Instituto Nacional de Estadística

Press Release

16 December 2015

Statistics on Biotechnology Use

Year 2014. *Final results*

Main results

- Internal expenditure on Biotechnology-related R&D activities increases 1.5%, reaching 1,450 million euros in 2014. This figure accounts for 11.3% of the total internal expenditure on R&D activities.
- The total number of persons dedicated to internal Biotechnology R&D activities, on a full-time equivalent, increases 2.1% standing at 23,664.3. This figure amounts to 11.8% of the total personnel employed in internal R&D activities and 1.4 per thousand of the employed population.
- The Autonomous Communities registering the greatest internal expenditure on Biotechnology R&D are Cataluña (28.7%), Comunidad de Madrid (26.4%) and Andalucía (11.6%).

Internal expenditure on Biotechnology-related R&D activities

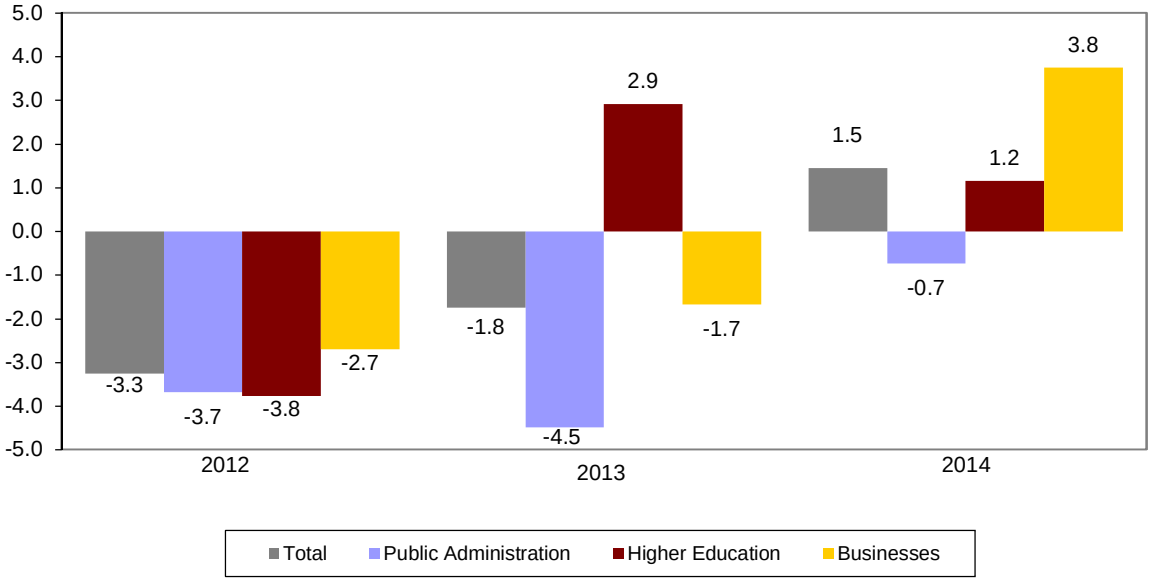
Internal expenditure on Biotechnology-related R&D activities reached 1,450 million euros in the year 2014, with a 1.5% increase as compared with 2013. The expenditure accounted for 11.3% of total internal expenditure on R&D activities.

By sector of operation, the Public Administration presented the highest percentage over the total internal expenditure on Biotechnology R&D activities (38.2%), followed by the Business sector (36.8%) and the Higher education sector (24.6%).

The business sector experienced a 3.8% increase in internal expenditure on Biotechnology-related R&D activities in 2014. Moreover, the number of companies with internal Biotechnology R&D activities registered an increase of 9.8%.

In turn, in the Public Administration, internal expenditure on Biotechnology R&D dropped 0.7%, whereas in Higher education it increased 1.2%.

Variation of internal expenditure on Biotechnology R&D (%)



Internal Biotechnology-related R&D activities were mainly financed by the Public Administration (51.1%) and the Business sector (29.8%) in 2014. Funds from Foreign sources (11.8%), Higher education (5.4%) and Private Non-Profit Institutions (1.9%) financed the rest.

Internal expenditure on Biotechnology R&D by sector and source of funds. Year 2014

Thousands of euros

Sector	Total	Source of funds (%)				
		Public Adm.	Higher Education	Businesses	PNPI	Abroad
TOTAL	1,450,426	51.1	5.4	29.8	1.9	11.8
Public Administration	553,526	80.4	0.6	8.5	2.7	7.8
Higher Education	357,077	63.0	21.1	6.9	1.7	7.3
Businesses	533,826	13.1	0.1	67.1	0.8	18.9
PNPI	5,998	19.8	1.1	38.6	35.9	4.6

Employment in internal Biotechnology-related R&D activities

The total number of persons dedicated to internal Biotechnology R&D activities, on a full-time equivalent, increased 2.1% in 2014, reaching 23,664.3. This figure amounted for 11.8% of the total personnel employed in R&D activities and 1.4 per thousand of the employed population.

55.9% of internal Biotechnology R&D activities personnel were women. The highest percentages of female participation were recorded in PNPI (75.6%) and in the Public Administration (59.5%).

