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High Technology Indicators Year 2022

Main results

- The turnover of high and medium-high technology companies increased by 16.2% in 2022, to 332,304.7 million euros.
- Exports of high-tech products decreased by 8.7%, while imports increased by 1.2%.

More information

- [Detailed results](#)
- [Complete publications from previous years](#)

Main high technology variables

In 2022, high and medium-high technology companies achieved a turnover of 332,304.7 million euros, an increase of 16.2% compared with the previous year. This amount generated an added value of 92,706.3 million euros.

By sector, turnover of high and medium-high technology manufacturing companies increased 17.3%, to 232,544.2 million euros.

The total turnover of companies in the high-tech services sector was 99,760.5 million euros, 13.7% more than the previous year.

Main high-technology indicators. Year 2022

Financial data in millions of euros

NACE 2009	Number of enterprises	Turnover	Annual rate of turnover (%)	Added value
Manufacture sectors of high and medium-high technology	20,813	232,544.2	17.3	48,425.9
- Manufacture sectors of high technology	2,666	38,370.1	12.2	11,003.1
- Manufacture sectors of medium-high technology	18,147	194,174.0	18.4	37,422.8
High technology services	74,843	99,760.5	13.7	44,280.4
Total of high and medium-high technology sectors	95,656	332,304.7	16.2	92,706.3

Source: Structural Enterprise Statistics

Employment in the high-technology sectors

Employment in the high and medium-high tech sectors increased by 5.4% in 2022, according to the Economically Active Population Survey (EAPS).

The number of employed persons grew by 16.1% in high-tech manufacturing sectors, and by 9.6% in high-tech services.

On the other hand, it decreased by 1.6% in the medium-high technology manufacturing sectors.

High- and medium-high technology sectors employed 7.7% of the total number of employed persons in the Spanish economy in 2022. In these sectors, 29.2% of those employed were women.

Employment in high-technology sectors. Year 2022

Thousands of persons and percentages

NACE 2009	Persons employed	% Women	Annual rate of persons employed
Manufacture sectors of high and medium-high technology	828.9	28.4	1.9
- Manufacture sectors of high technology	185.6	43.4	16.1
- Manufacture sectors of medium-high technology	643.3	24.1	-1.6
High technology services	751.7	30.1	9.6
Total of high and medium-high technology sectors	1,580.6	29.2	5.4
Total of persons employed	20,547.5	47.7	3.9

Source: Economically Active Population Survey (annual average)

R&D personnel in high-technology sectors

Companies in high- and medium-high technology sectors invested a total of 7,537.2 million euros in R&D in 2022, 12.7% more than the previous year.

This amounted to 69.1% of total business sector expenditure on R&D activities.

Internal R&D expenditure in high technology sectors. Year 2022

Millions of euros and percentages

NACE 2009	Total expenditures	% Expenditures	Annual rate
Manufacture sectors of high and medium-high technology	3,878.2	35.6	17.2
- Manufacture sectors of high technology	1,636.5	15.0	14.2
- Manufacture sectors of medium-high technology	2,241.6	20.6	19.5
High technology services	3,659.0	33.6	8.3
Total of high and medium-high technology sectors	7,537.2	69.1	12.7
Total enterprises sector	10,901.7	100.0	12.4

Source: Statistics on R+D Activities in company sector

The number of full-time equivalent (FTE) personnel assigned to R&D tasks in the high and medium-high technology sector amounted to 80,778, an increase of 7.5% over the previous year.

R&D personnel in high-technology sectors. Year 2022

Full-time equivalent employed persons (FTE)

NACE 2009	Total personnel	% Personnel	% Researchers	% variation of personnel
Manufacture sectors of high and medium-high technology	32,751	26.1	23.2	6.1
- Manufacture sectors of high technology	13,426	10.7	10.4	9.5
- Manufacture sectors of medium-high technology	19,325	15.4	12.8	3.8
High technology services	48,027	38.3	42.6	8.5
Total of high and medium-high technology sectors	80,778	64.3	65.8	7.5
Total enterprises sector	125,529	100.0	100.0	7.6

Source: Statistics on R+D Activities in company sector

The branches of the high and medium-high technology sector concentrated 64.3% of the total FTE personnel assigned to R&D in the business sector, and 65.8% of researchers.

Value of the production of goods in the ICT sector

According to the Annual Industrial Products Survey, the production value of high-technology goods increased by 20.5% in 2022, to stand at 13,697.0 million euros.

Value of high-tech production by product group. Year 2022

Millions of euros

Group of products	2021	2022	% Annual rate
1. Aeronautical and spacial construction	755.8	923.2	22.2
2. Office machinery and computer equipment	186.3	220.5	18.4
3. Electronic material; radio, TV and communications equipment and devices	2,327.9	2,614.6	12.3
4. Pharmaceutical products	3,125.7	4,317.3	38.1
5. Scientific instruments	1,209.8	1,326.1	9.6
6. Machinery and electrical equipment	433.4	527.8	21.8
7. Chemical products	2,186.9	2,542.7	16.3
8. Material and mechanical equipment	906.4	1,024.2	13.0
9. Weapons and ammunition	232.6	200.7	-13.7
Total of high technology products	11,364.7	13,697.0	20.5
Total of industrial production	485,187.2	600,389.9	23.7

