Instituto Nacional de Estadística

Press Release

25 July 2023

High Technology Indicators
Year 2021

The turnover of high - and medium-high technology companies increased by 8.8%, to 285,935.7 million euros

Exports of High Technology products increased by 39.6% and imports did so by 28.6%

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

In accordance with the European Statistical System, the Indicators of the High Technology sector have implemented the new statistical concept of "Enterprise"[1], as several of their sources already use this definition (Structural Business Statistics and Statistics on R&D Activities). 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 High Technology variables

In 2021, high - and medium-high technology companies achieved a turnover of 285,935.7 million euros, an increase of 8.8% compared to the previous year. This amount generated an added value of 84,957.3 million euros.

By sector, turnover of high - and medium-high technology manufacturing companies increased 12.0%, to 198,209.7 million euros.

For their part, total turnover of companies in the high-tech services sector was 87,726.0 million euros, 2.3% more than the previous year.

[1] The reasons why the INE has adapted the definition of enterprise, from a statistical perspective, were communicated in a press release published on 17 December 2019.

Main high-technology indicators. Year 2021

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	**20,946**	**198,209.7**	**12.0%**	**46,448.5**
Manufacture sectors of high technology	2,687	34,182.9	18.0%	9,932.0
Manufacture sectors of medium-high technology	18,259	164,026.8	10.9%	36,516.5
High technology services	**71,433**	**87,726.0**	**2.3%**	**38,508.9**
Total of high and medium-high technology sectors	**92,379**	**285,935.7**	**8.8%**	**84,957.3**

Source: Structural Business Statistic

Employment in the high-technology sectors

Employment in the high-tech sectors increased by 6.8% in 2021, according to the Economically Active Population Survey (EAPS).

The number of employed persons decreased by 1.8% in high-tech manufacturing sectors, while it increased by 5.2% in medium-high-tech manufacturing sectors and by 10.7% in high-tech service sectors.

High- and medium-high technology sectors employed 7.1% of the total number of employed persons in the Spanish economy in 2021. In these sectors, 29.0% of those employed were women.

Employment in high-technology sectors. Year 2021

Thousands of persons and percentages

NACE 2009	Persons employed	% Women	Annual rate of persons employed
Manufacture sectors of high and medium-high technology	**813.5**	**26.5**	**3.7**
Manufacture sectors of high technology	159.9	41.2	-1.8
Manufacture sectors of medium-high technology	653.6	22.9	5.2
High technology services	**685.6**	**32.0**	**10.7**
Total of high and medium-high technology sectors	**1,499.1**	**29.0**	**6.8**
Total of persons employed	**19,773.6**	**46.1**	**3.0**

Source: Labour Force Survey (annual average)

R&D personnel in high-technology sectors

Companies in high- and medium-high technology sectors invested a total of 6,701.9 million euros in R&D in 2021, 12.1% 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 2021

Millions of euros and percentages

NACE 2009	Total expenditures	% Expenditures	Annual rate
Manufacture sectors of high and medium-high technology	**3,399.2**	**35.1**	**12.1**
Manufacture sectors of high technology	1,471.1	15.2	0.2
Manufacture sectors of medium-high technology	1,928.1	19.9	23.2
High technology services	**3,302.7**	**34.1**	**12.1**
Total of high and medium-high technology sectors	**6,701.9**	**69.1**	**12.1**
Total enterprises sector	**9,696.2**	**100.0**	**10.9**

Source: Statistics on R&D. Business Enterprise Sector

The number of full-time equivalent (FTE) personnel assigned to R&D tasks in the high and medium-high technology sector amounted to 95,098, an increase of 41.2% over the previous year.

The branches of the high technology sector concentrated 58.3% of the total FTE personnel assigned to R&D in the business sector, and 88.7% of researchers.

R&D personnel in high-technology sectors. Year 2021

Full-time equivalent employed persons (FTE)

NACE 2009	Total personnel	% Personnel	%Researchers	% variation of personnel
Manufacture sectors of high and medium-high technology	**41,457**	**25.4**	**34.3**	**45.2**
Manufacture sectors of high technology	15,575	9.6	15.3	34.1
Manufacture sectors of medium-high technology	25,882	15.9	19.0	52.8
High technology services	**53,641**	**32.9**	**54.4**	**38.2**
Total of high and medium-high technology sectors	**95,098**	**58.3**	**88.7**	**41.2**
Total enterprises sector	**163,067**	**100.0**	**100.0**	**53.2**

Source: Statistics on R&D. Business Enterprise Sector

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 13.3% in 2021, to stand at 11,364.7 million euros.

