

Research and experimental development in Poland in 2024

23.10.2025

1.41%

R&D intensity indicator

In 2024, gross domestic expenditure on R&D (GERD) amounted to PLN 51.5 billion which is 3.1% less than in the previous year. R&D intensity indicator defining the share of intramural R&D expenditure in GDP amounted to 1.41% (in 2023 – 1.56%). Gross domestic expenditure on R&D per capita amounted to PLN 1 370 and was smaller by 2.7% than in the previous year. The number of R&D entities decreased by 3.7% in comparison to the previous year.

Table 1. Selected data on R&D

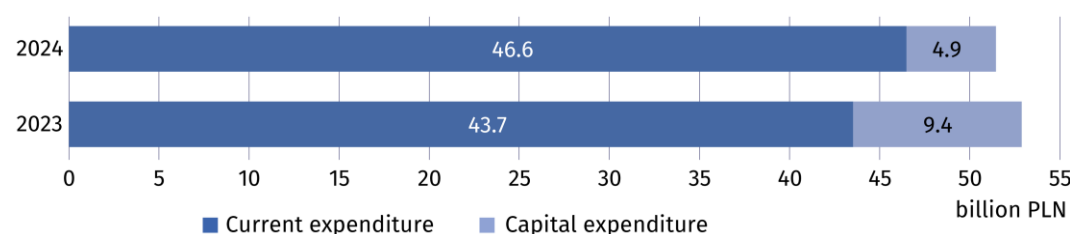
Specification	2016	2017	2018	2019	2020	2021	2022	2023	2024
Number of entities in R&D	4 871	5 102	5 779	5 863	6 381	7 370	7 431	7 549	7 272
Gross domestic expenditure on R&D (GERD) in million PLN	17 943	20 578	25 648	30 285	32 402	37 676	44 702	53 116	51 478
Relation of GERD to GDP in %	0.96 ^a	1.03 ^a	1.19 ^a	1.31 ^a	1.37 ^a	1.42 ^a	1.44 ^a	1.56	1.41

^a Data changed compared to previously published due to GDP revision.

INTRAMURAL EXPENDITURE ON RESEARCH AND DEVELOPMENT

The structure of intramural expenditure on R&D activities by type of costs was invariably dominated by current expenditure. Their share in all incurred expenditure on scientific research and experimental development amounted to 90.5%.

Chart 1. Intramural expenditure on R&D by type of costs



The highest intramural expenditure on research and experimental development among the sectors of performance was incurred by the business enterprise sector which allocated PLN 32.6 billion on conducting research and experimental development (5.0% less than a year earlier), which accounted for 63.3% of gross domestic expenditure on R&D (in 2023 64.6%). The higher education sector accounted for 34.4% of the total domestic expenditure on R&D, the government sector for 2.1% and the private non-profit sector for 0.2% (compared to 33.4%, 1.8% and 0.2% in 2023, respectively).

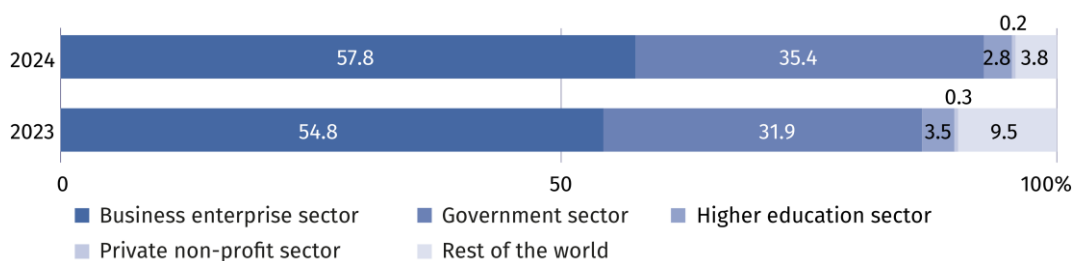
The business enterprise expenditure on R&D (BERD) accounted for 63.3% of gross domestic expenditure on R&D (GERD)

Table 2. Intramural expenditure on R&D by sectors of performance

Sectors of performance	2023	2024
	in million PLN	
Total (GERD)	53 115.9	51 478.1
Business enterprise (BERD)	34 288.7	32 584.7
Government (GOVERD)	962.0	1 076.3
Higher education (HERD)	17 751.4	17 718.9
Private non-profit (PNPERD)	113.8	98.2

As in the previous years, research and experimental development in Poland was mainly financed by the business enterprise and government sectors. In 2024, the funds from these sectors accounted for 57.8% and 35.4% of all intramural expenditure on R&D, respectively (compared to 54.8% and 31.9% in 2023).

Chart 2. Intramural expenditure on R&D by funding sectors

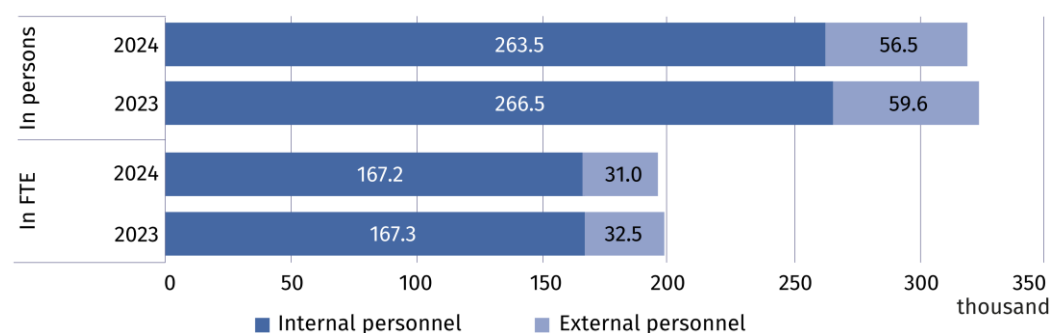


PERSONNEL IN RESEARCH AND DEVELOPMENT

The number of personnel involved in research and experimental development in 2024 amounted to 320.0 thousand persons, that is, it decreased by 1.9% less than compared to 2023. Actual involvement of R&D personnel in research and experimental development in full-time equivalents amounted to 198.2 thousand FTE, i.e. 0.8% less than a year earlier. R&D was mainly performed by internal personnel which accounted for 82.3% of personnel in headcount and 84.4% – in FTE in 2024 (in 2023 these shares amounted to 81.7% and 83.7%, respectively).

