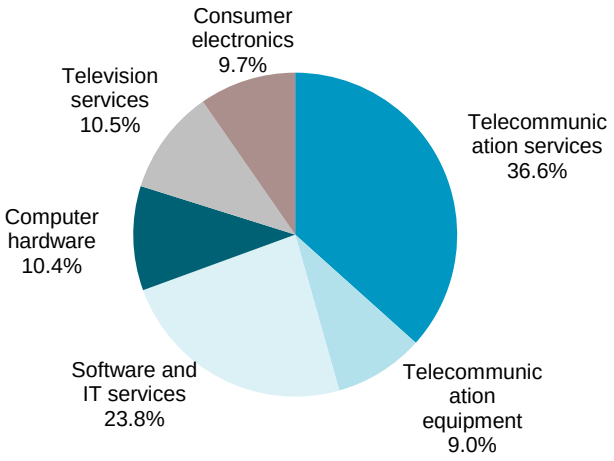
Billion €	2008	2009	2010	2011e	2014e	Increase 2008-2009	Increase 2009-2010	Increase 2010-20111e
North America	863	829	851	873	948	-3.9%	2.7%	2.6%
Europe	862	826	832	851	925	-4.2%	0.7%	2.3%
Asia/Pacific	686	690	722	764	892	0.6%	4.6%	5.8%
Latin America	190	195	211	227	269	2.6%	8.2%	7.6%
Africa/Middle East	122	126	137	147	177	3.3%	8.7%	7.3%
Total in the World	**2,723**	**2,665**	**2,754**	**2,861**	**3,211**	**-2.1%**	**3.3%**	**3.9%**

e: estimated

Source: IDATE. DigiWorld 2011

By industrial sectors, Telecommunications Services accounted for 36.6% of the total ICT market. With a 12.8 percentage point difference with respect to the following segment in terms of turnover -the software and IT services segment (23.8%)-, this is one of the main motors of the market. Computer hardware, television services, consumer electronics and telecommunication equipment have percentages of around 10%.

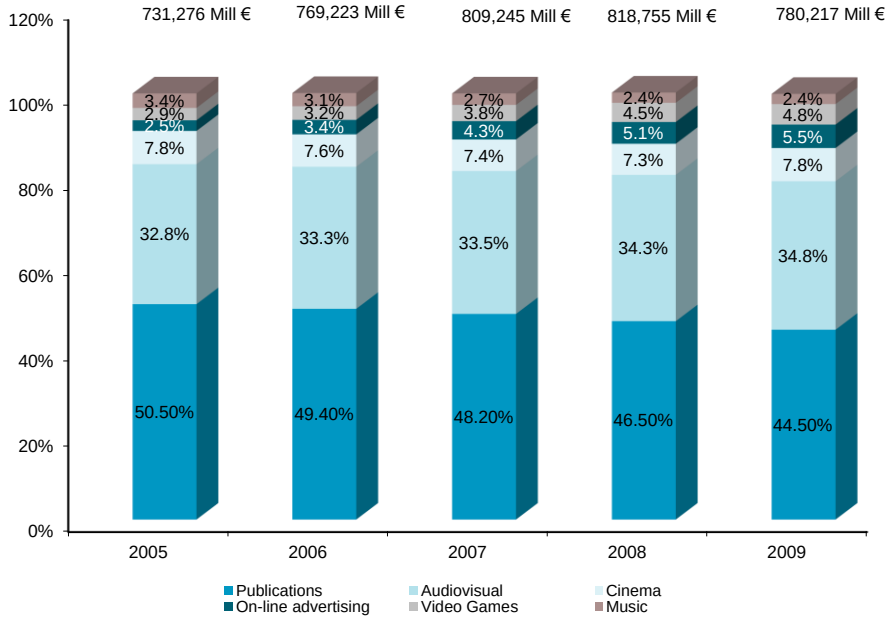
Distribution of the global ICT market by sector in 2010



Source: IDATE. DigiWorld 2011

The digital content industry has been affected globally by the economic crisis experienced in all markets, which resulted in 2009 in a decrease in turnover. Specifically, this industry experienced a fall of 4.7% in turnover from 2009 to 2008, which means €780,217 million less, while in previous years, growth rates were about +5%.

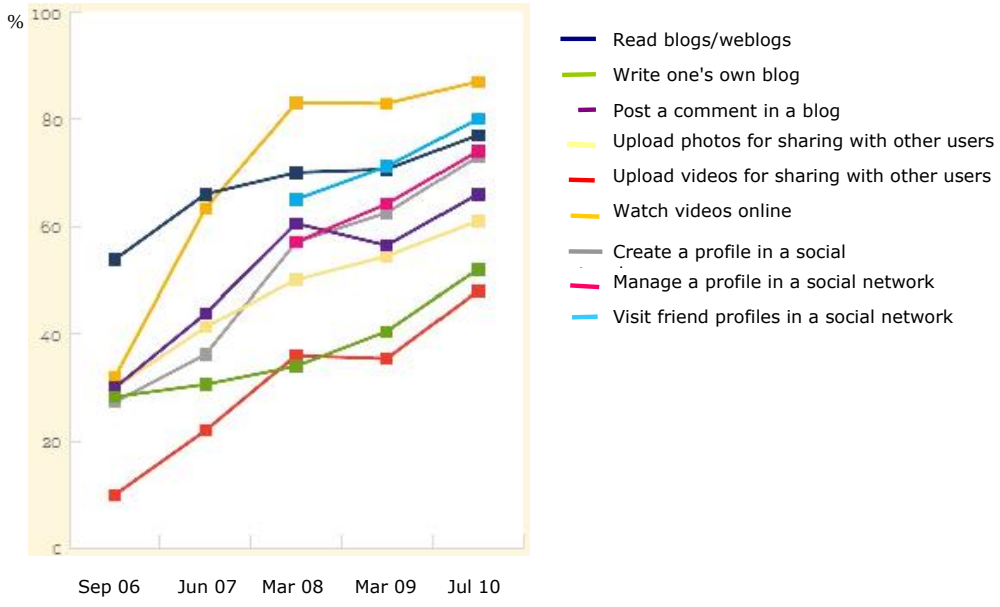
Global sales evolution for digital content-generating industries, by sectors



Source: "Global Entertainment and Media Outlook 2008-2014", PWC

The publishing sector continues to be the most important one within the content industry, representing 44.5% of the total. However it has been experiencing a downward trend since 2005 of 50.5%. On the contrary, the audiovisual sector has increased from 32.8% in 2005 to 34.8% in 2009, and online advertising and videogames have increased by 3 and 1.9 percentage points respectively. The cinema and music sectors have remained quite stable.

Evolution of active Internet users who have performed the following activities at some time



Base: active Internet users (accessing the Internet daily or every two days)

Source: "The Socialisation of Brands – Social Media Tracker Wave 5", Universal McCann 2010

Participation in social networks, blogs and in general all 'social' activities on the Internet are becoming increasingly important as a result of the User-Generated Content Boom. According to the data corresponding to July 2010, the activity 'watching videos online' stands out with a percentage of more than 80% of users who do so. It is followed by the activity 'visiting friend profiles' and then 'reading blogs/weblogs'. The less common activities of those considered here are 'uploading videos to the WWW' to share them and 'creating one's own blog', but nevertheless both activities record values of over 40% the users.

THE INFORMATION SOCIETY IN EUROPE

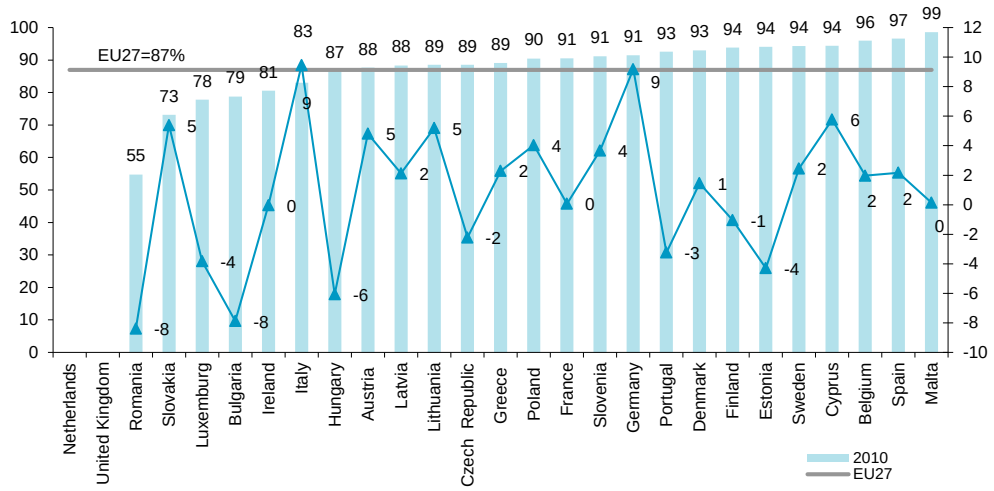
Within the framework of the Europe 2020 Strategy, the European Commission presented on 19 May 2010 its Communication "A Digital Agenda for Europe", of which the overall aim is "to deliver sustainable economic and social benefits from a digital single market based on fast and ultra fast internet and interoperable applications". For that purpose, it establishes a series of key objectives and core indicators for various action areas. It means the continuation and reformulation of the earlier i2010 initiative for the monitoring of the Information Society, grouping indicators in five main areas: development of broadband, advanced services, adoption of ICTs by enterprises, inclusion and, lastly, public services (eGovernment).

In 2010, 70% of households with members aged between 16 and 74 in the EU27 had an Internet connection, two points more than in 2009. The relation between the number of households connected to the Internet and the development of the broadband reveals a high degree of technological sophistication in household connections. 87% of the households with Internet connections in the EU27 connect via broadband. The group of countries composed of Sweden, Denmark, Finland and Germany are positioned as the leaders of the European Union, with high percentages of households connected to the Internet and also high percentages of households connected to the Internet via broadband.

Some countries such as Spain, Cyprus, Portugal or Poland have percentages of Internet penetration in households below the EU27 average but, on the contrary, have high percentages of broadband penetration.

Malta and Spain are the countries in the EU27 with the highest percentage of households with broadband connections to total households with Internet, 98% and 97% respectively. However, the Internet penetration rate in Spanish households is below the EU27 average, with 59%. Similarly, Malta with 70% of the households connected to the Internet is just below the European average. The most significant rise in the number of households with broadband connections out of all households with Internet is found in Germany and Italy (of 9 percentage points in both cases).

Households connected to the Internet in the European Union
(% penetration and growth p.p.)

