

**14 November 2013****Statistics on R&D Activities**  
Year 2012. *Final results***Main results**

- Expenditure on R&D reaches 13,392 million euros in the year 2012, with a 5.6% decrease as compared with 2011. This expenditure represents 1.30% of GDP.
- The Public Administration R&D expenditure decreases 7.4% and the Higher Education sector decreases its expenditure 7.2% as compared with 2011. In turn, that of the Business sector decreases 4.1%.
- Internal R&D has been financed mainly by the Business sector (45.6%) and the Public Administration (43.1%).
- The number of R&D personnel in Full Time Equivalent (FTE) represents 12.1 per thousand of the employed population.
- The Autonomous Communities with the greatest investment effort in R&D are País Vasco, Comunidad Foral de Navarra, Comunidad de Madrid and Cataluña. All of them have shown figures of expenditure efforts in R&D that are higher to the national average.
- Castilla y León and País Vasco are the Autonomous Communities with the highest growth rates in R&D, as compared with 2011.

**Internal expenditure on Research and Development (R&D)**

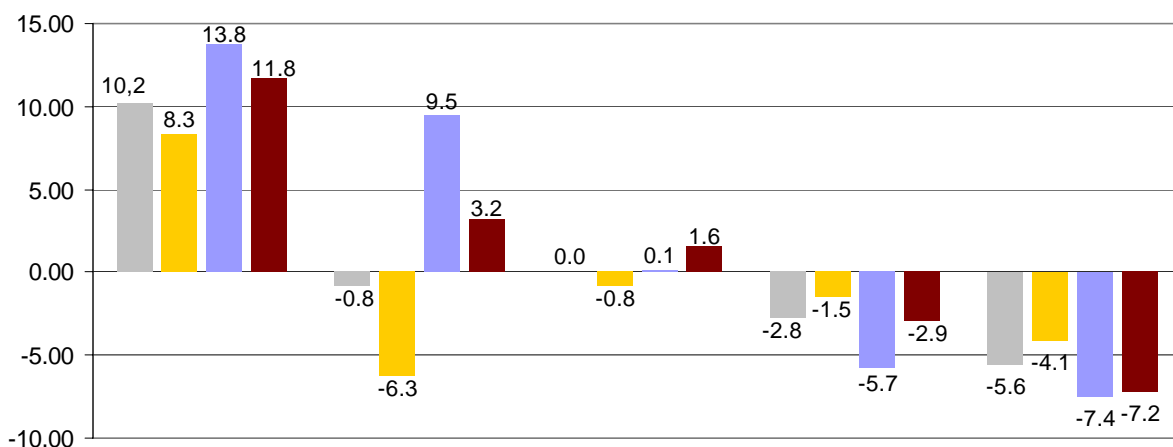
Internal expenditure on Research and Development (R&D) reached 13,392 million euros in 2012, indicating a decrease of 5.6%, as compared with the year 2011. This expenditure represented 1.30% of Gross Domestic Product (GDP), as compared with the 1.36% of the previous year.

By field of operation, the Business sector registered the highest percentage over total R&D expenditure, standing at 53.0% (which accounted for 0.69% of GDP). The next sector in importance was Higher Education, with 27.7% of total expenditure, representing 0.36% of GDP.

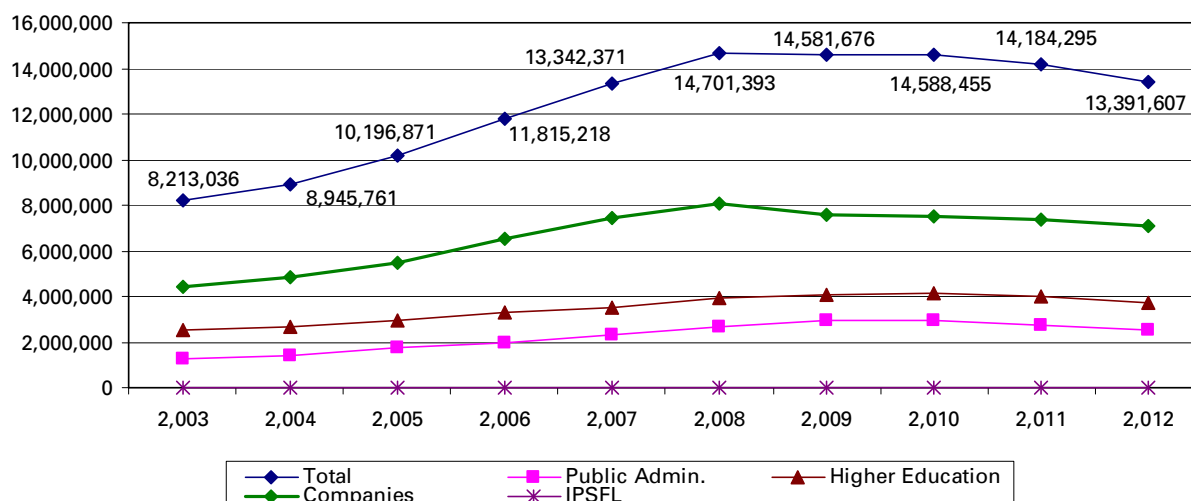
In turn, Public Administration R&D expenditure accounted for 19.1% of total expenditure (0.25% of GDP). The remaining 0.2% corresponded to the Private Non-Profit Institutions sector (PNPI).

