

16 November 2010

Statistics about R&D Activities
Year 2009. *Final results*

Main results

- **Expenditure on R&D** rises to 14,582 million euros in the year 2009, with a 0.8% decrease as compared with 2008. This expenditure represents **1.38% of GDP**.
- The Public Administration R&D expenditure increases 9.5%, whereas that of Companies decreases 6.3% as compared with 2008.
- **The business sector accounts for 51.9% of total R&D expenditure**, as compared with 54.9% in the year 2008.
- The Public Administration finances 47.1% of R&D activities, as compared with 43.4% from the private sector.
- The Autonomous Communities with the **greatest investment effort in R&D are Comunidad Foral de Navarra, Comunidad de Madrid, País Vasco and Cataluña**. All of them register intensity figures in expenditure above the national average.
- Comunidad Foral de Navarra, Cantabria and Aragón are the Autonomous Communities with the highest growth rates in R&D, as compared with 2008.

Internal expenditure on Research and Development (R&D)

Internal expenditure on Research and Development (R&D) reached 14,582 million euros in 2009, accounting for 1.38% of Gross Domestic Product (GDP) and indicating an increase of 0.8% as compared with the year 2008.

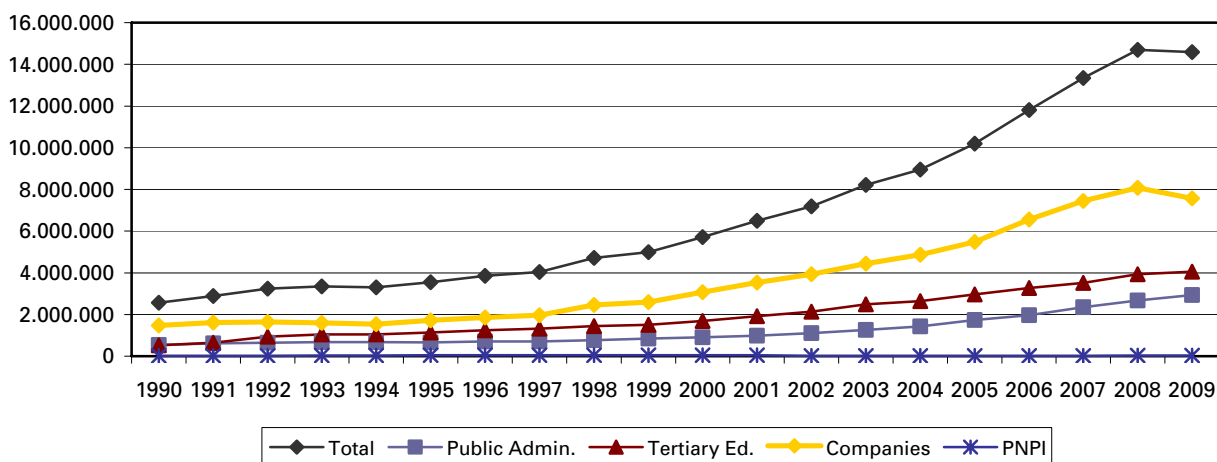
By field of operation, the business sector registered the highest percentage over total R&D expenditure, standing at 51.9% (which accounted for 0.72% of GDP). The next sector in importance was Tertiary education, with 27.8% of total expenditure, representing 0.39% of GDP.

In turn, Public Administration R&D expenditure accounted for 20.1% of total expenditure (0.28% of GDP). The remaining 0.2% corresponded to the Private Non-Profit Institutions sector (PNPI).

Comparing R&D expenditure activities in 2009 with that recorded the previous year, it is worth noting that the business sector experienced a decrease of 6.3%. It should be borne in mind that in this sector, the number of units that carried out R&D activities decreased 9.6%, as compared with 2008.

On the other hand, the Public Administration sector registered an annual growth rate of 9.5% in internal R&D expenditure.

Evolution of R&D expenditure (thousands of euros)



Financing of R&D activities

In the year 2009, R&D activities were mainly financed by the Public Administration (47.1%) and the private sector (43.4%). The funds originating from foreign sources (5.5%), from Tertiary education (3.4%) and from the PNPI (0.6%) financed remaining total R&D expenditure.

Total internal R&D expenditure, by field of operation and origin of the funds. Year 2009.

Thousand euros

Field of operation	Total	Source of the funds				
		Public Administration	Tertiary Education	Companies	PNPI	Foreign
TOTAL	14,581,676	6,868,628	503,260	6,322,578	91,244	795,966
In the Public Administration	2,926,733	2,552,011	8,385	216,596	20,186	129,555
Tertiary education	4,058,359	3,011,546	491,928	324,133	42,519	188,234
Companies	7,567,596	1,296,788	2,267	5,772,845	18,612	477,085
PNPI	28,988	8,283	681	9,004	9,927	1,092

R&D expenditure by Autonomous Community

The Autonomous Communities with the greatest effort in R&D activities in 2009 were Comunidad Foral de Navarra (2.13% of their GDP), Comunidad de Madrid (2.06%), País Vasco (2.06%) and Cataluña (1.68%). These four Communities were the only ones to register intensity figures in R&D expenditure above the national average.

The Autonomous Communities with the highest growth rates as compared with 2008 were Comunidad Foral de Navarra (8.2%), Cantabria (5.9%) and Aragón (5.3%).

