

14 September 2017

Survey on ICT and Electronic Commerce Use in Enterprises
Year 2016 – First quarter 2017

Main results

- 98.7% of Spanish companies with 10 or more employees had Internet connection in the first quarter of 2017. Eight out of ten have internet connection and website.
- The percentage of companies with 10 or more employees using mobile broadband is 82.4% in the first quarter of 2017.
- 48.1% of companies with ICT specialists employed women in this speciality in the first quarter of 2017.
- 31.4% of companies with 10 or more employees made purchases by e-commerce in 2016.
- One in five companies with 10 or more employees made e-commerce sales in 2016.

Enterprises with 10 or more employees

98.7% of companies with 10 or more employees have an Internet connection in the first quarter of 2017. Of these companies, 82.4% use mobile broadband for Internet connection.

On the other hand, eight out of ten companies with an Internet connection have a website / website. In those of 250 or more employees, this percentage reaches 95.7%.

Use of ITC. Percentage of enterprises

First Quarter 2017	Number of employees			
	TOTAL	10 to 49	50 to 249	250 or more
Computers	99.6	99.5	99.8	99.9
-Personal using computers for business purposes	60.1	56.5	59.4	62.7
-Personal using computers connected to the internet for business purposes	51.9	52.2	53.2	51.1
Defined security policy in ICTs	87.0	85.4	94.5	98.2
Internet connection	98.7	98.6	99.2	99.9
-Internet connection and website(1)	77.7	75.2	89.3	95.7
- Use digital signatures(1)	77.1	75.4	84.9	89.6
- Fixed broadband connection(1)	95.0	94.7	96.3	98.5
- Mobile broadband connection(1)	82.4	80.4	91.3	97.8

(1)Percentage of the total enterprises with an Internet connection

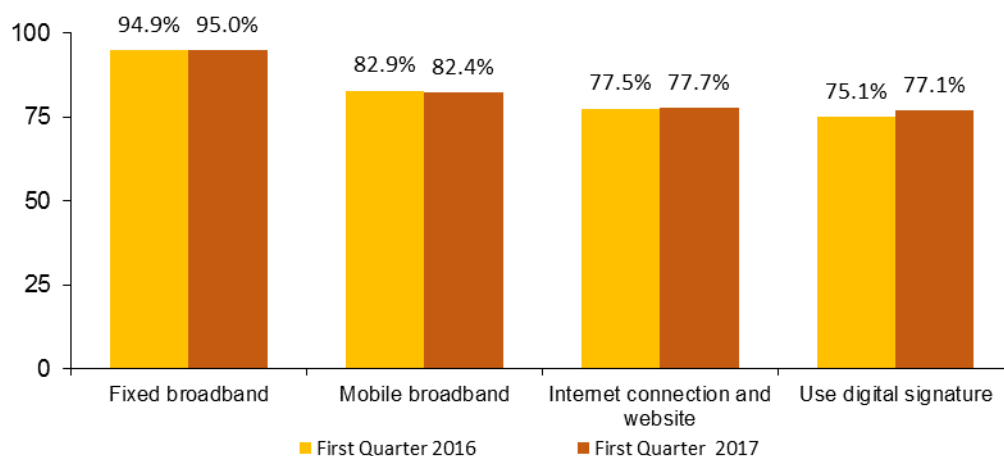
77.1% of companies use the digital signature in some communication with external agents, two points more than the same quarter of the previous year (75.1%). Of these, 99.0% use it to interact with Public Administrations and 21.5% to do so with suppliers and clients.

87.0% of companies use internal security systems. The most commonly used are secure password authentication (94.2%) and external data *backup* (62.3%).

Three out of five employees use computers for business purposes and more than half of employees use computers with an Internet connection.

During the first quarter of 2017, 82.4% of companies had mobile broadband and 95.0% fixed broadband (82.9% and 94.9% in the same period of 2016, respectively).

Evolution of the ITC use. Percentage of enterprises



Types of Internet connection

99.4% of companies with 10 or more employees with Internet connection access the network through a broadband solution (fixed or mobile).

Enterprises with Internet access by type of access

Percentages of the total enterprises with Internet access

First quarter 2017	Number of employees			
	TOTAL	10 to 49	50 to 249	250 or more
Broadband (fixed or mobile)	99.4	99.3	99.5	100.0
Fixed broadband	95.0	94.7	96.3	98.5
Mobile broadband	82.4	80.4	91.3	97.8

For companies with fixed broadband the most used technology is the connection through DSL solutions (69.1%). However, in the case of companies with 250 or more employees the most used are cable and optical fiber networks (81.4%).

