

21 January 2015

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

- Expenditure on R&D reaches 13,012 million euros in the year 2013, with a 2.8% decrease as compared with 2012. This expenditure represents 1.24% of GDP*.
- The Public Administration R&D expenditure decreases 4.7% and the Higher Education sector decreases its expenditure 1.8% as compared with 2012. That of the Business sector decreases 2.6%.
- Internal R&D has been financed mainly by the Business sector (46.3%) and the Public Administration (41.6%).
- The number of R&D personnel in Full Time Equivalent (FTE) represents 11.9 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 than the national average.

Internal expenditure on Research and Development (R&D)

Internal expenditure on Research and Development (R&D) reached 13,012 million euros in 2013, indicating a decrease of 2.8%, as compared with the year 2012. This expenditure represented 1.24% of Gross Domestic Product (GDP), as compared with the 1.27% of the previous year.

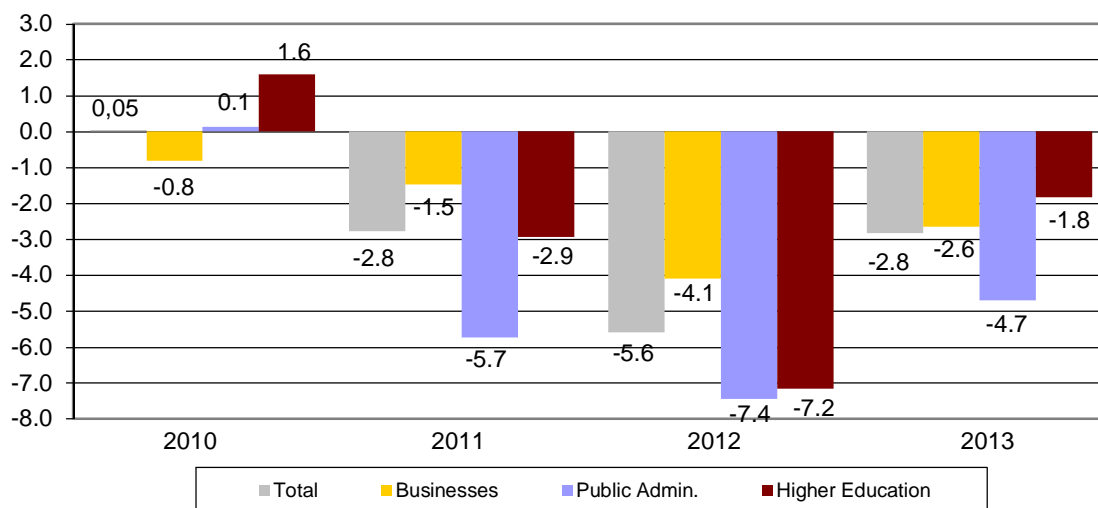
By field of operation, the Business sector registered the highest percentage over the total R&D expenditure, standing at 53.1% (which accounted for 0.66% of GDP). The next sector in importance was Higher Education, with 28.0% of the total expenditure, representing 0.35% of GDP.

In turn, Public Administration R&D expenditure accounted for 18.7% of the total expenditure (0.23% of GDP). The remaining 0.2% corresponded to the Private Non-Profit Institutions sector (PNPI).

