

20 July 2018

**Indicators of the Information and Communication
Technology Sector (ICT)
Year 2016**

Turnover of companies in the ICT sector reached 90,111.3 million euros in 2016

The number of companies that carried out R&D activities increased by 6.6%.

The trade deficit decreased by 2.4%

Main variables in the ICT sector

Turnover of companies in the Information and Communication Technologies (ICT) sector stood at 90,111.3 million euros in 2016. These companies generated a value added of 31,900.8 million euros.

The number of companies in the ICT sector stood at 66,155. On the other hand, the number of employed persons reached 448,498 persons.

Main variables in the ICT sector. Year 2016¹

Economic data in million euros

CNAE-2009	Número de empresas	Cifra de negocios	Valor añadido	Número de ocupados
Industrias Manufactureras TIC	1,491	2,377.9	778.4	15,309
Servicios TIC	64,664	87,733.3	31,122.4	433,189
Industrias Comerciales TIC	5,500	22,867.5	3,235.2	56,962
Industrias de Servicios TIC	59,164	64,865.8	27,887.2	376,227
Total Sector TIC	66,155	90,111.3	31,900.8	448,498

Fuente: Estadística Estructural de Empresas

¹ By 2016, a number of methodological improvements have been implemented in the Structural Business Statistics. As a consequence, **the results are not strictly comparable to those of other years**. For more information, see the methodological note in this press release.

Wage costs in the ICT sector

The wage cost per worker in the ICT sector stood at 2,428.9 euros per month in the fourth quarter of 2016. Within this sector, the wage cost of the *Manufacturing industry* was 2,860.5 euros and that of *ICT Services* was 2,420.5 euros.

With respect to the wage cost per hour, the highest figures were registered in *Telecommunications* (22.8 euros), *Manufacturing industry* (20.4 euros) and *Programming, Consultancy and other IT related activities* (19.7 euros).

Wage cost in the ICT sector. Fourth quarter of 2016

Euros

IV trimestre de 2016. Sector TIC (CNAE 2009)	Coste salarial por hora	Coste salarial por trabajador y mes
INDUSTRIAS MANUFACTURERAS TIC Fabricación de productos informáticos, electrónicos y ópticos (CNAE 26)	20.4	2,860.5
SERVICIOS	17.2	2,420.5
INDUSTRIAS COMERCIALES TIC: Comercio al por mayor e intermediarios del comercio excepto de vehículos de motor y motocicletas (CNAE 46)	15.9	2,248.3
INDUSTRIAS DE SERVICIOS TIC: Edición (CNAE 58)	18.4	2,602.0
INDUSTRIAS DE SERVICIOS TIC: Telecomunicaciones (CNAE 61)	22.8	3,327.3
INDUSTRIAS DE SERVICIOS TIC: Programación, consultoría y otras actividades relacionadas con la informática (CNAE 62)	19.7	2,777.9
INDUSTRIAS DE SERVICIOS TIC: Servicios de información (CNAE 63)	18.0	2,310.7
INDUSTRIAS DE SERVICIOS TIC: Reparación de ordenadores, efectos personales y artículos de uso doméstico (CNAE 95)	13.1	1,797.2
TOTAL SECTOR TIC	17.2	2,428.9

Fuente: Encuesta Trimestral de Coste Laboral

Companies in the ICT sector which carried out R&D activities

The number of companies which carried out R&D activities in 2016 was 1,702, which supposed 16.5% of the total business sector which carried out this type of activities.

Within the ICT sector, the number of companies that carried out R&D activities increased by 6.6% with respect to 2015.

The two other characteristics that increased the most in 2016 were researchers (5.1%) and internal expenditure on R&D (4.9%).

R&D activities in the ICT sector. Year 2016

CNAE 2009	Total	% sobre el total empresarial	% variación respecto a 2015
Número de empresas	1,702	16.5	6.6
Gasto interno en I+D*	1,002.0	14.1	4.9
Personal ocupado en I+D (EJC)**	16,805.9	18.6	3.2
Mujeres en I+D (EJC)**	3,742.6	13.4	0.2
Investigadores en I+D (EJC)**	8,283.6	17.5	5.1
Mujeres investigadoras en I+D (EJC)**	1,743.0	12.0	1.6

Fuente: Estadística sobre Actividades de Investigación Científica y Desarrollo Tecnológico.

