

29 January 2015

**Statistics on Biotechnology Use**  
Year 2013. *Final results*

- Internal expenditure on Biotechnology-related R&D activities decreases 1.8%, reaching 1,430 million euros in 2013. This figure accounts for 11.0% 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, decreases 3.9% standing at 23,186.2. This figure amounts to 11.4% 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 (29.3%), Comunidad de Madrid (25.3%) and Andalucía (11.5%).

**Internal expenditure on Biotechnology-related R&D activities**

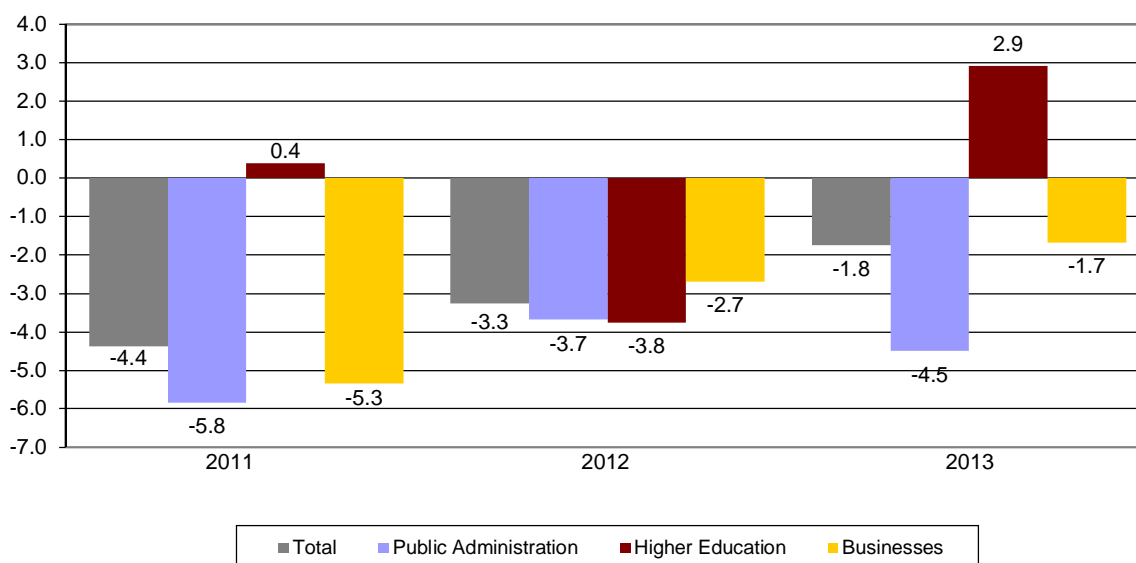
Internal expenditure on Biotechnology-related R&D activities reached 1,430 million euros in the year 2013, with a 1.8% decrease as compared with 2012. The expenditure accounted for 11.0% of total internal expenditure on R&D activities.

By sector of operation, the Public Administration presented the highest percentage over the total internal expenditure on Biotechnology R&D activities (39.0%), followed by the Business sector (36.0%) and the Higher education sector (24.7%).

The business sector experienced a 1.7% decrease in internal expenditure on Biotechnology-related R&D activities in 2013. Moreover, the number of companies with internal Biotechnology R&D activities registered a decrease of 5.1%.

In turn, in the Public Administration, internal expenditure on Biotechnology R&D dropped 4.5%, whereas in Higher education it increased 2.9%.

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



Internal Biotechnology-related R&D activities were mainly financed by the Public Administration (49.0%) and the Business sector (30.2%) in 2013. Funds from Foreign sources (10.7%), Higher education (8.5%) and Private Non-Profit Institutions (1.6%) financed the rest.

**Internal expenditure on Biotechnology R&D by sector and source of funds. Year 2013**

Thousands of euros

Sector	Total	Source of funds (%)				
		Public Adm.	Higher Education	Businesses	PNPI	Abroad
TOTAL	1,429,691	49.0	8.5	30.2	1.6	10.7
Public Administration	557,651	82.5	0.5	7.8	2.1	7.1
Higher Education	353,001	48.8	33.5	8.1	1.1	8.4
Businesses	514,529	13.2	0.0	69.5	1.1	16.2
PNPI	4,510	23.2	0.8	46.9	26.6	2.5

**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, decreased 3.9% in 2013, reaching 23,186.2. This figure amounted for 11.4% of the total personnel employed in R&D activities and 1.4 per thousand of the employed population.

