

Table SKTI-19

Value added of scientific research and development industry, by region, country, or economy: 2002–19

(Millions of current dollars)

Region, country, or economy	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
World	218,319	244,695	277,119	298,306	324,684	371,645	415,364	414,725	459,522	517,504	533,916	564,963	602,459	574,171	581,859	632,846	685,477	701,348
North America	74,773	75,136	76,699	79,342	80,223	80,366	89,725	90,894	95,766	102,061	102,635	104,628	109,880	121,228	119,057	122,634	134,698	145,647
Canada	2,147	2,564	2,944	3,368	3,852	4,473	4,660	4,471	4,832	5,556	5,356	5,553	5,307	4,464	4,326	4,636	4,826	4,876
Mexico	1,117	1,252	1,222	1,388	1,369	1,477	1,550	1,401	1,716	1,757	1,705	1,311	1,433	1,335	1,224	1,289	1,318	1,422
United States	71,509	71,320	72,533	74,586	75,002	74,416	83,515	85,022	89,218	94,748	95,574	97,764	103,140	115,428	113,507	116,709	128,554	139,349
Central and South America	5,611	5,519	6,482	7,365	8,653	10,964	13,383	14,384	16,254	19,355	21,805	23,119	22,768	23,896	20,102	23,376	22,703	20,659
Argentina	1,611	1,803	2,257	2,707	3,173	4,019	4,977	5,032	5,943	7,133	7,802	8,339	7,500	8,786	7,740	9,270	7,440	6,244
Brazil	316	280	375	554	790	1,199	1,436	1,477	1,725	2,145	2,171	1,920	2,091	1,615	1,627	2,006	1,712	1,601
Chile	38	34	46	54	71	84	95	107	123	150	173	187	139	221	253	267	289	265
Colombia	978	931	1,147	1,124	1,295	1,757	2,129	2,274	2,940	3,440	4,030	4,383	4,813	3,594	3,330	3,583	3,863	3,742
Peru	477	464	500	541	611	721	918	969	1,183	1,356	1,583	1,727	1,705	1,622	1,615	1,779	1,878	1,999
Other Central and South America	2,191	2,007	2,158	2,384	2,713	3,183	3,827	4,526	4,340	5,131	6,045	6,562	6,520	8,058	5,536	6,471	7,522	6,808
Europe	78,169	96,307	114,398	120,410	129,571	153,670	170,637	158,570	169,039	184,295	179,760	196,321	197,844	167,471	169,092	185,195	197,704	202,293
EU	58,286	72,792	84,040	87,460	92,832	107,897	119,328	114,262	115,082	123,571	117,558	129,388	132,170	115,964	119,861	130,842	141,219	142,878
France	21,929	26,570	30,046	30,428	31,938	36,478	40,338	39,845	39,503	42,738	40,479	43,417	44,512	37,186	37,775	40,636	44,068	45,161
Germany	12,733	16,100	17,981	18,265	18,399	21,370	23,890	23,528	22,905	25,007	24,535	26,693	27,624	25,251	25,124	27,618	29,255	28,590
Italy	11,224	14,271	16,390	17,290	18,914	21,380	23,188	21,990	21,406	21,908	20,272	21,111	20,661	17,361	17,263	18,057	19,276	20,204
Spain	2,276	2,953	3,385	3,712	4,002	4,640	5,367	5,392	5,472	6,210	6,035	6,453	6,573	5,756	5,602	5,893	6,426	6,408
Other EU	10,123	12,898	16,237	17,764	19,579	24,029	26,545	23,507	25,797	27,708	26,237	31,714	32,800	30,409	34,097	38,637	42,194	42,515
Non-EU	19,883	23,515	30,358	32,950	36,739	45,772	51,309	44,308	53,957	60,724	62,202	66,933	65,674	51,507	49,232	54,353	56,485	59,415
United Kingdom	11,161	12,959	16,766	17,646	18,122	22,484	22,101	17,853	20,600	19,903	18,792	15,754	17,858	17,837	16,972	17,908	19,398	20,291
Russia	4,038	5,048	6,908	7,973	10,566	13,054	17,237	14,574	20,309	26,823	28,163	34,728	31,864	18,576	17,409	20,906	21,566	22,772
Switzerland	2,409	2,694	3,043	3,051	3,000	3,259	3,545	4,034	4,149	4,682	4,753	4,970	5,254	5,100	5,024	5,137	5,399	5,450
Other non-EU	2,276	2,814	3,642	4,280	5,051	6,975	8,427	7,848	8,899	9,317	10,493	11,483	10,698	9,994	9,827	10,402	10,122	10,902
Middle East	5,696	6,466	7,591	8,658	10,537	13,679	16,119	16,817	18,430	20,422	17,348	18,339	21,622	22,338	23,298	24,469	22,128	22,107
Iran	2,027	2,453	2,974	3,546	4,510	6,202	7,454	8,327	9,385	10,373	5,689	5,321	6,862	7,222	7,839	8,281	5,104	3,998
Israel	1,100	1,195	1,293	1,379	1,565	1,755	2,111	2,019	2,254	2,595	3,109	3,393	4,226	4,035	3,980	4,395	4,768	5,255
Saudi Arabia	867	903	1,009	1,105	1,218	1,348	1,536	1,823	2,006	2,171	2,677	3,097	3,345	3,454	3,551	3,735	4,005	4,361
United Arab Emirates	1,316	1,512	1,840	2,102	2,473	3,362	3,842	3,405	3,516	3,717	4,094	4,516	4,976	5,278	5,483	5,801	5,919	6,126
Other Middle East	387	403	475	526	770	1,012	1,177	1,243	1,269	1,565	1,779	2,012	2,213	2,349	2,444	2,257	2,332	2,368
Africa	2,860	3,810	5,308	6,731	7,825	9,189	10,044	10,546	12,232	15,097	16,115	16,573	17,846	16,677	15,463	14,907	16,087	16,856
Egypt	275	221	211	295	362	432	505	608	691	1,738	2,303	2,295	2,469	2,611	2,318	1,661	2,060	2,581
Nigeria	255	283	1,087	1,911	2,599	3,292	4,009	3,635	4,076	5,061	6,118	6,938	7,964	7,455	6,532	5,705	5,898	6,112
South Africa	1,180	1,884	2,394	2,759	2,881	3,118	2,922	3,535	4,637	5,145	4,513	4,117	4,083	3,681	3,416	4,096	4,396	4,289
Other Africa	1,149	1,421	1,616	1,767	1,983	2,347	2,608	2,767	2,828	3,153	3,180	3,223	3,329	2,930	3,197	3,445	3,733	3,875
Asia	45,566	49,872	56,788	64,302	74,878	87,453	97,466	105,125	124,597	148,499	167,203	179,144	207,023	200,947	211,251	235,168	264,989	267,612