*millones de euros

**EJC=Equivalencia a Jornada Completa

Companies in the ICT sector carrying out innovative activities

During the year 2016, 37.1% of the companies in the ICT sector carried out innovative activities.

The expenditure in innovative activities of the ICT manufacturing industries stood at 122.3 million euros. In the ICT services companies, the expenditure in those activities was 2,057.2 million euros.

Expenditure in the ICT sector accounted for 15.7% of the total business sector expenditure on innovative activities.

The annual change in expenditure on innovative activities was 3.6%.

Innovative activities in the ICT sector. Year 2016

Data in million euros

CNAE 2009	% de empresas con actividades innovadoras	Gasto en actividades innovadoras	% Gasto sobre el total empresarial	% variación del gasto respecto a 2015
Industrias Manufactureras	59.8	122.3	0.9	-3.5
Servicios	35.7	2,057.2	14.8	4.1
Total sector TIC	37.1	2,179.5	15.7	3.6
Total sector empresarial	10.8	13,857.5	100.0	1.3

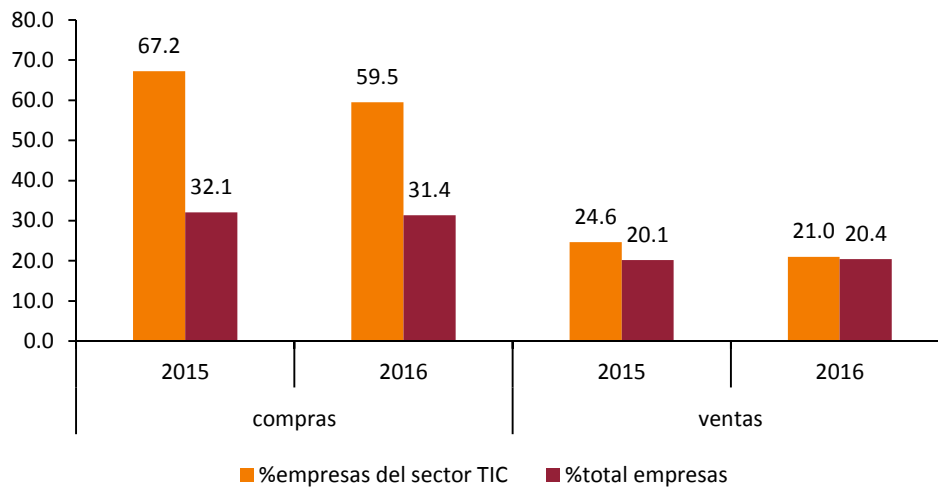
Fuente: Encuesta sobre Innovación en las Empresas

Companies in the ICT sector that carried out e-commerce

In 2016, 59.5% of the companies in the ICT sector with 10 or more employees made purchases through E-commerce as compared to 31.4% of the total of the business sector.

On the other hand, 21.0% of companies with 10 or more employees in the ICT sector made e-commerce sales in this period, while in the business sector as a whole it was 20.4%.

Evolution of e-commerce (2015-2016)



Fuente: Encuesta sobre el uso de las TIC y el comercio electrónico en las empresas

Companies in the ICT sector made e-commerce sales in 2016 worth 11,252.1 million euros, 4.1% more than in 2015. As for purchases, the increase over the previous year was 19.4%.

Volume of e-commerce. Million euros

	2016	2015	% variación respecto a 2015
Ventas			
Total sector TIC	11,252.1	10,806.9	4.1
Total empresas	228,323.1	218,218.0	4.6
Compras			
Total sector TIC	12,617.7	10,564.1	19.4
Total empresas	199,324.6	197,316.3	1.0

Fuente: Encuesta sobre el uso de las TIC y el comercio electrónico en las empresas

Production value of ICT goods

According to the Industrial Products Survey, the production value of ICT goods was 2,949.0 million euros in 2016, with an increase of 3.4% compared to the previous year.

The group of products with the greatest increase in production value in 2016 was *Telecommunications equipment* (18.3%). On the other hand, the group with the greatest decrease was *Electronic components* (8.1%).