56.9% of internal Biotechnology R&D activities personnel were women. The highest percentages of female participation were recorded in PNPI (67.0%) and in the Public Administration (61.0%).

The group of researchers in internal Biotechnology R&D activities reached the figure of 14,749.4 persons on a full-time equivalent (0.9 per thousand of the population employed), 5.2% less than in 2012.

**Personnel employed in internal Biotechnology R&D activities, by sector, according to occupation and sex. Year 2013**

On a full-time equivalent

Sector	Total personnel			Researchers		
	Total	Variation rate (%)	% Wome	Total	Variation rate (%)	% Women
<b>TOTAL</b>	23,186.2	-3.9	56.9	14,749.4	-5.2	52.8
Public Administration	9,374.6	-7.2	61.0	5,311.1	-6.9	56.3
Higher Education	7,140.3	-3.5	50.9	5,500.8	-4.6	48.7
Business	6,573.9	0.5	57.4	3,873.6	-4.2	53.6
PNPI	97.4	19.5	67.0	63.9	17.2	64.6

**Data by Autonomous Community**

The Autonomous Communities that registered the greatest internal expenditure on Biotechnology R&D in 2013 were Cataluña (29.3%), Comunidad de Madrid (25.3%) and Andalucía (11.5%).

**Total internal expenditure on Biotechnology R&D, by Autonomous City and Community and sector of operation. Year 2013**

Thousands of euros

	TOTAL	%	Businesses	%	Rest of sectors *	%
<b>TOTAL</b>	<b>1,429,691</b>	<b>100.0</b>	<b>514,529</b>	<b>100.0</b>	<b>915,162</b>	<b>100.0</b>
Andalucía	164,907	11.5	68,033	13.2	96,874	10.6
Aragón	23,311	1.6	11,829	2.3	11,482	1.3
Asturias, Principado de	16,469	1.2	5,772	1.1	10,697	1.2
Balears, Illes	18,655	1.3	2,463	0.5	16,192	1.8
Canarias	18,014	1.3	2,573	0.5	15,441	1.7
Cantabria	8,141	0.6	1,952	0.4	6,189	0.7
Castilla y León	44,169	3.1	14,887	2.9	29,282	3.2
Castilla-La Mancha	9,178	0.6	1,530	0.3	7,649	0.8
Cataluña	418,872	29.3	146,971	28.6	271,901	29.7
Comunitat Valenciana	123,775	8.7	33,482	6.5	90,293	9.9
Extremadura	4,280	0.3	1,597	0.3	2,683	0.3
Galicia	62,713	4.4	17,381	3.4	45,332	5.0
Madrid, Comunidad de	361,742	25.3	132,551	25.8	229,191	25.0
Murcia, Región de	29,089	2.0	5,051	1.0	24,038	2.6
Navarra, Comunidad Foral de	31,963	2.2	10,125	2.0	21,839	2.4
País Vasco	86,506	6.1	55,748	10.8	30,758	3.4
Rioja, La	7,908	0.6	2,587	0.5	5,321	0.6
Ceuta	-	-	-	-	-	-
Melilla	-	-	-	-	-	-

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

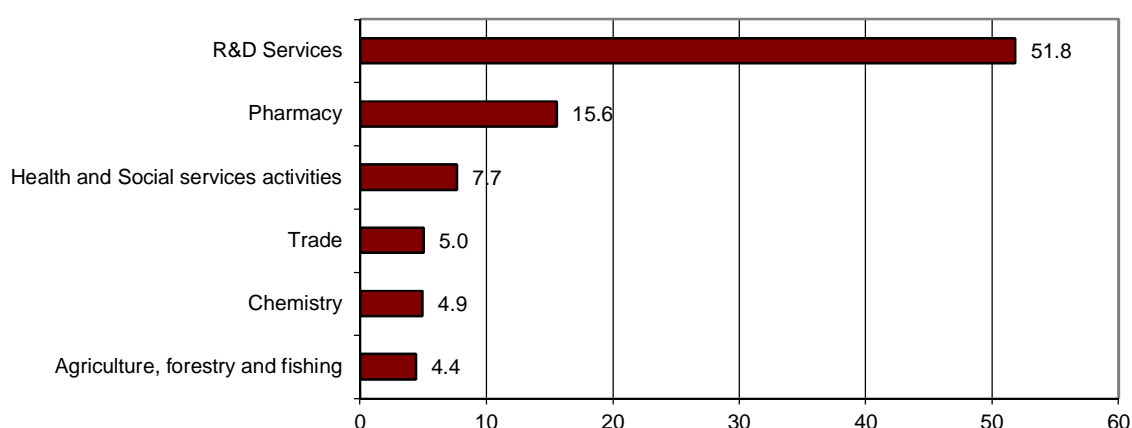
(-) Numerical data equal to zero not resulting from rounding

### Data by sector and branch of activity

Regarding only the Business sector, the *Services* sector accounted for 68.8% of internal expenditure on Biotechnology-related R&D activities, *Industry* accounted for 26.8% and *Agriculture* did so for the remaining 4.4%.

