

20 July 2023

Indicators of the Information and Communication Technology Sector (ICT) Year 2021

Main results

- The turnover of companies in the ICT sector reached 110,223.3 million euros in 2021, with an increase of 3.5% with respect to the previous year.
- The number of companies in the ICT sector that carried out R&D grew by 7.7%, standing at 2,073.
- The trade deficit of companies in the ICT sector increased by 15.2%. The largest volume of imports was in telecommunications equipment and computers.

For the first time in these statistics, INE has implemented the concept of the Enterprise statistical unit

In accordance with the European Statistical System, the Indicators of the Information and Communication Technology (ICT) sector have implemented the new statistical concept of "Enterprise"¹, as several of their sources already use this definition (Structural Statistics on Companies, Statistics on R&D Activities and Survey on the Use of ICT and Electronic Commerce in Companies). In accordance with this modification, the statistical enterprise may coincide with the legal unit, the business group or part of a group of companies (the latter two cases account for around 3% of the total).

For this reason, the data for 2021 are not strictly comparable with those published in previous years. However, the 2021 results are published in the Results section under the assumption of continuing to consider Legal Units as an operational approach to companies.

Main variables of the ICT sector

The turnover of companies in the Information and Communication Technology (ICT) sector stood at 110,223.3 million euros in 2021, representing an increase of 3.5% with respect to the previous year. These companies generated added value totalling 40,049.3 million euros.

The number of companies in the ICT sector decreased by 0.6%, standing at 72,444. In contrast, the number of people employed grew by 3.0%, standing at 564,137.

¹ The reasons why the INE has adapted the definition of enterprise from a statistical standpoint, as well as the characteristics of this concept, were announced in a press release published on 17 December 2019.

Main variables of the ICT sector. Year 2021

Financial data in millions of euros

ICT Sector (NACE-2009)	2021	Annual Rate
Number of enterprises	72,444	-0.6
Turnover	110,223.3	3.5
Added value	40,049.3	4.9
Number of persons employed	564,137	3.0

Source: Structural Business Statistics: Industrial and Services sectors

Salary cost in the ICT sector

The salary cost per worker in the ICT sector stood at 2,803.4 euros per month in the fourth quarter of 2021. The salary cost of the *Manufacturing Industry* was 2,861.9 euros and that of *ICT Services* was 2,802.3 euros.

With regard to the wage cost per hour, the highest ones were recorded in *Telecommunications* (27.0 euros), *Programming, Consultancy and Other Computer-Related Activities* (23.4 euros) and *Publishing* (23.2 euros).

Salary cost in the ICT sector. Fourth quarter of 2021

Euros

2020 Quarter IV. ICT Sector (NACE 2009)	Wage cost per hour	Wage cost per worker
ICT INDUSTRIES: Manufacture of computer, electronic and optical products (NACE 26)	20.6	2,861.9
ICT SERVICES	19.8	2,802.3
Wholesale trade, except of motor vehicles and motorcycles (NACE 46)	17.9	2,519.2
Publishing activities (NACE 58)	23.2	3,184.9
Telecommunications (NACE 61)	27.0	3,837.8
Computer programming, consultancy and related activities (NACE 62)	23.4	3,388.1
Information service activities (NACE 63)	19.2	2,541.3
Repair of computers and personal and household goods (NACE 95)	14.1	1,945.4
ICT SECTOR	19.8	2,803.4

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

The number of companies in the ICT sector that carried out R&D activities in 2021 increased by 7.7%. Specifically, they totalled 2,073, accounting for 18.4% of the total of companies that carried out these kinds of activities.

Employed personnel (in full-time equivalence) increased by 18.7%. The number of female researchers rose by 4.9% and that of researchers in general increased by 11.4%.