Value of high-tech production by product group. 2021
Millions of euros

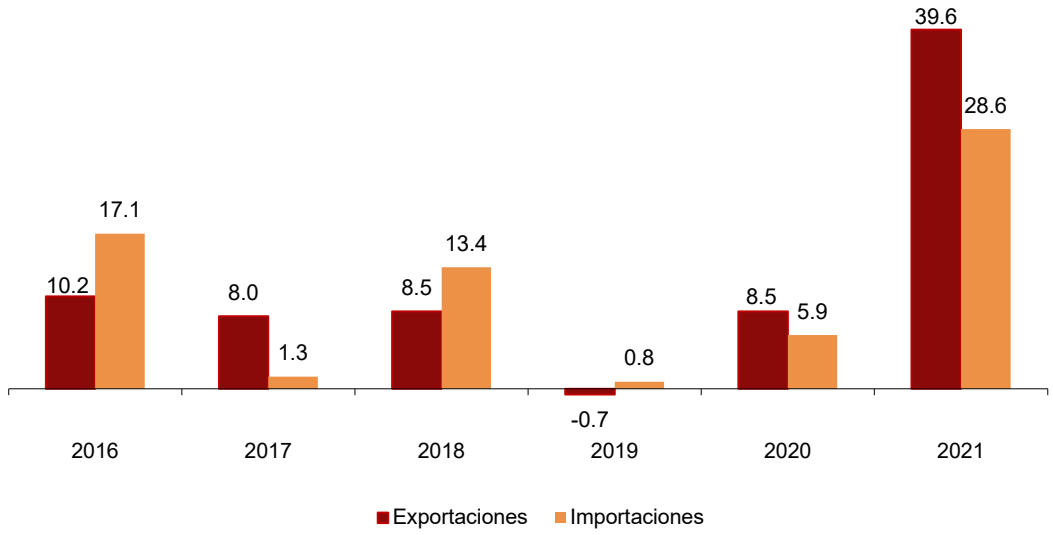
Group of products	2020	2021	% Annual
1. Aeronautical and spacial construction	774.6	755.8	-2.4
2. Office maquinery and computer equipment	126.1	186.3	47.7
3. Electronic material; radio, TV and communications equipment and devi	2,013.6	2,327.9	15.6
4. Pharmaceutical products	2,773.7	3125.7	12.7
5. Scientific instruments	997.8	1,209.8	21.2
6. Maquinery and electrical equipment	399.6	433.4	8.5
7. Chemical products	1,999.7	2,186.9	9.4
8. Material and mechanical equipment	768.0	906.4	18.0
9. Weapons and ammunition	180.9	232.6	28.6
Total of high techology products	**10,034.0**	**11,364.7**	**13.3**
Total of industrial production	**384,571.0**	**485,187.2**	**26.2**

Source: Industrial Products Survey

International trade in high-tech products

Exports of high-tech products increased by 39.6% in 2021, to stand at 22,360.5 million euros. On the other hand, imports increased by 28.6%, to 38,687.8 million.

Annual variation of high-technology exports and imports. 2016-2021
Percentage



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

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* (268.4%).

The *Office machinery and computer equipment* group showed the lowest rate (21.4%).

International trade in high-tech products by product group. 2021

Millions of euros

Group of products	Value of exports	Value of imports	Trade balance	Coverage rate (%)
1. Aeronautical and spacial construction	3,360.8	2,614.8	746.0	128.5
2. Office maquinery and computer equipment	1,188.1	5,545.5	-4,357.4	21.4
3. Electronic material; radio, TV and communications equipment and devic	3,357.7	11,307.3	-7,949.6	29.7
4. Pharmaceutical products	8,901.3	11,564.9	-2,663.6	77.0
5. Scientific instruments	1,512.9	4,079.7	-2,566.8	37.1
6. Maquinery and electrical equipment	426.3	1,075.4	-649.1	39.6
7. Chemical products	1,980.4	1,813.9	166.5	109.2
8. Material and mechanical equipment	1,125.5	497.2	628.3	226.4
9. Weapons and ammunition	507.5	189.1	318.4	268.4
Total of high techology products	**22,360.5**	**38,687.8**	**-16,327.3**	**57.8**
Total of industrial production	**314,858.5**	**346,283.4**	**-31,424.9**	**90.9**

Source: Own elaboration based on data from Tax Agency

Data Review and Update

The data published today are final. The results are available at 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, the methodology can be accessed at:

https://www.ine.es/daco/daco43/notaiat.pdf

And the standardised methodological report can be found at:

https://www.ine.es/dynt3/metadatos/es/RespuestaDatos.html?oe=30197

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.