

## Statistics on Biotechnology Use Year 2024. Final results

### Main results

- Internal R&D expenditure increased by 14.4% in 2024, reaching 3,144 million euros.
- The full-time equivalent personnel dedicated to internal R&D activities in Biotechnology was 39,780.6. 59.7% were women.

### More information

- [Detailed results](#)
- [Complete publications from previous years](#)
- [Statistics on R&D activities](#)

Expenditure in internal R&D activities related to Biotechnology reached 3,144 million euros in 2024, an increase of 14.4% as compared with the previous year. This expenditure represented 13.1% of the total spending on internal R&D activities.

By execution sector, expenditure in the *Public Administration* sector increased by 23.1%, while expenditure in the *Business* sector increased by 14.0%.

Regarding the total expenditure on internal R&D activities in Biotechnology, the *Business* sector showed the highest percentage (46.5% of the total). Behind them were *Public Administration* (30.9%), *Higher Education* (22.2%) and *Private Non-Profit Institutions (IPSFL)*, with 0.4%.

### Expenditure on internal R&D in Biotechnology by execution sector

Year 2024. Thousands of euros

Sector	Total	%	% over total R&D
<b>TOTAL</b>	3,143,765	100.0	13.1
<b>Enterprises</b>	1,462,695	46.5	11.0
<b>Government</b>	972,158	30.9	21.3
<b>Higher Education</b>	697,028	22.2	11.7
<b>Private non-profit</b>	11,884	0.4	19.1

### Financing of Internal R&D

Internal R&D activities related to Biotechnology were financed in 2024, mainly by the *Business* (45.4% of the total) and the *Public Administration* sectors (38.6%).

#### Expenditure on internal R&D in Biotechnology by execution sector and financing

Year 2024. Thousands of euros

Sector	Total	Sources of funds (%)				
		Enterprises	Government	Higher Education	Private non-profit	Rest of the World
<b>TOTAL</b>	3,143,765	45.4	38.6	3.6	2.1	10.3
<b>Enterprises</b>	1,462,695	83.4	10.9	0.0	0.7	5.1
<b>Government</b>	972,158	16.0	61.2	0.1	3.6	19.0
<b>Higher Education</b>	697,028	7.1	65.5	15.8	2.6	8.9
<b>Private non-profit</b>	11,884	17.0	13.7	0.1	35.7	33.5

### Employment in internal R&D activities related to Biotechnology

In 2024, the full-time equivalent (FTE) personnel dedicated to internal R&D activities in Biotechnology was 39,780.6. 59.7% of the personnel were women.

The research staff consisted of 25,414.2 individuals as FTE personnel. 56.9% were women.

#### Personnel employed in internal R&D activities in Biotechnology by execution sector, occupation and gender

Year 2024. Full-time Equivalence

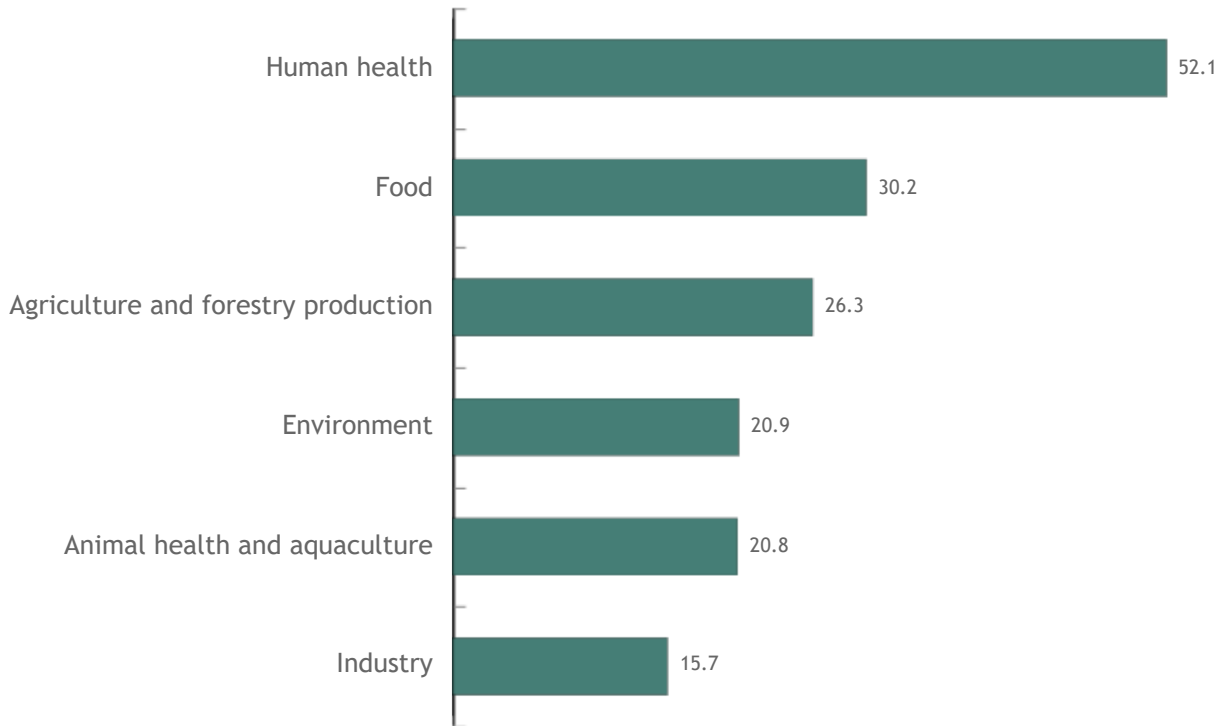
Sector	Total personnel		Researchers	
	Total personnel	% Women	Total personnel	% Women
<b>TOTAL</b>	39,780.6	59.7	25,414.2	56.9
<b>Enterprises</b>	14,093.7	58.9	8,073.8	55.5
<b>Government</b>	13,083.5	64.3	7,515.4	61.4
<b>Higher Education</b>	12,414.8	55.7	9,705.9	54.4
<b>Private non-profit</b>	188.6	68.2	119.1	62.0