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(Millions of current dollars)

Region, country, or economy	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
China	9,445	9,444	11,148	14,332	17,805	23,183	29,422	37,390	44,646	57,632	70,568	77,192	87,091	94,168	94,340	105,992	124,724	123,580
India	2,617	3,092	3,851	4,636	5,385	7,049	8,234	9,312	11,940	13,840	17,654	20,780	25,197	27,198	32,125	37,874	40,978	43,186
Indonesia	660	851	949	1,076	1,370	1,547	1,737	1,920	2,578	3,071	3,179	3,165	3,155	3,176	3,558	4,006	4,252	4,917
Japan	13,961	14,708	15,703	14,216	13,592	13,461	15,913	16,320	17,478	19,798	19,105	15,540	14,992	13,343	15,472	14,854	15,411	15,745
Malaysia	459	494	530	726	810	975	1,126	1,209	1,498	1,712	1,899	2,072	2,184	2,082	2,145	2,298	2,729	2,707
Philippines	711	738	805	920	1,118	1,389	1,670	1,760	2,075	2,392	2,786	2,625	2,668	2,775	3,351	3,472	3,747	4,210
Singapore	699	737	781	870	1,035	1,278	1,625	1,688	2,171	2,680	2,954	3,221	3,366	3,187	3,298	3,475	3,752	3,852
South Korea	12,849	15,147	17,745	21,417	25,847	29,632	28,103	25,758	31,000	34,579	34,903	39,338	51,972	38,106	39,073	43,175	48,027	47,732
Taiwan	1,950	2,174	2,457	2,861	3,318	3,637	3,919	3,884	4,400	4,979	5,301	5,646	6,045	6,100	6,381	7,072	7,517	7,676
Thailand	791	930	1,110	1,262	1,480	1,822	1,997	1,780	2,214	2,518	3,020	3,156	2,967	2,736	2,595	2,925	3,491	3,637
Vietnam	212	231	259	282	313	365	461	506	544	614	712	816	874	909	966	1,022	1,098	1,166
Other Asia	1,213	1,327	1,450	1,703	2,803	3,115	3,261	3,597	4,055	4,683	5,122	5,592	6,513	7,166	7,946	9,002	9,263	9,204
Oceania	5,643	7,586	9,852	11,498	12,999	16,324	17,988	18,389	23,203	27,776	29,051	26,839	25,475	21,615	23,595	27,097	27,169	26,174
Australia	5,592	7,522	9,777	11,414	12,902	16,150	17,831	18,248	23,023	27,532	28,789	26,671	25,349	21,507	23,455	26,825	27,080	26,082
New Zealand	51	64	75	84	97	173	157	141	180	244	262	168	126	108	140	272	89	92

EU = European Union.

Note(s):

Value added is the amount contributed by a country, an industry, or other entity to the value of a good or service and excludes purchases of domestic and imported materials and inputs. Detail may not add to total because of rounding. The world total and regional totals do not include all countries and economies due to limitations in data availability. See Table SKTI-4 for a full list of countries and economies in each region for which data are available. China includes Hong Kong. The EU total excludes the United Kingdom (UK) to reflect the new EU country composition following the UK's withdrawal on 1 February 2020. In order to maintain consistency over time, the EU aggregate excludes the UK for the entire time series.

Source(s):

U.S. Bureau of Economic Analysis, Value Added by Industry, accessed 5 October 2021; IHS Markit, special tabulations (2021) of the Comparative Industry Service.

Science and Engineering Indicators