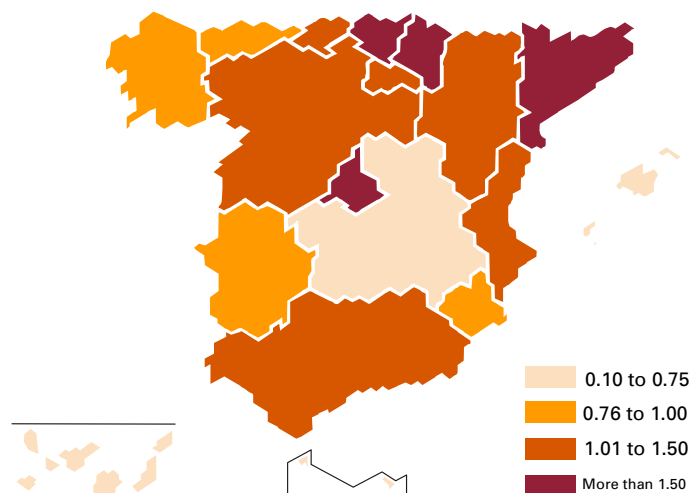
Total internal R&D expenditure, by Autonomous Community and field of operation. Year 2009.

Thousand euros

	Sector total	% over regional GDP *	Companies	Public. Administration	Tertiary Education	PNPI
Andalucía	1,578,085	1.10	501,471	390,855	683,680	2,079
Aragón	370,945	1.14	210,576	84,018	76,114	238
Asturias (Principado)	226,156	0.99	93,954	38,360	93,600	242
Balears (Illes)	99,854	0.38	15,308	37,541	46,816	189
Canarias	238,829	0.58	46,726	80,787	110,905	411
Cantabria	149,062	1.11	52,862	30,248	62,801	3,151
Castilla y León	629,490	1.12	333,017	74,837	221,144	492
Castilla-La Mancha	237,912	0.68	121,149	33,596	82,698	468
Cataluña	3,284,487	1.68	1,908,728	613,939	752,810	9,009
Comunitat Valenciana	1,120,308	1.10	452,461	149,574	517,817	456
Extremadura	154,708	0.88	20,243	59,295	75,035	135
Galicia	524,125	0.96	232,331	84,926	206,407	461
Madrid (Comunidad de)	3,899,396	2.06	2,135,309	1,066,891	688,011	9,185
Murcia (Región de)	241,481	0.89	92,944	47,692	100,068	776
Navarra (C. Foral de)	388,243	2.13	267,254	36,500	84,149	341
País Vasco	1,346,984	2.06	1,036,434	76,604	233,472	475
Rioja (La)	85,203	1.09	46,702	20,914	16,708	880
Ceuta and Melilla	6,408	0.21	127	156	6,125	-

(*) Data calculated with regard to GDP for the year 2009, base 2000.

Intensity of R&D expenditure (%). Year 2009.



Personnel employed in R&D

In the year 2009, a total of 220,777 persons were dedicated to R&D activities, on a full-time equivalent, representing 11.69 per thousand of the total employed population.

The group of researchers reached the figure of 133,803 persons on a full-time equivalent, representing 7.08 per thousand of the total employed population.

40.0% 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 (55.4%) and in Public Administration (51.5%). In business, this percentage stood at 30.8%.

Personnel employed in R&D, by field of operation and according to occupation and sex. Year 2009.

On a full-time equivalent

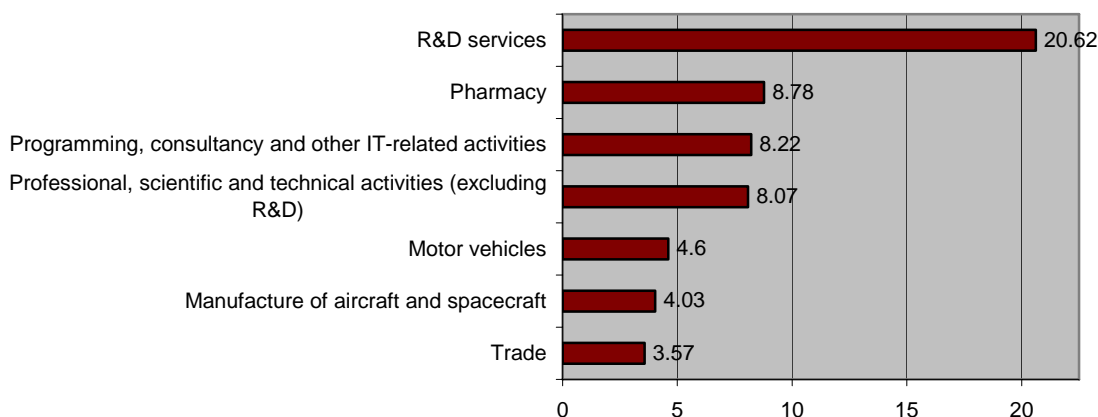
Field of operation	Total		Researchers	
	Total	Women	Total	Women
TOTAL	220,777	88,247	133,803	51,526
In the Public Administration	45,353	23,351	24,165	11,592
Tertiary education	81,203	35,754	63,175	26,011
Companies	93,699	28,852	46,153	13,775
PNPI	522	290	311	147

R&D expenditure by branch of activity

Industry accounted for 46.3% of R&D expenditure in the year 2009. In turn, companies in the services sector accounted for 50.5% thereof.

By branch of activity, worth noting were *R&D services*, with 20.6% of total expenditure, and *Pharmacy*, with 8.8%.

Distribution of R&D expenditure, by branch of activity. Year 2009.



For further information see [INEbase-www.ine.es/en/welcome_en.htm](http://www.ine.es/en/welcome_en.htm) All press releases at: www.ine.es/en/prensa/prensa_en.htm

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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.

The inclusion of sporadic R&D made it necessary to obtain information on the rest of the units not previously included a priori in the R&D Directory. This goal was achieved through a sample study of approximately 29,600 units that were representative of the group of companies with 10 or more employees, and within the scope of the study.

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 which this year comprises 19,700 units and 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).