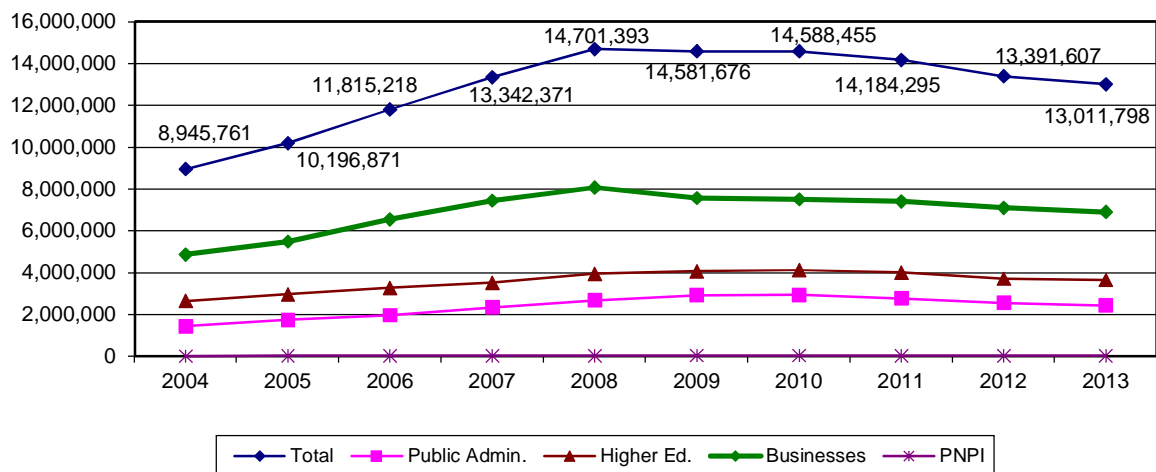
* Indicator calculated using GDP base 2010.

The three main sectors of operation reduced their expenditure on R&D activities in 2013 as compared with the previous year. The Public Administration sector reduced its expenditure by 4.7% while the Higher Education and Business sectors registered a decrease rate of 1.8% and 2.6%, respectively.

R&D expenditure variation rate during the 2010-2013 period (%)



Evolution of R&D expenditure (thousands of euros)



Financing of R&D activities

During the year 2013, R&D activities were mainly financed by the Business sector (46.3%) and the Public Administration (41.6%).

The funds originating from Foreign sources (7.4%), from Higher Education (4.1%) 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 (83.2% and 72.5%, respectively).

In turn, the Business sector financed its own R&D expenditure in 81.6% of the cases.

Total internal R&D expenditure, by field of operation and origin of the funds. Year 2013

Thousands of euros

Field of operation	Total	Origin of the funds (%)				
		Public Admin.	Higher Education	Businesses	PNPI	Foreign sources
TOTAL	13,011,798	41.6	4.1	46.3	0.6	7.4
Public Admin.	2,436,444	83.2	0.2	5.9	1.1	9.6
Higher Education	3,647,407	72.5	14.2	6.6	1.0	5.7
Businesses	6,906,396	10.7	0.1	81.6	0.1	7.5
PNPI	21,551	16.4	0.5	38.3	41.6	3.2

Personnel employed in R&D

In the year 2013, a total of 203,302 persons were dedicated to R&D activities, on a full-time equivalent, representing 11.9 per thousand of the total employed population.

The group of researchers reached the figure of 123,224.7 persons on a full-time equivalent, representing 7.2 per thousand of the total employed population.

40.2% 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 (56.4%) and in Public Administration (51.4%). In Higher Education this percentage stood at 44.6%, whereas that in Business stood at 31.3%.

Personnel employed in R&D, by field of operation according to occupation and sex. Year 2013

On a full-time equivalent

Field of operation	Total personnel			Researchers		
	Total	Variation rate (%)	% Women	Total	Variation rate (%)	% Women
TOTAL	203,302.0	-2.6	40.2	123,224.7	-2.8	38.8
Public Admin.	39,349.1	-5.8	51.4	20,672.7	-5.4	47.3
Higher Education	74,922.6	-3.0	44.6	57,640.8	-3.6	41.6
Businesses	88,635.1	-0.8	31.3	44,713.8	-0.5	31.1
PNPI	395.2	-10.7	56.4	197.4	-14.9	54.7

R&D expenditure by Autonomous Community

The two Autonomous Communities that registered increases in R&D expenditure as compared with the previous year were Extremadura and Comunidad de Madrid.

In turn, Castilla y León (-14.0%), Cantabria (-12.8%) and Castilla-La Mancha (-12.6%) registered the greatest decreases.