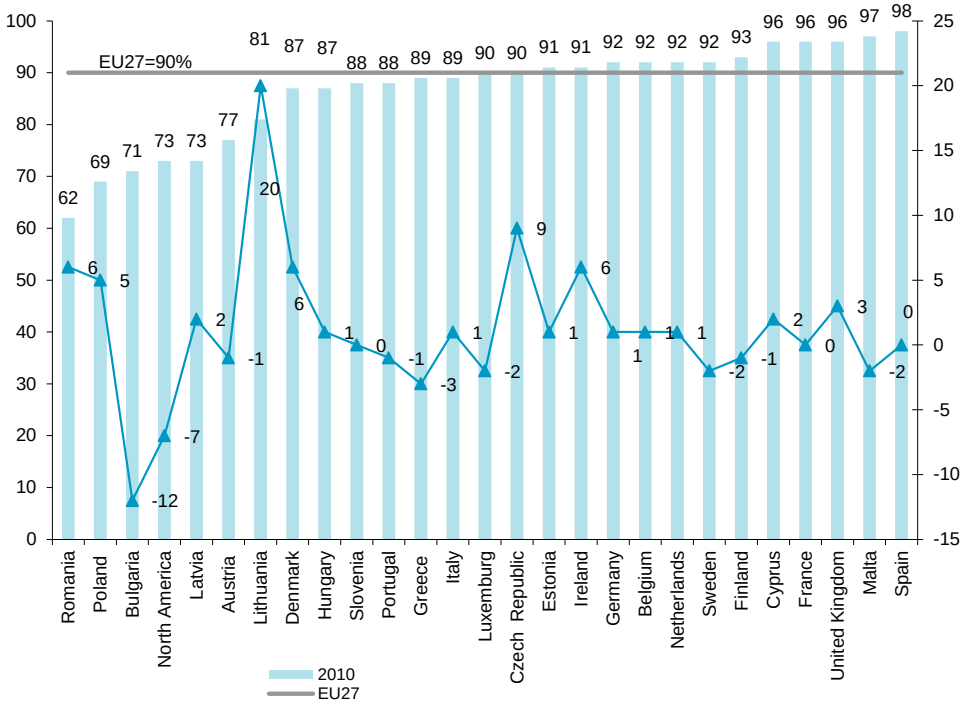


Base: Total households connected to the Internet

Source: Eurostat

Broadband Internet connection is slightly more widely extended in enterprises than in households, with a penetration rate of 90% for the EU27 in 2010. Spain maintains the leading position with 98%, followed by Malta with 97%. United Kingdom, France and Cyprus also register high rates (all with 96%). The most notable growth between 2009 and 2010 was registered in Lithuania, of twenty percentage points. Other countries registering important growth are the Czech Republic, Ireland, Denmark, Romania and Poland.

Enterprises connected to the Internet via broadband in the European Union
(% penetration and growth p.p.)

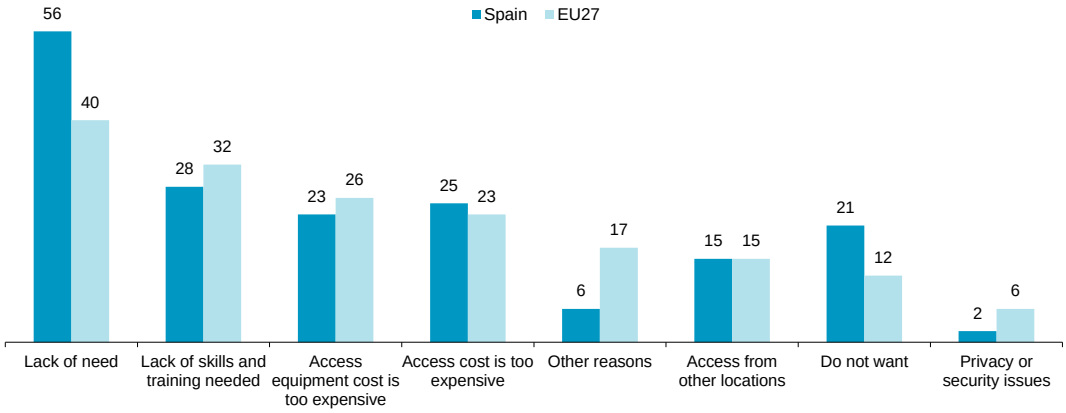


Base: Total enterprises with Internet

***Source:* Eurostat**

Regarding e-Inclusion, the main reason for not having Internet access at home in the EU is the lack of need (40%), followed by the lack of skills or training (32%). The third reason is the price of access equipment (26%) and the fourth, the price of Internet service (23%). 15% of households stated as the reason for not having Internet at home having access from another location, 12% the lack of political will and 6% privacy and security reasons.

Reasons for not having Internet access at home (%)



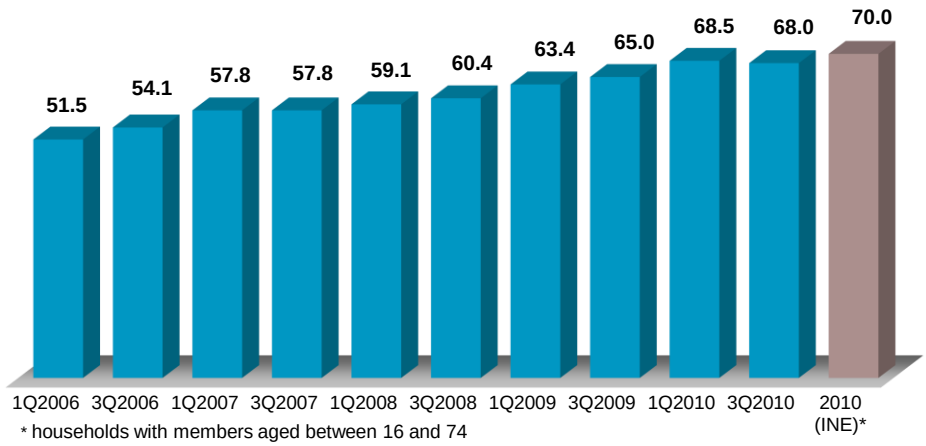
Base: total households without Internet

Source: Eurostat

ICT IN SPANISH HOMES

In 2010, Spanish households register again an important increase in the number of ICT services and devices they have. Apart from TVs and mobile telephones, PCs are the most commonly used devices in households, and also are the devices contributing the most to the increase in the number of households connected to the Internet.

Households with a computer of some kind (%)



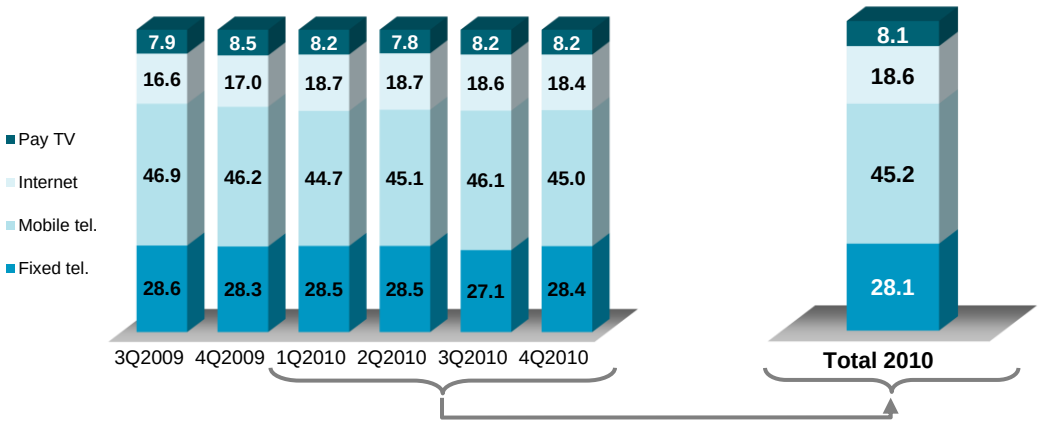
Base: Total households

Source: ONTSI's Household Panel and INE's ICT-H Survey

Upon analysing the evolution of PC penetration by quarters, using ONTSI data, an increase of 3 points has been detected in the percentage of households with a computer of some kind, up to 68% in the third quarter of 2010. According to the last data provided by the Spanish National Statistics Institute, the penetration in households with members aged between 16 and 74 reached 70% in 2010.

In 2010, total expenditure by Spanish households in ICT services amounted to €13.608 billion, out of which 45.2% corresponded to mobile telephone, 28.1% to fixed telephone, 18.6% to Internet access (the only service that has increased) and 8.1% to pay TV.

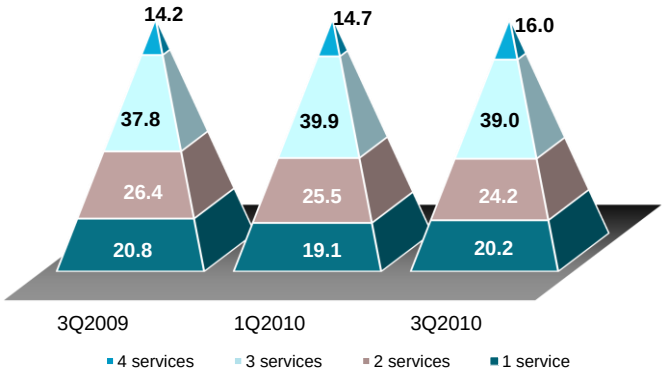
Distribution of total ICT expenditure by services (%)



Source: Household Panel, ONTSI

In 2010, subscription to ICT services increased among Spanish households: fixed telephone, mobile telephone, Internet and pay TV. There is a predominant proportion of households subscribed to three ICT services, which include the Internet among the services in a typical equipment profile. These are followed by households with subscription to two services. Households with three services represent 39% of the total and households with two 24.2%. Those with only 1 ICT service account for 20.2% of the total, and finally households with 4 ICT services account for 16%.

Households according to number of services subscribed to (%)

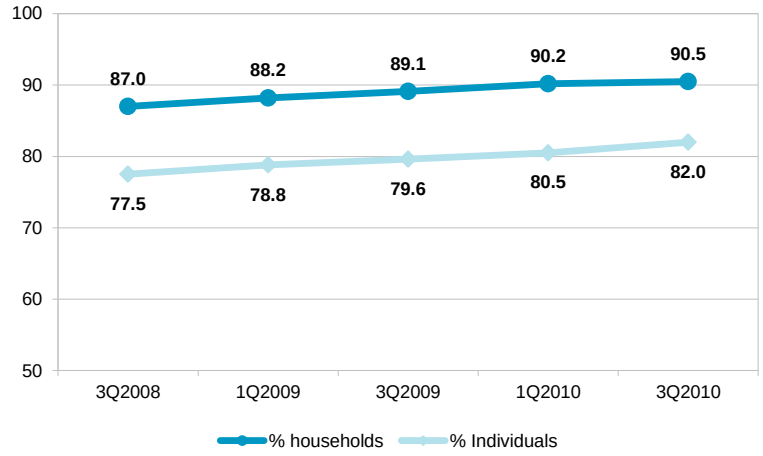


Source: Household Panel, ONTSI

Compared to the same quarter of the previous year, households with three and four services –considered jointly- increased their representativeness, going from 52% to 55% of the total. On the contrary, the percentage of households with fewer services showed a negative trend. Overall, the trend is an increase in ICT equipment in households in the last years.

In terms of expenditure, we observe that households with three services account for the greatest percentage of the total ICT expenditure. At the end of 2010, 39% of households were subscribed to three services and accumulated 45% of the total ICT expenditure. In 2008 there was a predominant proportion of households subscribed to three services, which included the Internet among the services in a typical equipment profile, apart from fixed and mobile telephones.

