

20 September 2018
(Updated 16 October 2018)

Survey on ICT and Electronic Commerce Use in Enterprises
Year 2017 – First quarter 2018

Main results

- 11.2% of the companies with 10 or more employees conducted *Big Data* analyses in 2017. This percentage is 2.4 points higher than the previous year.
- 11.0% of companies with 10 or more employees used some type of robot during the year 2017.
- 32.1% of companies with 10 or more employees made purchases by e-commerce in 2017. One in five made sales via e-commerce.

Use of ICTs in companies with 10 or more employees

Three out of five employees in companies with 10 or more employees used computers for business purposes and more than half used computers with an Internet connection in the first quarter of 2018.

Main variables. Percentages

	1er trimestre de 2018	1er trimestre de 2017
Personal que usa ordenadores con fines empresariales	60,1	60,1
Personal que usa ordenadores conectados a internet con fines empresariales	52,5	51,9
Empresas que emplearon especialistas en TIC	19,2	22,1
Empresas con sistemas internos de seguridad	87,3	87,0
<i>Empresas con conexión a Internet, de las cuales:</i>	98,7	98,7
- Conexión a Internet y sitio/página web ⁽¹⁾	78,2	77,7
- Banda ancha móvil ⁽¹⁾	81,5	82,4
- Usan firma digital ⁽¹⁾	76,7	77,1
- Usan medios sociales ⁽¹⁾	51,8	49,6
- Compran servicios en la nube ⁽¹⁾	23,2	24,6
- Utilizan publicidad dirigida ⁽¹⁾	22,8	21,7

⁽¹⁾Porcentaje sobre el total de empresas con conexión a Internet

For companies with an internet connection, the use of targeted advertising (advertisements that vary depending on user behaviour) increased from 21.7% in the first quarter of 2017 to 22.8% in the same period of 2018. The use of social media by companies has also increased (from 49.6% to 51.8%).

On the other hand, the purchase of cloud services fell 1.4 points compared to the first quarter of 2017, standing at 23.2%.

76.7% of companies used the digital signature in some communication with external agents and 87.3% used internal security systems. Both figures are similar to those recorded in the first quarter of 2017.

ICT Specialists

19.2% of companies employed ICT specialists in the first quarter of 2018, almost three points less than in the same period of the previous year.

On the other hand, 9.6% of companies employed women ICT specialists, one point less than in the first quarter of 2017.

ICT Specialists. Percentage

	1er Trim. 2018	1er Trim. 2017
Empresas con especialistas TIC	19,2	22,1
Empresas con mujeres especialistas TIC	9,6	10,6
Empresas con menos del 50% de mujeres especialistas TIC	8,4	9,6
Empresas con al menos el 50% de mujeres especialistas TIC	1,2	1,0

Big Data

In 2017, 11.2% of companies carried out Big Data analyses. This percentage is 2.4 points higher than the previous year.

Geolocation data from portable devices were again the most widely used source, specifically by 5.6% of the total number of companies with 10 or more employees. This was followed by data generated by social media (used by 5.0%).

Big Data Analysis. Percentage

	2017	2016
Empresas que realizaron análisis de <i>Big Data</i>	11,2	8,8
<i>Tipo de fuente usada para el análisis de Big Data:</i>		
Datos por geolocalización a partir de dispositivos portátiles	5,6	4,6
Datos generados por medios sociales	5,0	4,1
Datos de la propia empresa con sensores o dispositivos inteligentes	3,8	2,4
Otras fuentes de Big Data	3,0	2,2

3D printing

In 2017, 3.2% of companies used 3D printing services. Of these, 61.7% used their own printers, while 53.6% used printing services provided by other companies.

6.4% of companies in the *Industry* sector used 3D printing services. This was followed by the *Services* and *Construction* sectors, with 2.2% and 1.4%, respectively.

3D printing. Percentage

Año 2017	Sectores			
	TOTAL	Industria	Construcción	Servicios
Empresas que realizaron impresión 3D	3,2	6,4	1,4	2,2
<i>Por tipo de servicio:</i>				
Servicios de impresión propios ⁽¹⁾	61,7	60,8	45,4	65,3
Servicios de impresión proporcionados por otras empresas ⁽¹⁾	53,6	55,5	59,3	50,4

⁽¹⁾ Porcentaje sobre el total de empresas que realizaron impresión 3D

Robotics

11.0% of companies used some type of robot in 2017. Of these, 75.5% used industrial robots, while 38.1% used service robots.

By sectors, 24.1% of companies in *Industry* used robots, as compared with 6.2% in *Construction* and 6.1% in the *Services* sector.