Total internal R&D expenditure and total personnel employed in FTE by Autonomous Community. Year 2013

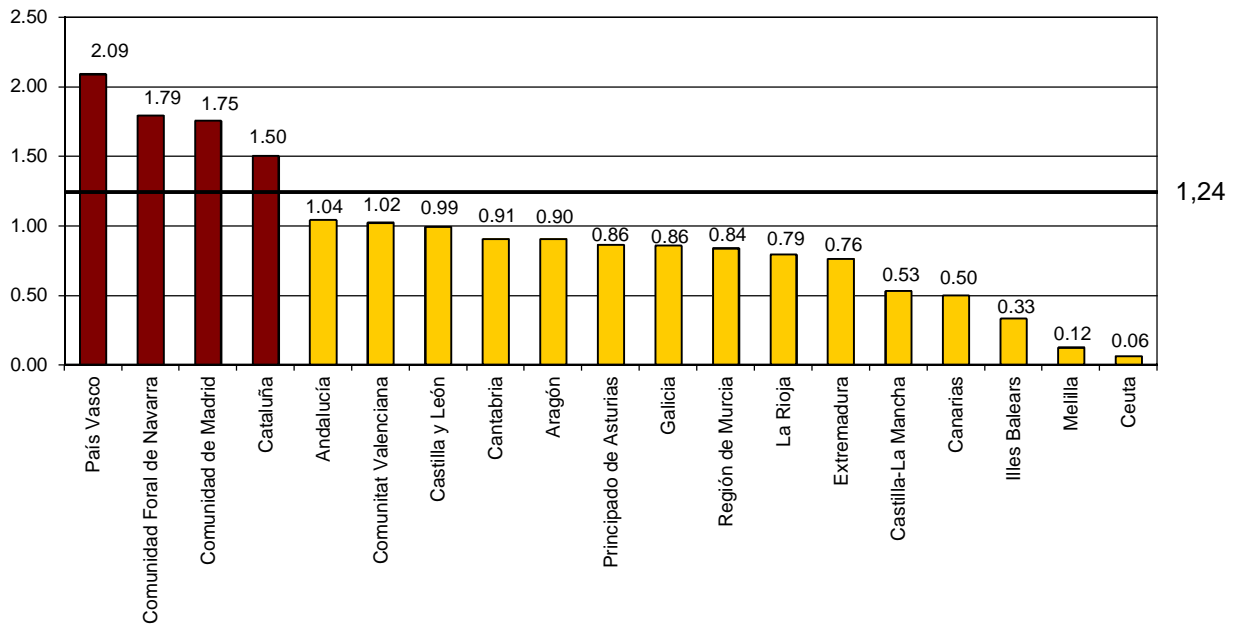
Thousands of euros

Autonomous Community	R&D expenditure			Total R&D personnel in FTE		
	Total sectors	Expenditure	Variation rate (%) 2012-2013	Total sectors	Expenditure	Variation rate (%) 2012-2013
TOTAL	13,011,798	100.0	-2.8	203,302.0	100.0	-2.6
Andalucía	1,471,261	11.3	-0.6	24,139.1	11.9	-2.1
Aragón	298,081	2.3	-4.7	5,534.0	2.7	-9.8
Asturias, Principado de	183,717	1.4	-6.2	3,372.0	1.7	-1.6
Balears, Illes	86,982	0.7	-3.3	1,848.2	0.9	-5.5
Canarias	203,078	1.6	-4.0	3,480.8	1.7	-7.9
Cantabria	110,047	0.8	-12.8	1,780.2	0.9	-11.8
Castilla y León	531,000	4.1	-14.0	8,862.3	4.4	-7.2
Castilla-La Mancha	201,453	1.5	-12.6	2,776.9	1.4	-12.4
Cataluña	2,960,612	22.8	-1.0	44,506.2	21.9	0.1
Comunitat Valenciana	998,399	7.7	-1.0	18,527.7	9.1	-1.9
Extremadura	129,629	1.0	0.9	2,119.7	1.0	-0.3
Galicia	468,701	3.6	-3.9	9,385.5	4.6	-1.3
Madrid, Comunidad de	3,434,613	26.4	0.0	47,609.4	23.4	-2.4
Murcia, Región de	224,761	1.7	-1.3	5,290.2	2.6	-3.1
Navarra, Comunidad Foral de	317,158	2.4	-8.5	4,625.2	2.3	-4.1
País Vasco	1,328,297	10.2	-7.2	18,072.1	8.9	-2.8
Rioja, La	61,270	0.5	-11.6	1,327.0	0.7	-9.7
Ceuta	991	0.0	-12.4	14.8	0.0	-22.9
Melilla	1,749	0.0	-6.8	30.9	0.0	-11.7