Mobile telephone penetration (% of households and individuals)



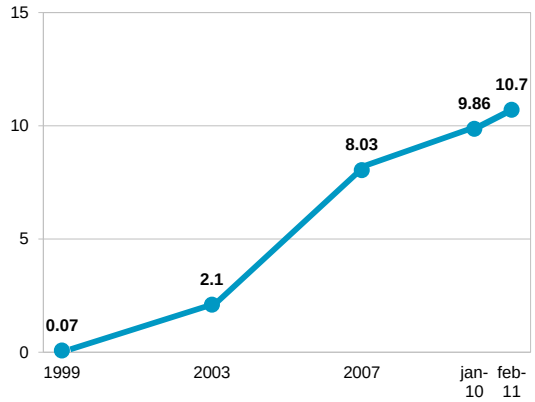
Base for % of households: Total households
Base for % of individuals: Individuals aged 15 and over

Source: Household Panel, ONTSI

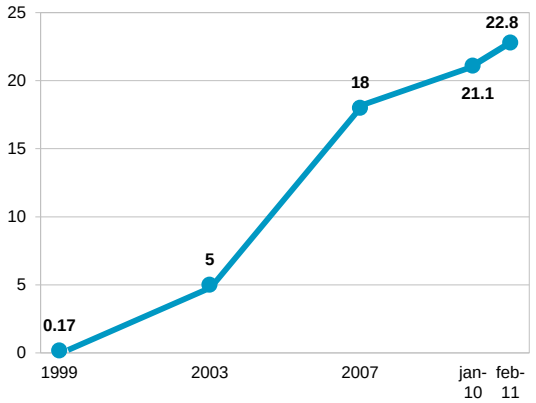
Mobile telephone service penetration continues its upward trend both in terms of households and in terms of individuals. In the third quarter of 2010, there was at least one mobile phone user in 90.5% of Spanish households. As for individuals, 82% of the population has -and uses- at least one mobile telephone.

Fixed broadband deployment in Spain

Number of broadband lines in Spain



Broadband lines per 100 inhabitants



Source: CMT

Regarding the use of mobile Internet in 2010, there are almost a million individuals with broadband Internet in their mobile phone handset (2.4%) and two million with mobile broadband Internet to be used with a PC (4.7%).

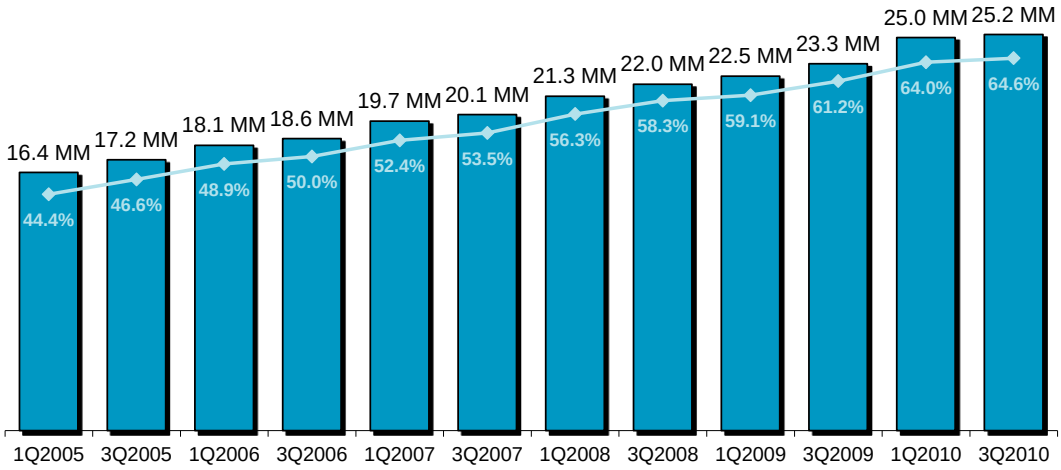
According to the Telecommunications Market Commission (CMT), in February 2011 the number of broadband lines reached 10.7 million, registering an increase of 840,000 new lines in slightly more than a year. The number of lines per 100 inhabitants has experienced an almost 5-fold increase over the last eight years, reaching 22.8 lines per 100 inhabitants.

In 2010, 55.9% of Spanish households were connected to the Internet. Taking into consideration households with members aged between 16 and 74, 57.4% of these households have a broadband Internet connection.

Spain stands out at the European level with one of the highest percentages of households with broadband connections to total households with Internet, 97.1%, which represents virtually all connections.

In 2010, the number of people aged ten and over who had used the Internet at least once exceeded 26 million, with a year-on-year increase of 5.9%, according to data from the Spanish National Statistics Institute. According to the Households Panel of Red.es-CMT, in the third quarter of 2010, 64.6% of population aged 15 and over had accessed the Internet on some occasion, which represents 25.2 million individuals in absolute terms and a year-on-year increase of 8.1%.

Percentage and number of Internet users (% and millions)



Base: individuals aged 15 and over

Source: Household Panel, ONTSI

The main uses of the Internet among individual users are still sending or receiving email and searching in search engines, both with more of 60% of Internet users doing so, specifically 66.7% in the case of email and 61.5% in the case of search engines.

Main uses of the Internet during the last week (%)

	1Q2009	3Q2009	1Q2010	3Q2010
E-mail	67.8	66.2	69.7	66.7
Search engine	66.4	61.9	65.5	61.5
Checking news	44.3	42.0	46.3	40.2
Instant messaging	38.4	33.3	32.3	30.5
Managing a profile in a social network	13.1	15.5	19.9	23.2
Online banking and finances	9.9	9.8	21,7*	22.6
Use other users' content	20.5	18.0	21.3	20.1
Social network chats	-	-	-	19.6
Streaming content	-	-	-	15.7
Chat	11.5	12.7	13.4	14.9
Music download	20.4	16.5	17.2	14.9
Video download	18.0	14.4	18.2	14.7
Forums	14.3	13.6	14.0	13.5
Play online	11.6	10.9	14.8	12.5
Other downloads	18.3	16.3	14.8	11.4
Visiting other administrations' sites	12.2	11.1	11.9	11.1
Training activities	-	-	13.5	9.8
Visiting a local administration site	8.0	9.9	8.4	8.1
Videoconference	5.0	5.0	4.4	5.3
Buying tickets, holidays	4.0	3.6	3.4	4.9
Other purchases	3.6	3.7	4.8	4.8
Create content (original)	5.8	5.2	5.1	4.4
Comment on others content	5.9	4.3	4.0	3.5
Buying entertainment	2.7	1.8	2.2	3.0
Telephone calls	4.6	4.7	3.4	2.7
Telework	2.4	2.0	2.3	2.5
Buying books, music, films	2.4	1.7	1.7	2.0

* From Q12010 the activities 'account consultations' and 'banking operations' are counted as one.

Base: Internet users aged 15 and over

Source: Household Panel, ONTSI

Reading news is also a very popular activity and is carried out by 40% of regular Internet users, followed by instant messaging with around 30%.

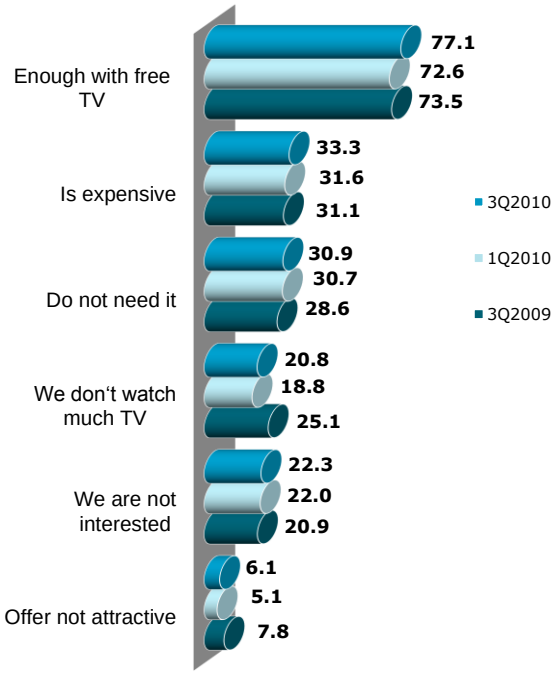
40% of regular Internet users manage a profile on a social network, which is the activity experiencing the biggest year-on-year increase (of 7.7 percentage points). Another significant increase in 2010 has been observed in the consumption of digital content that has been uploaded by other users, an activity that has increased by 2.1 percentage points, reaching 20.1% of Internet users.

Other two uses of the Internet, which have been measured for the first time in this study in the third quarter of 2010, are participating in social network chats and consuming streaming content. These are very frequent activities carried out by respectively 19.6% and 15.7% of the users.

Almost 15% of Internet users have made at least one download from the Net in the last week, weather it was music or video. Music downloads have experienced a decrease of 1.6 percentage points over the last twelve months, while video downloads register figures similar to those of the same period of the previous year. Other types of downloads have also registered a drop, which could be related to the increase in streaming content since it does not need to be stored.

In the third quarter of 2010, 10% of regular Internet users had a personal blog on the Web (weblog). 8.5% of Internet users who had used the Internet in the last week, had read a blog that week, 11.1% in the last three months and 13.4% before that. The percentage of regular Internet users writing on their blogs is smaller than of those reading other's blog: 3.2% had updated their blog in the last week, 2.5% in the last three months and 7.1% before that.

