

TABLE 24

**Foreign R&D paid for by the company and others and performed by the company, by type of R&D and selected industry and location: 2017**

(Millions of U.S. dollars)

Industry and location	NAICS code	Total foreign R&D performance	Research (basic and applied)	Development
<b>All locations</b>				
All industries	21-23, 31-33, 42-81	87,528	17,141	70,387
Manufacturing industries	31-33	57,270	11,986	45,284
Chemicals	325	14,450	3,976	10,474
Pharmaceuticals and medicines	3254	11,976	3,252	8,725
Computer and electronic products	334	22,648	4,681	17,967
Semiconductor and other electronic components	3344	10,898	2,079	8,818
Nonmanufacturing industries	21-23, 42-81	30,258	5,155	25,103
Information	51	14,646	1,236	13,410
Software publishers	5112	8,824	807	8,017
Professional, scientific, and technical services	54	11,064	2,301	8,763
Scientific R&D services	5417	7,124	1,549	5,574
<b>Africa</b>				
All industries	21-23, 31-33, 42-81	318	48	270
Manufacturing industries	31-33	148	32	116
Chemicals	325	62	19	43
Pharmaceuticals and medicines	3254	49	16	33
Computer and electronic products	334	8	1	7
Semiconductor and other electronic components	3344	4	*	4
Nonmanufacturing industries	21-23, 42-81	170	16	154
Information	51	54	3	50
Software publishers	5112	15 - 20	0 - 4	16
Professional, scientific, and technical services	54	98	3	94
Scientific R&D services	5417	90	2	87
<b>Asia and Pacific</b>				
All industries	21-23, 31-33, 42-81	27,781	4,982	22,798
Manufacturing industries	31-33	18,133	3,573	14,560
Chemicals	325	2,808	832	1,976
Pharmaceuticals and medicines	3254	2,266	716	1,550
Computer and electronic products	334	9,511	1,794	7,717
Semiconductor and other electronic components	3344	5,159	893	4,266
Nonmanufacturing industries	21-23, 42-81	9,648	1,410	8,238
Information	51	5,319	457	4,863
Software publishers	5112	3,952	371	3,581
Professional, scientific, and technical services	54	2,720	416	2,304
Scientific R&D services	5417	1,559	180	1,380
<b>Canada</b>				
All industries	21-23, 31-33, 42-81	5,375	1,100	4,275
Manufacturing industries	31-33	2,962	589	2,373
Chemicals	325	522	117	405
Pharmaceuticals and medicines	3254	456	108	347
Computer and electronic products	334	1,546	329	1,217
Semiconductor and other electronic components	3344	613	93	520
Nonmanufacturing industries	21-23, 42-81	2,413	511	1,902
Information	51	1,356	135	1,221
Software publishers	5112	1,046	113	933
Professional, scientific, and technical services	54	793	272	522
Scientific R&D services	5417	372	203	170
<b>Europe</b>				

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All industries	21-23, 31-33, 42-81	43,036		8,776	i	34,260	
Manufacturing industries	31-33	28,172		5,995	i	22,177	
Chemicals	325	9,830		2,682	i	7,149	
Pharmaceuticals and medicines	3254	8,351		2,182	i	6,169	
Computer and electronic products	334	7,300		1,495	i	5,804	i
Semiconductor and other electronic components	3344	3,153		659	i	2,493	i
Nonmanufacturing industries	21-23, 42-81	14,864		2,780	i	12,084	i
Information	51	6,762		553		6,210	i
Software publishers	5112	3,253		280		2,973	
Professional, scientific, and technical services	54	6,115		1,437		4,677	i
Scientific R&D services	5417	4,700	i	1,128		3,571	i
<b>Latin America and Other Western Hemisphere</b>							
All industries	21-23, 31-33, 42-81	4,367		1,002	i	3,365	i
Manufacturing industries	31-33	3,554		879	i	2,676	i
Chemicals	325	838		213	i	625	i
Pharmaceuticals and medicines	3254	598		155	i	443	i
Computer and electronic products	334	1,189	i	369	i	820	i
Semiconductor and other electronic components	3344	296		84	i	213	i
Nonmanufacturing industries	21-23, 42-81	813		123	i	690	i
Information	51	275		22		253	
Software publishers	5112	132		8		124	
Professional, scientific, and technical services	54	402	i	52	i	350	i
Scientific R&D services	5417	331	i	27		304	i
<b>Middle East</b>							
All industries	21-23, 31-33, 42-81	4,551		760	i	3,792	i
Manufacturing industries	31-33	3,164		569	i	2,595	i
Chemicals	325	239		64	i	176	
Pharmaceuticals and medicines	3254	222		61	i	161	
Computer and electronic products	334	2,392		442	i	1,950	i
Semiconductor and other electronic components	3344	1,584		331	i	1,252	i
Nonmanufacturing industries	21-23, 42-81	1,387		191	i	1,197	
Information	51	743		51		692	
Software publishers	5112	419		34		385	
Professional, scientific, and technical services	54	522		82		441	
Scientific R&D services	5417	70	i	9		60	i
<b>Puerto Rico<sup>a</sup></b>							
All industries	21-23, 31-33, 42-81	437		187		250	
Manufacturing industries	31-33	418		186		232	
Chemicals	325	75		38		36	i
Pharmaceuticals and medicines	3254	33		8 - 17		16 - 25	i
Computer and electronic products	334	263 - 344		89 - 149		115 - 197	
Semiconductor and other electronic components	3344	3		1	i	2	i
Nonmanufacturing industries	21-23, 42-81	18		1	i	18	i
Information	51	0 - 18		0 - 1	i	0 - 18	i
Software publishers	5112	0 - 9		*		0 - 8	
Professional, scientific, and technical services	54	0 - 18	i	0		0 - 18	i
Scientific R&D services	5417	1	i	0		1	i

\* = amount &lt; \$500,000; i = &gt; 50% of the estimate is a combination of imputation and reweighting to account for nonresponse.

NAICS = 2012 North American Industry Classification System.

<sup>a</sup> Puerto Rico is not included in the U.S. total due to its classification as a U.S. territory.

**Note(s)**

Detail within a select location may not add to total because of rounding. Sum of locations do not equal all locations due to the undistributed portion not being published. Industry classification is based on the dominant business code for domestic R&D performance, where available. For companies that did not report business codes, the classification used for sampling was assigned. Statistics are representative of companies located in the United States that performed foreign R&D. An estimate range may be displayed in place of a single estimate to avoid disclosing operations of individual companies.

**Source(s)**

National Center for Science and Engineering Statistics and U.S. Census Bureau, Business Research and Development Survey, 2017.