The three main sectors of operation reduced their expenditure on R&D activities in 2012 as compared with the previous year. The Public Administration sector reduced its expenditure by 7.4% while the Higher Education and Business sectors registered a decrease rate of 7.2% and 4.1%, respectively.

**R&D expenditure variaton rate during the period 2008-2012**



**Historical evolution of R&D expenditure (thousands of euros)**



**Financing of R&D activities**

During the year 2012, R&D activities were mainly financed by the Business sector (45.6%) and the Public Administration (43.1%).

The funds originating from foreign sources (6.6%), from Higher Education (3.9%) and from the PNPI (0.6%) financed the remaining total R&D expenditure.

By field of operation, the R&D expenditure from Public Administration sector and Higher Education sector was mainly financed by the Public Administration (86.1% and 72.0%, respectively).

In turn, the Business sector finances its own R&D expenditure in 80.4% of the cases.

**Total internal R&D expenditure, by field of operation and origin of the funds.  
Year 2012.**

Thousands of euros

Field of operation	Total	Funds origin (%)				
		Public Admin.	Higher Education	Companies	PNPI	Foreign sources
TOTAL	13,391,607	43.1	3.9	45.6	0.6	6.6
Public Admin.	2,556,646	86.1	0.3	5.0	0.9	7.8
Higher Education	3,715,573	72.0	14.0	7.3	1.1	5.7
Companies	7,094,280	12.6	0.0	80.4	0.2	6.8
PNPI	25,106	22.6	0.4	35.1	36.3	5.6

**Personnel employed in R&D**

In the year 2012, a total of 208,831.4 persons were dedicated to R&D activities, on a full-time equivalent, representing 12.1 per thousand of the total employed population.

The group of researchers reached the figure of 126,777.5 persons on a full-time equivalent, representing 7.3 per thousand of the total employed population.

**40.1% of personnel in R&D on a full-time equivalent were women.** The highest percentages of female participation were recorded in Private Non-Profit Institutions (54.0%) and in Public Administration (51.2%). In Higher Education this percentage stood at 44.9%, whereas that in Business stood at 30.6%.

**Personnel employed in R&D, by field of operation and according to occupation and sex. Year 2012.**

On a full-time equivalent

Field of operation	Total			Researchers		
	Total	Variation rate	% Women	Total	Variation rate	% Women
TOTAL	<b>208,831.4</b>	<b>-2.9</b>	<b>40.1</b>	<b>126,777.5</b>	<b>-2.7</b>	<b>38.5</b>
Public Admin.	41,786.6	-4.8	51.2	21,849.8	-4.6	46.8
Higher Education	77,238.1	-4.5	44.9	59,775.4	-3.9	41.6
Companies	89,364.3	-0.5	30.6	44,920.3	0.0	30.2
PNPI	442.4	4.1	54.0	232.0	-4.1	53.2

**R&D expenditure by Autonomous Community**

The Autonomous Communities with the greatest effort in R&D activities in 2012 were País Vasco (2.19% of the GDP), Comunidad Foral de Navarra (1.91%) and Comunidad de Madrid (1.82%).

In turn, the Autonomous Communities with the lower effort in R&D activities in 2012 were Illes Balears (0.34% of the GDP), Canarias (0.51%) and Castilla-La Mancha (0.64%).