Reasons for not having pay TV (%)



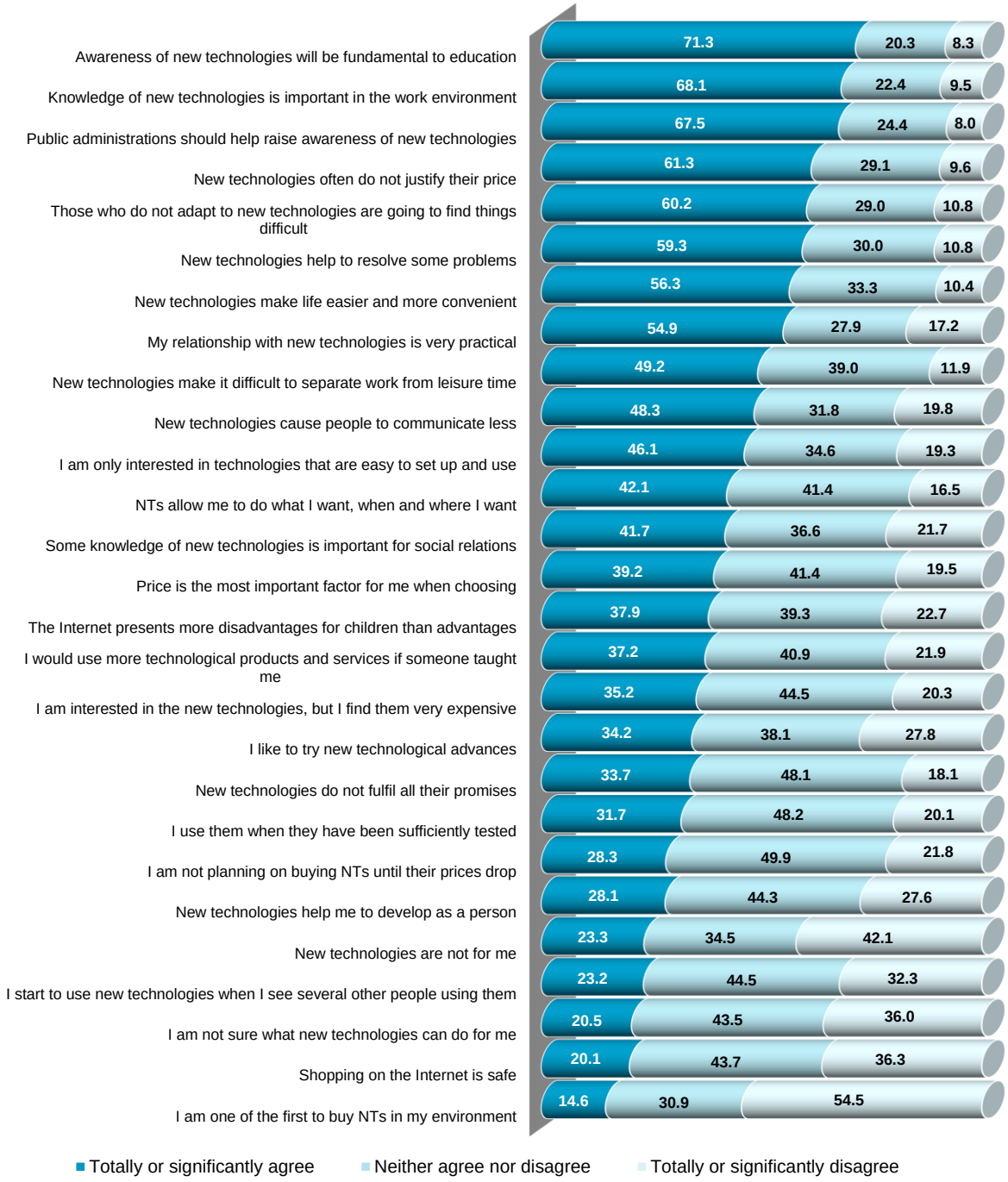
Base: Households that do not have pay TV *Source: Household Panel, ONTSI*

The percentage of households with pay TV services remains at 21.9% in the third quarter of 2010. Of the other 78.1% with no pay TV services, 77.1% declare that they have enough with free TV, a statement that experiences an increase of 3.6 percentage points with respect to the third quarter of 2009.

Additionally, on April the 3rd 2010, the so called "analogue switch-off" took place in Spain, which meant the switch-off of analogue broadcasting and the total replacement of the latter with digital terrestrial television (DTT), providing users with a better quality television and more channels.

Frequency distribution of attitude items towards new technologies (%)

Period: 2010Q3



Base: Total individuals

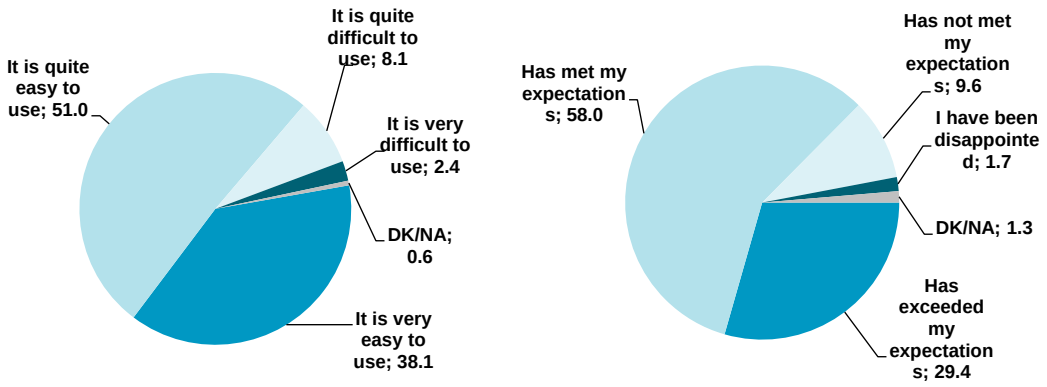
Source: Household Panel, ONTSI

There continues to be a favourable attitude towards emerging technologies, as in previous years, with recognition of the role they play in education and the work environment and their use in solving common problems, or their contribution towards making life easier and providing greater convenience. The importance of these technologies for individual and collective success is also projected in the need for public administrations to contribute to the knowledge and spreading of these technologies.

Although six out of ten persons think that new technologies often do not justify their price, a similar proportion think it is necessary to adopt them to avoid difficulties, and four out of ten that new technologies are tools that enable them to do things whenever and wherever they want. Additionally, 40% think that new technologies are key elements for social relations.

Simplicity and use expectations of the Internet (%)

2010Q3



Base: Internet Users

Source: Household Panel, ONTSI

The indicators for ease of use and use expectations of the Internet have obtained high scores, which demonstrates that users have a very positive opinion of this service and its related technologies. Nine out of ten Internet users consider that it was easy (51%) or very easy (38.1%) to use, while 10% of Internet users consider it to be difficult or very complicated to use.

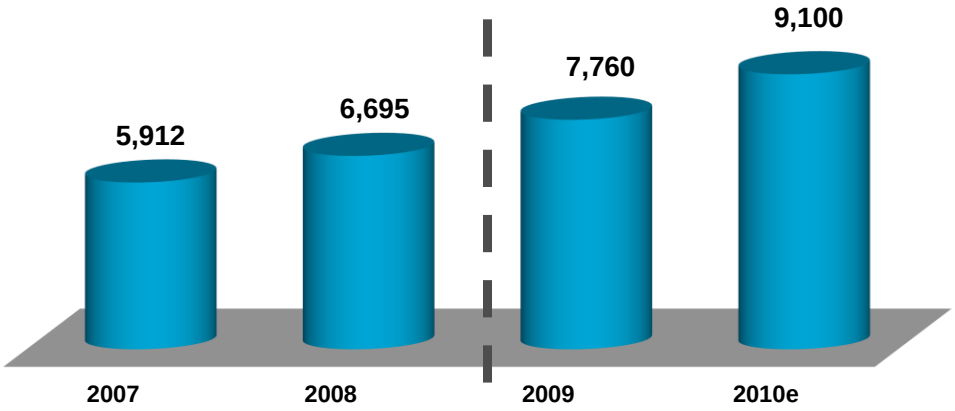
At the same time, there is a high percentage of those who consider that the Internet has met (58%) or exceeded (29.4%) their expectations, while only 1.7% of the users have been disappointed with the Internet.

ELECTRONIC COMMERCE B2C

The business volume generated by B2C (Business to Consumer) eCommerce in 2010 is estimated to be €9.1 billion, which represents an increase of 17.3% compared to 2009.

The rise in B2C sales was accompanied by an increase in the number of purchasers. The number of Internet users who have ever purchased via the Internet was 10.9 million, representing an increase of half a million with respect to the previous year. In relative terms, 43.1% of Internet users have ever made a purchase via the Internet.

Volume of B2C electronic commerce (million €)



e: Initial estimations *Source: ONTSI*

ICT IN SPANISH HOUSEHOLDS BY AUTONOMOUS REGIONS

Television and mobile telephone, the most widespread ICT services in Spanish households, show no major regional differences, ranging, in the case of TV, from 100% in Cantabria to 98.5% in Melilla, and in the case of mobile phone, from 96.8% in Madrid to 87.3% Ceuta.

The most frequent ICT device in the home continues to be the DVD, with percentages ranging from 86% in Madrid to 68.5% in Galicia. In General, Madrid is the best-equipped autonomous region both in terms of services and devices, followed by Catalonia.

68.7% of households are equipped with at least one computer (desktop, laptop or both). Regional differences range from 76% in Melilla to 61% in Extremadura.

Fixed telephone is one of the services showing the greatest differences between autonomous regions, and remains, at the national level, stable since 2009 with a percentage of 80.3% of households with members aged between 16 and 74. The Basque Country and Madrid record the highest penetration levels with values of 89.8% and 89.1%, respectively. In turn, Murcia with 65.4% records one of the lowest in Spain. In general terms, it seems that the highest penetrations are observed in the North and North East of the country, together with Madrid.

Regarding Internet penetration, the greatest concentration of users is found in North-eastern and Central Spain. Catalonia and Melilla are the regions with the highest Internet penetration rates in households, exceeding 68% in both cases (68.3% and 68.1%, respectively), and Madrid almost reaches 67% (66,9%).

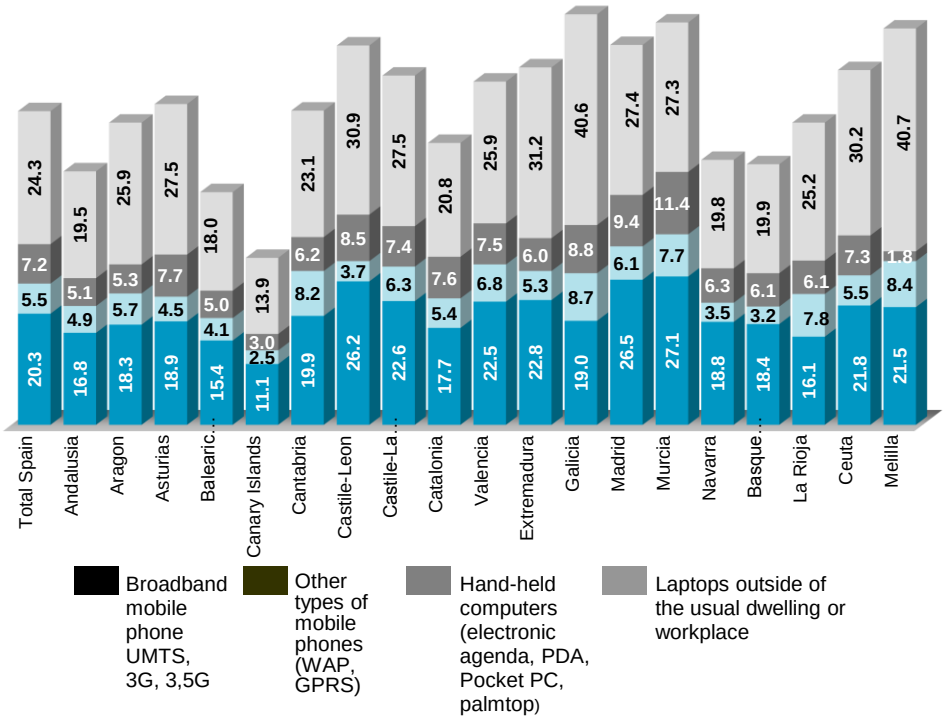
Broadband, the most widely used Internet access technology, is present in 97.1% of households with an Internet connection, a figure that reflects the universality of this service in Spain. Madrid records the highest percentage of broadband with 98.6%, followed by La Rioja, Catalonia and Ceuta, all with values above 98%. Mobile broadband Internet access (UMTS, 3G, 3, 5G) in households is experiencing rapid growth, and was already available in 2010 in 11.7% of Spanish households,

compared to 5.1% in the previous year. In Murcia, Aragon, Galicia and Valencia this percentage exceeds 20%.