Companies with fixed broadband Internet connection.

Percentage of the total enterprises with fixed broadband

First quarter 2017	Number of employees			
	TOTAL	10 to 49	50 to 249	250 or more
DSL (ADSL,SDSL,...)	69.1	69.3	66.5	73.9
Cable and optical fiber networks (FTTP)	53.2	50.0	66.1	81.4
Other fixed connections (PLC, leased line, satellite ...)	6.2	4.5	12.2	28.7

In companies that have mobile broadband, 94.0% use mobile phones with 3G technology or higher. This percentage rises to 97.1% in companies with 250 or more employees.

Companies with mobile broadband internet connection. Percentage

First quarter 2017	Number of employees			
	TOTAL	10 to 49	50 to 249	250 or more
Via laptop (tablets, notebook ...) with 3G or higher connection	72.2	69.6	82	91.5
Via mobile phone with 3G or higher connection	94	93.6	95.4	97.1

Use of Social media

49.6% of companies with Internet connection use one of the social media for work reasons in the first quarter of 2017. Of these, 94.4% use social networks.

Social media uses by the enterprises

Percentages

	1Q. 2017	1Q. 2016
Enterprises which use Social media	49.6	42.9
Social media uses by the enterprises		
Social networks (Facebook, LinkedIn, Tuenti, Google+, Viadeo, Yammer...) ⁽¹⁾	94.4	94.5
Enterprise blogs or microblogs (Twitter, Present.ly, Blogger, Typepad...) ⁽¹⁾	40.6	43.8
Websites that share multimedia content (Youtube, Flickr, Picassa...) ⁽¹⁾	43.7	42.5
Wiki-based tools for sharing knowledge ⁽¹⁾	9.4	10.7

⁽¹⁾ Percentages calculated over the total number of enterprises who use social media

92.0% of companies using social media believe that they are useful to a greater or lesser extent to develop their business, compared to 91.5% in the first quarter of the previous year.

Purchase of cloud computing solutions (*Cloud Computing*)

24.6% of companies with Internet connection purchase *Cloud Computing* solutions in the first quarter of 2017, compared to 19.3% in the same period of the previous year.

Among companies that buy *Cloud Computing* services, 74.4% opt for e-mail. 69.2% pay for some service that resides on shared servers.

Cloud Computing. Percentages

	1Q. 2017	1Q. 2016
Enterprises which buy Cloud Computing solutions	24.6	19.3
<i>Services bought by the enterprises</i>		
E-mail ⁽¹⁾	74.4	71.2
File storage ⁽¹⁾	70.8	68.7
Corporate database server ⁽¹⁾	63.4	59.6
Office Software (word-processors, spreadsheets...) ⁽¹⁾	42.3	38.5
Software applications for dealing with information about clients ⁽¹⁾	31.7	29.5
Computer ability to execute the software of the company itself ⁽¹⁾	28.5	30.0
Accounting or financial software applications ⁽¹⁾	31.0	27.6

(1))Percentage of the total enterprises which buy Cloud Computing solutions

ICT Specialists

22.1% of companies employ ICT specialists. Of these, 48.1%, employ women specialists in ICT in the first quarter of 2017.

In 4.6% of companies with ICT specialists, at least half of these specialists are women.

67.4% of companies with 250 or more employees with ICT specialists employ women of this speciality.

Enterprises with ICT experts. Percentages

First Quarter 2017	Number of employees			
	TOTAL	10 to 49	50 to 249	250 or more
Companies with ICT specialists	22.1	16.7	44.5	73.0
Companies with women ICT specialists ⁽¹⁾	48.1	46.1	46.5	67.4
Companies with less than 50% women ICT specialists ⁽¹⁾	43.5	41.5	42.0	63.1
Companies with at least 50% women ICT specialists ⁽¹⁾	4.6	4.7	4.5	4.3

(1)Percentage of total companies employing ICT specialists

Turnover

During the year 2016 seven out of eight companies sent invoices to other companies or Public Administrations.

Of these companies, 37.8% did so in electronic format that allows their automatic computer processing (does not include e-mails, nor the pdf attachments of them, images, etc.). The previous year, this type of invoices accounted for 31.2% of invoices sent.