The group of researchers in internal Biotechnology R&D activities reached the figure of 15,134.4 persons on a full-time equivalent (0.9 per thousand of the population employed), 2.6% more than in 2013.

Personnel employed in internal Biotechnology R&D activities, by sector, according to occupation and sex. Year 2014

On a full-time equivalent

Sector	Total			Researchers		
	Total	Variation rate	% Women	Total	Variation rate	% Women
TOTAL	23,664.3	2.1	55.9	15,134.4	2.6	51.7
Public Administration	9,456.2	0.9	59.5	5,437.8	2.4	53.1
Higher Education	7,281.1	2.0	51.2	5,526.3	0.5	48.9
Businesses	6,828.6	3.9	55.8	4,106.5	6.0	53.3
PNPI	98.4	1.0	75.6	63.8	-0.2	69.4

Data by Autonomous Community

The Autonomous Communities that registered the greatest internal expenditure on Biotechnology R&D in 2014 were Cataluña (28.7%), Comunidad de Madrid (26.4%) and Andalucía (11.6%).

Total internal expenditure on Biotechnology R&D, by Autonomous Community and sector of operation. Year 2014

Thousands of euros

	TOTAL	%	Businesses	%	Rest of sectors *	%
TOTAL	**1,450,426**	**100.0**	**533,826**	**100.0**	**916,601**	**100.0**
Andalucía	168,915	11.6	68,278	12.8	100,636	11.0
Aragón	23,260	1.6	16,817	3.2	6,443	0.7
Asturias, Principado de	15,845	1.1	5,418	1.0	10,426	1.1
Balears, Illes	14,475	1.0	1,981	0.4	12,494	1.4
Canarias	14,546	1.0	3,174	0.6	11,372	1.2
Cantabria	8,734	0.6	..	..	..	..
Castilla y León	46,621	3.2	15,532	2.9	31,089	3.4
Castilla-La Mancha	9,017	0.6	1,677	0.3	7,340	0.8
Cataluña	416,360	28.7	149,440	28.0	266,920	29.1
Comunitat Valenciana	127,280	8.8	33,674	6.3	93,606	10.2
Extremadura	3,022	0.2	..	..	..	..
Galicia	64,612	4.5	17,592	3.3	47,020	5.1
Madrid, Comunidad de	383,000	26.4	140,765	26.4	242,235	26.4
Murcia, Región de	29,591	2.0	6,290	1.2	23,301	2.5
Navarra, Comunidad Foral de	31,690	2.2	11,926	2.2	19,763	2.2
Pais Vasco	85,862	5.9	55,515	10.4	30,347	3.3
Rioja, La	7,596	0.5	2,228	0.4	5,369	0.6
Ceuta	-	-	-	-	-	-
Melilla	-	-	-	-	-	-

(*) Rest of sectors: Public Administration, PNPI and Higher Education

(..) Not available to protect statistical confidentiality

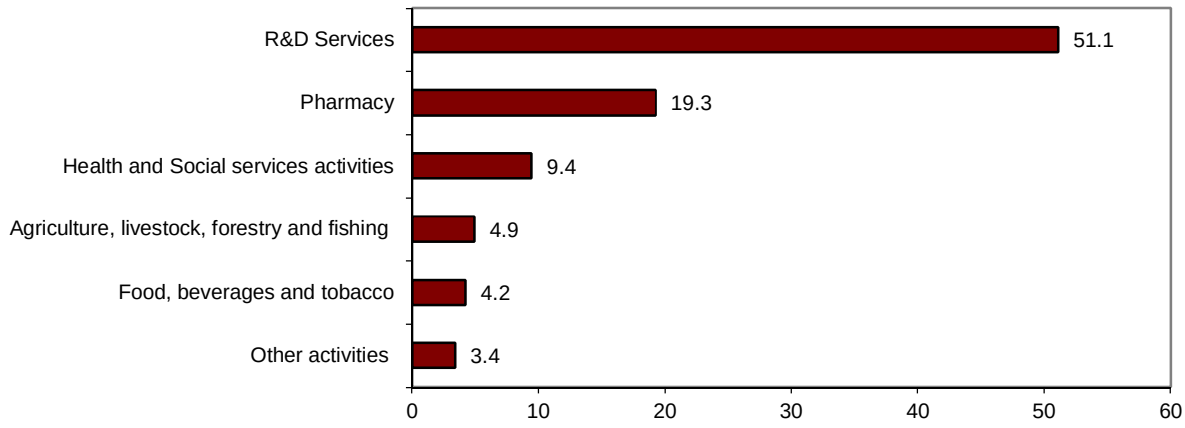
(-) Numerical data equal to zero not resulting from rounding

Data by sector and branch of activity

Regarding only the Business sector, the *Services* sector accounted for 66.9% of internal expenditure on Biotechnology-related R&D activities, *Industry* accounted for 28.2% and *Agriculture* did so for the remaining 4.9%.

By branch of activity, worth noting were *R&D Services* (with 51.1% of the total expenditure) and *Pharmacy* (with 19.3%).

