

27 November 2020

Statistics on R&D Activities
Year 2019. Final data

Internal R&D expenditure increased by 4.2% in 2019 and reached 15.572 million euros, 1.25% of GDP.

Internal Research and Development (R&D) expenditure amounted to 15.572 million euros in 2019, representing an increase of 4.2% with respect to the previous year.

This expenditure represented 1.25% of the Gross Domestic Product (GDP), compared to 1.24% in 2018.

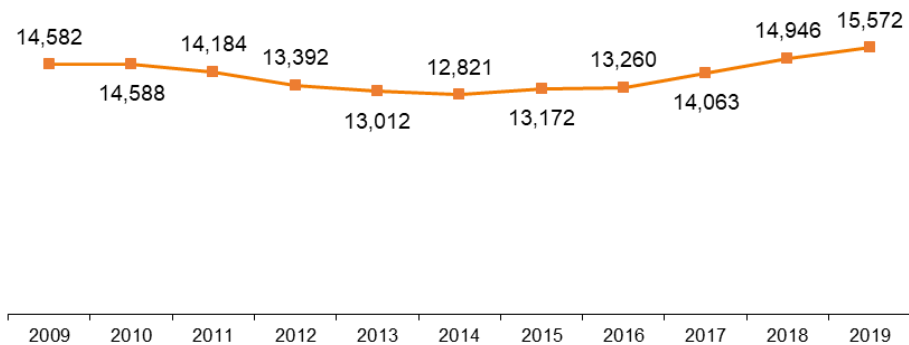
By implementing sector, the *Business* sector represented the highest percentage of *internal R&D* expenditure, with 56.1% (which meant 0.7% of GDP). It was followed by the *Higher Education* sector, with 26.6% (0.33% of GDP).

In turn, internal R&D expenditure in the *General Government* sector accounted for 17.0% of national expenditure (0.21% of GDP). The remaining 0.3% corresponded to the *Non-Profit Private Institutions* (NPI) sector.

Spending on R&D increased 3.5% compared to the previous year in the *Companies* sector, 4.9% in *Higher Education* and 5.3% in *General Government*.

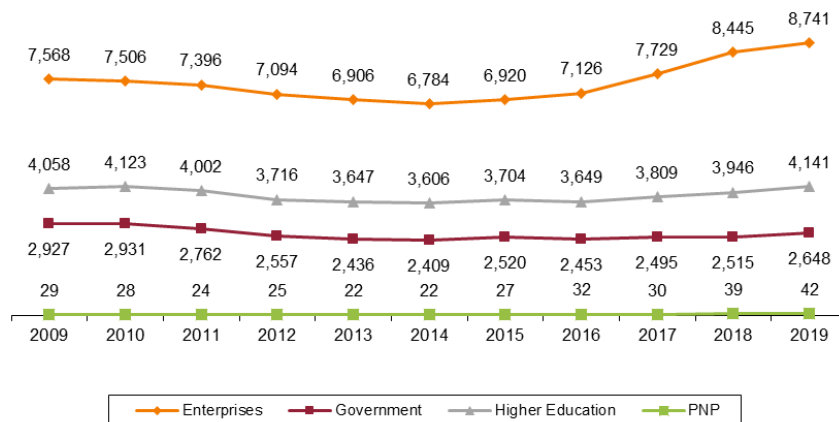
Evolution of internal R&D expenditure. National total

Millions of euros



Evolution of internal R&D expenditure. Implementing Sectors

Millions of euros



Funding of internal R&D activities

Internal R&D activities were mainly financed in 2019 by the *Business* sector (49.1% of the total) and the *General Government* (37.9%).

Funds from the Rest of the World (8.2%), from *Higher Education* (4.2%) and from IPSFL (0.7%) completed the funding.

By implementing sectors, internal R&D expenditure in the *General Government* and *Higher Education* was mainly financed by the *General Government* (80.6% and 70.5%, respectively).

On the other hand, 82.2% of the financing of internal R&D expenditure in the *Business* sector came from the sector itself.

Internal R&D expenditure by implementing sector and by source of funds

Year 2019. Thousand euros

Execution sector	Total	Source of Funds				
		Govern-ment	Higher Education	Enterpri-ses	PNP	Rest of the World
TOTAL	15,572,052	5,900,338	651,723	7,645,150	103,403	1,271,437
Government	2,648,296	2,133,702	3,782	205,732	34,293	270,788
Higher Education	4,141,141	2,918,927	645,863	233,222	41,845	301,284
Enterprises	8,740,596	839,307	2,011	7,187,234	16,356	695,688
PNP	42,019	8,402	67	18,963	10,909	3,678

Personnel employed in internal R&D

A total of 231.413 full-time equivalent persons were engaged in internal R&D activities in 2019, representing 11.7 per thousand of the total employed population and an increase of 2.5% over the previous year.