Production value of ICT goods. Year 2016

Data in million euros

Grupos de productos (PRODCOM)	Valor de la producción	% sobre total sector TIC	% sobre total sector industrial	% variación respecto a 2015
1. Equipos de telecomunicaciones	606.9	20.6	0.2	18.3
2. Equipos de ordenadores	157.4	5.3	0.0	12.0
3. Componentes electrónicos	754.1	25.6	0.2	-8.1
4. Equipos de audio y video	197.5	6.7	0.1	-6.6
5. Otros productos TIC	1,233.1	41.8	0.3	5.8
TOTAL sector TIC	2,949.0	100.0	0.8	3.4
TOTAL producción industrial	382,440.5	...	100.0	0.2

Fuente: Encuesta Industrial de Productos

The production value of ICT goods accounted for 0.8% of the total value of the industrial production in 2016.

Foreign trade of ICT products

The trade balance of ICT products in 2016 registered a negative balance of 12,076.6 million euros. This figure represented a decrease in the trade deficit of the sector of 2.4% with respect to the previous year.

Total ICT sector exports reached 5,674.4 million euros, while imports reached 17,751.0 million euros.

Foreign trade in the ICT sector, by group of products. Year 2016

Data in million euros

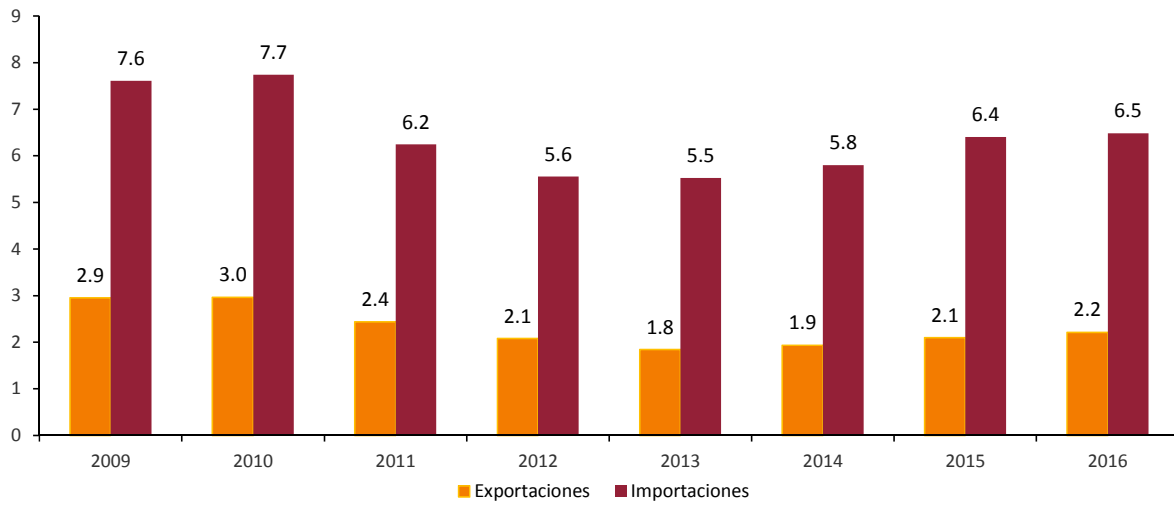
Grupos de productos (NC ¹)	Exportaciones	Importaciones	Saldo comercial	Tasa de cobertura	% Variación saldo comercial respecto a 2015
1. Equipos de telecomunicaciones	1,444.8	5,989.9	-4,545.1	24.1	8.0
2. Equipos de ordenadores	847.2	3,848.6	-3,001.4	22.0	7.3
3. Componentes electrónicos	971.1	1,779.7	-808.6	54.6	9.7
4. Equipos de audio y video	832.6	2,893.0	-2,060.4	28.8	-12.6
5. Otros productos TIC	1,578.6	3,239.8	-1,661.2	48.7	-13.3
TOTAL sector TIC	5,674.4	17,751.0	-12,076.6	32.0	2.4
TOTAL	256,393.4	273,778.6	-17,385.2	93.6	30.4

Fuente: Elaboración propia a partir de datos de la Agencia Estatal de la Administración Tributaria

(¹) Nomenclatura Combinada

The exports of the ICT sector represented 2.2% of the Spanish exports in 2016, compared to 2.1% in 2015. The imports represented 6.5% of the national imports, compared with 6.4% the previous year.