Robotics in companies. Percentage

Año 2017	Sectores			
	TOTAL	Industria	Construcción	Servicios
Empresas que usaron algún tipo de robot	11,0	24,1	6,2	6,1
<i>Por tipo de robot:</i>				
Robots industriales ⁽¹⁾	75,5	89,4	70,0	51,9
Robots de servicios ⁽¹⁾	38,1	25,0	45,7	59,7

⁽¹⁾ Porcentaje sobre el total de empresas que usaron robots

Use of ICTs by Autonomous Community

Companies with 10 or more employees whose head offices are located in Comunidad de Madrid, Cataluña and Comunitat Valenciana showed the highest intensities¹ in the use of ICTs in the first quarter of 2018.

On the other hand, companies in the Autonomous Cities of Ceuta and Melilla and the Autonomous Communities of Cantabria and Extremadura had the lowest percentages in the use of information technologies.

Use of ICTs by Autonomous Communities and Cities in which the head office of the company is located. Percentages

Primer trimestre de 2018	Conexión a Internet	Internet y Página Web ⁽¹⁾	Banda Ancha Móvil ⁽¹⁾	Uso de Firma Digital ⁽¹⁾	Uso de Medios Sociales ⁽¹⁾	Cloud Computing ⁽¹⁾
TOTAL	98,7	78,2	81,5	76,7	51,8	23,2
Andalucía	98,1	70,6	80,0	79,0	52,1	19,0
Aragón	98,6	81,6	83,0	73,6	49,6	22,3
Asturias, Principado de	98,9	77,8	78,0	74,6	51,7	16,6
Balears, Illes	98,8	71,7	76,2	75,4	50,8	22,3
Canarias	97,4	65,3	79,7	75,8	56,5	19,8
Cantabria	97,4	80,8	81,5	67,4	41,4	11,8
Castilla y León	99,2	78,4	78,8	78,9	48,8	12,1
Castilla-La Mancha	98,4	75,1	79,6	83,0	48,0	11,7
Cataluña	99,4	84,3	82,4	70,1	55,0	31,7
Comunitat Valenciana	98,0	77,9	83,0	81,0	54,4	18,7
Extremadura	97,7	69,1	78,6	75,6	49,0	16,0
Galicia	98,8	73,6	79,1	77,4	47,2	14,5
Madrid, Comunidad de	98,9	80,9	83,6	79,7	54,3	32,4
Murcia, Región de	98,9	75,5	79,8	81,0	48,8	15,2
de	97,6	82,3	81,9	82,0	41,5	16,0
País Vasco	98,9	84,8	85,0	73,5	42,8	23,1
Rioja, La	98,1	83,9	81,6	83,8	45,5	18,4
Ceuta	100,0	44,1	55,5	84,2	50,5	11,4
Melilla	100,0	49,2	55,2	70,6	29,1	8,5

(1) Porcentaje sobre el total de empresas con conexión a Internet

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

Electronic Commerce

E-commerce sales in 2017

19.6% of companies with 10 or more employees made purchases via e-commerce in 2017. The turnover generated by these sales reached **259,515.6** million euros, with an increase of 13.7% compared to 2016.

The branches of activity with the highest percentage of companies that made sales through e-commerce were *Accommodation* (89.6%), *Wholesale and retail trade; repair of motor vehicles and motorcycles* (26.8%) and *Food; beverages; tobacco; textiles; clothing; leather and footwear; wood and cork; paper; graphic arts and reproduction of recorded media* (26.0%).

Sales through e-commerce accounted for **17.3%** of total sales by companies with 10 or more employees, compared to 16.6% in the previous year.

Sales volume through e-commerce. Million euros

	2017	2016	Variación anual
Total ventas	259.515,6	228.323,1	13,7
Ventas por página web o apps	109.042,5	85.542,9	27,5
Ventas mediante Intercambio electrónico de datos (EDI)	150.473,1	142.780,3	5,4

The value of e-commerce sales through websites or apps was **109,042.5** million euros, representing an increase of **27,5%** over the previous year.

E-commerce Purchases in 2017

32.1% of companies with 10 or more employees made purchases through e-commerce in 2017. The total volume of orders for goods and services made through e-commerce was **206,647.3** million euros, an increase of 3.7% over 2016.

The branches of activity with the highest percentage of companies that bought through e-commerce were *Information and communications* (59.5%) and *Professional, scientific and technical activities (excluding veterinary)* (46.1%).

