

Domain: Research and development

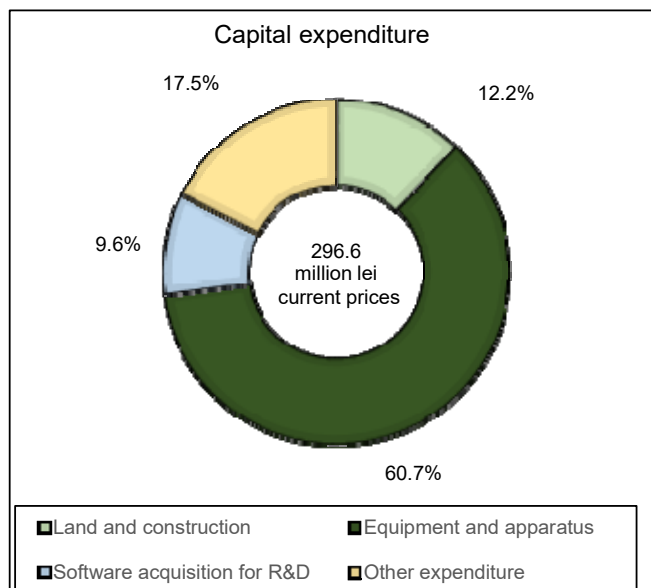
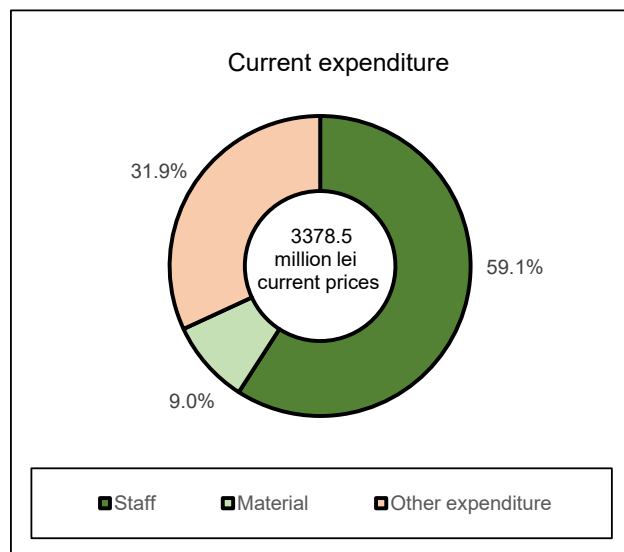
In 2016, the R&D expenses represented 0.48% of the GDP¹, of which 0.27% for the private sector and 0.21% for the public sector.

- ***In 2016, Romania spent 3675.1 million lei on the research and development activity.***
- ***At the end of 2016, 44386 employees were involved in the research and development activity, a slightly higher number than that recorded at the end of 2015.***

The expenditure on the research and development activity

In 2016, 3675.1 million lei were spent on the research and development activity, in its four sectors of performance², of which 3378.5 million lei (91.9%) were current expenditure and 296.6 million lei (8.1%) were capital expenditure.

The structure of the current and capital expenditure on the research and development activity, by components, in 2016



[Graph data in .xls format](#)

¹ Provisional data

² See the methodological note

In 2016, the **applied research expenditure** was 54.0% of the total expenditure on the research and development activity, 4.0 pp more compared to the expenditure of 2015. The share of the **basic research expenditure** in the total expenditure on the research and development activity decreased by 5.1 pp compared to 2015, namely from 30.0% to 24.9%. The **experimental development expenditure** increased by 1.1 pp, from 20.0% to 21.1%.

According to the breakdown by **sources of funds** of the research and development expenditure in 2016, the sources from enterprises had the highest share (47.6%), followed by public funds (39.6%).

Among the sectors of performance, the largest amounts from public funds were received by the units in the higher education sector (74.8%), followed by the units in the government sector (73.1%). The sources of funds for the research and development activity from abroad were mostly oriented towards the units in the business sector (57.5%), the government sector (29.2%) and the higher education sector (12.7%).

**Total research and development expenditure, by sources of funds
and by sectors of performance, in 2016**

- million lei current prices -

Sources of funds/ Sectors of performance	TOTAL	Business sector	Government sector	Higher education sector	Private non-profit sector
TOTAL	3675.1	2028.4	1222.4	415.8	8.5
Enterprises	1748.6	1563.6	157.5	25.9	1.6
Public funds	1454.8	246.8	893.6	310.8	3.6
Higher education units	36.4	6.4	2.8	26.5	0.7
Private non-profit	1.3	0.1	0.2	1.0	*)
Other	72.0	3.4	62.5	5.5	0.6
Abroad	362.0	208.1	105.8	46.1	2.0

*) below 0.05%

[Table data in .xls format](#)

The employees in the research and development activity

On December 31, 2016, 44386 employees were involved in the research and development activity. 20350 (45.8%) of them were women.

