

25 October 2023

**Survey on ICT usage and e-commerce in enterprises**  
Year 2022 – First quarter 2023

**9.6% of enterprises with 10 or more employees used artificial intelligence in the first quarter of 2023. 18.6% uses Business Intelligence and 31.7% buys Cloud Computing services**

**31.7% of enterprises made e-commerce sales in 2022, increasing the volume of business generated by 20.3% compared to 2021**

**Use of ICTs in enterprises with 10 or more employees**

In the first quarter of 2023, 66.2% of employees in enterprises with 10 or more workers used computers for business purposes. A total of 61.2% used computers with an Internet connection.

The percentage of enterprises with an internet connection has grown by 0.7 points, reaching 99.0%. 63.6% of these enterprises use social media, down 3.2 points compared to the first quarter of 2022. The aspect that has increased the most in the last year is the purchase of cloud services. Purchases of these services have risen 4.2 points, to 32.4%.

The percentage of enterprises with internet connection that have a website/web page is still 78.5%. In addition, 28.3% are paying for internet ads.

**Main variables. Percentages**

	<b>1st quarter 2023</b>	<b>1st quarter 2022</b>
Persons employed use computers for business purposes	66.2	66.1
Persons employed use computers with access to the internet for business purposes	61.2	61.1
Enterprises with ICT specialists	16.4	17.2
<i>Enterprises have access to the internet, of which:</i>	99.0	98.3
- Access to the internet and website <sup>(1)</sup>	78.5	78.5
- Social Media <sup>(1)</sup>	63.6	66.8
- Use the internet to interact with the Public Administration <sup>(1)</sup>	94.2	- <sup>(2)</sup>
- Pay for advertising on the internet <sup>(1)</sup>	28.3	- <sup>(2)</sup>
- Of which they use targeted advertising methods	25.1	- <sup>(2)</sup>
- Have a mobile application for clients <sup>(1)</sup>	9.0	- <sup>(2)</sup>

<sup>(1)</sup>Percentage of the total number of companies with Internet connection.

<sup>(2)</sup>Variables not investigated in 1st quarter 2022.

## ICT Specialists

The percentage of enterprises with women ICT specialists fell four tenths, to stand at 6.4%.

### ICT specialists by activity sector

Quarter I 2023. Percentage

	Total	Industry	Construction	Services
Enterprises with ICT specialists	16.4	13.8	7.7	20.1
Enterprises with ICT specialist women	6.4	3.8	1.6	8.9
Enterprises with less than 50% of ICT specialist women	5.1	2.9	1.0	7.1
Enterprises with at least 50% of ICT specialist women	1.3	0.9	0.6	1.7

## Other technologies in enterprises

Out of all the new technologies studied, the most widely used one is ERP (Enterprise Resource Planning), with 57.4% of enterprises using it.

This is followed by the purchase of Cloud Computing services, used by 31.7% of enterprises, and the use of CRM (Customer Relationship Management), by 29.7%.

The Services sector is the one that uses the most BI (Business Intelligence) (22.1%), as well as Artificial Intelligence (11.2%).

### New technologies by activity sector

Quarter I 2023. Percentage

	Total	Industry	Construction	Services
Enterprises that used ERP software	57.4	62.4	41.1	59.6
Enterprises that purchase Cloud Computing services	31.7	28.0	21.8	36.1
Enterprises that used CRM software	29.7	24.5	15.4	36.1
Enterprises that used BI software	18.6	16.9	9.0	22.1
Enterprises that used AI	9.6	8.9	4.7	11.2

## Remote Work

34.2% of enterprises with 10 or more employees allowed their employees to work remotely in the first quarter of 2023. That percentage rises to 78.0% for enterprises with 250 or more employees.

The average number of days per week on which employees work remotely is 2.4.

