

23 February 2022

Statistics on Biotechnology Use Year 2020'. Final results

Main results

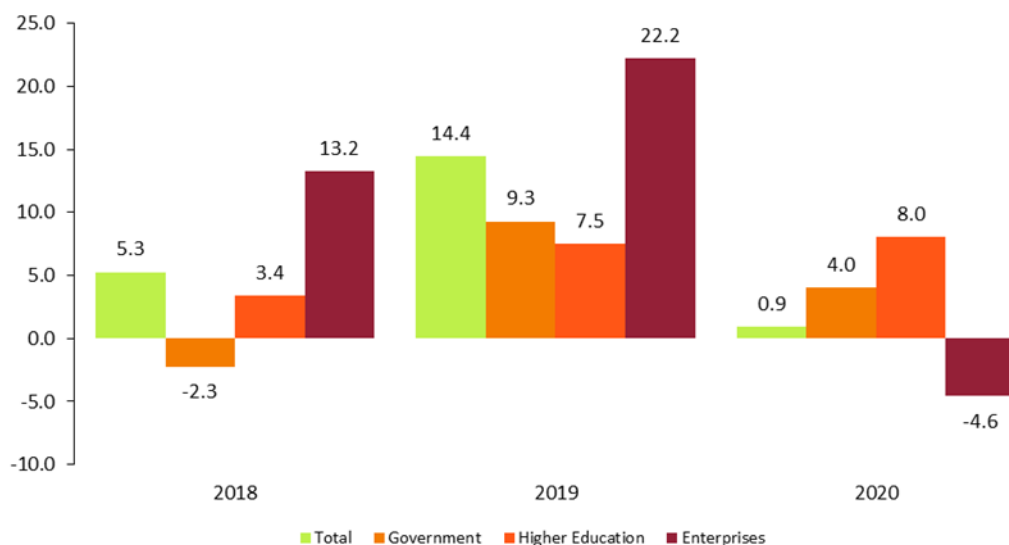
- Expenditure on internal R&D activities in Biotechnology increased by 0.9% in 2020, standing at 2.059 million euros. This figure accounted for 13.1% of total internal expenditure on internal R&D activities.
- The total number of people dedicated to internal R&D activities in Biotechnology, on a full-time equivalent, increased by 1.2% standing at 30,003.8. This figure represented 12.9% of the total persons employed in internal R&D activities.
- The Autonomous Communities with the highest expenditure on internal R&D activities in Biotechnology were Cataluña (30.4% of the total), Comunidad de Madrid (25.4%) and Andalucía (11.0%).

Expenditure in Internal R&D activities related to biotechnology

Expenditure on Biotechnology-related R&D activities reached 2.059 million euros in 2020, with an increase of 0.9% with respect to 2019. This expenditure represented 13.1% of total internal expenditure on R&D activities.

By sectors of execution, internal spending in the *Companies* sector declined by 4.6%, in the *Public Administration* sector by 4.0% and in the *Higher Education* sector by 8.0%.

Variation of expenditure on internal R&D in Biotechnology Percentage



Regarding the total expenditure on internal R&D activities in Biotechnology, *Companies* showed the highest percentage (43.6% of the total). Following this were *Public Administration* (33.0%), *Higher Education* (23.2%) and *Private Non-Profit Institutions* (IPSFL), with 0.3%.

Expenditure on internal R&D in Biotechnology by execution sector Year 2020

Sector	Total (thousands of euros)	%	Annual rate (%)	% over total R&D
TOTAL	2,059,394	100.0	0.9	13.1
Government	678,685	33.0	4.0	24.7
Higher Education	477,628	23.2	8.0	11.4
Enterprises	897,333	43.6	-4.6	10.2
Private non-profit	5,748	0.3	2.4	12.6

Financing of Internal R&D

Internal R&D activities related to Biotechnology were financed in 2020, mainly by the *Public Administration* (43.3% of the total) and the *Business* sector (40.6%). Funds from the rest of the world (9.9%), *Higher Education* (4.6%) and *Private Non-Profit Institutions* (1.6%), financed the rest.

Expenditure on internal R&D in Biotechnology by execution sector and financing Year 2020. Thousand euros

Sector	Total	Sources of funds (%)				
		Government	Higher Education	Enterprises	Private non- profit	Rest of the world
TOTAL	2,059,394	43.3	4.6	40.6	1.6	9.9
Government	678,685	71.5	0.2	16.2	2.3	9.8
Higher Education	477,628	65.9	19.5	5.3	1.8	7.7
Enterprises	897,333	10.3	0.1	77.9	0.5	11.2
Private non-profit	5,748	17.2	0.0	13.8	58.2	10.8

Employment in Internal R&D activities related to biotechnology

The total number of people dedicated to internal R&D activities in Biotechnology, on a full-time equivalent, increased by 1.2% in 2020, reaching 30,003.8. This figure accounted for 12.9% of total persons employed in R&D activities.

57.6% of the personnel employed in internal R&D activities in Biotechnology were women. The highest percentages of female participation were found in PNPI (71.6%) and in the *Public Administration* (63.2%).

The group of researchers in internal R&D activities in Biotechnology reached the figure of 19,421.7 people on a full-time equivalent, 1.4% more than in 2019.