As to usage, 73% of Spanish citizens have ever used a PC, with Madrid and the Balearic Islands as the regions with the highest percentages (79% and 77.8% respectively). And concentrating on daily use, Madrid and Catalonia are the regions with the highest proportion of regular PC users.

Additionally, in 2010 64.2% of the population aged 16 to 74 had used the Internet in the last three months, according to the Spanish National Statistics Institute. The regions of Catalonia, Madrid, Balearic Islands, Aragon and the Basque Country recorded the highest percentages of Internet users. Of these, the first three regions exceeded 70% of the target population, with 71.8%, 71.3% and 71.1%, respectively. This evidences the increasing trend of Internet use by citizens of all regions.

Use of mobile Internet by type of device 2010 (%)



Base: Individuals aged between 16 and 74 who have used the Internet in the last 3 months

Source: INE

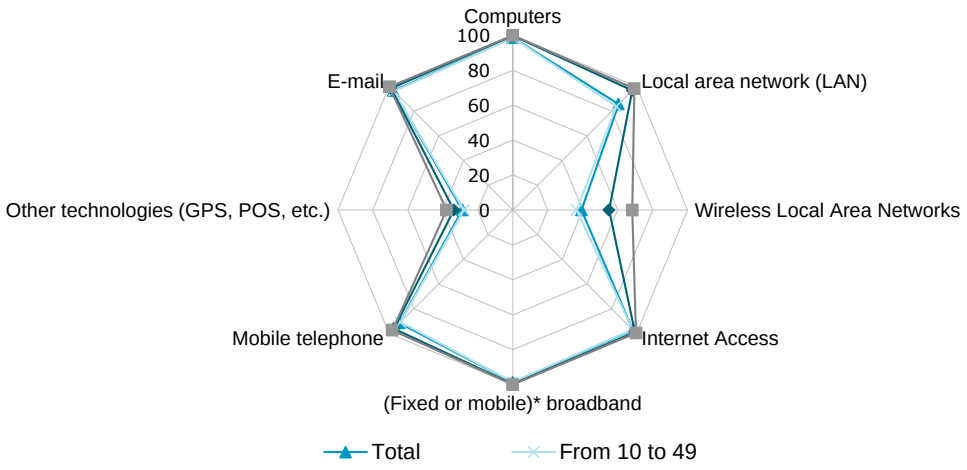
Specifically, upon analysing the use of mobile Internet by type of device, in 2010 24.3% of the users used laptops to access the Internet from locations other than the home or workplace, and 20.3% used smartphones (UMTS, 3G, 3, 5G). In the case of laptops, the highest percentages correspond to Melilla and Galicia, with 40.7% and 40.6% of users aged from 16 to 74, respectively. In the case of smartphones, the highest percentages correspond to Murcia (27.1%), Madrid (26.5%) and Castile-Leon (26.2%).

ICT IN SPANISH SMEs AND LARGE ENTERPRISES

ICT infrastructures are increasingly widely extended among SMEs and large enterprises, and the use of some of them is almost universal. The PC, for instance, is present in 98.6% of enterprises with ten or more employees. It is followed by Internet connection (97.2%), e-mail (96.5%) and mobile telephone (91.5%).

A size-based breakdown highlights that in large enterprises (250 or more employees) the penetration of the PC reaches 99.8%. In this segment, Internet, broadband, e-mail and local area network (LAN) penetration reaches almost 100%. The percentages of the above mentioned equipment in medium-sized enterprises are also high but slightly below those of large enterprises. In the case of small enterprises with 10 to 49 employees, percentages are high for broadband and e-mail availability, but quite lower for other infrastructures.

ICT infrastructure and connectivity by type of enterprise (%)



Base: all enterprises with 10 or more employees

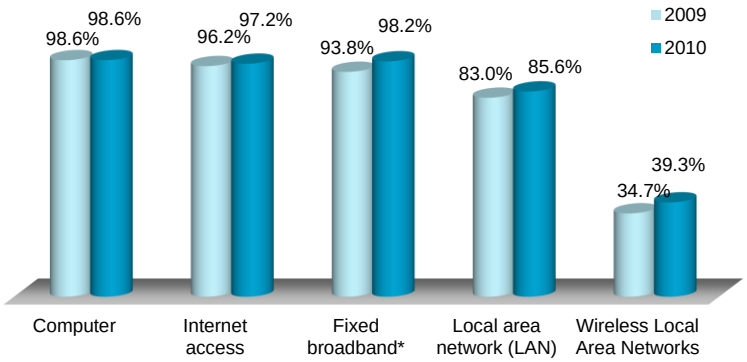
*Base for the broadband indicator: enterprises with 10 or more employees with Internet connection

Source: ONTSI using data from INE 2010

Wireless local area network (LAN) and fixed broadband are the ICT infrastructure indicators with the greatest growth between 2009 and 2010, with increases of more than 4 and 5 percentage points, respectively.

Specifically, 98.7% of enterprises with 10 or more employees with Internet access connect via fixed or mobile broadband. If we only consider those enterprises using fixed broadband the percentage is 98.2%, while for mobile broadband the percentage is 36.7%. In general, 4 out of 10 SMEs and large enterprises have Internet access via the mobile telephone network (broadband or other types of connections). In the case of enterprises with 250 or more employees the proportion rises to 8 out of 10. More in detail, 36.7% of enterprises with 10 or more employees with Internet access have broadband mobile phones and 16.9% have other mobile telephone connections at lower speeds.

Evolution of the main ICT indicators in SMEs and large enterprises

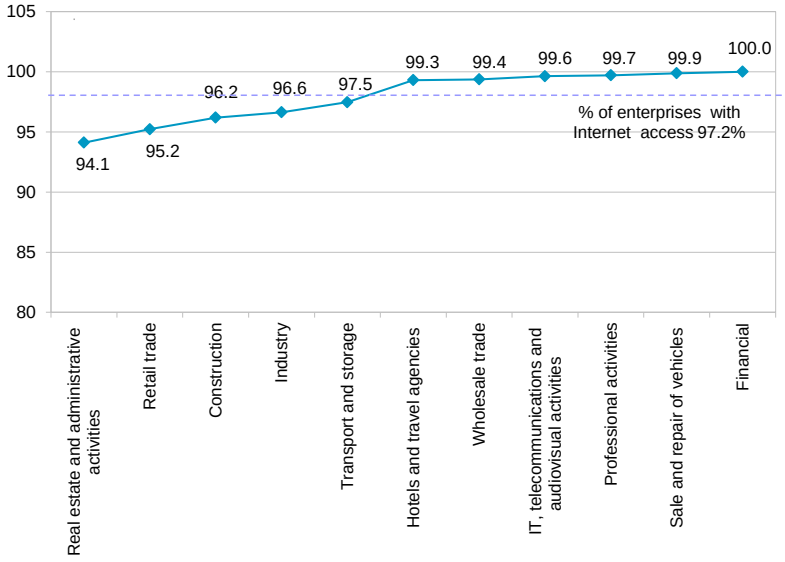


Base: all enterprises with 10 or more employees
*Base for the fixed broadband indicator: enterprises with 10 or more employees with Internet connection

Source: ONTSI using data from INE 2010

At a sectoral level, 100% of SMEs and large enterprises in the financial sector have Internet access, as well as almost all of SMEs and large enterprises in the sale and repair of vehicles, professional activities, IT, telecommunications and audiovisual activities. SMEs and large enterprises in the wholesale trade and the hotel and travel agency sectors record also high percentages of around 99.5%.

Internet access by sectors (%)



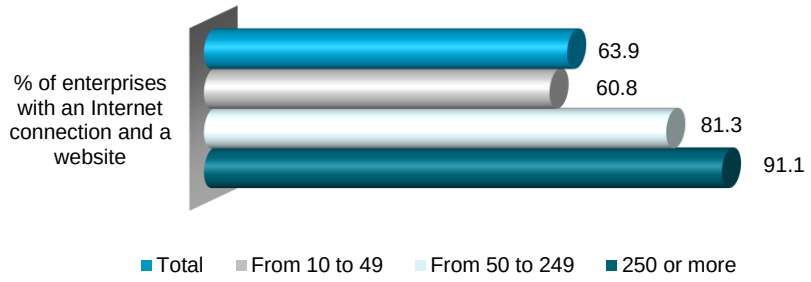
Base: Enterprises with 10 or more employees

Source: ONTSI using data from INE 2010

Finally, the transportation and storage sector exceeds the average of 97.2% of enterprises with Internet access. At the other extreme, the real estate and administrative activities sector is relegated to the last position, although still with 94% of its SMEs and large enterprises with Internet access.

Additionally, around 64% of enterprises with 10 or more employees have their own corporate website. In the case of those with 250 or more employees, this percentage rises to 91%, and to 81% in the case of medium sized enterprises. Finally, the percentage for small enterprises is 60.8%.

Enterprises with website (%)

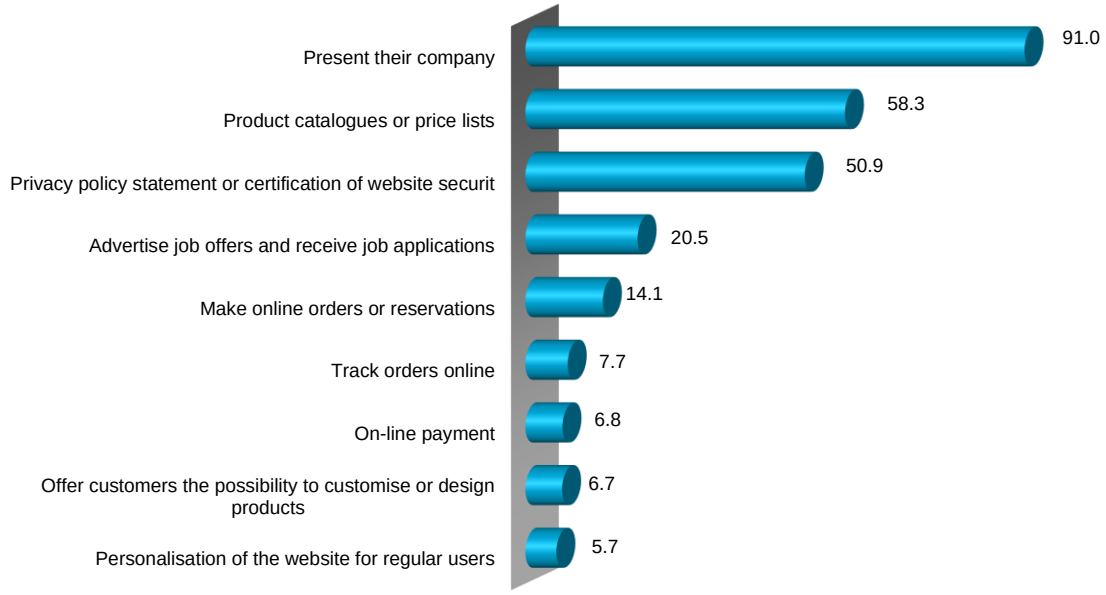


Base: enterprises with 10 or more employees with Internet

Source: ONTSI using data from INE 2010

91% of enterprises with 10 or more employees use their websites for presenting the company, which is the most common use, followed at a considerable distance by 58.3% of enterprises that use it for providing access to product catalogues and price lists.