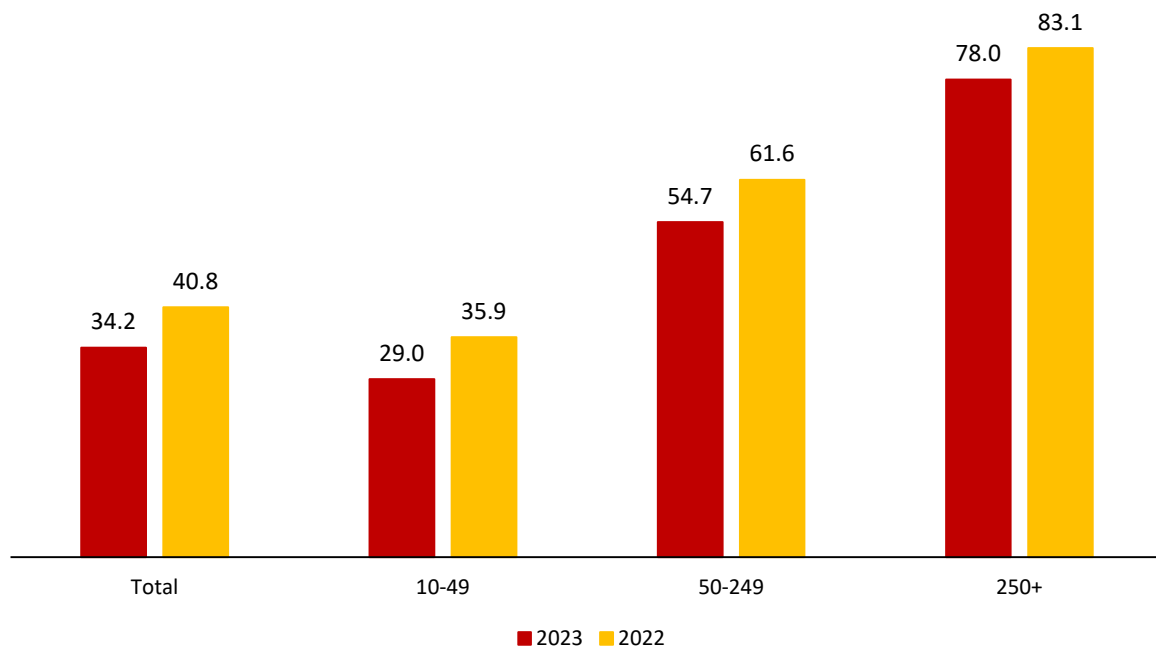
Meanwhile, 18.9% of employees telework regularly, a decrease compared to the first quarter of 2022, at 19.5%.

## Remote Work. Percentage

	1st quarter 2023	1st quarter 2022
Enterprises that allow teleworking	34.2	40.8
- Percentage of employees who telework <sup>(3)</sup>	18.9	19.5
- Number of days on average per week that employees telework	2.4	2.4

(3) Percentage of enterprises that allow teleworking.

## Enterprises that allow their employees to work remotely by size of company Quarter I 2023. Percentage



## E-commerce

A total of 31.7% of enterprises with 10 or more employees made purchases via e-commerce in 2022. Turnover generated by these sales reached 377,058 million euros, resulting in a 20.3% increase compared to 2021.

### E-commerce sales. 2022

Percentage

	Total	Industry	Construction	Services
% Enterprises with e-commerce sales	31.7	30.4	15.1	36.9
E-commerce sales (in thousand of euros)	377,058	202,460	2,070	172,529

## Use of ICT by Autonomous Community

The enterprises with 10 or more employees whose headquarters are located in Cataluña, Comunidad de Madrid and País Vasco have the highest intensities in the use of ICT in the first quarter of 2023.

For their part, enterprises in Cantabria and the autonomous communities of Ceuta and Melilla have the lowest percentages.