R&D activities in the ICT sector. Year 2021

NACE 2009	Total	% of business	
		total	Annual Rate
Number of enterprises	2,073	18.4	7.7
Internal R&D expenditure*	1,634.8	16.9	20.3
Persons employed on R&D. Total (FTE)**	26,220.6	22.5	18.7
Persons employed on R&D. Women (FTE)**	5,270.6	14.6	10.7
Researchers. Total (FTE)**	12,741.8	21.1	11.4
Researchers. Women (FTE)**	2,440.5	12.8	4.9

Source: Statistics on R&D Activities

*millions of euros

**FTE=Full-time Equivalent

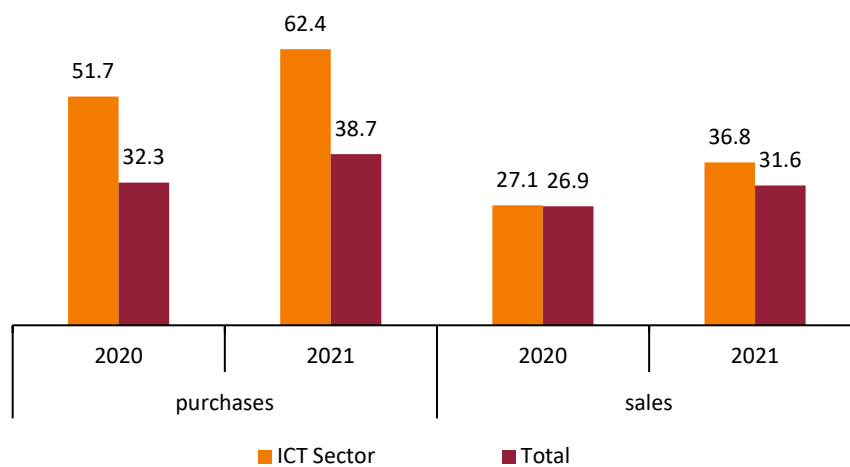
Companies in the ICT sector that carried out e-commerce

In 2021, 56.8% of the companies in the ICT sector with 10 or more employees made purchases through e-commerce, as compared to 35.8% of the total for the business sector.

Meanwhile, 36.8% conducted sales via e-commerce, compared with 31.6% of the business total.

Companies involved in e-commerce (2020-2021)

Percentage



Source: Survey on ICT usage and e-commerce in enterprises

The companies in the ICT sector made sales through e-commerce worth 18,029.9 million euros, accounting for 5.8% of the total sales through e-commerce.

As for purchases, the companies in the ICT sector spent 12,968.3 million on e-commerce, 5.0% of the total number of purchases.

Value of the production of goods in the ICT sector

According to the Industrial Products Survey, the production value of ICT goods totalled 3,344.4 million euros in 2021, with an increase of 14.9% compared with the previous year.

By product groups, *Computer Equipment* recorded the greatest rise, 57.6%.

Value of the production of goods in the ICT sector. Year 2021

Millions of euros

Groups of products (PRODCOM)	Value	% of ICT sector	% of industrial sector	Annual Rate
1. Communication equipments	481.5	14.4	0.1	3.8
2. Computers and peripheral equipments	228.5	6.8	0.0	57.6
3. Electronic components	1,099.8	32.9	0.2	21.7
4. Audio and video equipment	224.0	6.7	0.0	11.7
5. Miscellaneous	1,310.6	39.2	0.3	9.4
TOTAL ICT sector	3,344.4	100.0	0.7	14.9
TOTAL industrial production	485,187.2		100.0	26.2

Source: Industrial Products Survey

The value of the production of ICT goods accounted for 0.7% of the total value of industrial production in 2021.

Foreign trade in ICT products

ICT products had a negative trade balance totalling 15,623.1 million euros in 2021, with an 15.2% increase in the trade deficit compared to the previous year.

Exports totalled 6,372.8 million euros, while imports reached 21,995.9 million euros.

The largest volumes of ICT product imports were telecommunications equipment (7,557.6 million euros) and computer equipment (5,283.2 million euros).

Foreign trade in ICT products. Year 2021

Millions of euros

Groups of products (CN*)	Exports	Imports	Trade balance	Coverage rate	Annual rate of trade balance
1. Communication equipments	1,964.11	7,557.62	-5,593.5	26.0	10.3
2. Computers and peripheral equipments	1,060.93	5,283.20	-4,222.3	20.1	14.7
3. Electronic components	977.2	3,095.64	-2,118.4	31.6	51.7
4. Audio and video equipment	800.2	3,022.07	-2,221.9	26.5	12.9
5. Miscellaneous	1,570.37	3,037.34	-1,467.0	51.7	1.8
TOTAL ICT sector	6,372.82	21,995.88	-15,623.1	29.0	15.2
TOTAL	314,858.55	346,283.41	-31,424.9	90.9	136.3