By branch of activity, worth noting were *R&D Services* (with 51.8% of the total expenditure) and *Pharmacy* (with 15.6%).

**Distribution of internal expenditure on Biotechnology R&D, by branch of activity. Year 2013 (%)**



### External expenditure on Biotechnology R&D activities

Purchases of Biotechnology R&D reached 112 million euros in the year 2013. Out of this expenditure, 25.1% was made outside of Spain.

By sector, Business presented the highest percentage over the total expenditure on external R&D activities, with 91.7%.

#### Total sectors. Purchases of Biotechnology R&D services

Units: thousands of euros

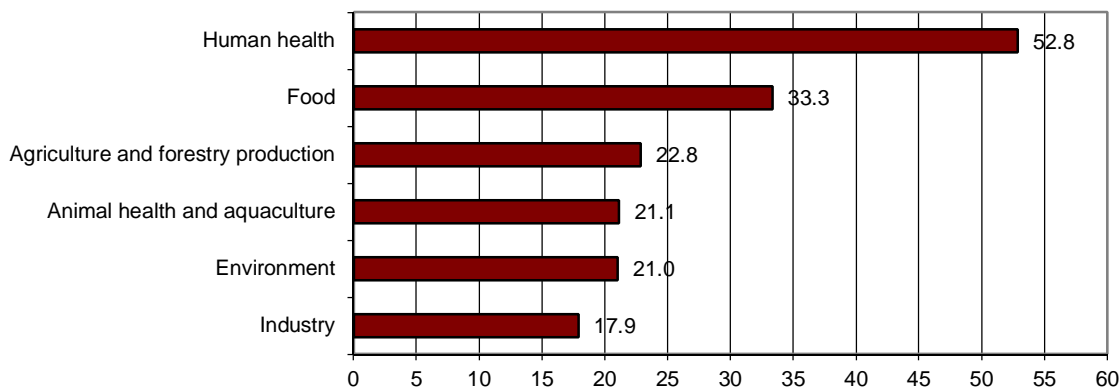
	Total 2013	Businesses	Rest of sectors *
<b>Purchases of Biotechnology R&amp;D services</b>	<b>112,335</b>	<b>103,066</b>	<b>9,269</b>
- In Spain	84,122	75,806	8,316
- Abroad	28,212	27,260	953

(\*) 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 52.8% and 33.3% of the total units, respectively.

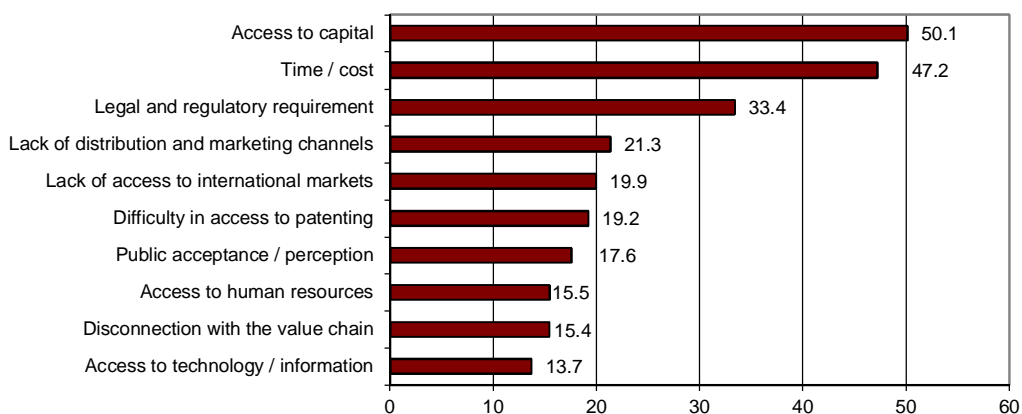
**Percentage of units with biotechnological activities, according to the areas of final Biotechnology application. Year 2013 (%)**



### 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 *Access to capital* (with 50.1%) and *Time/cost* (47.2%).

**Impediments to the development of Biotechnologies. Year 2013 (%)**



\*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.