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Government expenditure on research and development in selected European countries, by various criteria

Budget appropriations							
Government expenditure on R&D	Year ¹	Germany	Finland	France	Ireland	Italy	Netherlands
1.a) Total R&D expenditure in Millions of US-\$ PPP ⁵	2019	47,363.6	2,431.1	22,922.0	1,010.1	15,195.0	7,343.6
	2020	52,588.0	2,850.7	24,541.9	1,117.8	17,428.7	8,108.2
	2021	57,624.1	2,855.9	25,748.1	1,260.2	18,909.4	9,334.6
	2022	61,996.1	3,121.4	26,551.9	1,306.0	21,561.3	10,369.2
	2023	63,466.9	-	-	-	-	12,296.4
1.b) Civil R&D expenditure in Millions of US-\$ PPP ⁵	2019	45,302.7	2,371.0	21,207.2	1,010.1	15,105.7	7,252.0
	2020	50,379.8	2,794.4	22,440.5	1,117.8	17,345.3	7,951.6
	2021	55,202.3	2,795.0	23,003.0	1,260.2	18,802.8	9,041.6
	2022	58,708.7	3,061.1	24,213.7	1,306.0	21,437.0	10,093.7
	2023	60,789.2	-	-	-	-	11,943.3
2. Average annual growth of R&D expenditure (in %) ⁶							
a) Total expenditure	2019 to						
	2023 (2022)	7.6	8.7	5.0	8.9	12.4	13.8
b) Civil R&D expenditure	2019 to						
	2023 (2022)	7.6	8.9	4.5	8.9	12.4	13.3
3. Total R&D expenditure per capita in US-\$ PPP ⁵	2019	570.0	440.3	338.3	205.0	254.4	423.4
	2020	632.4	515.4	360.9	224.4	293.2	464.9
	2021	692.6	515.4	377.3	251.1	319.8	532.4
	2022	739.8	561.7	387.8	255.3	365.4	585.8
	2023	751.0	-	-	-	-	687.8
4. Total R&D expenditure as a percentage of the nominal gross domestic product	2019	0.98	0.84	0.66	0.23	0.55	0.69
	2020	1.09	0.96	0.73	0.23	0.66	0.76
	2021	1.12	0.89	0.71	0.22	0.64	0.79
	2022	1.11	0.90	0.68	0.19	0.65	0.79
	2023	1.08	-	-	-	-	0.88
5. Average annual growth of the nominal gross domestic product ⁶	2019 to						
	2023 (2022)	4.9	5.5	4.8	10.6	5.6	7.2

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Budget appropriations							
Government expenditure on R&D	Year ¹	Austria ²	Portugal	Sweden ³	Spain	EU27 ⁴	United Kingdom
1.a) Total R&D expenditure in Millions of US-\$ PPP ⁵	2019	4,076.3	1,356.8	4,312.3	10,730.6	141,888.3	18,179.8
	2020	4,510.3	1,365.1	4,560.0	11,485.1	155,978.9	21,432.5
	2021	4,582.7	1,448.9	5,136.5	12,678.5	169,091.2	21,751.3
	2022	5,174.3	1,531.7	5,202.9	13,825.7	180,653.1	-
	2023	5,891.2	-	5,502.0	-	-	-
1.b) Civil R&D expenditure in Millions of US-\$ PPP ⁵	2019	4,068.9	1,352.9	4,190.6	10,570.6	137,077.5	16,645.6
	2020	4,503.6	1,361.8	4,445.1	11,327.0	150,617.0	19,787.7
	2021	4,576.7	1,445.0	5,023.6	12,536.4	162,590.0	18,895.8
	2022	5,164.6	1,527.6	5,076.5	13,467.7	173,389.5	-
	2023	5,881.8	-	5,281.4	-	-	-
2. Average annual growth of R&D expenditure (in %) ⁶							
a) Total expenditure	2019 to						
	2023 (2022)	9.6	4.1	6.3	8.8	9.4	8.4
b) Civil R&D expenditure	2019 to						
	2023 (2022)	9.6	4.1	6.0	8.4	6.5	8.1
3. Total R&D expenditure per capita in US-\$ PPP ⁵	2019	459.2	131.9	419.5	227.8	316.9	272.2
	2020	505.8	132.6	440.4	242.6	348.0	319.5
	2021	511.9	140.7	493.1	267.6	377.5	324.5
	2022	571.6	148.7	496.1	289.2	402.5	-
	2023	645.0	-	522.2	-	-	-
4. Total R&D expenditure as a percentage of the nominal gross domestic product	2019	0.76	0.35	0.73	0.52	0.66	0.54
	2020	0.86	0.37	0.76	0.62	0.74	0.67
	2021	0.81	0.36	0.78	0.61	0.73	0.61
	2022	0.81	0.33	0.73	0.59	0.70	-
	2023	0.87	-	0.74	-	-	-
5. Average annual growth of the nominal gross domestic product ⁶	2019 to						
	2023 (2022)	5.8	7.2	5.9	5.5	4.8	6.0

1 Some figures are revised, provisional, estimated or only partly comparable with figures from previous years (see original edition of "Main Science and Technology Indicators July 2024").

2 Definition differs.

3 Data exclude funding by public research foundations.

4 Status of EU membership as of February 2020 (excluding the United Kingdom). The results were calculated back to 2019.

5 Nominal expenditure converted into US dollar purchasing power parities.

6 The figures are based on years for that data are available.

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Source: OECD (Main Science and Technology Indicators July 2024) and calculations of the German Centre for Higher Education Research and Science Studies

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<https://www.govdata.de/dl-de/by-nc-1-0>