Distribution of internal expenditure on Biotechnology R&D, by branch of activity. Year 2014 (%)



External expenditure on Biotechnology R&D activities

Purchases of Biotechnology R&D reached 163 million euros in the year 2014. Out of this expenditure, 24.3% was made outside of Spain.

By sector, Business presented the highest percentage over the total expenditure on external R&D activities, with 85.3%.

Total sectors. Purchases of Biotechnology R&D services. Year 2011

Unit: thousands of euros

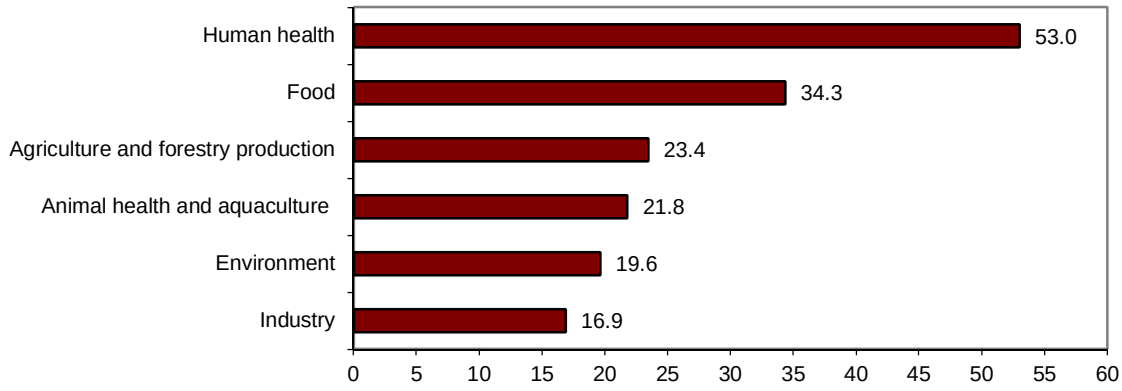
	Total 2014	Business	Rest of sectors *
Purchases of Biotechnology R&D services	**162,538**	**138,625**	**23,912**
- In Spain	123,047	101,114	21,934
- Abroad	39,491	37,512	1,979

(*) Rest of sectors: Public Administration, PNPI and Higher Education

Areas of Biotechnology application

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 53.0% and 34.3% of the total units, respectively.

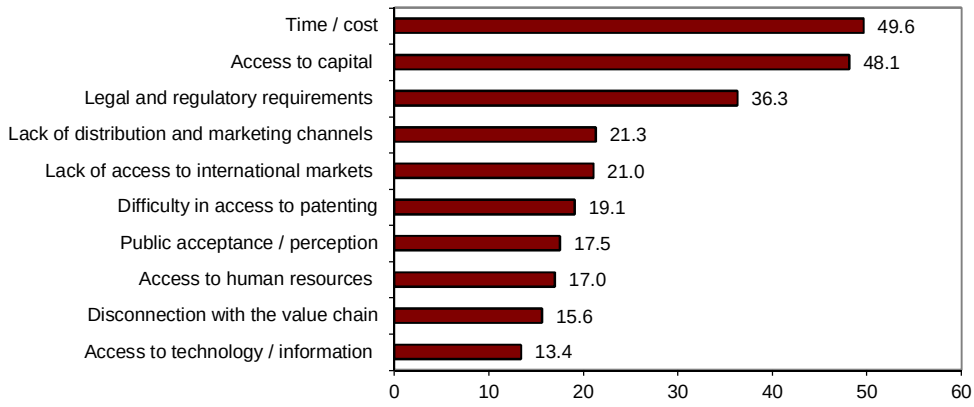
Porcentaje de unidades con actividades biotecnológicas según las áreas de aplicación final de la Biotecnología. Año 2014 (%)



Impediments to the development of Biotechnology

The highest impediments, that, with a high* valuation, prevented or obstructed the development and marketing activities of biotechnological products and processes were *Time/cost* (with 49.6%) and *Access to capital* (48.1%).

Impediments to the development of Biotechnologies. Year 2014 (%)



*The scale was: High, Medium, Low and Unknown

Methodological note

The Statistics on Biotechnology Use were prepared following the methodological guidelines of the OECD.

The information was collected, in the case of companies, through an additional module annexed to the Technological Innovation in Companies Survey, and intended for all those units that were potentially linked to Biotechnology. In the case of the Public Sector, the information is collected through a module annexed to the Statistics on R&D Activities, and is aimed at all those units that carry out the R&D statistics, be they Higher education centres, Public Administration or PNPI.

The evolution of the Statistics on Biotechnology Use in recent years has been as follows:

- In 2006, the type of biotechnology activity and area of final application of the products obtained from it were introduced as a study target.
- In 2007, the internationalisation of biotechnology-related activities was introduced.
- In 2008, expenditure on external R&D activities in Biotechnology was included.

As of the year 2010, part of the companies researched for the publication of the Statistics on Biotechnology Use was obtained through a random sample. Up until that point, the units involved in the compilation of the statistics were processed by census.

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