

Table 1356. Research and Development (R&D) Expenditures by Country

[Figures are for 2006 or latest year available. GDP = gross domestic product; for explanation, see text, Section 13]

Country	Gross domestic expenditure on R&D (GERD)			Government budget		Business enterprise							Higher education expenditure on R&D (HERD)		
	Percent of GDP	Percent financed by—		Per capita at current U.S. dollars, PPPs ¹	Percent of GDP	Percent defense R&D	Percent of GERD	Percent financed by—		Percent of R&D expenditure (BERD) performed in—				Percent of GERD	Percent of GDP
		Government	Industry					Government	Industry	High-tech industries ²	Medium high-tech industries ³	Medium low-tech and low-tech industries ⁴	Service industries		
OECD total	2.26	29.46	62.71	694	0.81	32.7	68.8	6.8	89.6	(NA)	(NA)	(NA)	(NA)	17.1	0.4
EU-15 ⁵	1.88	33.96	54.77	557	0.78	13.4	63.8	7.1	82.2	38.7	34.9	9.2	15.0	22.1	0.4
Australia ⁶	1.78	40.51	52.97	578	0.52	6.5	54.1	4.3	93.4	10.0	11.7	16.9	39.7	26.8	0.5
Austria ⁶	2.45	36.58	46.35	875	0.68	(Z)	67.8	6.4	67.2	31.0	27.8	12.9	27.4	26.7	0.7
Belgium	1.83	24.65	59.68	614	0.61	0.3	67.9	6.5	82.5	41.2	23.7	15.7	17.0	22.3	0.4
Brazil	1.02	57.88	39.38	92	0.53	1.2	47.9	0.8	99.2	(NA)	(NA)	(NA)	(NA)	38.4	0.3
Canada ⁶	1.94	32.68	47.97	714	0.57	3.6	54.7	2.7	81.6	32.4	9.1	11.0	41.9	35.5	0.7
China ^{7, 8}	1.42	24.71	69.05	66	(NA)	(NA)	71.1	4.5	91.2	(NA)	(NA)	(NA)	(NA)	9.2	0.1
Czech Republic	1.54	38.97	56.91	340	0.61	2.8	66.2	13.6	83.7	22.3	35.6	8.7	31.8	15.9	0.3
Denmark	2.43	27.58	59.53	856	0.79	0.6	66.6	2.4	86.0	39.4	16.2	8.5	35.0	26.1	0.6
Finland	3.45	25.11	66.56	1,129	0.98	2.4	71.3	3.7	89.9	63.8	13.5	12.1	8.2	18.7	0.7
France	2.11	38.39	52.24	856	0.77	22.4	63.3	10.1	80.8	44.6	29.9	11.5	8.4	18.2	0.4
Germany	2.53	28.38	67.57	810	0.76	6.4	69.9	4.5	92.0	29.6	52.2	8.3	9.4	16.3	0.4
Greece	0.57	46.82	31.06	156	0.29	0.5	30.0	5.6	85.7	21.8	13.8	17.2	44.9	47.8	0.3
Hungary	1.00	44.77	43.30	182	0.37	0.1	48.3	8.4	75.6	53.7	16.0	6.6	21.4	24.4	0.2
Ireland	1.32	30.13	59.26	539	0.53	—	67.5	3.9	86.5	48.0	9.0	9.3	33.6	26.0	0.3
Italy	1.09	50.68	39.66	304	0.61	1.4	50.4	9.7	79.2	33.1	29.1	8.0	26.8	30.2	0.3
Japan	3.39	16.18	77.07	1,086	0.68	5.1	77.2	1.0	98.5	44.7	40.4	2.9	10.4	12.7	0.4
Korea, South	3.23	23.07	75.45	743	0.91	16.6	77.3	4.7	94.8	53.8	27.9	8.3	7.1	10.0	0.3
Mexico	0.50	45.34	46.49	57	0.21	—	49.5	5.7	92.6	9.7	21.8	35.1	32.6	27.4	0.1
Netherlands	1.67	36.23	51.06	609	0.71	2.0	57.6	3.4	81.6	40.9	27.8	8.5	17.4	28.1	0.5
Norway	1.52	43.99	46.41	791	0.70	5.6	54.2	10.5	80.7	12.6	16.3	12.6	50.3	30.2	0.5
Poland	0.56	57.45	33.05	82	0.32	0.9	31.5	12.3	80.9	13.9	23.7	9.1	50.6	31.0	0.2
Portugal	0.83	55.20	36.27	174	0.76	0.7	41.7	4.2	91.4	17.6	17.6	10.9	44.0	35.4	0.3
Russia	1.08	61.10	28.81	141	0.36	52.1	66.7	52.0	35.7	7.7	5.1	3.4	78.6	6.1	0.1
South Africa	0.92	38.19	43.87	78	(NA)	(NA)	58.3	16.2	68.3	(NA)	(NA)	(NA)	36.4	19.3	0.2
Spain	1.20	42.49	47.07	354	1.00	16.6	55.5	14.4	79.0	20.5	18.8	15.1	41.8	27.6	0.3
Sweden	3.73	23.50	65.70	1,301	0.85	16.8	74.9	4.2	87.1	38.7	29.8	5.2	24.8	20.4	0.8
Switzerland	2.90	22.71	69.73	1,003	0.69	0.6	73.7	1.5	90.9	(NA)	(NA)	(NA)	19.6	22.9	0.7
Turkey	0.76	48.63	46.05	67	(NA)	(NA)	37.0	8.7	90.0	16.3	42.0	14.5	25.8	51.3	0.4
United Kingdom	1.78	31.87	45.20	588	0.74	28.3	61.7	7.6	69.4	49.0	18.8	7.6	23.2	26.1	0.5
United States^{6, 9, 10}	2.62	29.34	64.89	1,146	1.02	58.3	70.3	9.3	90.7	40.3	16.6	6.4	36.1	14.3	0.4

— Represents zero. NA Not available or not applicable. Z Less than 0.05 percent. ¹ Purchasing power parities. See headnote, Table 1313. ² Aerospace; office and computing equipment; pharmaceuticals; radio, TV, and communication equipment; medical, precision and optical instruments. ³ Motor vehicles; chemicals; electrical machinery; other transport; machinery and equipment. ⁴ Rubber and plastics; nonmetallic mineral products; shipbuilding; ferrous and nonferrous metals; metal products; petroleum; other manufacturing industries. ⁵ See footnote 2, Table 1336. ⁶ Government budget appropriations for R&D: federal government only. ⁷ See footnote 4, Table 1296. ⁸ Percent of GERD/BERD financed by government or industry: the sum of the breakdown does not add to the total. ⁹ GERD, BERD: Excluding most or all capital expenditures. ¹⁰ HERD: Excluding most or all capital expenditures.