Source: Own elaboration based on data from Tax Administration

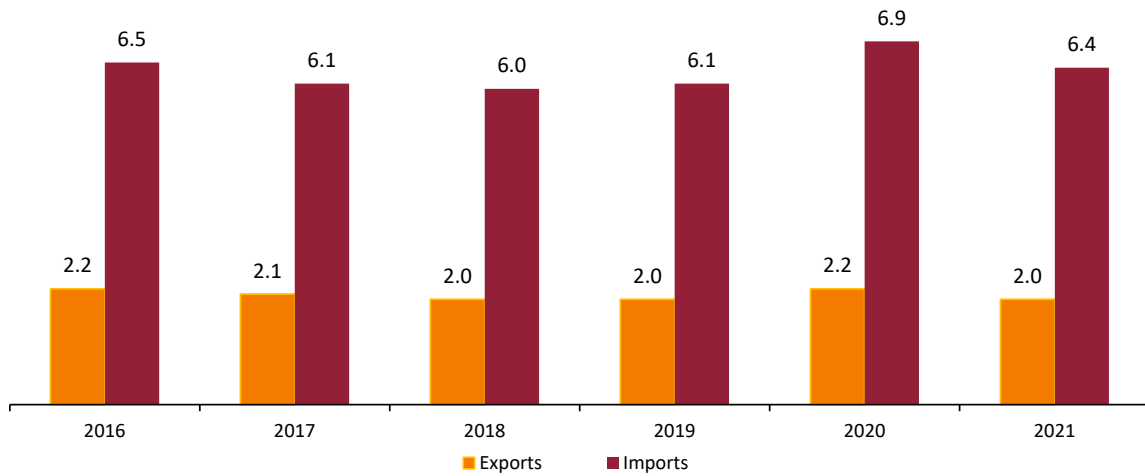
(*)Combined Nomenclature

The exports of the ICT sector accounted for 2.0% of Spanish exports, 0.2% less than in 2020.

As for imports, they accounted for 6.4% of Spanish imports, compared to the figure of 6.9% in the previous year.

Foreign trade in ICT products. 2016-2021

Percentages



Source: Own elaboration based on data from Tax Administration

Data reviews and updates

The data published today are final. The results are available at INEBase.

Methodological note

The main objective of the indicators of the Information and Communication Technology (ICT) Sector is to reflect the situation of the sector on the supply side, and not use, in order to provide relevant information on the manufacturing and service industries whose main activity is linked to the development, production, marketing and intensive use of information technologies. These sectors are characterised by having high rates of innovation, technological progress and productivity, which is why they have a considerable impact on economic activity.

Information is collected from other statistical operations to draw up the indicators. Tables of global values of the ICT Sector are published for the following variables: turnover, production value, added value, employed people and other sector-specific variables (classification variables, branch of activity and type of product), exports and imports.

Type of survey: annual summarised statistics.

Population scope: Spanish companies whose main activity (manufacturing, commercial or services) is in the ICT field.

Geographical scope: the whole national territory.

Reference period: the calendar year.

Collection method: summary of different statistical operations.

For more information, the methodology can be accessed at:

<https://www.ine.es/daco/daco42/inditic/metoiditic.pdf>

And the standardised methodological report can be found at:

<https://www.ine.es/dynt3/metadatos/es/RespuestaDatos.html?oe=30081>

The reasons why the INE has adapted the definition of enterprise from a statistical perspective can be viewed at:

https://www.ine.es/prensa/nueva_definicion_empresa.pdf

INE statistics are produced in accordance with the Code of Good Practice for European Statistics, which is the basis for the institution's quality policy and strategy. For more information, see the section [Quality at INE and the Code of Best Practices](#) on the INE website.

For further information see **INEbase:** www.ine.es/en/ Twitter: [@es_ine](https://twitter.com/es_ine)

All press releases at: www.ine.es/en/prensa/prensa_en.htm

Press office: Telephone numbers: (+34) 91 583 93 63 /94 08 – gprensa@ine.es

Information Unit: Telephone number: (+34) 91 583 91 00 – www.ine.es/infoine/?L=1