On the other hand, 18.3% of the companies sent their invoices using only paper format in 2016, compared to 21.5% in 2015.

Evolution of enterprises that sent turnover to other enterprises or Public Administrations Percentages

	2016	2015
Total enterprises	87.8	83.8
Sent invoices that allows automatic processing ⁽¹⁾	37.8	31.2
Sent invoices that DO NOT allow automatic processing ⁽¹⁾	71.3	68.1
They sent all paper invoices ⁽¹⁾	18.3	21.5

(1) Percentage of total companies that send invoices to other companies or public administrations

Electronic information management tools

In the first quarter of 2017, 46.7% of companies with 10 or more employees use computer packages for the integration of the different areas of the enterprise (ERP- *Enterprise Resource Planning*), compared to 37.8% use CRM (*Customer Relationship Management*) tools to manage customer information.

On the other hand, 16.9% of companies use websites or other electronic formats to share information about the supply chain with their suppliers or customers.

Companies with electronic information management tools. Percentages

First Quarter 2017	Number of employees			
		10 to 49	50 to 249	250 or more
Management of different areas of the company (ERP)	46.7	42.3	66.9	79.6
Customer Management (CRM)	37.8	34.9	51.3	60.7
Supply chain management with suppliers and customers	16.9	14.9	24.8	37.4

Use of Radio Frequency Identification (RFID)

15.2% of companies with 10 or more employees use automatic identification technologies based on remote information capture using devices such as Radio Frequency Identification (RFID) tags in the first quarter of 2017.

Of these companies, 72.3% use it for the identification of persons or in access controls.

Companies using RFID technologies. Percentages

First Quarter 2017	Number of employees			
		10 to 49	50 to 249	250 or more
Total companies	15.2	12.0	28.5	45.5
Type of use:				
Identification of persons or access control ⁽¹⁾	72.3	68.3	79.1	83.1
As part of the production process or the product delivery service ⁽¹⁾	45.0	46.4	41.5	45.1
For the identification of the product after the production process ⁽¹⁾	22.6	23.3	20.1	25.0

(1) Percentage of total companies using RFID technologies

Use of ICT by Autonomous Community

The companies with 10 or more employees whose headquarters are located in Cataluña, Comunidad de Madrid and Comunitat Valenciana have the highest intensities in the use of ICT in the first quarter of 2017¹.

For its part, companies in the autonomous city of Melilla and the Autonomous Communities of the Canarias and Castilla-La Mancha have the lowest percentages in the use of information technologies.

Use of ICT by Autonomous Community and Autonomous City in which the company is headquartered. Percentages

First Quarter 2017	Internet connection	Internet and Website ⁽¹⁾	broadband connection ⁽¹⁾	Use of digital signature ⁽¹⁾	Use of Social Media ⁽¹⁾	Cloud Computing ⁽¹⁾
TOTAL	98.7	77.7	82.4	77.1	49.6	24.6
Andalucía	99.7	70.0	83.3	77.7	48.2	20.6
Aragón	98.7	82.1	82.2	79.7	48.0	24.5
Asturias, Principado de	97.8	79.6	73.3	80.8	42.9	20.1
Balears, Illes	99.2	70.8	79.0	73.3	53.0	22.2
Canarias	98.1	65.7	73.9	71.0	48.9	20.4
Cantabria	98.5	77.2	83.5	71.6	47.4	16.7
Castilla y León	98.8	76.4	78.5	81.2	47.0	19.6
Castilla-La Mancha	98.6	72.1	80.4	78.9	37.6	13.7
Cataluña	98.9	85.2	83.9	77.0	53.9	35.1
Comunitat Valenciana	99.3	79.7	85.8	80.2	52.7	21.1
Extremadura	97.8	71.4	85.3	77.0	54.0	12.0
Galicia	98.5	73.2	80.5	78.8	42.5	16.4
Madrid, Comunidad de	97.9	78.5	84.1	75.1	53.9	31.3
Murcia, Región de	99.0	69.8	78.2	77.9	45.7	16.2
Navarra, Comunidad Foral de	98.3	82.9	80.9	76.2	43.6	15.7
País Vasco	98.0	83.1	82.1	74.7	40.5	19.6
Rioja, La	98.2	82.2	76.2	77.8	44.5	15.8
Ceuta	100.0	72.0	73.3	87.2	38.6	26.3
Melilla	96.7	35.6	82.0	77.7	21.2	6.9

(1) Percentage of the total enterprises with an Internet connection

¹ The intensities in the use of Information and Communication Technologies refer to the following indicators: Internet connection, Use of Digital Signature, Website, Mobile broadband, Use of Social Media and Cloud Computing.