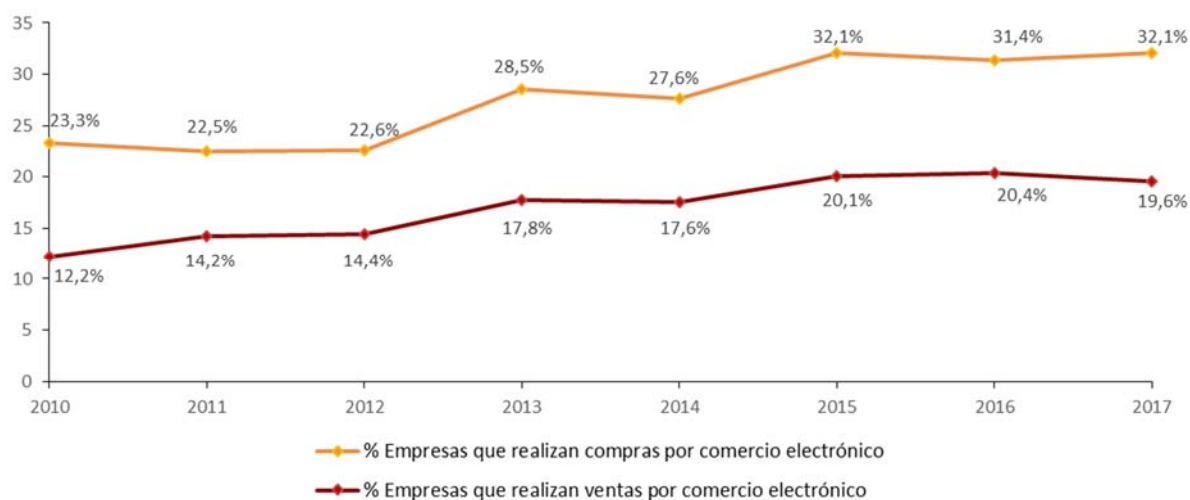
Purchases through e-commerce accounted for 19.7% of total purchases by companies of 10 or more employees, compared to 20.7% in the previous year.

Purchases volume through e-commerce. Million euros

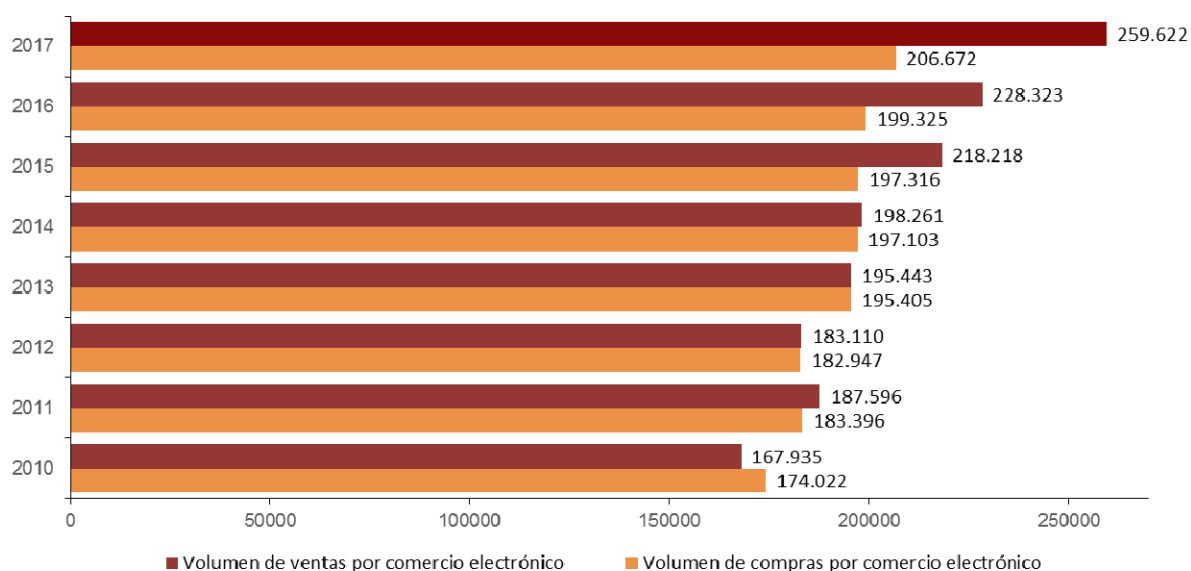
	2017	2016	Variación anual
Total compras	206.647,3	199.324,6	3,7
Compras por página web o apps	75.104,7	63.767,8	17,8
Compras mediante Intercambio electrónico de datos (EDI)	131.542,6	135.556,8	-3,0

The value of e-commerce purchases through websites or apps was **75,104.7** million euros, representing an increase of 17.8% more than in 2016.