Percentage of exports and imports of the ICT sector with respect to the total national exports and imports



Fuente: Elaboración propia a partir de datos de la Agencia Estatal de la Administración Tributaria

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Methodological Annex

The ICT Sector is comprised of the manufacturing and services industries whose main activity is related to the development, production, marketing and intensive use of Information and Communications Technologies. The ICT Sector is characterised by high rates of innovation, technological progress and productivity.

In statistical terms, the definition of the ICT Sector is developed through a comprehensive listing of the branches of activity corresponding to ICT companies (**focus by sector**) and ICT products (**focus by product**).

In order to determine the list of activities and products in the ICT sector, we have begun with the methodological work carried out by the Organisation for Economic Cooperation and Development (OECD) on the subject.

Information sources

The Indicators of the ICT sector is a summary operation that collects information from the following INE sources:

Structural Business Statistics: Industrial sector, Trade sector and Services sector; Statistics on R&D Activities; Technological Innovation in Companies Survey; Quarterly Labour Cost Survey; Industrial Products Survey and Survey on the Use of Information and Communications Technologies and Electronic Commerce in Companies.

Information has also been obtained from the Foreign Trade Statistics of the Spanish Tax Agency.

For the reference year 2016 various methodological improvements have been implemented on the Structural Business Statistics, framed within the "Integration Project of the Structural Business Statistics". As a consequence of these changes, **the results presented today are not strictly comparable to those of other years** since the evolution of variables is due not only to possible real changes produced in this period, but also to the effects of the methodological improvements on the estimation of said variables. This effect is more pronounced for the variable number of companies in the Trade and Services Sectors, and relatively small for the rest of the information.

For further details, see the document "Measure of the impact of the methodological changes in the Structural Business Statistics 2016":

http://www.ine.es/metodologia/t37/metodologia_eee_cambios2016.pdf

In the following link you can access the methodology of the Indicators of the ICT sector: http://www.ine.es/dynqs/INEbase/en/operacion.htm?c=Estadistica_C&cid=1254736176742&menu=metodologia&idp=1254735576692

Lista de ramas de actividad del sector TIC según CNAE 2009

Industrias manufactureras TIC

CNAE 2611	Fabricación de componentes electrónicos
CNAE 2612	Fabricación de circuitos impresos ensamblados
CNAE 2620	Fabricación de ordenadores y equipos periféricos
CNAE 2630	Fabricación de equipos de telecomunicaciones
CNAE 2640	Fabricación de productos electrónicos de consumo
CNAE 2680	Fabricación de soportes magnéticos y ópticos

Industrias comerciales TIC

CNAE 4651	Comercio al por mayor de ordenadores, equipos periféricos y programas informáticos
CNAE 4652	Comercio al por mayor de equipos electrónicos y de telecomunicaciones y sus componentes

Industrias de Servicios TIC

EDICIÓN DE PROGRAMAS INFORMÁTICOS

CNAE 5821	Edición de videojuegos
CNAE 5829	Edición de otros programas informáticos

TELECOMUNICACIONES

CNAE 6110	Telecomunicaciones por cable
CNAE 6120	Telecomunicaciones inalámbricas
CNAE 6130	Telecomunicaciones por satélite
CNAE 6190	Otras actividades de telecomunicaciones

PROGRAMACIÓN, CONSULTORÍA Y OTRAS ACTIVIDADES RELACIONADAS CON LA INFORMÁTICA

CNAE 6201	Actividades de programación informática
CNAE 6202	Actividades de consultoría informática
CNAE 6203	Gestión de recursos informáticos
CNAE 6209	Otros servicios relacionados con las tecnologías de la información y la informática

PORTALES WEB, PROCESAMIENTO DE DATOS, HOSTING Y ACTIVIDADES RELACIONADAS

CNAE 6311	Procesamiento de datos, alojamiento (hosting) y actividades
CNAE 6312	Portales web

REPARACIÓN DE ORDENADORES Y EQUIPOS DE COMUNICACIÓN

CNAE 9511	Reparación de ordenadores y equipos periféricos
CNAE 9512	Reparación de equipos de comunicación
