

Table SINV-65

## USPTO utility patents granted in surface technology, coating, by region, country, or economy: 1998–2020

(Number)

Region, country, or economy	Economy by income status	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
World	na	2,142	2,360	2,506	2,655	2,677	2,619	2,476	1,918	1,762	1,666	1,574	1,565	2,228	2,307	2,604	2,767	2,917	3,037	3,190	3,578	3,529	3,934	3,838
North America	na	1,156	1,270	1,329	1,422	1,393	1,407	1,271	1,042	906	866	798	814	1,067	1,077	1,220	1,272	1,270	1,331	1,381	1,543	1,460	1,656	1,615
Canada	High	29	28	35	41	42	39	34	29	29	29	20	18	21	36	51	39	40	40	53	55	52	56	60
Mexico	Upper middle	0	2	0	1	0	0	3	0	1	1	1	1	0	0	1	2	1	2	3	4	5	6	3
United States	High	1,127	1,240	1,294	1,379	1,351	1,368	1,234	1,013	877	836	777	796	1,045	1,041	1,167	1,231	1,229	1,289	1,325	1,485	1,403	1,594	1,552
Central America and Caribbean	na	2	2	3	2	7	6	3	1	2	1	1	0	1	1	0	3	1	0	0	0	0	0	0
Puerto Rico	High	1	0	0	1	0	2	0	0	1	0	0	0	0	0	0	3	1	0	0	0	0	0	0
South America	na	2	2	0	2	0	2	4	1	1	3	2	2	3	3	5	11	4	7	5	6	8	14	10
Argentina	Upper middle	1	0	0	0	0	0	2	0	0	0	0	0	0	1	1	1	0	0	0	0	1	1	1
Brazil	Upper middle	1	2	0	1	0	1	0	1	1	2	2	0	1	1	1	4	2	5	3	4	3	9	7
Europe	na	369	390	391	482	462	444	404	306	310	258	253	219	396	417	448	472	495	578	591	661	657	704	670
EU-27 + UK <sup>a</sup>	na	340	359	359	438	424	406	363	282	279	235	227	206	366	382	412	428	460	533	535	602	607	655	629
United Kingdom	High	38	44	37	51	51	36	28	26	25	27	22	16	40	48	51	54	48	69	52	67	67	64	56
EU-27 <sup>b</sup>	na	302	314	322	387	373	371	335	256	254	208	205	190	325	334	361	374	412	464	482	535	541	592	573
Austria	High	7	10	10	14	14	10	8	6	6	6	6	5	10	12	12	12	14	12	20	23	22	25	22
Belgium	High	17	9	11	17	17	13	8	12	8	9	8	12	17	20	17	16	20	24	25	26	26	35	34
Denmark	High	1	2	4	1	5	4	2	2	1	1	3	3	3	5	4	4	8	4	7	7	9	9	8
Finland	High	8	7	6	13	11	14	19	11	16	9	10	15	13	10	7	15	12	15	19	31	27	35	30
France	High	53	50	53	60	51	57	50	30	35	33	26	35	53	43	57	63	72	78	80	98	106	108	105
Germany	High	155	181	168	209	202	205	184	141	132	98	96	81	157	158	165	184	209	237	224	245	249	264	255
Hungary	High	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	1	0
Ireland	High	0	0	0	0	2	2	2	0	2	0	4	2	2	3	6	2	5	4	4	4	3	6	4
Italy	High	26	19	28	27	22	24	20	13	17	16	10	13	20	19	26	20	17	26	25	21	32	38	36
Netherlands	High	11	10	16	11	17	15	15	14	10	14	14	9	17	19	20	20	20	24	31	38	27	25	27
Spain	High	2	1	2	0	4	1	3	3	2	2	0	1	4	4	7	3	5	8	11	10	5	13	11
Sweden	High	22	24	23	31	25	20	24	21	25	15	21	11	22	37	37	28	23	22	22	21	21	24	24
Other Europe	na	28	31	32	44	38	37	41	24	31	23	26	13	30	35	37	44	36	45	57	58	50	49	41
Other Europe-2020 <sup>b</sup>	na	67	75	68	95	89	73	69	50	56	50	48	29	70	83	87	97	83	114	109	126	117	112	97
Belarus	Upper middle	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Moldova	Lower middle	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Norway	High	2	2	2	1	2	1	3	3	4	2	7	2	1	4	3	4	2	4	7	6	1	3	3
Russia	Upper middle	7	5	7	12	7	8	6	3	4	4	2	3	3	4	5	1	1	3	5	4	4	6	4
Switzerland	High	17	22	19	29	27	24	28	15	21	14	14	7	24	24	26	36	28	32	41	44	43	37	32

Table SINV-65

## USPTO utility patents granted in surface technology, coating, by region, country, or economy: 1998–2020

(Number)

Region, country, or economy	Economy by income status	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Ukraine	Lower middle	2	2	1	1	1	1	1	1	0	1	2	0	0	0	1	1	1	3	2	0	0	0	0
Asia	na	599	673	766	726	792	741	770	557	532	520	507	516	740	785	909	986	1,119	1,095	1,176	1,328	1,361	1,495	1,486
China	Upper middle	2	3	2	4	4	3	4	6	6	6	4	7	25	20	34	50	63	60	92	120	134	177	169
India	Lower middle	0	2	0	0	1	1	1	2	2	1	3	1	3	4	6	7	7	9	13	13	13	21	18
Japan	High	541	586	650	618	656	615	623	451	417	425	392	413	562	604	673	669	763	749	753	836	873	966	947
Malaysia	Upper middle	0	0	0	0	1	0	1	1	1	0	0	0	0	0	1	3	3	2	2	1	3	4	5
Singapore	High	0	1	4	7	8	8	7	6	5	4	3	3	5	4	4	4	6	6	12	10	11	9	11
South Korea	High	28	37	54	39	68	59	76	54	65	43	68	68	91	92	102	112	148	179	203	247	213	220	224
Taiwan	High	28	43	54	58	54	54	57	38	37	41	35	24	52	60	87	140	128	87	98	99	109	94	106
Middle East	na	6	8	3	6	11	9	6	4	5	7	3	5	7	12	10	13	14	13	21	22	25	43	34
Israel	High	6	8	3	6	11	9	6	4	5	6	3	5	7	11	7	7	12	10	15	12	12	18	16
Africa	na	2	2	4	4	1	0	1	0	0	0	0	0	3	0	4	1	2	2	3	2	1	1	0
South Africa	Upper middle	2	2	3	3	1	0	1	0	0	0	0	0	2	0	3	1	1	1	2	2	1	1	0
Australia and Oceania	na	6	11	10	12	10	9	16	8	5	10	10	9	10	11	8	9	13	13	12	15	16	20	22
Australia	High	5	9	9	11	9	9	14	7	5	9	8	7	10	10	8	9	11	10	11	11	13	17	19
New Zealand	High	1	2	1	2	1	0	2	0	0	1	2	2	1	1	0	0	2	2	1	4	2	3	3
Unclassified	na	0	3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	1	1	0

na = not applicable, metric not calculated at this level.

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

<sup>a</sup> The United Kingdom was a part of the EU for data purposes from 1973 to 2019.<sup>b</sup> Beginning in 2020, the United Kingdom was no longer a member of the EU.**Note(s):**

USPTO patents are allocated according to patent inventorship information. USPTO patents are fractionally allocated among regions, countries, or economies based on the proportion of residences of all named inventors. 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. China includes Hong Kong.

**Source(s):**

National Center for Science and Engineering Statistics; Science-Metrix; PatentsView, USPTO, accessed June 2021.