**The research and development employees, by sectors of performance,
in 2016 compared to 2015**

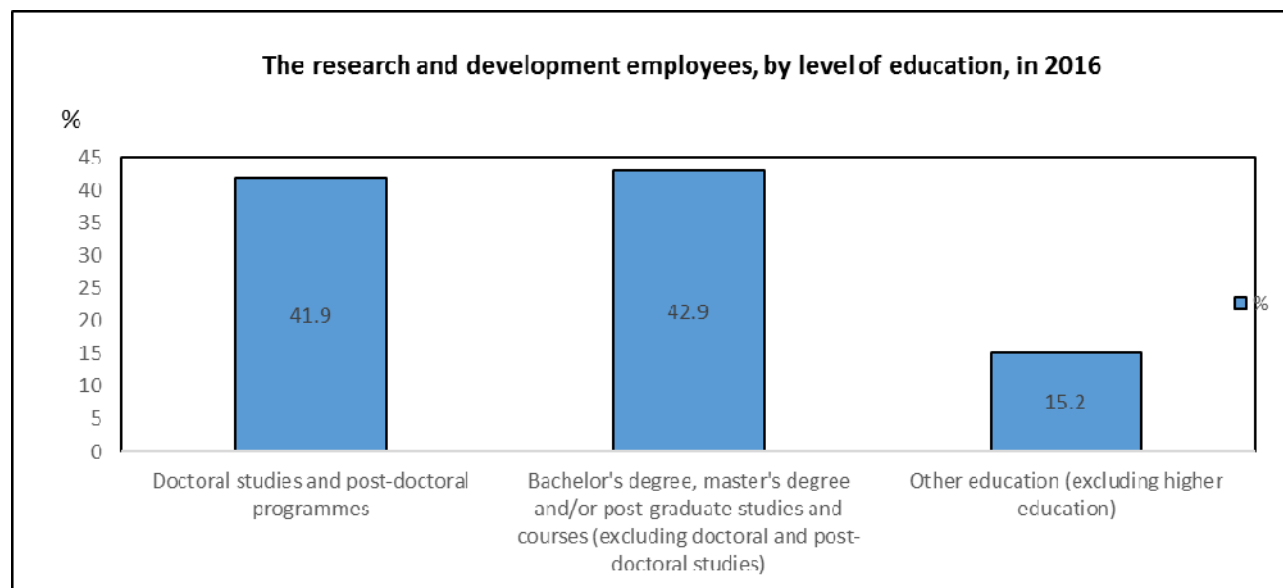
- number at the end of the year -

Sector of performance	2015		2016	
	Employees total	of which: women	Employees total	of which: women
TOTAL	43448	19913	44386	20350
Business sector	11646	4035	11963	4152
Government sector	12621	6242	13116	6436
Higher education sector	18883	9488	18965	9592
Private non-profit sector	298	148	342	170

[Table data in .xls format](#)

According to the breakdown by **level of education**, out of the total number of research and development employees at the end of 2016, 37643 had higher education (84.8% of the total) and 6743 had another level of education, higher education excluded (15.2%).

In 2016, the number of persons who had completed doctoral and post-doctoral studies and were involved in the research and development activity was 18605, an increase of 1338 persons compared to 2015. 8921 of the persons who had completed doctoral and post-doctoral studies were women.



[Graph data in .xls format](#)

Considering the **actual hours worked**, 72.6% of the employees who were involved in the research and development activity in 2016 had full-time jobs.

**The research and development employees, by sectors of performance,
in 2016 compared to 2015**

- full-time equivalent -

Sector of performance	2015		2016	
	Employees total	of which: women	Employees total	of which: women
TOTAL	31331	14006	32232	14462
Business sector	10128	3558	10785	3742
Government sector	12080	5973	12663	6226
Higher education sector	9008	4416	8627	4421
Private non-profit sector	115	59	157	73

[Table data in .xls format](#)

According to the breakdown by **occupation**, in 2016, the highest share of the research and development employees was that of the researchers, with 62.6% of the total, namely 27801 employees, an increase of 548 employees compared to 2015. The share of the “technicians and similar” category was 14.3%, namely 6332 employees.

**The research and development employees, by occupation,
in 2016 compared to 2015**

- number at the end of the year -

Employees in the research and development activity	2015		2016	
	Employees total	of which: women	Employees total	of which: women
TOTAL	43448	19913	44386	20350
Researchers	27253	12598	27801	12728
Technicians and similar	6126	2795	6332	2766
Other categories of employees	10069	4520	10253	4856

[Table data in .xls format](#)

Additional information:

For the accurate interpretation of indicators, kindly see the [Methodological Note attached to the press release on the homepage](#).

For more information, kindly see the statistical publication “The research and development activity in 2016”, date of issue November 28, 2017.

Press release archive: <http://www.insse.ro/cms/en/comunicate-de-presa-view>

Communication Directorate

E-mail: biroupresa@insse.ro

Tel: +4021 3181869