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Regional distribution of R&D expenditure in the Federal Republic of Germany (implementation) and of government R&D expenditure by the Länder (financing)

Land	Year	Implementation of R&D			Financing of R&D			
		Expenditure ¹		Share of gross domestic product ²	Expenditure ³		Share of gross domestic product ²	Per capita of the population ⁴
		Millions of €	In %	In %	Millions of €	In %	In %	€
Baden-Württemberg	2016	23,451	25.4	4.85	1,725	13.9	0.36	157
	2017	27,910	28.0	5.51	1,744	13.7	0.34	158
	2018	29,179	27.9	5.54	1,791	13.3	0.34	162
	2019	30,275	27.5	5.65	1,857	13.1	0.35	167
	2020	28,758	27.0	5.56	1,955	13.1	0.38	176
	2021	30,374	26.8	5.47	2,025	13.0	0.36	182
	2022	32,526	26.8	5.46	2,030	12.9	0.34	182
Bavaria	2016	18,059	19.6	3.08	2,013	16.3	0.34	156
	2017	18,704	18.8	3.04	2,060	16.2	0.34	159
	2018	19,689	18.8	3.13	2,248	16.8	0.36	172
	2019	21,706	19.7	3.33	2,402	17.0	0.37	183
	2020	21,000	19.7	3.31	2,519	16.9	0.40	192
	2021	22,560	19.9	3.34	2,465	15.8	0.37	187
	2022	24,388	20.1	3.37	2,663	16.9	0.37	203
Berlin	2016	4,552	4.9	3.34	811	6.6	0.59	227
	2017	4,758	4.8	3.30	774	6.1	0.54	214
	2018	5,111	4.9	3.36	805	6.0	0.53	221
	2019	5,237	4.8	3.28	845	6.0	0.53	230
	2020	5,135	4.8	3.23	953	6.4	0.60	260
	2021	5,537	4.9	3.23	978	6.3	0.57	266
	2022	5,771	4.8	3.13	1,028	6.5	0.56	283
Brandenburg	2016	1,159	1.3	1.69	273	2.2	0.40	109
	2017	1,195	1.2	1.66	281	2.2	0.39	112
	2018	1,220	1.2	1.65	292	2.2	0.40	116
	2019	1,358	1.2	1.76	292	2.1	0.38	116
	2020	1,379	1.3	1.81	307	2.1	0.40	121
	2021	1,387	1.2	1.71	322	2.1	0.40	127
	2022	1,495	1.2	1.67	354	2.2	0.40	139
Bremen	2016	912	1.0	2.86	149	1.2	0.47	220
	2017	909	0.9	2.77	144	1.1	0.44	211
	2018	947	0.9	2.84	156	1.2	0.47	229
	2019	1,006	0.9	3.01	165	1.2	0.49	242
	2020	1,196	1.1	3.69	176	1.2	0.54	259
	2021	1,117	1.0	3.15	179	1.1	0.50	264
	2022	1,183	1.0	3.05	189	1.2	0.49	271
Hamburg	2016	2,513	2.7	2.18	374	3.0	0.32	207
	2017	2,500	2.5	2.06	368	2.9	0.30	201
	2018	2,635	2.5	2.12	424	3.2	0.34	230
	2019	2,699	2.5	2.08	423	3.0	0.33	229
	2020	2,651	2.5	2.14	473	3.2	0.38	255
	2021	2,822	2.5	2.05	527	3.4	0.38	284
	2022	3,089	2.5	1.98	520	3.3	0.33	284
Hesse	2016	7,752	8.4	2.77	938	7.6	0.34	151
	2017	8,182	8.2	2.84	913	7.2	0.32	146
	2018	8,622	8.2	2.93	956	7.1	0.32	153
	2019	9,131	8.3	3.02	1,034	7.3	0.34	165
	2020	8,744	8.2	2.98	1,047	7.0	0.36	166
	2021	9,373	8.3	2.99	1,106	7.1	0.35	176
	2022	10,105	8.3	3.04	1,080	6.8	0.33	173