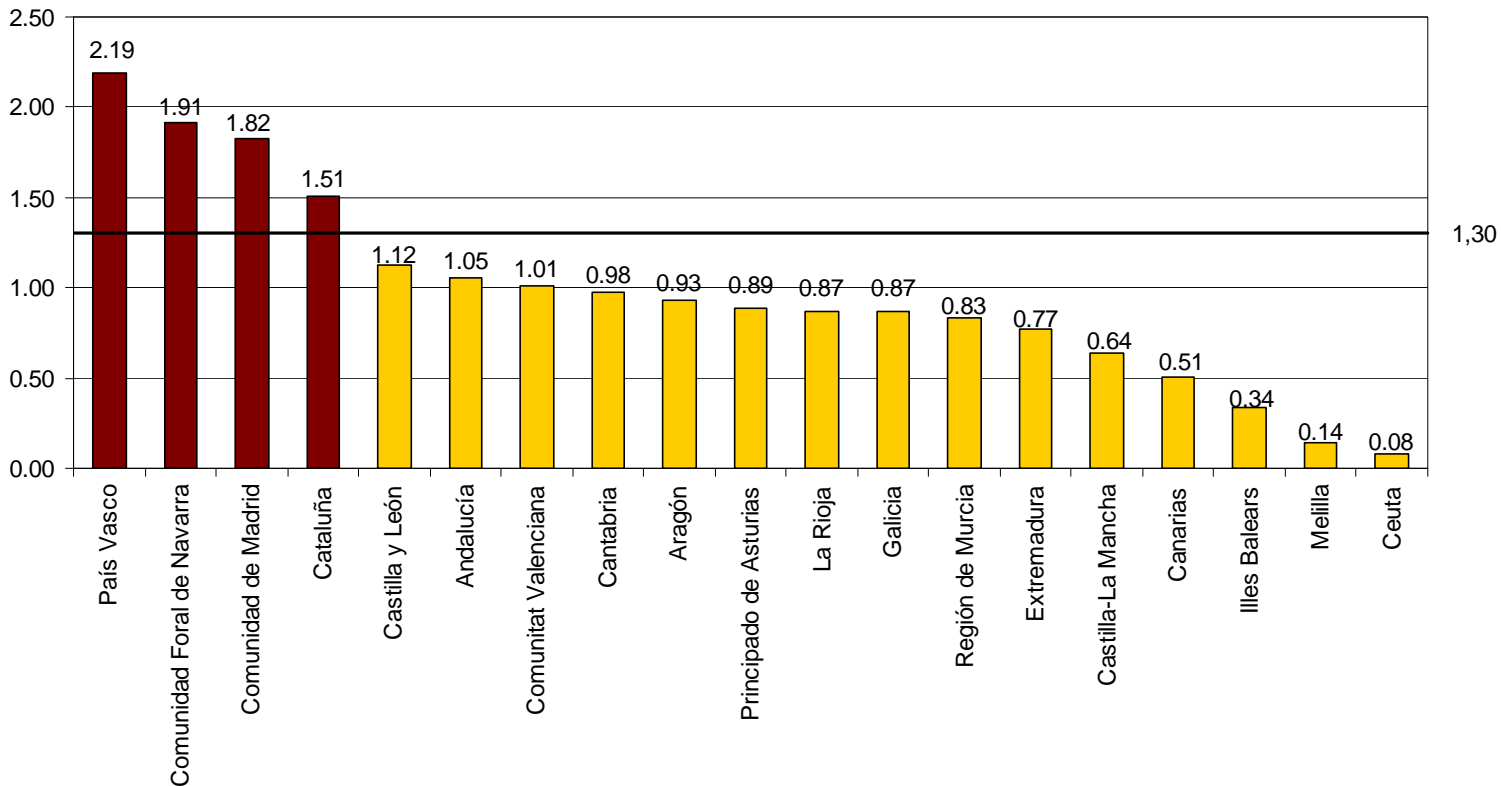
The only Autonomous Communities that registered positive growth rates in R&D expenditure as compared with 2011 were Castilla y León (7.5%) and País Vasco (2.4%), whereas La Rioja (-15.3%), Canarias (-13.0%) and Castilla-La Mancha (-11.1%) registered the highest decreases.