Objectives /services offered on company websites (%)

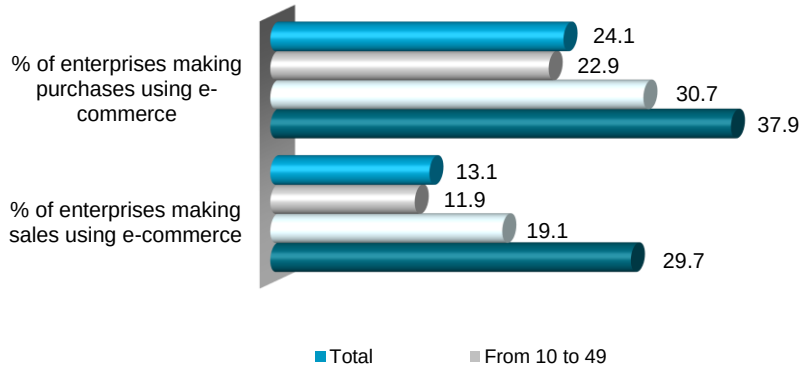


Base: enterprises with 10 or more employees with Internet access and website

Source: ONTSI using data from INE 2010

The percentage of enterprises with 10 or more employees buying through electronic commerce is 24.1%, over eleven points above those selling through this channel. In large enterprises the difference between those buying (37.9%) and those selling (29.7%) via eCommerce is of 8.2 points. This difference reaches up to 11.6 and 11 points in the case of medium and small enterprises, respectively.

Enterprises buying and selling using eCommerce (%)



Base: all enterprises with 10 or more employees

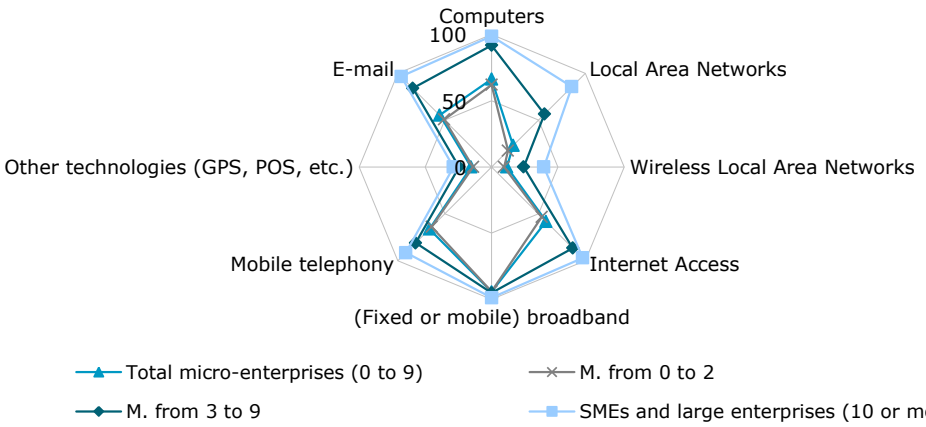
Source: ONTSI using data from INE 2010

ICT IN SPANISH MICRO-ENTERPRISES

Broadband, whether fixed or mobile, is the most frequent infrastructure in micro-enterprises. It is present in 94.3% of them. It is followed by mobile telephone (66.4%) and computers (66.2%). Other two important elements are Internet access and e-mail availability, with penetration rates in micro-enterprises of 55% and 60% respectively.

In terms of size, there are notable differences between micro-enterprises with 3 to 9 employees and those with 0 to 2, which have lower levels of ICT implementation. Only 53.4% of micro-enterprises with 0 to 2 employees have Internet access compared to 86.6% of larger ones.

ICT infrastructure and connectivity by type of enterprise (%)

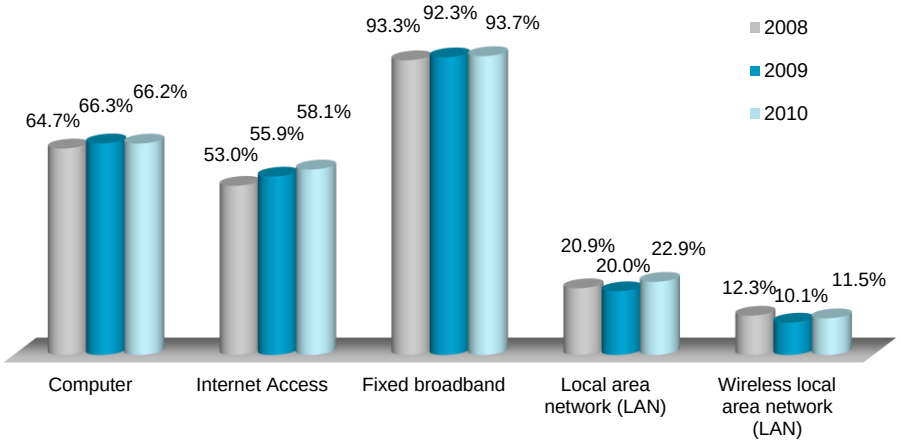


Base: all enterprises
*Base for the broadband indicator: Enterprises with Internet connection

Source: ONTSI using data from INE 2010

In terms of evolution, in 2010 Internet access increased by 5 points, local area networks (LANs) increased by 2 points and the presence of computers rose by 1.5 points, while wireless LANs recorded a slight decrease.

Evolution of the main ICT indicators in micro-enterprises



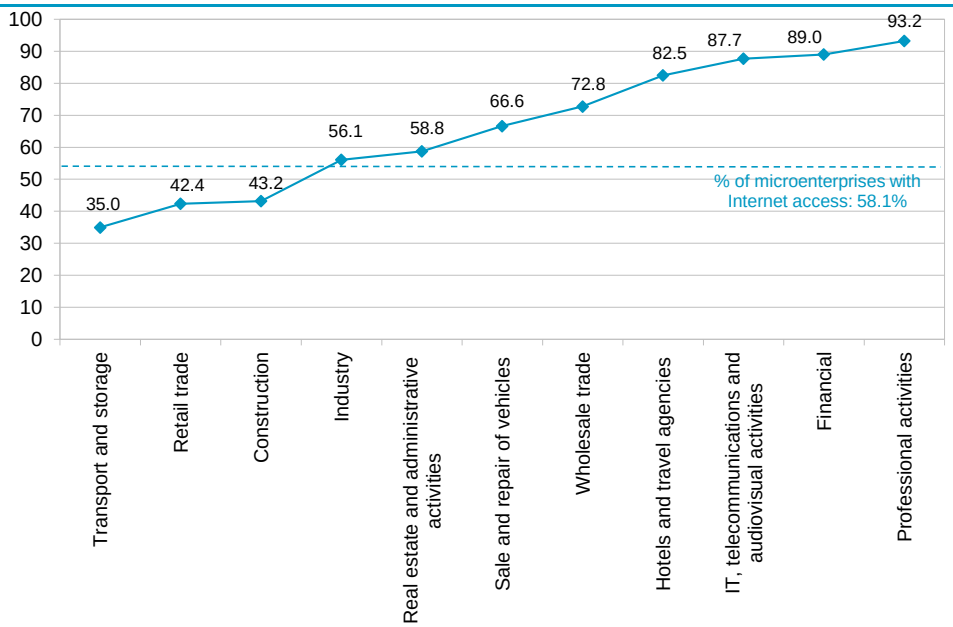
Base: all micro-enterprises

Source: ONTSI using data from INE 2010

94.3% of micro-enterprises with Internet access connect via fixed and/or mobile broadband. Specifically, for fixed broadband the percentage is 93.7% and for mobile broadband the percentage is 18.7% of micro-enterprises.

By activity sectors, around 93% of micro-enterprises in the professional activities sector have Internet access. This is the sector with the highest percentage. They are followed by micro-enterprises in the financial sector (89%) and the IT, telecommunications and audiovisual sector (87.7%). Lastly, within the group of sectors with a penetration rate above 80%, we find the hotels and travel agencies sector, with 82.5%.

Micro-enterprises with Internet access by sector (%)



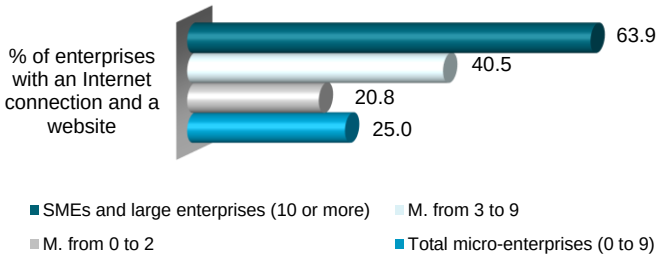
Base: all micro-enterprises

Source: ONTSI using data from INE 2010

Other sectors that record percentages above the average are wholesale trade (72.8%), sale and repair of vehicles (66.6%) and real estate and administrative activities (58.8%). Finally, the transportation and storage sector has the lowest penetration rate (35%).

In the segment of micro-enterprises with the largest number of employees (3 to 9 employees), 40.5% have their own website, a difference of more than 20 points compared to micro-enterprises with 0 to 2 workers that record a percentage of 20.8%. The global average is 25%.

Enterprises and micro-enterprises with a website (%)

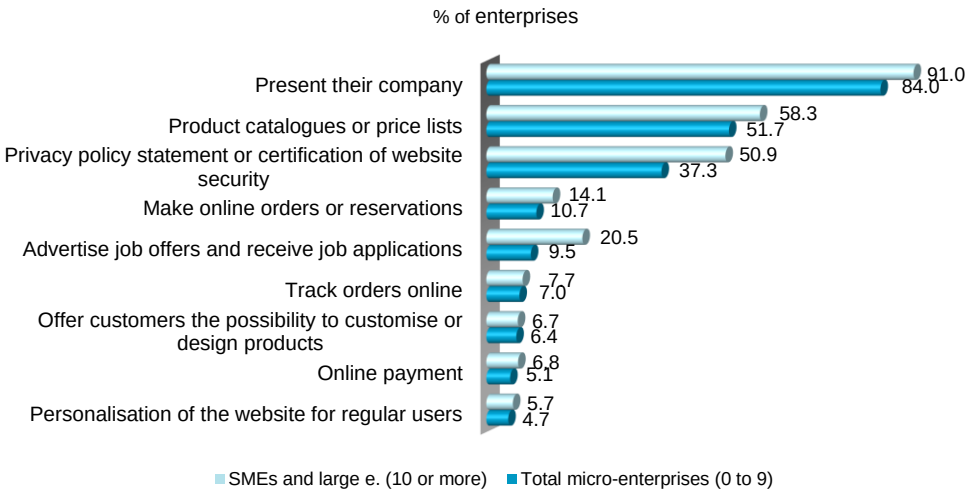


Base: total enterprises with Internet

Source: ONTSI using data from INE 2010

The main aim and/or service of the website is to present the company. Almost 84% of micro-enterprises use it for this purpose. Additionally, following the same pattern as SMEs and large enterprises, the following reasons for micro-enterprises to have a web page are, in order of importance, access to product catalogues or price lists (51.7%) and to privacy policy statements or security certifications (37.3%).