The Autonomous Communities with the greatest expenditure in R&D activities over the GDP in 2013 were País Vasco (2.09% of GDP), Comunidad Foral de Navarra (1.79%), Comunidad de Madrid (1.75%) and Cataluña (1.50%).

In turn, the Autonomous Communities with the lower effort in R&D activities in 2013 were Illes Balears (0.33% of GDP), Canarias (0.50%) and Castilla-La Mancha (0.53%).

R&D expenditure/ GDPmp (%)

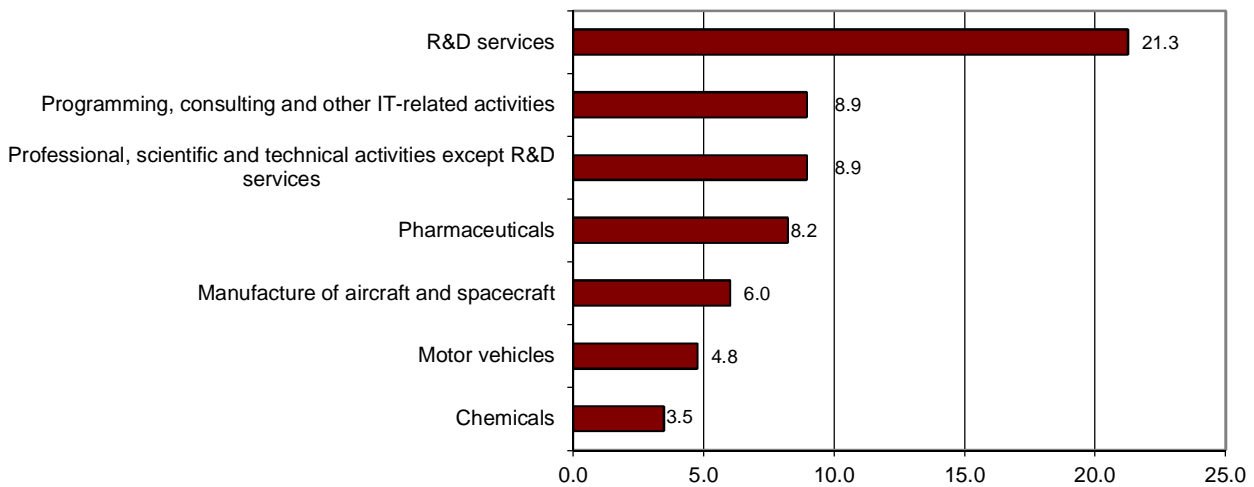


Distribution of R&D expenditure by branch of activity

Companies in the Services sector accounted for 49.9% of R&D expenditure in the year 2013, whereas Industry accounted for 47.5%.

By branch of activity, worth noting were *R&D Services*, with 21.3% of total expenditure, and *Programming, consultancy and other IT-related activities* and *Professional, scientific and technical activities, except R&D services*, both at 8.9%.

Distribution of R&D expenditure by branch of activity. Year 2013 (%).



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).