**Total internal R&D expenditure, by total personnel employed in FTE and Autonomous**

Thousand of euros

Autonomous Communities	R&D expenditures			Total personnel employed in FTE		
	Total sectors	Expenditure	Variation rate 2011-2012	Total sectors	Personnel	Variation rate 2011-2012
<b>TOTAL</b>	<b>13,391,607</b>	<b>100.0</b>	<b>-5.6</b>	<b>208,831.4</b>	<b>100.0</b>	<b>-2.9</b>
Andalucía	1,480,460	11.1	-10.2	24,647.2	11.8	-3.1
Aragón	312,795	2.3	-2.9	6,133.0	2.9	-6.1
Asturias, Principado de	195,892	1.5	-10.2	3,426.0	1.6	-6.9
Balears, Illes	89,921	0.7	-6.2	1,955.7	0.9	-2.6
Canarias	211,495	1.6	-13.0	3,778.7	1.8	-3.0
Cantabria	126,166	0.9	-11.0	2,018.8	1.0	-4.1
Castilla y León	617,467	4.6	7.5	9,546.9	4.6	-1.9
Castilla-La Mancha	230,547	1.7	-11.1	3,170.0	1.5	-8.2
Cataluña	2,991,010	22.3	-3.6	44,461.5	21.3	0.0
Comunitat Valenciana	1,008,041	7.5	-3.5	18,889.4	9.0	-5.4
Extremadura	128,432	1.0	-10.7	2,126.4	1.0	-4.8
Galicia	487,840	3.6	-7.3	9,509.4	4.6	-6.3
Madrid, Comunidad de	3,433,677	25.6	-8.7	48,772.6	23.4	-4.6
Murcia, Región de	227,759	1.7	-2.7	5,459.1	2.6	-3.7
Navarra, Comunidad Foral de	346,690	2.6	-9.7	4,821.9	2.3	-7.6
País Vasco	1,431,108	10.7	2.4	18,591.0	8.9	3.5
Rioja, La	69,297	0.5	-15.3	1,469.3	0.7	3.3
Ceuta	1,132	0.0	-9.6	19.2	0.0	20.0
Melilla	1,876	0.0	2.0	35.0	0.0	28.2

**R&D Expenditure / GDPpm (%)**

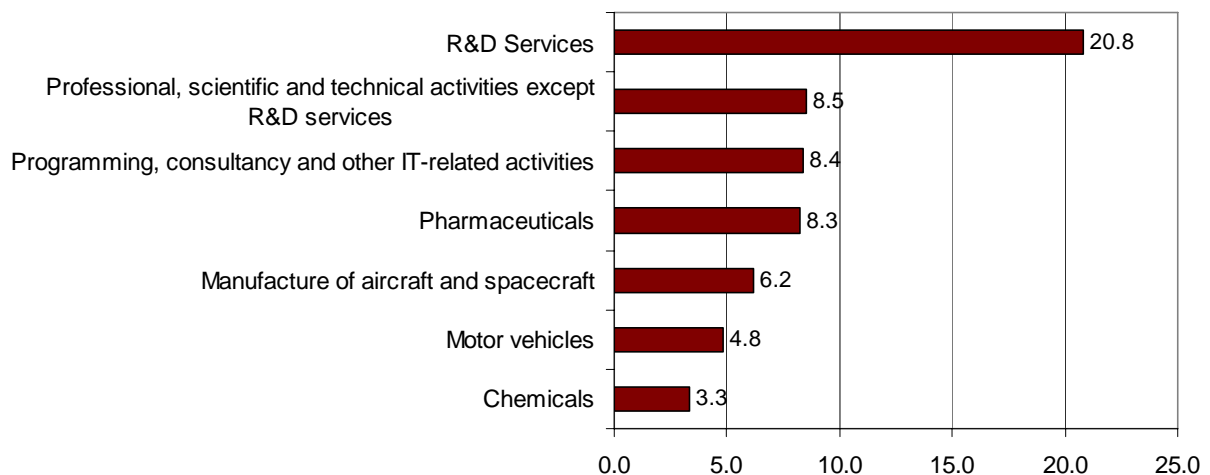


**R&D expenditure by branch of activity**

Companies in the Services sector accounted for 49.0% of R&D expenditure in the year 2012, whereas Industry accounted for 48.3%.

By branch of activity, worth noting were *R&D Services*, with 20.8% of total expenditure, and *Professional, scientific and technical activities, except R&D services* with 8.5%.

**Distribution of R&D expenditure by branch of activity Year 2012**  
**Distribution of R&D expenditure by activity branch . Year 2012.**



## Methodological note

The R&D statistics have been prepared following the methodological recommendations of the *Proposed Standard Practice for Surveys on Research and Experimental Development* of the OECD (Frascati Manual). In particular, the new version expressly recommends *that all companies carrying out R&D work, either continuously or sporadically, be included in R&D surveys.*

Until the year 2001, the R&D Statistics were based solely on a census of the known statistical units that carried out R&D activities. For this purpose, an annual request was made to different bodies of the State Central Administration and the Autonomous Communities for information on the units receiving aid in order to carry out R&D activities.

Since the year 2002, this statistical operation has been carried out co-ordinately with the survey on Innovation in Companies, researching a census of potentially researching statistical units, which is updated annually, and with a randomly chosen sample of companies.

Scientific research and technological development (R&D) comprises the creative work carried out systematically in order to increase the volume of knowledge, including the knowledge of man, culture and society, and the use of this knowledge to create new applications.

The main aggregates for quantifying the national effort invested in R&D activities are *internal R&D expenditure*, which includes current and capital expenditure corresponding to R&D activities undertaken within the State throughout the year, and the *personnel dedicated to R&D tasks*, which includes all of the persons who have worked in the country throughout the year, on a full-time equivalent (FTE).