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		Expenditure ¹		Share of gross domestic product ²	Expenditure ³		Share of gross domestic product ²	Per capita of the population ⁴
		Millions of €	In %	In %	Millions of €	In %	In %	€
Mecklenburg-Western Pomerania	2016	759	0.8	1.82	216	1.7	0.52	134
	2017	785	0.8	1.74	222	1.7	0.49	138
	2018	810	0.8	1.79	232	1.7	0.51	144
	2019	846	0.8	1.75	259	1.8	0.54	161
	2020	842	0.8	1.78	260	1.7	0.55	161
	2021	882	0.8	1.76	279	1.8	0.56	173
	2022	942	0.8	1.69	312	2.0	0.56	198
Lower Saxony	2016	9,156	9.9	3.21	1,095	8.8	0.38	138
	2017	8,928	9.0	3.05	1,193	9.4	0.41	150
	2018	9,316	8.9	3.07	1,241	9.2	0.41	155
	2019	9,636	8.8	3.06	1,289	9.1	0.41	161
	2020	9,238	8.7	3.01	1,306	8.8	0.43	163
	2021	8,597	7.6	2.68	1,586	10.1	0.49	198
	2022	9,153	7.5	2.66	1,262	8.0	0.37	158
North Rhine-Westphalia	2016	13,231	14.4	1.99	2,597	21.0	0.39	145
	2017	14,336	14.4	2.07	2,704	21.3	0.39	151
	2018	15,189	14.5	2.12	2,908	21.7	0.41	162
	2019	15,528	14.1	2.12	3,107	22.0	0.42	173
	2020	15,237	14.3	2.12	3,315	22.3	0.46	185
	2021	16,386	14.5	2.17	3,232	20.7	0.43	180
	2022	17,628	14.5	2.18	3,463	21.9	0.43	193
Rhineland-Palatinate	2016	3,374	3.7	2.42	502	4.1	0.36	123
	2017	3,498	3.5	2.44	529	4.2	0.37	130
	2018	3,680	3.5	2.52	548	4.1	0.38	134
	2019	3,831	3.5	2.55	475	3.4	0.32	116
	2020	3,666	3.4	2.48	488	3.3	0.33	119
	2021	4,509	4.0	2.69	480	3.1	0.29	117
	2022	4,826	4.0	2.73	523	3.3	0.30	127
Saarland	2016	534	0.6	1.52	143	1.2	0.41	144
	2017	619	0.6	1.70	148	1.2	0.41	149
	2018	624	0.6	1.70	133	1.0	0.36	134
	2019	674	0.6	1.82	159	1.1	0.43	161
	2020	662	0.6	1.87	165	1.1	0.46	168
	2021	706	0.6	1.91	183	1.2	0.50	187
	2022	745	0.6	1.82	186	1.2	0.46	184
Saxony	2016	3,203	3.5	2.68	638	5.2	0.53	156
	2017	3,400	3.4	2.74	678	5.3	0.55	166
	2018	3,595	3.4	2.82	662	4.9	0.52	162
	2019	3,864	3.5	2.91	724	5.1	0.55	178
	2020	3,852	3.6	2.98	786	5.3	0.61	194
	2021	4,175	3.7	3.06	936	6.0	0.69	231
	2022	4,412	3.6	3.00	858	5.4	0.58	212
Saxony-Anhalt	2016	860	0.9	1.45	310	2.5	0.52	139
	2017	919	0.9	1.50	345	2.7	0.56	155
	2018	980	0.9	1.57	354	2.6	0.57	160
	2019	990	0.9	1.52	337	2.4	0.52	154
	2020	999	0.9	1.55	371	2.5	0.58	170
	2021	1,083	1.0	1.60	478	3.1	0.71	220
	2022	1,176	1.0	1.59	463	2.9	0.62	215

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		Millions of €	In %	In %	Millions of €	In %	In %	€
Schleswig-Holstein	2016	1,342	1.5	1.53	293	2.4	0.33	102
	2017	1,448	1.5	1.55	298	2.3	0.32	103
	2018	1,556	1.5	1.62	344	2.6	0.36	119
	2019	1,657	1.5	1.65	430	3.0	0.43	148
	2020	1,601	1.5	1.60	398	2.7	0.40	137
	2021	1,756	1.6	1.66	424	2.7	0.40	145
	2022	1,913	1.6	1.63	433	2.7	0.37	147
Thuringia	2016	1,225	1.3	2.04	302	2.4	0.50	140
	2017	1,362	1.4	2.19	318	2.5	0.51	148
	2018	1,424	1.4	2.25	326	2.4	0.52	152
	2019	1,489	1.4	2.29	339	2.4	0.52	159
	2020	1,529	1.4	2.39	374	2.5	0.59	177
	2021	1,822	1.6	2.72	436	2.8	0.65	207
	2022	1,960	1.6	2.74	414	2.6	0.58	195
Länder, total ⁵	2016	92,174	100.0	2.88	12,379	100.0	0.39	150
	2017	99,554	100.0	2.99	12,719	100.0	0.38	154
	2018	104,669	100.0	3.05	13,420	100.0	0.39	162
	2019	110,025	100.0	3.11	14,137	100.0	0.40	170
	2020	106,583	100.0	3.09	14,893	100.0	0.43	179
	2021	113,184	100.0	3.08	15,633	100.0	0.43	188
	2022	121,421	100.0	3.07	15,777	100.0	0.40	190

1 See also data portal Table 1.1.3.

2 Date of gross domestic product (GDP) calculations: February 2025 (source: "Regional Accounts"). Results of the national accounts general revision 2024 based on ESA 2010.

3 See also data portal Table 1.2.4.

4 Calculated using data on "Forttschreibung des Bevölkerungsstandes", reference day of population data: 31 December. Population data are based upon the Census.

5 Including non-apportionable funds. Deviations in the R&D ratio for Germany compared to Table 1.1.1 are possible, as Table 1.1.1 contains more recent GDP data for calculation purposes.

Last update: April 14, 2025

Source: Special evaluation of the Stifterverband Wissenschaftsstatistik and the Federal Ministry of Education and Research, Federal Statistical Office (special evaluation, GENESIS-Online database - 12411 Current updating of population figures); Working group "Regional Accounts", "Reihe 1, Länderergebnisse Band 1"; calculations of the German Centre for Higher Education Research and Science Studies

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<https://www.govdata.de/dl-de/by-2-0>