E-commerce

Sales via e-commerce in 2016

20.4% of companies with 10 or more employees made purchases by e-commerce in 2016. The volume of business generated by these sales reached 228,323.1 million euros, an increase of 4.6% compared to 2015.

The branches of activity with the highest percentage of companies that made sales through e-commerce were *Hosting services* (87.4%), *Food; drinks; tobacco; textile; clothing; leather and footwear; wood and cork; paper; graphic arts and reproduction of recorded media* (29.3%) and *Wholesale and retail trade and repair of motor vehicles and motorcycles* (28.6%).

Sales through e-commerce accounted for 16.6% of total sales by companies with 10 or more employees, compared to 15.7% the previous year.

15.0% of the companies made sales through electronic commerce by web page or mobile applications (apps). The total value of these transactions was 85,542.9 million euros, which represented 37.5% of total e-commerce sales.

Evolution of web sales (sales of CE per website or apps). Percentages

	2016	2015
Web sales (thousands of euros)	85,542.9	69,699.5
% of companies that perform web sales	15.0	14.6
% of web purchases over total EC sales	37.5	31.9

Purchases via e-commerce in 2016

31.4% of companies with 10 or more employees made purchases through electronic commerce in 2016. The total volume of orders for goods and services made through electronic commerce was 199,324.6 million euros, an increase of 1.0% over 2015.

The branches of activity with the highest percentage of companies that bought through electronic commerce were the *ICT Sector* (59.5%) and *Information and Communications* (52.5%).

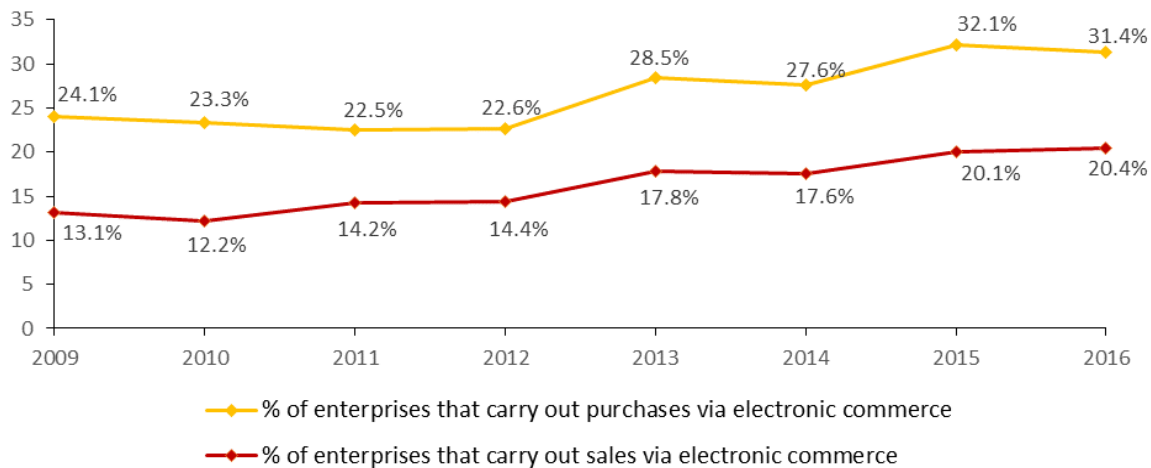
Purchases through e-commerce accounted for 20.7% of total purchases by companies of 10 or more employees, compared to 20.3% the previous year.

30.4% of the companies made purchases through electronic commerce by web page or mobile applications (apps). The total value of these transactions was 63,767.8 million euros, which represented 32.0% of total purchases of electronic commerce.

