

## TABLE 4-12 🏢

## Business expenditures for R&D, by selected countries and top R&D-performing industries: 2014 or most recent year

(PPP millions of current dollars and percent share)

Industry	ISIC Rev.4		United	France	Germany	United	China	Japan	South
	Section	Division	States (2014)	(2013)	(2014)	Kingdom (2014)	(2014)	(2014)	Korea (2014
			PPP curre	ent \$million	S				
Total business enterprise	A-U	1–99	340,728	35,956	72,425	28,151	275,257	129,062	58,15
Manufacturing	С	10–33	232,815	18,255	62,877	10,993	242,975	111,666	51,70
Chemicals and chemical products		20	9,688	1,106	4,611	517	22,477	7,157	2,77
Pharmaceuticals, medicinal chemical, and botanical products		21	56,612	943	5,127	565	10,679	14,205	1,30
Computer, electronic, and optical products		26	73,891	4,296	9,539	1,421	42,724	27,427	30,92
Motor vehicles, trailers, and semi-trailers		29	18,404	2,233	24,992	2,848	21,537	32,485	6,85
Other transport equipment		30	28,342	3,969	2,628	2,246	11,659	852	88
Air and spacecraft and related machinery		303	26,181	3,651	2,289	2,108	NA	468	8
Total services	G-U	45-99	102,039	16,630	9,008	16,580	NA	15,956	4,80
Information and communication	J	58-63	74,792	4,256	4,103	4,145	NA	6,539	2,49
Publishing activities		58	36,140	1,094	NA	117	NA	9	1,61
Software publishing		582	36,052	1,076	NA	51	NA	NA	1,60
Computer programming, consultancy, and related activities		62	11,019	1,984	3,459	2,309	NA	2,629	22



Industry	ISIC Rev.4		United	France	Germany	United	China	Japan	South
	Section	Division	States (2014)	(2013)	(2014)	Kingdom (2014)	(2014)	(2014)	Korea (2014)
Professional, scientific, and technical activities	М	69–75	19,956	9,785	3,982	9,837	NA	8,152	1,228
Scientific R&D		72	12,807	4,213	2,215	7,025	NA	7,442	348
		Perce	entage of tota	l business	enterprise				
Total business enterprise	A–U	1–99	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Manufacturing	с	10-33	68.3	50.8	86.8	39.0	88.3	86.5	88.9
Chemicals and chemical products		20	2.8	3.1	6.4	1.8	8.2	5.5	4.8
Pharmaceuticals, medicinal chemical, and botanical products		21	16.6	2.6	7.1	2.0	3.9	11.0	2.3
Computer, electronic, and optical products		26	21.7	11.9	13.2	5.0	15.5	21.3	53.2
Motor vehicles, trailers, and semi-trailers		29	5.4	6.2	34.5	10.1	7.8	25.2	11.8
Other transport equipment		30	8.3	11.0	3.6	8.0	4.2	0.7	1.
Air and spacecraft and related machinery		303	7.7	10.2	3.2	7.5	NA	0.4	0.2
Total services	G-U	45-99	29.9	46.3	12.4	58.9	NA	12.4	8.3
Information and communication	J	58-63	22.0	11.8	5.7	14.7	NA	5.1	4.3
Publishing activities		58	10.6	3.0	NA	0.4	NA	0.0	2.8
Software publishing		582	10.6	3.0	NA	0.2	NA	NA	2.8
Computer programming, consultancy, and related activities		62	3.2	5.5	4.8	8.2	NA	2.0	0.
Professional, scientific, and technical activities	М	69-75	5.9	27.2	5.5	34.9	NA	6.3	2.
Scientific R&D		72	3.8	11.7	3.1	25.0	NA	5.8	0.0



NA = not available.

ISIC Rev.4 = International Standard Industrial Classification of All Economic Activities, Revision 4; PPP = purchasing power parity.

## Note(s)

Detail may not add to total because of rounding. Industry classifications for all countries are based on main activity. The U.S. business R&D data are from the U.S. Business R&D and Innovation Survey 2014 (cross-walked to the ISIC Rev. 4 classifications). In general, the table includes industries with annual R&D expenditures of \$10 billion or more (i.e., each country's largest R&D performers). See the Organisation for Economic Co-operation and Development's (OECD's) ANalytic Business Enterprise Research and Development (ANBERD) database for a more detailed set of industries by country (source as below).

## Source(s)

OECD, ANBERD database, Statistical Analysis Database, R&D Expenditures in Industry, https://stats.oecd.org/Index.aspx? DataSetCode=ANBERD\_REV4, accessed 25 January 2016.

Science and Engineering Indicators 2018