



APPENDIX TABLE 8-19

USPTO patents granted in optics, by region, country, or economy: 2000–16

(Number)

Region, country, or economy	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
World	7,596	7,898	8,165	9,018	9,633	8,459	9,695	8,787	9,007	9,357	11,188	11,048	11,137	11,611	12,422	12,354	12,088
North America	2,768	3,018	3,167	3,509	3,555	3,138	3,324	2,890	2,725	2,590	2,953	2,620	2,673	2,773	2,926	2,884	2,954
Canada	93	90	107	136	125	104	112	100	104	110	132	126	129	121	144	128	140
Mexico	0	1	4	2	1	2	1	2	1	1	0	1	4	3	5	5	6
Puerto Rico	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
United States	2,674	2,926	3,056	3,371	3,429	3,032	3,211	2,787	2,620	2,479	2,821	2,493	2,540	2,648	2,777	2,751	2,808
All others	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Central and South America	2	3	2	1	2	1	2	0	1	1	1	1	2	4	3	5	4
Argentina	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0
Brazil	2	2	1	1	0	0	2	0	1	1	1	0	0	3	2	2	3
All others	0	0	1	1	1	1	0	0	0	0	0	1	1	1	1	3	1
Europe	798	861	822	938	1,004	817	971	835	919	827	946	866	898	1,044	1,113	1,110	1,099
EU	753	806	769	881	927	753	913	793	869	785	888	820	857	978	1,049	1,040	1,030
Austria	13	13	10	10	12	9	14	8	8	6	14	16	13	13	16	17	18
Belgium	83	62	43	43	32	20	30	20	20	13	24	18	18	23	31	30	39
Denmark	4	8	6	12	16	11	6	13	9	13	10	9	6	10	10	15	11



Region, country, or economy	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Finland	3	8	3	5	9	11	7	15	9	13	21	9	11	12	12	18	20
France	111	121	92	128	115	81	81	66	58	77	95	93	112	123	130	125	119
Germany	260	304	325	363	393	342	353	293	339	294	331	314	343	395	417	425	406
Hungary	0	2	0	1	2	1	4	3	3	0	3	3	0	2	2	3	3
Ireland	1	1	2	4	4	7	4	2	6	4	4	5	2	4	5	5	4
Italy	25	38	24	47	43	32	34	31	22	35	24	27	31	32	22	30	35
Netherlands	48	49	66	74	104	86	210	211	254	212	218	191	174	204	236	214	209
Spain	2	5	1	2	2	2	4	5	4	4	3	4	8	9	6	8	10
Sweden	41	34	31	29	37	26	32	29	26	26	29	29	22	26	30	30	21
United Kingdom	163	157	162	160	152	118	123	89	97	83	105	94	107	113	121	101	123
All others	1	4	3	2	4	6	10	8	14	4	6	7	9	11	12	15	12
Other Europe	45	54	53	58	78	64	58	41	50	41	57	46	40	66	64	71	70
Former Soviet Union	0	2	1	2	3	1	3	1	1	0	3	2	0	0	2	3	3
Norway	1	0	4	4	6	8	5	4	4	1	3	2	5	4	8	2	3
Russia	5	10	8	8	15	17	15	7	10	6	13	7	7	13	10	12	12
Switzerland	37	41	40	43	53	38	34	28	32	33	36	35	28	47	45	51	47
All others	1	0	0	1	0	0	1	0	2	1	2	1	0	1	0	2	4
Asia	3,984	3,953	4,108	4,484	4,994	4,443	5,309	4,989	5,286	5,858	7,189	7,472	7,483	7,697	8,276	8,243	7,914
China	11	15	22	30	36	27	28	40	48	51	92	126	141	210	388	538	688



EU = European Union; USPTO = U.S. Patent and Trademark Office.

Note(s)

Patents are allocated according to patent inventorship information. Patents are fractionally allocated among regions, countries, or economies based on the proportion of residences of all named inventors. The EU includes 28 member countries. China includes Hong Kong. Patents are classified under the World Intellectual Property Organization (WIPO) classification of patents, which classifies International Patent Classification (IPC) codes under 35 technical fields. IPC reformed codes take into account changes that were made to the WIPO classification in 2006 under the eighth version of the classification and were used to prepare these data. However, because PatentsView only provides the original IPC codes as they appeared on patents and not the IPC reformed codes, current Cooperative Patent Classification codes on patents were converted back to the most recent IPC classification to prepare these statistics. Fractional counts of patents were assigned to each technological field on patents to assign the proper weight of a patent to the corresponding technological fields under the classification.

Source(s)

Science-Metrix; PatentsView and USPTO patent data, accessed April 2017.

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