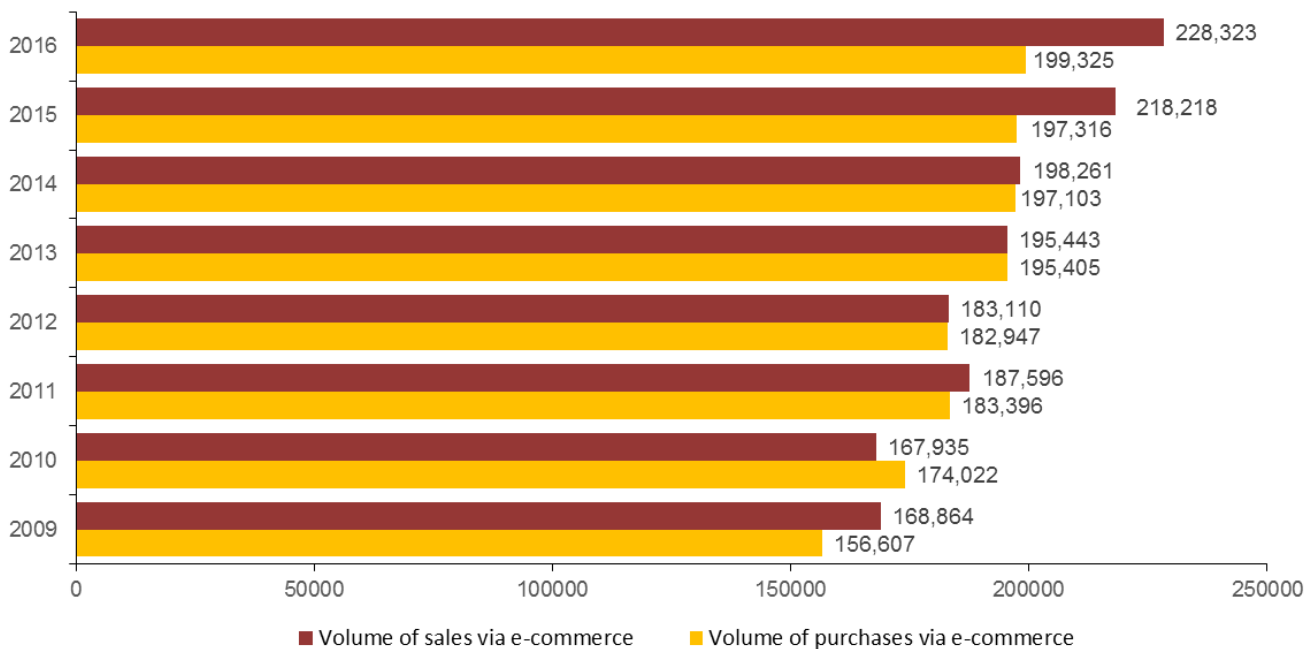
Evolution of web purchases (purchases of CE per website or apps). Percentages

	2016	2015
Web purchases (thousands of euros)	63767.8	69205.7
% of companies that perform web purchases	30.4	30.8
% of web purchases over total EC purchases	32.0	35.1

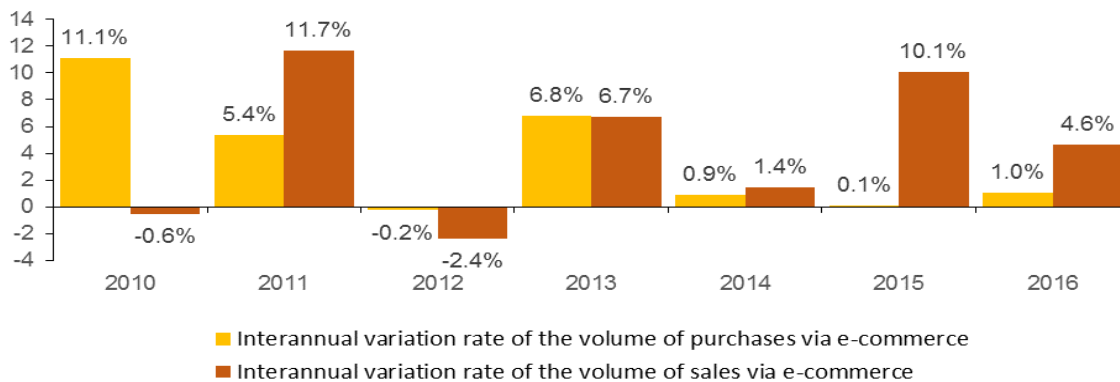
Evolution of enterprises that carried out e-commerce (2009 – 2016). Percentage over the total enterprises