Internal personnel accounted for 84.4% of R&D personnel in FTE

Chart 3. R&D personnel by main groups



In the structure of persons engaged in research and experimental development by R&D functions, researchers consistently dominated, accounting for 69.2% of internal personnel and 68.6% of external personnel in headcount (compared to 69.1% and 68.3% in 2023). In FTE, researchers as the share of persons employed in R&D accounted for 72.9% and as the share of external contributors 69.9% (compared to 71.9% and 68.5% in 2023).

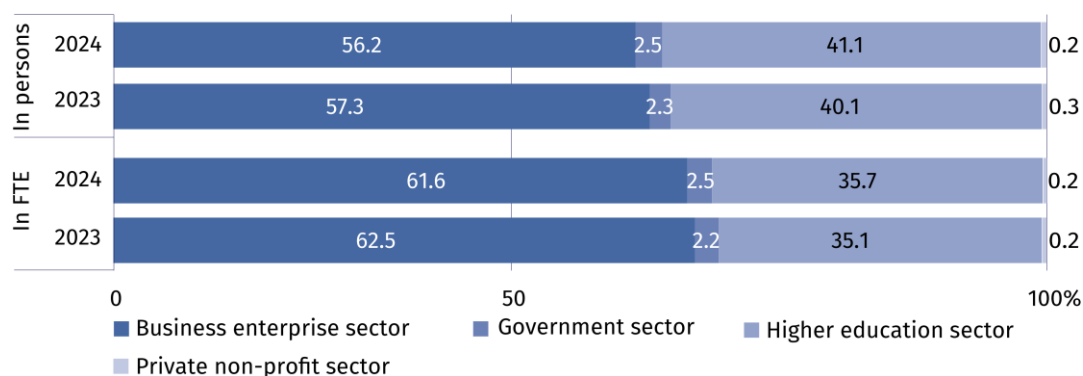
Table 3. Selected indicators on internal R&D personnel ^a

Specification	2016	2017	2018	2019	2020	2021	2022	2023	2024
per 1000 active population ^b									
Internal R&D personnel	6.6	7.1	7.8	8.1	8.6	9.0	9.5	9.4	9.4
of which researchers	5.2	5.7	5.8	5.9	6.2	6.5	6.9	6.8	6.9
per 1000 persons employed ^c									
Internal R&D personnel	7.0	7.5	8.1	8.4	8.8	9.3	9.8	9.7	9.7
of which researchers	5.5	6.0	6.1	6.1	6.4	6.8	7.1	7.0	7.1

a In full-time equivalents (FTE). b Active population aged 15–89 years according to the LFS – average annual data. c Persons employed aged 15–89 years according to the LFS – average annual data.

In the structure of internal R&D personnel by sectors of performance was dominated by persons employed in the business enterprise and higher education sectors. The percentage of internal personnel in these sectors accounted for 56.2% and 41.1% of total number of internal personnel engaged in conducting research and experimental development. On an annual basis, the number of person included in internal personnel decreased by 3.0% in the business enterprise sector and by 1.3% in the higher education sector. The highest value of full-time equivalent was noted in the business enterprise sector – 103.2 thousand FTE. i.e. 1.3% less than in 2023.

Chart 4. Internal R&D personnel by sectors of performance



In terms of education level, persons with other higher education dominated accounting for 55.7% of internal and 66.2% of external R&D personnel. Among internal R&D personnel 32.3% of persons held at least the scientific degree of doctor (PhD) and among external personnel – 18.7%.

Table 4. R&D personnel by educational level and main groups

Specification a – 2023 b – 2024		Total	With tertiary education				Persons with other educational level
			with professor title	with scientific degree of		other	
				habilitated doctor	doctor (PhD)		
		in headcount					
Total	a	326 075	150 94	25 167	55 629	188 693	41 492
	b	319 966	14 956	25 218	55 504	184 099	40 189
Internal personnel	a	266 452	11 916	22 234	50 412	150 103	31 787
	b	263 485	11 836	22 266	51 026	146 714	31 643
External personnel	a	59 623	3 178	2 933	5 217	38 590	9 705
	b	56 481	3 120	2 952	4 478	37 385	8 546

When citing data from the Central Statistical Office, please include the following information: "Source of CSO data", and in the case of publishing calculations made on the data published by the Central Statistical Office, please include the following information: "Own study based on GUS data".

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Related information

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Data available in databases

[Local Data Bank \(BDL\) – Science and Technology. Information society – Research and development](#)

[Macroeconomic Data Bank \(BDM\) – Research and experimental development, innovation activities of enterprises and information society](#)

[Knowledge Databases \(DBW\) – Science and technology](#)

[Strateg – Statistic by theme – Research and innovation](#)

Terms used in official statistics

[Research and experimental development \(R&D\)](#)

[Gross domestic expenditures on research and development \(GERD\)](#)

[Intramural expenditures on R&D](#)

[Basic research](#)

[Applied research](#)

[Experimental development](#)

[R&D personnel](#)

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