Objectives /services offered on company websites (%)



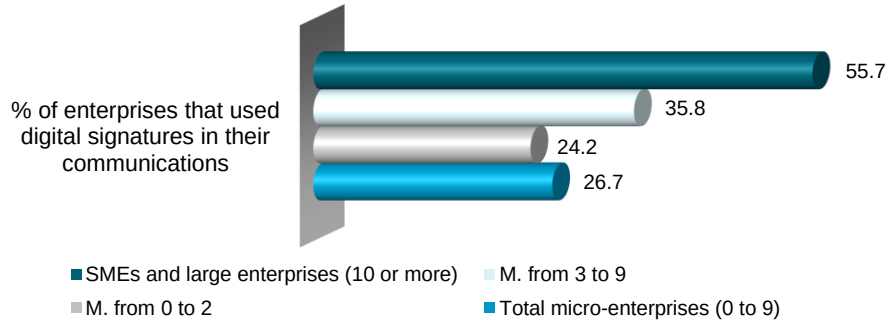
Base: all enterprises with Internet and a website

Source: ONTSI using data from INE 2010

26.7% of micro-enterprises have used digital signatures for communications sent from the company. In the case of micro-enterprises with the largest number of employees, the percentage reaches 35.8%, while in those with 0 to 2 employees the percentage is 24.2%.

The digital signature is more widely-used in the area of dealings with the public administration (86.7% of micro-enterprises) than in relations with customers and/or suppliers (25.5%).

Enterprises using digital signature (%)

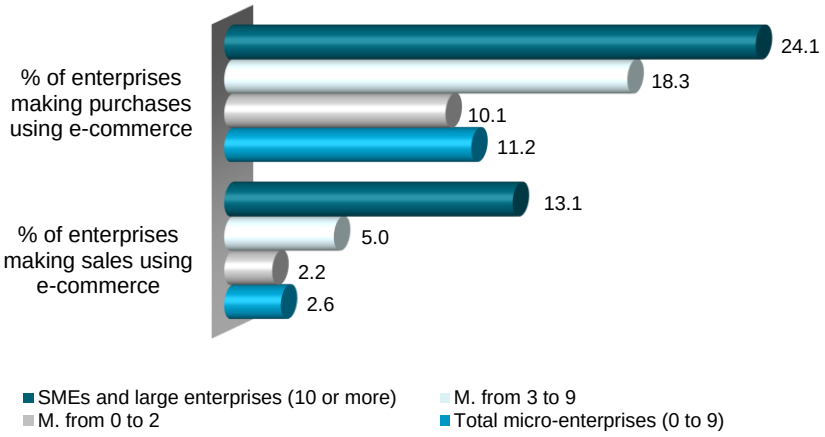


Base: total enterprises with Internet

Source: ONTSI using data from INE 2010

Overall, 11.2% of micro-enterprises buy through eCommerce, compared to 2.6% that sell through this means. Irrespective of size, the percentage of micro-enterprises making purchases using eCommerce is higher than that of micro-enterprises selling through this means. In the case of micro-enterprises with 3 to 9 employees, there are 18.3% of them making Internet purchases and 5% selling online. In the case of smaller micro-enterprises, there are 10.1% of them making Internet purchases and 2.2% selling online.

Enterprises buying and selling using eCommerce (%)



Base: all enterprises

Source: ONTSI using data from INE 2010

E-GOVERNMENT

One of the priority objectives of the European Commission for all the State Members is the achievement of an inclusive Information Society, with better public services that allow enhancing citizens' quality of life and improving organizations' efficiency. For both purposes, the role of Information and Communication Technologies and their implementation in the public administration (e-Government) is essential. Specifically in Spain, as well as the Law 11/2007 on Citizens' Electronic Access to Public Services and the Law 56/2007 on Measures to promote the Information Society, we find the recent Royal Decrees 3/2010 and 4/2010 that

regulate, respectively, the National Security Framework and the National Interoperability Framework within the field of eGovernment.

The most immediate effect of the Law is the increase in the number of public administration's procedures that are available online. According to the eEspaña 2010 Report by Fundación Orange, the availability of basic public services online, in the case of regional governments, stands at 77%. Also, according to the Directorate General for the Promotion of Electronic Administration of the Ministry of Territorial Policy and Public Administration, at the end of 2010, 99% of high-impact procedures of the central administration were available online, and 92% of all central administration's procedures. Since the procedures that are most used by citizens are classified as "high-impact", procedures that according to this Law are fully accessible online represent 98% of all proceedings between the citizens and the central administration.

Maturity of services

Maturity of services	Units	Scope	2010	2009	2008	Variation in the period	Source	Methodology
Citizens	Level of development	Spain	97%	85%	77%	20%	European Commission	Web evaluation of the 20 basic services
Enterprises	Level of development	Spain	100%	94%	93%	7%	European Commission	Web evaluation of the 20 basic services
Adapted procedures and services, Law 11/2007 of the Central Administration	% of procedures	Central Administration	92%	83%	19%	73%	Own elaboration	Data provided by Ministries and other bodies
Availability of procedures and services at the regional level	% of availability of services in autonomous regions	ARs	77%	72%	67%	10%	Fundación Orange	Web evaluation of the 26 main services in the autonomous regions

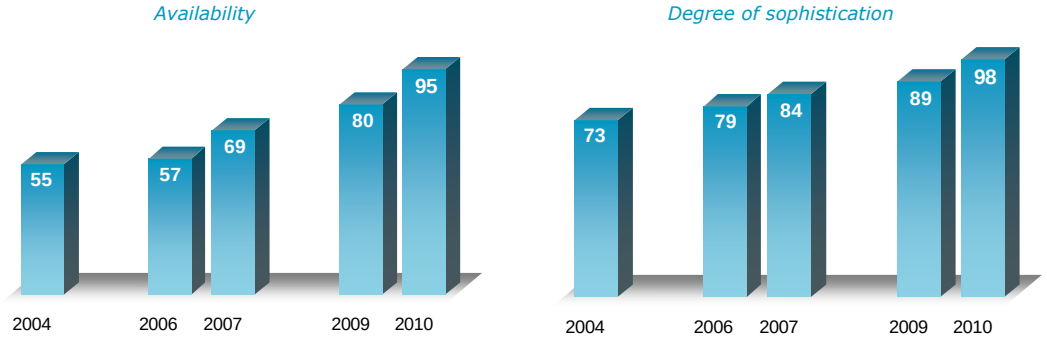
Source: Directorate General for the Promotion of Electronic Administration

Among the most common services we find all those related with the use of electronic ID cards (with 23 millions electronic ID cards issued as for May 2011), the electronic signature and certificate validation platform @firma (with almost 30 million validations in the first five months of 2011) and the electronic notification infrastructure (with almost 150,000 electronic addresses and over 780,000 electronic notifications as for May 2011).

According to the data of the European Commission for 2010, 95% of the 20 basic electronic public services were available in Spain in 2010, a percentage quite above the EU-27 average (82%), which represents a significant increase of 15 points on 2009.

At the same time, according to a report of the European Commission, which is produced every year except 2005 and 2008, the degree of sophistication of online public services in Spain has reached 98%, 8 percentage points higher than the EU27 average (90%) and 9 percentage points higher than the previous year. Spain occupies eighth position within the EU27 in degree of sophistication, as well as in availability of public services online.

Availability and degree of sophistication of the 20 basic public services online in Spain (%)

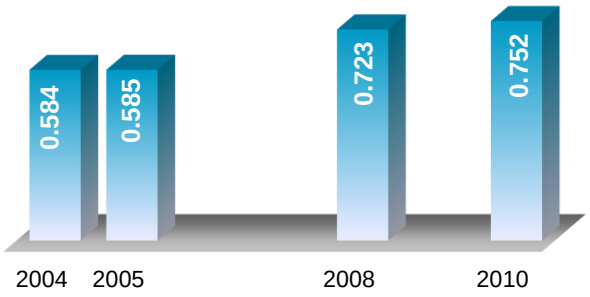


Note: Data for 2005 and 2008 not available

Source: European Commission (EC)

According to the results of the report of the United Nations Department of Economic and Social Affairs, *"United Nations e-Government Survey 2010*: *leveraging e-government at a time of financial and economic crisis",* supported by a set of simple and complex indicators, Spain has made notable progresses in terms of e-Government. In fact, Spain is one of the reference countries in the world, occupying ninth position out of 184 countries in the e-Government readiness ranking (The United Nations Government index, EGDI), and fifth position out of 157 countries in the UN eParticipation index, climbing up 31 positions compared to 2008. Another highlight is that Spain is ranked 5th according to the Online Services indicator.

eGovernment Development Index (Spain)



Note: Data for 2006, 2007 and 2009 not available

Source: United Nations (UN)

The aim of the program Healthcare Online (*Sanidad en Línea*) is ICT development in the national health system (NHS), especially focusing on the Digital Clinical History and Electronic Prescription. The program has been designed to foster information exchange among autonomous regions and provide support to health professionals and more personalised and higher quality services to citizens, who are the final users.

The milestones of the first phase of the program Healthcare Online, deployed from 2005 to 2010, included: improvement of infrastructure resources and regional healthcare services, synchronisation of the healthcare card databases of all regions and the central database of the NHS, consolidation of the Support Centre for the NHS central node -a high-availability neutral node to manage future clinical

information exchange among regions-, and development of the Security Plan for the NHS Central Node.

Healthcare Online II (2009 – 2012) provides support to autonomous regions in the fulfilment of requirements included in the project Clinical History of the National Health System (*Historia Clínica Digital del Sistema Nacional de Salud*, HCDSNS), led by the Ministry of Health, Social Policy and Equality of Spain and aimed at fostering clinical data exchange through the NHS central node. It also supports projects on clinical histories and electronic prescriptions at the regional level, as the base for fostering clinical information and prescription exchange at the national level.

Basic indicators of the Program 'Healthcare Online' (Phase I and II) June 2011

Indicator	Healthcare Online I	Healthcare Online II *
Data stored *(Terabytes)*	749	731
PCs supplied *(all types)*	60,626	12,441
Printers	39,168	3,912
Servers *(high-profile in the case of Healthcare Online II)*	2,163	300
High-resolution screens	451	128
High-resolution stations for operating rooms	n.d.	211
Healthcare centres covered	> 6.000	497
Central services offices	282	71
Medical professionals working in those centres	**< 300.000**	**> 100.000**
Citizens registered in those centres (millions)	**> 39 MM**	**> 15 MM**

** To 28 February 2011*

Source: Red.es using data from the National Health System (NHS) Health Services

During the two phases, over 6,500 healthcare centres have benefited from the program Healthcare Online. These figures point at Spain as one of the leaders at the international level in eHealth services readiness. During phases I and II of the program, around 77,000 PCs of different types have been provided as well as 45,000 printers (as for June 2011). These actions have been implemented in approximately 6,800 healthcare centres, benefiting 41 million people and 300,000 medical professionals. Education has been another priority axis in Spain since 2002. There have been multiple education programs like Internet in the Classroom (*Internet en el Aula*, 2005-2009), *Enseña* (2008), or Campus Online (*Campus en Red*, 2006, 2007).