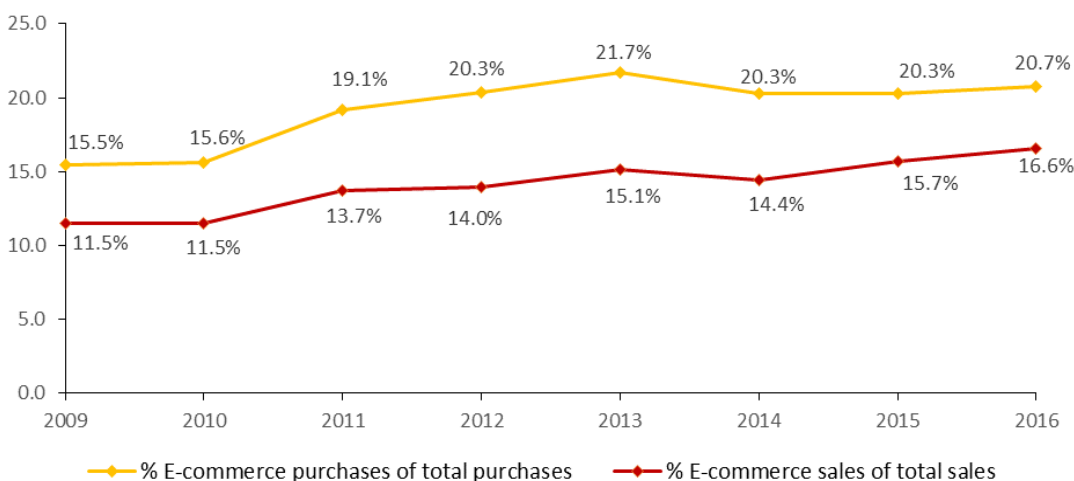
Evolution of the volume of purchases and sales made by enterprises via e-commerce (2009 – 2016). Million euros



Performance of the year-to-year change of the volume of purchases and sales carried out via e-commerce by enterprises (2010 – 2016)



Evolution of the percentage of purchases and sales via e-commerce over the total of purchases and sales (2009 – 2016)



ICT use in enterprises with fewer than 10 employees

73.1% of companies with less than 10 employees have computers, according to data for the first quarter of 2017.

70.2% of micro-enterprises have access to the Internet and 99.0% of them access via a broadband solution.

As for the type of connection, the companies with fixed broadband are 87.7% and those that access the internet by mobile broadband 72.6%.

29.8% of these companies, with Internet connection, have a *website*, compared to 31.5% the previous year.

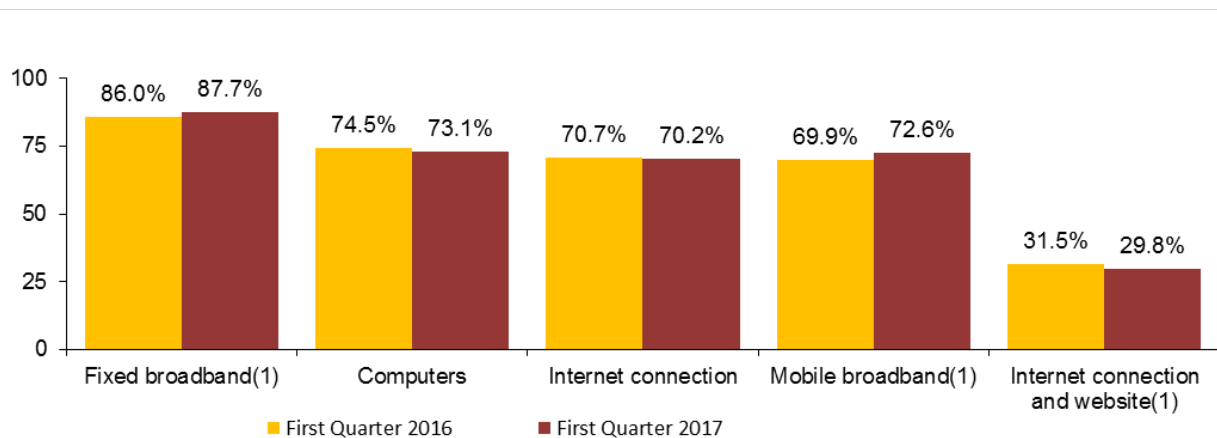
ICT infrastructures of enterprises with fewer than 10 employees.