Source: Industrial Products Survey

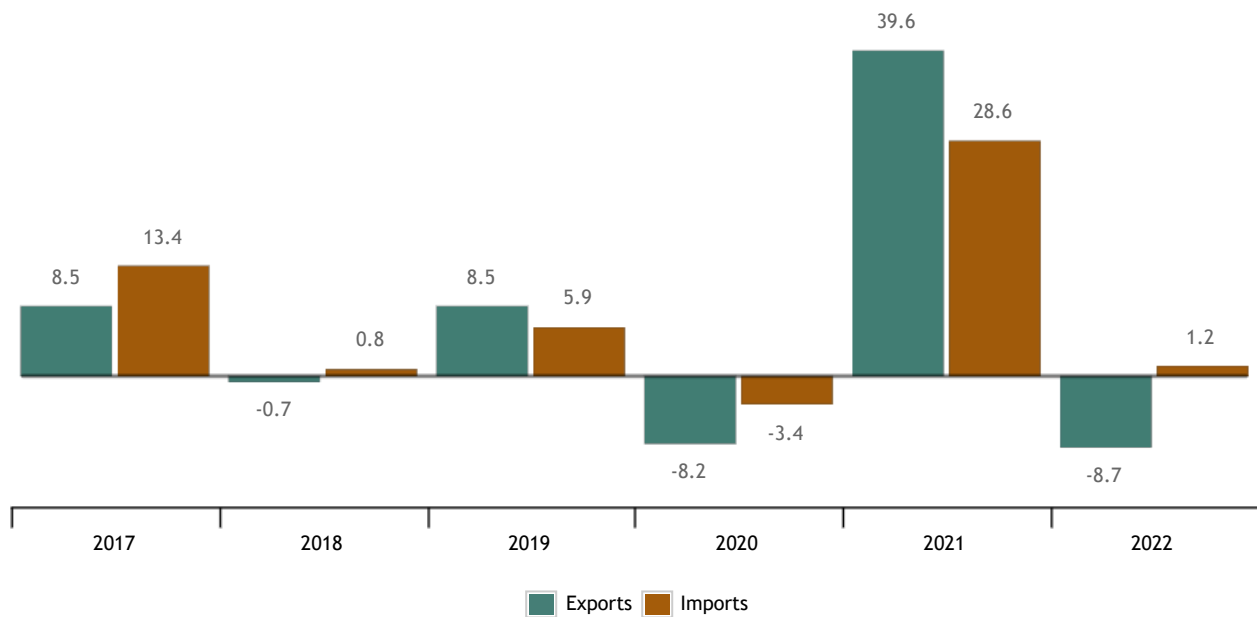
International trade in high-tech products

Exports of high-tech products fell by 8.7% in 2022, to stand at 20,422.6 million euros.

On the other hand, imports increased by 1.2%, to 39,163.7 million.

Annual variation of high-technology exports and imports. 2017-2022

Percentage



Source: Own compilation using data from the State Tax Administration Agency

The highest coverage rate (ratio of exports to imports, expressed as a percentage) in foreign trade of high-tech products was for the group of *arms and ammunition* (237.4%).

The *Office machinery and computer equipment* group showed the lowest rate (19.5%).

International trade in high-tech products by product group. Year 2022

Millions of euros

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Group of products	Value of exports	Value of imports	Trade balance	Coverage rate (%)
1. Aeronautical and spacial construction	4,977.5	5,131.7	-154.2	97.0
2. Office maquinery and computer equipment	1,155.6	5,934.3	-4,778.7	19.5
3. Electronic material; radio, TV and communications equipment and devices	3,696.2	11,847.3	-8,151.2	31.2
4. Pharmaceutical products	4,238.3	7,198.7	-2,960.4	58.9
5. Scientific instruments	1,537.3	4,573.6	-3,036.2	33.6
6. Maquinery and electrical equipment	565.8	1,354.8	-789.0	41.8
7. Chemical products	2,500.2	2,293.4	206.8	109.0
8. Material and mechanical equipment	1,219.4	605.6	613.8	201.4
9. Weapons and ammunition	532.3	224.2	308.1	237.4
Total of high technology products	20,422.6	39,163.7	-18,741.1	52.1
Total of industrial production	394,685.8	470,086.6	-75,400.8	84.0

Source: Own compilation using data from the State Tax Administration Agency

Data revisions and updates

The data published today are final. All results are available on [INEBase](#).

Methodological note

The **High Technology indicators** are obtained as summary statistics so as to provide data on the sectors and products considered *high-tech* (industrial or service sectors) according to the methodology criteria proposed by the OECD.

R&D and innovation indicators are given for the activity branches, which include: expenses, personnel, employees, turnover, production value, added value, number of companies, intensity of innovation. For high technology products, production value and exports and imports are also provided.

Type of operation: annual synthesis statistics.

Geographical scope: the entire national territory.


Reference period: q-2 where q is the year of data publication.

Collection method: summary of different statistical operations.

For more information, you can access the [methodology](#) and the [standardised methodological report](#).

INE statistics are produced in accordance with the Code of Good Practice for European Statistics. More information on [Quality at INE](#) and the [Code of Best Practices](#).

For further information see [INEbase](#)

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