**Application areas of Biotechnology**

Among the final application areas of products obtained from the use of different types of biotechnologies, *Human Health* and *Food* stood out, accounting for 52.1% and 30.2% of the total units, respectively.

**Units with biotechnological activities, according to final application areas of Biotechnology**

Year 2024. Percentage



Current press release at: <https://www.ine.es/dyngs/Prensa/en/EUB2024.htm>

### Data by Autonomous Community

The Autonomous Communities with the highest expenditure on internal R&D activities in Biotechnology in 2024 were Cataluña (33.8% of the total), Comunidad de Madrid (24.4%) and Andalucía (9.2%).

#### Expenditure on internal R&D in Biotechnology by autonomous communities, according to execution sector

Year 2024. Thousands of euros

	TOTAL	%	Enterprises	%	Rest of sectors *	%
<b>TOTAL</b>	3,143,765	100.0	1,462,695	100.0	1,681,070	100.0
<b>Andalucía</b>	289,606	9.2	122,336	8.4	167,270	9.9
<b>Aragón</b>	58,683	1.9	22,466	1.5	36,217	2.1
<b>Asturias, Principado de</b>	28,935	0.9	8,026	0.6	20,909	1.2
<b>Balears, Illes</b>	18,061	0.6	7,083	0.5	10,978	0.7
<b>Canarias</b>	21,922	0.7	9,917	0.7	12,005	0.7
<b>Cantabria</b>	''	''	''	''	''	''
<b>Castilla y León</b>	82,291	2.6	32,445	2.2	49,846	3.0
<b>Castilla-La Mancha</b>	40,627	1.3	26,662	1.8	13,966	0.8
<b>Cataluña</b>	1,061,276	33.8	508,224	34.8	553,052	32.9
<b>Comunitat Valenciana</b>	245,815	7.8	108,679	7.4	137,135	8.2
<b>Extremadura</b>	5,205	0.2	4,221	0.3	984	0.1
<b>Galicia</b>	175,157	5.6	63,122	4.3	112,035	6.7
<b>Madrid, Comunidad de</b>	767,584	24.4	332,521	22.7	435,063	25.9
<b>Murcia, Región de</b>	61,391	1.9	25,350	1.7	36,041	2.1
<b>Navarra, Comunidad Foral de</b>	70,348	2.2	''	''	''	''
<b>País Vasco</b>	196,136	6.2	139,829	9.6	56,307	3.4
<b>Rioja, La</b>	12,733	0.4	5,830	0.4	6,903	0.4
<b>Ceuta</b>	,	,	,	,	,	,
<b>Melilla</b>	''	''	''	''	,	,

(\*) Rest of sectors: Public Administration, NPPI and Higher Education.

(.) Numeric data equal to zero not resulting from rounding.

(..) Data not available due to statistical confidentiality.

### Data revisions and updates

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

In accordance with the [Commission's Delegated Regulation \(EU\) 2023/137](#), the INE has begun to work on incorporating the new National Classification of Economic Activities CNAE-2025 in all its statistical operations.

In the case of the Statistics on the use of biotechnology, the first publication of results with CNAE-2025 will take place in 2027.

## Methodological note

The objective of the Statistics on the use of Biotechnology is to measure national efforts in biotechnology-related activities, in order to provide the necessary information for adequate decision-making in scientific-technological policy.

In this regard, the objective is to ascertain the type of biotechnology-related activities that are carried out in each of the sectors in which the economy is divided; the final application areas of the products obtained via the development of biotechnologies; and the economic and human resources appointed to the biotechnology-related productive and investigation activity in Spain.

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

**Population scope:** the group of companies, public bodies, universities or higher education centres and private non-profit institutions (IPSFL) that use Biotechnology in their activities.

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

**Reference period:** the calendar year.


**Collection method:** mixed, involving sending questionnaires via postal mail and online completion.

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](#)

Official INE account on  [@es\\_ine](#)

---

All press releases at: [www.ine.es/en/prensa/prensa\\_en.htm](http://www.ine.es/en/prensa/prensa_en.htm)

 Press office: (+34) 91 583 93 63 / (+34) 661 944 540 / (+34) 678 168 837 – [gprensa@ine.es](mailto:gprensa@ine.es)

 Information area: (+34) 91 583 91 00 – [www.ine.es/infoine/?L=1](http://www.ine.es/infoine/?L=1)