Percentage over the total enterprises with fewer than 10 employees

	1Q 2017	1Q 2016
Computers	73.1	74.5
- Employees using computers for business purposes(1)	63.9	63.1
- Employees using computers with portable devices that allow a mobile connection to the Internet for business purposes(1)	60.5	59.1
Defined security policy in ICTs	45.9	47.6
Internet connection	70.2	70.7
- Internet connection and website (1)	29.8	31.5
- Use digital signatures(1)	48.6	44.2
- Broadband (fixed or mobile)(1)	99.0	98.2
- Fixed Broadband connection(1)	87.7	86.0
- Mobile Broadband connection(1)	72.6	69.9

(1) Percentage over the total enterprises with fewer than 10 employees and internet connection

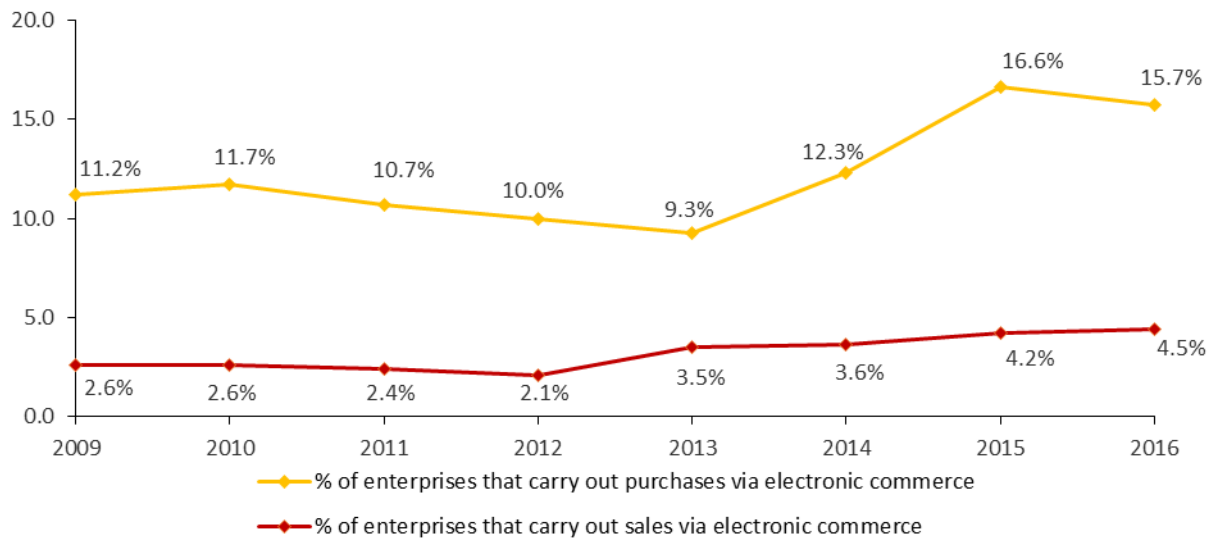
Evolution of ICT use in enterprises with fewer than 10 employees



(1) Percentage of the total enterprises with an Internet connection

4.5% of companies with less than 10 employees made e-commerce sales in the last year and 15.7% purchases.

Evolution of enterprises that carried out e-commerce (2009 – 2016). Percentage over the total enterprises



Methodological annex

The survey on the Use of Information and Communication Technologies (ICT) and Electronic Commerce in Companies is integrated in the statistics plans of the European Union designed to quantify the Information Society. It is governed by European Parliament and Council Regulation No. 808/2004, for carrying out statistics regarding the Information Society. The purpose of this statistical operation is to obtain the information necessary to measure the use of ICTs and Electronic Commerce by companies in the Member States, and thus provide a response to the i2010 comparative indicators as regards the business sector.

The survey was carried out by the National Institute of Statistics (INE), in collaboration with the Ministry of Industry, Energy and Tourism through the Public Entity Red.es for the statistical measurement of ICT penetration and electronic commerce in the Spanish business fabric.

Following the methodological recommendations of the Statistical Office of the European Communities (Eurostat), the Survey considers a dual time scope; the variables regarding ICT use refer to January 2013, whereas the reference period for the general information on the company, electronic commerce and ICT training is the year 2016.

This study has targeted 14.627 companies with 10 or more employees, and 10.773 companies with fewer than 10 employees, located in Spain and belonging to sections C, D, E, F, G, H, I, J, L, M, N and group 95.1, according to the National Classification of Economic Activities (CNAE-2009).

The sample was designed to offer results by branch of economic activity and by Autonomous Community.

As regards Electronic Commerce, any transaction carried out through telematic networks is considered to be as such. Goods and services are procured via these networks, but the payment or dispatch of the good or service may be performed using this channel or others.

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