The group of researchers reached the figure of 143.974 full-time equivalent persons, which represented 7.3 per thousand of the total employed population and an increase of 2.8% with respect to 2018.

40.6% of full-time equivalent personnel in internal R&D were women. The highest percentages of female participation were in *General Government* (53.3% of total employment) and in the *IPSFL* (53.3%). In *Higher Education*, this percentage stood at 45.5%, whereas in the *Business* sector it was 31.9%.

Personnel employed in R&D by implementing sector by occupation and sex Year 2019. In full-time equivalent

Execution Sector	Total personnel			Researchers		
	Total	Annual Rate	% Women	Total	Annual Rate	% Women
	Full-time equivalence					
TOTAL	231,413	2.5	40.6	143,974	2.8	39.9
Government	41,372	2.6	53.3	22,147	3.4	49.9
Higher Education	83,048	3.4	45.5	66,630	4.1	42.7
Enterprises	106,435	1.9	31.9	54,888	1.0	32.2
PNP	558	-2.4	53.3	309	-6.8	51.1

Expenditure and personnel in internal R&D by Autonomous Community

The autonomous communities with the highest growth rates in internal R&D spending in 2019 were Castilla-La Mancha (15.5%), Extremadura (14.2%) and Comunitat Valenciana (7.6%). On the other hand, the only community in which it decreased was La Rioja (-2.5%).

Internal R&D expenditure and total FTE personnel by Autonomous Community Year 2019. Thousand euros

Regions	R&D Expenditures			Total R&D personnel in FTE		
	Total sectors	%	Annual rate	Total sectors	%	Annual rate
TOTAL	15,572,052	100.0	4.2	231,413	100.0	2.5
Andalucía	1,538,408	9.9	4.0	24,870	10.7	0.6
Aragón	358,602	2.3	5.6	6,269	2.7	2.4
Asturias, Principado de	195,601	1.3	3.8	3,713	1.6	11.5
Balears, Illes	134,242	0.9	4.4	2,793	1.2	4.0
Canarias	219,872	1.4	2.3	3,572	1.5	-0.9
Cantabria	119,008	0.8	1.0	1,878	0.8	1.7
Castilla y León	800,924	5.1	5.0	10,599	4.6	6.2
Castilla-La Mancha	253,003	1.6	15.5	3,369	1.5	6.4
Cataluña	3,596,646	23.1	2.4	52,137	22.5	0.6
Comunitat Valenciana	1,264,029	8.1	7.6	20,672	8.9	7.1
Extremadura	139,320	0.9	14.2	2,571	1.1	17.3
Galicia	627,329	4.0	6.2	11,085	4.8	4.3
Madrid, Comunidad de	4,100,551	26.3	4.5	55,545	24.0	2.4
Murcia, Región de	323,429	2.1	6.7	6,320	2.7	2.8
Navarra, Comunidad Foral de	355,779	2.3	3.3	4,982	2.2	0.8
País Vasco	1,474,109	9.5	1.6	19,675	8.5	0.5
Rioja, La	67,745	0.4	-2.5	1,261	0.5	-1.9

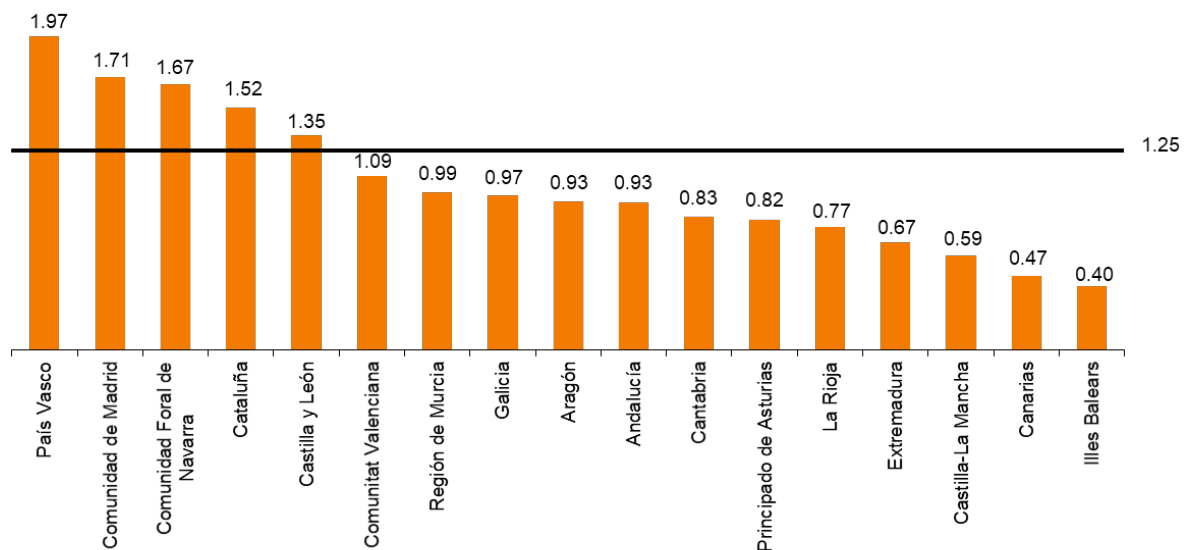
Ceuta and Melilla data are not included because of statistical secret