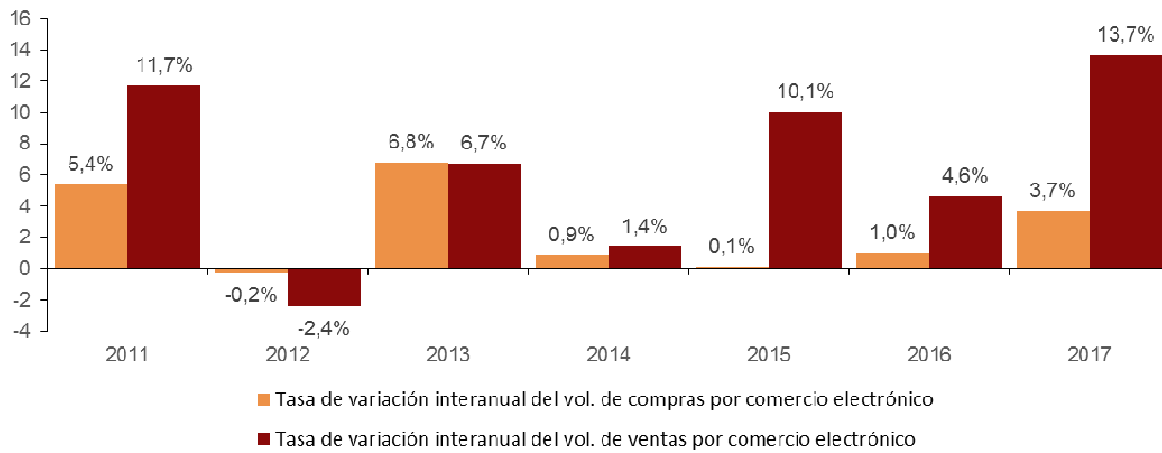
Evolution of companies involved in e-commerce (2010 – 2017). Percentages over the total number of companies



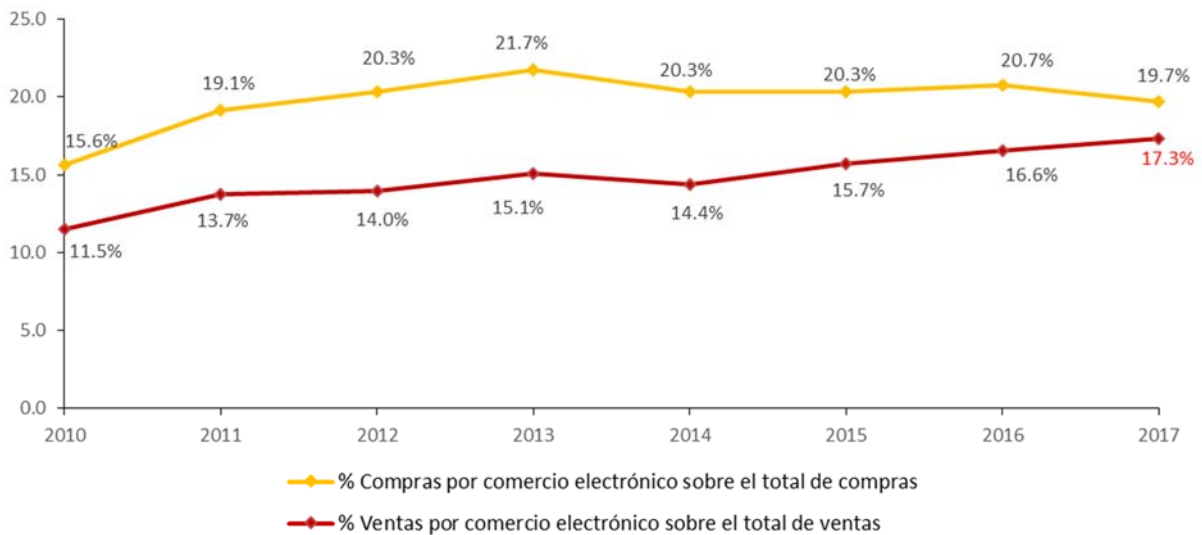
Evolution of the volume of purchases and sales made by companies through e-commerce (2010 - 2017). Million euros



Evolution of the annual rate of the volume of purchases and sales made by companies through e-commerce (2011 - 2017)



Evolution of the percentage of purchases and sales by e-commerce over total purchases and sales (2010 - 2017)



Use of ICTs in companies with less than 10 employees

79.8% of companies with less than 10 employees had computers in the first quarter of 2018, 6.7 points more than in the same period of 2017.