Subsequently, with the aim of providing with resources and services the whole education community, the new Agreement for Networked Education was signed in September 2010 by the Ministry of Education, the Autonomous Regions, the Ministry of Tourism, Industry and Trade (MITyC) and Red.es. In this way, the program School 2.0 (*Escuela 2.0)* was extended to 2011 and its scope was broadened to the administration and the industry.

Some highlights of the program School 2.0 since it was implemented are: 41 centres covered, 4,456 laptops given to students in Ceuta and Melilla, 61 classrooms equipped with a digital board, a projector and a teacher's PC.

In the field of justice, the incorporation of ICTs has significant implications, since it allows improving the agility and the efficiency of Civil Registers and Magistrates' Courts. The digitisation process of the Central Civil Register was completed in 2010.

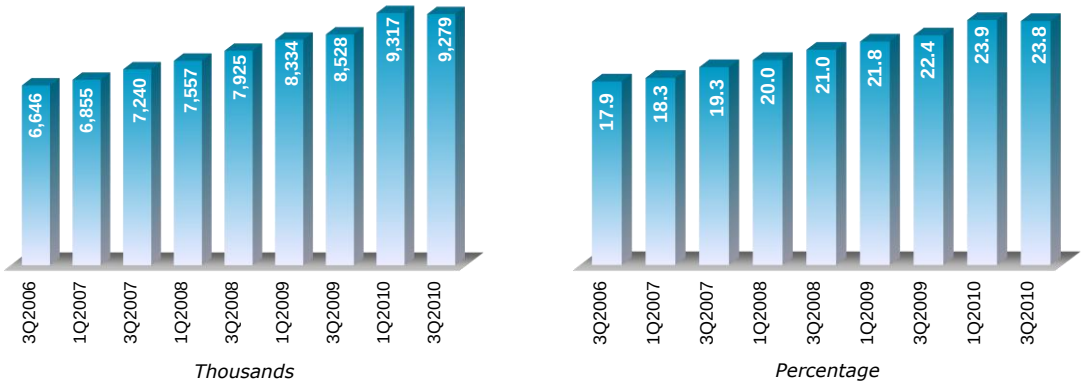
This was the last stage after the digitisation of all the Municipal Civil Registers in Spain. In total, by the end of 2010, 110,211 Registrar Books and 68.2 million pages had been digitised, as well as 9,724 books and over 6.4 million pages of the Central Civil Register. For that, 2,140 computers and more than 1,800 peripherals have been installed in magistrates' courts, and 296 magistrates' courts have been provided with Inforeg connection.

The program Ius+Red was approved on 20 April 2010 with the signature of a Framework Agreement for Collaboration by the Ministry of Justice, the Ministry of Industry, Tourism and Trade and Red.es, aiming at developing digital public services in the field of administration of Justice. During 2010 all the autonomous regions to which the central administration has transferred competences in this area joined the program (Andalusia, Asturias, Cantabria, Galicia, Navarra, Valencia, Aragon, Catalonia and the Canary Islands) except the Basque Country and Madrid. Digital public services development covers Procedures (Electronic Cases, among other things) and Civil Registers (digitisation of Magistrates' Courts, deployment of electronic kiosks —an electronic channel for citizens to access Civil Register services—, etc.). The results of the actions taken up to now are 33 electronic kiosks deployed in Civil Registers for citizens to access their services and 346 hearing rooms equipped with audiovisual recording and videoconference systems in 56 headquarters.

The program Town Planning Online (*Urbanismo en Red*) started in 2007 as a result of the signature of a Collaboration Agreement by the Ministry of Industry, Tourism and Trade, the Spanish Federation for Municipalities and Provinces (FEMP) and Red.es, aiming at promoting the introduction of ICTs in town planning, efficiency in urban planning information management, transparency and accessibility for citizens, and interoperability for administrations and other stakeholders. The results of this program from its beginning to June 2011 are: 176 participating municipalities, 71 municipalities in the accession process, 14 pilot projects completed and 163 ongoing projects, 81 municipalities with systematised urban planning, 1,725 plans already systematised, 100 servers installed and 434 persons trained.

All the efforts made in the field of eGovernment are reflected in the level of eGovernment usage both by citizens and enterprises, although there is still plenty of room for improvement, especially in the case of citizens.

Individuals who have contacted the Administration via the Internet (Thousands and %)



Base: Individuals aged 15 and over

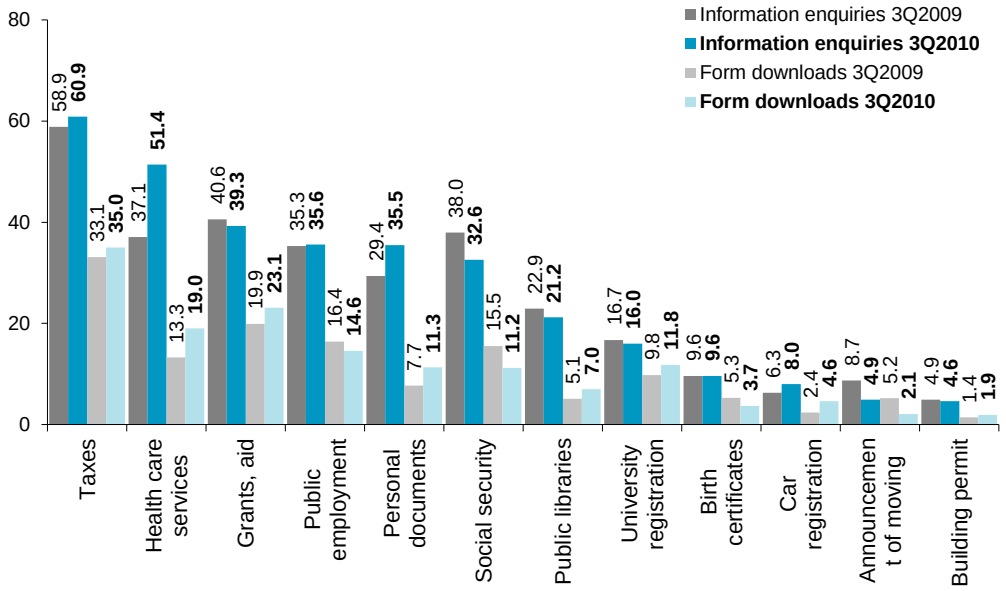
Source: Household Panel, ONTSI

In accordance with the data collected in the 29th edition of the Household Panel prepared by Red.es, 9.3 million people had contacted the public administration via the Internet in the third quarter of 2010, a figure that represents 23.8% of the population aged 15 and over and an increase of more than 1.4 points compared to the same period of the previous year.

Enquires about taxes continue to be the most common consultation on the Internet, performed by 60.9% of Internet users who have contacted the administration online, followed by enquires about healthcare services, which have experienced an important increase from 37% in 2009 to 51.4% in 2010.

Information enquiries and form download from the Administration (%)

Period: 2010Q3 vs. 2009Q3



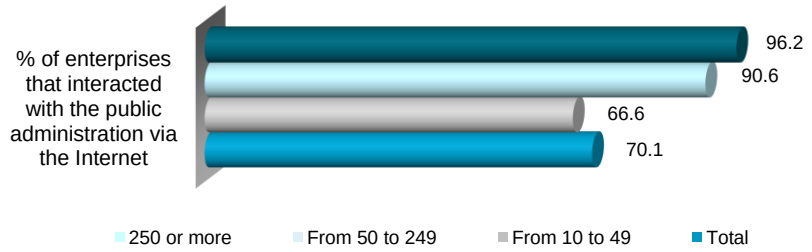
Base: Internet users aged 15 or over who have contacted the Administration via de Internet

Source: ONTSI

Regarding the procedures that citizens perform with the public administration via the Internet, payment of taxes, tax returns, etc. stands out in the first place. 45% of all Internet users who have contacted the e-Administration have paid their taxes via the Internet in the third quarter of 2010. It is followed by request for documents, certificates, etc. that records a percentage of 33.9%.

In the case of enterprises, 70.1% of SMEs and large enterprises interact with the public administration via the Internet. This figure rises to 96.2% in the segment of enterprises with 250 or more employees. The two main reasons for interacting are obtaining information (63.9%) and downloading forms (63.7%). By sectors, the financial sector makes a more extensive use of e-Administration than others (97%), followed by the professional activities sector (86.1%).

SMEs and large enterprises that interact with the public administration via the Internet (%)

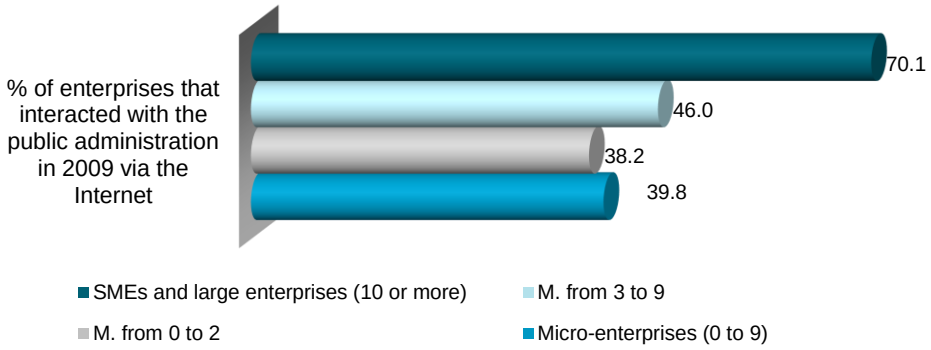


Base: enterprises with 10 or more employees with Internet access

Source: INE 2010

If we focus the analysis on micro-enterprises (those with 0 to 9 employees) we find that almost 40% of them interact with the public administration via the Internet. This percentage goes up to 46% in the largest ones (from 3 to 9 employees) and down to 38.2% in those with only 0 to 2.

Micro-enterprises dealing with the Public Administration via the Internet (%)



Base: Micro-enterprises and all other enterprises with Internet

Source: INE 2010

The two main reasons for interacting, namely obtaining information (34.9%) and downloading forms (34.8%), produce one-way interactions. Additionally, 23.7% of micro-enterprises return completed forms and 22.2% carry out complete electronic management.

By sectors, 57.4% of micro-enterprises in the professional activities sector have interacted with the public administration via the Internet. In the financial sector, this percentage reaches 49.7%. Micro-enterprises in the IT, telecommunications and audiovisual sector register a percentage of 47.7%, followed by those in the real estate and administrative activities sector with 41.8%. Sale and repair of vehicles has the lowest percentage of micro-enterprises that interact with the public administration via this channel (20.8%).