Personnel employed in internal R&D activities in Biotechnology by execution sector, occupation, and sex Year 2020

Sector	Total			Researchers		
	Total*	Variation rate	% Women	Total*	Variation rate	% Women
TOTAL	30,003.8	1.2	57.6	19,421.7	1.4	54.1
Government	10,846.1	-1.5	63.2	6,270.9	-4.2	58.7
Higher Education	9,663.9	5.3	50.9	7,692.1	7.9	49.1
Enterprises	9,401.9	0.4	57.7	5,398.3	-0.2	55.9
Private non-profit	91.9	-7.5	71.6	60.4	-6.5	68.5

* In full-time equivalent

Data by Autonomous Community

The Autonomous Communities with the highest expenditure on internal R&D activities in Biotechnology in 2020 were Cataluña (30.4% of the total), Comunidad de Madrid (25.4%) and Andalucía (11.0%).

Expenditure on internal R&D in Biotechnology by autonomous communities, according to execution sector Year 2020. Thousand euros

	TOTAL	%	Enterprises	%	Rest of sectors *	%
TOTAL	2,059,394	100.0	897,333	100.0	1,162,061	100.0
Andalucía	226,948	11.0	83,663	9.3	143,285	12.3
Aragón	32,352	1.6	16,538	1.8	15,814	1.4
Asturias, Principado de	21,153	1.0	5,239	0.6	15,914	1.4
Balears, Illes	22,323	1.1	..	..	..	..
Canarias	17,752	0.9	3,651	0.4	14,102	1.2
Cantabria	7,954	0.4	..	..	..	..
Castilla y León	72,016	3.5	36,884	4.1	35,131	3.0
Castilla-La Mancha	19,717	1.0	8,137	0.9	11,580	1.0
Cataluña	626,363	30.4	295,462	32.9	330,901	28.5
Comunitat Valenciana	165,881	8.1	63,715	7.1	102,166	8.8
Extremadura	4,942	0.2	2,824	0.3	2,118	0.2
Galicia	104,944	5.1	28,333	3.2	76,612	6.6
Madrid, Comunidad de	522,835	25.4	216,916	24.2	305,919	26.3
Murcia, Región de	44,471	2.2	19,096	2.1	25,375	2.2
Navarra, Comunidad Foral de	44,343	2.2	..	..	..	..
Pais Vasco	117,655	5.7	84,198	9.4	33,457	2.9
Rioja, La	7,744	0.4	..	..	..	..
Ceuta	.	.	.	.	.	.
Melilla	.	.	.	.	.	.

(*) Rest of sectors: Government, PNP and Higher Education

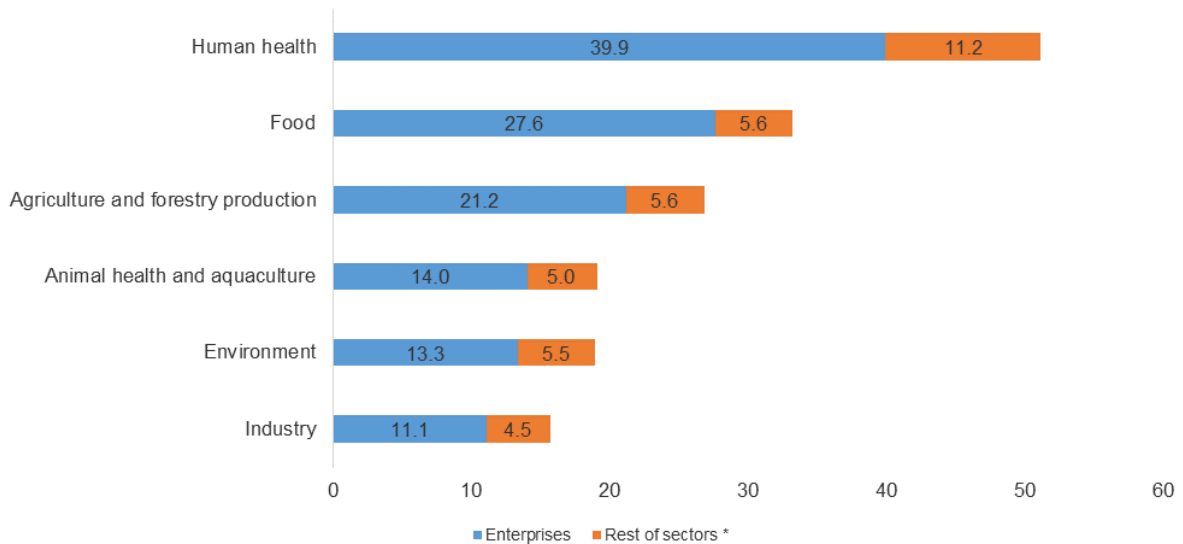
(.) Not available or unexist

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Biotechnology Application Areas

Among the areas of final application of the products obtained from the use of the different types of biotechnology, worth noting were *Human health* and *Food*, with 51.1% and 33.2% of the total units, respectively.

Units with biotechnological activities, according to the areas of final Biotechnology application. Year 2020. Percentage



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

Data Review and Update

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

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; economic and human resources appointed to the biotechnology-related productive and investigation activity in Spain.

Type of survey: continuous annual survey.

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

Geographical scope: the entire national territory.

Reference period: the calendar year.

Collection method: mixed with questionnaire shipments by postal mail and web completion.

For more information you can access the methodology and the standardized methodological report at:

http://www.ine.es/dyngs/INEbase/es/operacion.htm?c=Estadistica_C&cid=1254736176808&menu=metodologia&idp=1254735576669

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

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