Three out of four had Internet access. The most widely used type of connection continued to be fixed broadband (63.9%), although the one that grew the most with respect to 2017 was mobile broadband, which went from 51.0% to 54.5%.

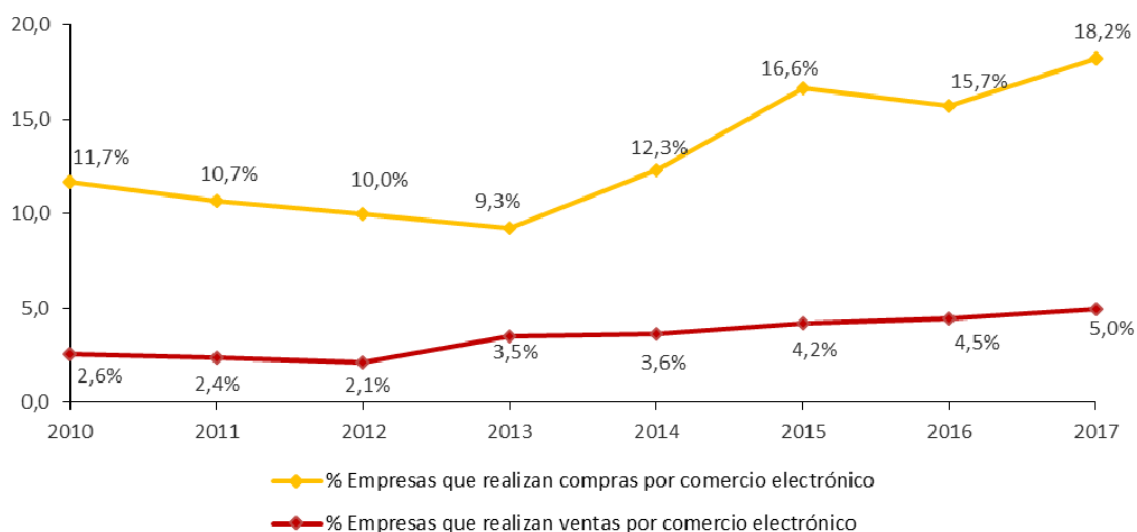
In turn, 23.5% of companies with less than 10 employees had a website, as compared with 20.9% in the previous year.

Main variables. Percentages of the total number of companies with less than 10 employees

	1er trimestre de 2018	1er trimestre de 2017
Ordenadores	79,8	73,1
Personal que usa ordenadores con fines empresariales	67,4	63,9
Personal que usa ordenadores conectados a internet con fines empresariales	63,5	60,5
Tienen sistemas internos de seguridad	49,8	45,9
Conexión a Internet	75,5	70,2
- Conexión a Internet y sitio/página web	23,5	20,9
- Banda ancha fija	63,9	61,6
- Banda ancha móvil	54,5	51,0
- Usan firma digital	37,0	34,1
- Usan medios sociales	26,7	21,9
- Compran servicios en la nube	7,0	5,2
- Utilizan publicidad dirigida	7,3	6,3

With regard to the use of e-commerce, 5.0% of companies with less than 10 employees carried out sales by this means and 18.2% made purchases.

Evolution of companies involved in e-commerce (2010 – 2017). Percentages over the total number of companies



Methodological Annex

The Survey on the Use of Information and Communication Technologies (ICT) and e-Commerce in Companies is a structural survey that is integrated into the European Union's statistical plans to quantify the Information Society. It is governed by Regulation No. 808/2004 of the European Parliament and of the Council for the production of statistics on the Information Society. The objective of this operation is to obtain the information needed to measure the use of ICT and e-commerce in companies in the Member States and thus respond to the i2010 benchmarking indicators and the Digital Agenda as far as the business area is concerned.

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 Union (Eurostat), the survey considers a double temporal scope; the variables on ICT use refer to the first quarter of 2018, while the reference period for general information on the company, e-commerce and ICT training is the year 2017.

This study has been addressed to 15,111 companies with 10 or more employees and 10,801 with less than 10 employees located in the national territory 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 has been designed by means of a stratified sample in order to provide results by branch of economic activity and by Autonomous Community.

As regards e-commerce, any transaction carried out via telematic networks is considered as such. Goods and services are contracted through these networks, but payment or delivery of the good or service can be made by these or other means.

For more information, the complete methodology can be found on the website: http://www.ine.es/en/daco/daco42/comele/metocor_en.pdf and the standardized report can be found at <http://www.ine.es/dynt3/metadatos/en/RespuestaDatos.html?oe=30169>.

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