The Autonomous Communities with the highest percentage of internal R&D expenditure over GDP were País Vasco (1.97% of GDP), Comunidad de Madrid (1.71%) and Comunidad Foral de Navarra (1.67%).

In contrast, those with the lowest percentages were Illes Balears (0.40% of GDP), Canarias (0.47%) and Castilla-La Mancha (0.59%).

Spending on internal R&D over GDP at market prices by Autonomous Community

Year 2019. Percentage



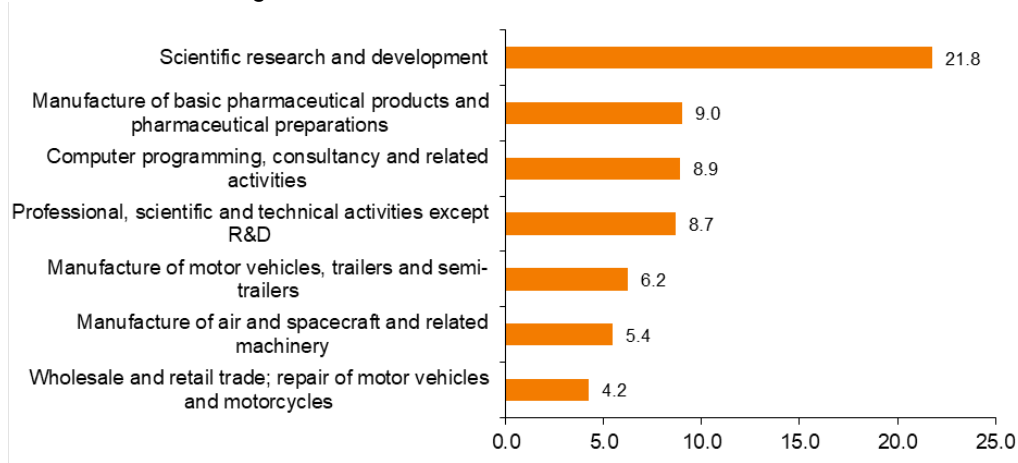
Distribution of internal R&D expenditure by branch of activity

Companies in the *Services* sector accounted for 51.1% of expenditure on business internal R&D in the year 2019, while those in *Industry* sector accounted for 46.5%.

By branches of activity, noteworthy were *R&D Services* (with 21.8% of total expenditure), *Pharmacy* (9.0%) and *Programming, consultancy and other computer activities* (8.9%).

Distribution of internal R&D expenditure by branch of activity

Year 2019. Percentage



Data Review and Update

The data published today are final. All results are available on INEBase.

Methodological note

The main objective of the Statistic on scientific research and technological development (R&D) activities is to measure the economic and human resources allocated to research by all the economic sectors into which the economy is divided (companies, general government, higher education and private non-profit institutions) for the purpose of:

- To provide an instrument for the management, planning, decision-making and control of national science policy.
- To provide statistical bodies with the information they request, obtained in accordance with international standards that allow comparability between countries.

Type of survey: annual continuous survey.

Population scope: companies, public bodies, universities and higher education institutions and private non-profit institutions that carry out R&D activities.

Geographical scope: the entire national territory.

Reference period of the results: year prior to the year of data collection.

Reference period of the information: for expenditure, the calendar year; for staff, the annual average and full-time equivalence (persons/year).

Sample size: 45.000 companies, 537 public administration centres (including public hospitals), 83 universities, 120 higher education centres and 116 private non-profit institutions.

Type of sampling: comprehensive for directory units and by random sampling of non-included companies.

Collection method: mixed system with mail and interviewer participation.

For more information you can access the methodology and the standardized methodological report at:

https://www.ine.es/dyngs/INEbase/en/operacion.htm?c=Estadistica_C&cid=1254736176754&menu=metodologia&idp=1254735576669

For further information see **INEbase:** www.ine.es/en/ Twitter: [@es_ine](https://twitter.com/es_ine)

All press releases at: www.ine.es/en/prensa/prensa_en.htm

Press Office: Telephone numbers: (+34) 91 583 93 63 /94 08 – gprensa@ine.es

Information Area: Telephone number: (+34) 91 583 91 00 – www.ine.es/infoine/?L=1