## Use of ICT by Autonomous Communities and Cities in which the head office of the enterprise is located.

Quarter I 2023. Percentage

	Internet & Web(1)	Social Media(1)	Cloud Computing(1)	AI <sup>(1)</sup>	ERP <sup>(1)</sup>	CRM <sup>(1)</sup>	BI <sup>(1)</sup>
TOTAL	78.5	63.6	31.7	9.6	57.4	29.7	18.6
Andalucía	71.2	62.0	28.0	8.0	52.1	27.2	15.1
Aragón	83.3	65.3	27.0	8.5	55.0	24.8	18.2
Asturias, Principado de	81.0	59.2	31.7	7.4	57.0	24.5	12.5
Balears, Illes	75.6	65.9	29.0	6.2	48.3	22.9	15.7
Canarias	72.5	59.9	22.8	6.1	41.5	26.2	14.5
Cantabria	73.1	52.4	19.7	6.5	43.1	26.6	12.4
Castilla y León	77.4	55.3	24.0	9.2	51.1	26.7	14.9
Castilla-La Mancha	74.4	57.9	15.0	6.8	46.3	22.9	12.6
Cataluña	86.5	71.2	44.1	11.9	68.0	38.6	25.8
Comunitat Valenciana	75.9	62.7	29.1	8.5	57.4	24.0	16.8
Extremadura	71.3	59.9	19.8	6.1	48.4	20.8	10.1
Galicia	77.7	60.1	24.1	7.4	57.0	22.6	14.6
Madrid, Comunidad de	80.3	67.7	38.4	12.8	56.5	34.5	20.6
Murcia, Región de	72.1	55.1	24.1	6.6	55.6	26.5	17.5
Navarra, Comunidad Foral de	82.7	58.2	20.7	9.0	64.4	29.3	17.9
País Vasco	82.9	56.3	32.4	10.7	70.4	31.4	21.9
Rioja, La	80.0	58.0	20.7	11.1	68.0	28.0	20.1
Ceuta	62.3	60.1	21.0	4.3	31.5	20.1	8.4
Melilla	37.1	54.6	6.4	4.5	47.6	31.8	10.5

<sup>(1)</sup>Percentage of the total number of companies with Internet connection.

## Use of ICTs in enterprises with less than 10 employees

88.7% of enterprises with fewer than 10 employees had computers in the first quarter of 2023. This represents an increase of 2.7 points compared to the same period in 2022.

Of the total number of enterprises with an Internet connection, 17.4% allow for teleworking (an increase of 5.9% over the same period last year). On the other hand, the percentage of enterprises selling via e-commerce reached 14.2%, a one point increase over last year.

### Main variables

Percentage over the total number of enterprises with less than 10 employees

	2023	2022	Annual variation (%)
Computers	88.7	86.0	3.1
Persons employed use computers for business purposes	78.2	76.0	2.8
Persons employed use computers with access to the internet for business purposes	73.3	71.3	2.8
<i>Enterprises have access to the internet, of which:</i>	85.0	82.1	3.5
Enterprises that allow teleworking	17.4	16.5	5.9
- Access to the internet and website	30.6	31.8	-3.8
- Fixed connection	82.6	83.7	-1.3
- Mobile connection <sup>(1)</sup>	85.4	82.8	3.1
- Use social media <sup>(1)</sup>	33.9	35.8	-5.1
- Use Artificial Intelligence (IA)	5.8	5.7	1.2
- Enterprises with e-commerce sales	14.2	13.2	7.5

<sup>(1)</sup>Percentage of all enterprises with less than 10 employees with Internet connection.

### Data reviews and updates

The data published today is final and is not subject to further revision. All results are available on INEBase.

## Methodological note

The main objective of the Survey on the use of Information and Communications Technologies (ICT) and e-commerce in businesses is to obtain the necessary data that will allow the use of ICT and e-commerce in businesses in EU member countries to be measured.

In accordance with Eurostat's methodological recommendations, the survey has a dual temporal scope; the variables on ICT use refer to the first quarter of the year in which the survey is conducted, while the overall company information, e-commerce and ICT training refer to the previous year.

**Type of survey:** annual continuous survey.

**Population scope:** enterprises 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).

**Geographical scope:** the entire national territory.

**Results reference period:** the variables on ICT use refer to the first quarter of the year in which the survey is conducted, while general company information, e-commerce and ICT training refer to the previous year.

**Information reference period:** first quarter of the year in which the survey is carried out.

**Sample size:** variables by year. For enterprises with 10 or more employees: around 15,000 enterprises; and for enterprises with less than 10 employees: around 10,000 enterprises.

**Sampling type:** stratified sampling by company size, economic activity and Autonomous Community.

**Collection method:** multichannel: through internet (CAWI) and regular mail.

For more information on this statistical operation, you can consult the [methodology and the standardised methodological report](#) in INEbase.

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.

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