

Table SINV-15

## International patent families granted in measurement, 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	14,482	16,461	14,444	14,303	15,269	16,790	17,589	16,957	18,174	18,956	20,040	21,712	24,534	29,767	33,932	36,569	38,498	41,111	45,352	51,342	52,534	58,300	62,444
North America	na	3,171	3,089	3,096	3,173	3,342	3,802	3,685	3,002	3,573	3,441	3,472	3,449	3,735	3,565	3,698	3,794	4,010	4,147	4,295	4,525	4,335	4,993	4,548
Canada	High	116	118	106	116	129	161	164	121	138	132	157	168	171	158	177	218	234	209	257	241	249	281	250
Mexico	Upper middle	1	3	0	2	2	8	8	8	7	4	4	2	3	3	3	4	7	8	40	30	30	37	8
United States	High	3,055	2,968	2,990	3,055	3,211	3,633	3,513	2,873	3,428	3,305	3,311	3,279	3,560	3,405	3,519	3,572	3,769	3,930	3,998	4,254	4,056	4,675	4,290
Central America and Caribbean	na	2	0	1	0	1	2	2	1	1	1	0	1	1	0	1	1	2	2	1	2	1	3	1
Puerto Rico	High	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0
South America	na	6	3	9	11	6	12	13	7	11	10	18	19	19	22	23	22	31	27	42	89	94	90	146
Argentina	Upper middle	1	0	2	2	1	3	2	0	2	3	2	5	3	4	0	2	4	1	5	10	4	7	10
Brazil	Upper middle	5	2	6	7	4	9	7	4	7	5	15	12	14	15	21	14	23	23	33	73	81	76	132
Europe	na	4,208	3,665	3,671	3,603	4,119	4,451	4,986	4,675	4,967	4,974	5,195	5,447	5,458	5,287	5,693	6,039	6,510	6,686	6,468	7,115	7,076	7,431	6,843
EU-27 + UK <sup>a</sup>	na	2,696	2,585	2,544	2,607	2,765	2,826	2,990	2,844	3,087	3,062	3,005	2,998	3,310	3,310	3,609	3,829	3,957	3,967	4,364	4,584	4,458	4,821	4,638
United Kingdom	High	273	246	247	267	305	324	345	319	308	243	270	284	286	247	253	245	284	255	325	327	278	318	347
EU-27 <sup>b</sup>	na	2,423	2,339	2,296	2,339	2,460	2,502	2,645	2,525	2,779	2,820	2,735	2,715	3,024	3,063	3,356	3,584	3,673	3,712	4,039	4,257	4,180	4,502	4,291
Austria	High	46	36	39	44	54	65	53	54	76	74	107	73	81	125	125	108	104	144	152	156	159	185	182
Belgium	High	21	20	17	15	23	21	24	20	26	24	22	11	22	23	33	26	38	43	70	75	58	74	76
Denmark	High	11	27	14	20	16	18	17	18	21	26	18	28	29	29	31	37	39	43	37	46	45	50	71
Finland	High	59	50	51	46	71	78	91	70	49	64	76	61	70	60	55	52	77	76	74	94	76	84	79
France	High	454	430	414	404	333	369	461	438	495	512	520	580	576	555	675	642	713	706	741	805	762	885	907
Germany	High	1,189	1,131	1,121	1,240	1,425	1,427	1,425	1,418	1,627	1,579	1,436	1,330	1,554	1,491	1,639	1,892	1,901	1,857	1,945	1,820	2,041	2,199	2,138
Hungary	High	11	4	6	9	4	7	16	5	9	1	4	5	8	10	5	7	7	10	7	15	10	15	10
Ireland	High	16	14	6	2	6	17	8	5	13	7	8	10	14	9	14	19	15	17	21	16	22	25	31
Italy	High	140	165	198	118	121	66	157	99	34	38	54	49	89	143	94	63	48	63	68	324	298	250	135
Netherlands	High	109	92	107	96	93	100	94	83	89	115	132	112	113	160	131	153	180	156	180	192	158	212	182
Spain	High	67	72	51	70	25	80	54	68	79	71	73	90	117	140	115	149	138	144	117	107	101	90	61
Sweden	High	88	109	99	118	111	102	130	95	97	86	82	80	95	91	102	120	115	124	129	112	111	124	142
Other Europe	na	1,511	1,081	1,127	996	1,354	1,625	1,995	1,831	1,879	1,912	2,190	2,448	2,148	1,977	2,084	2,210	2,553	2,719	2,103	2,532	2,619	2,610	2,205
Other Europe-2020 <sup>b</sup>	na	1,785	1,326	1,375	1,263	1,659	1,949	2,341	2,151	2,187	2,154	2,460	2,732	2,434	2,224	2,337	2,454	2,837	2,974	2,429	2,859	2,896	2,929	2,552

Table SINV-15

## International patent families granted in measurement, 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
Belarus	Upper middle	7	3	4	6	3	4	13	6	7	14	9	15	11	13	13	11	9	10	5	23	10	11	13
Moldova	Lower middle	12	4	8	5	6	8	11	11	12	15	14	8	14	16	11	16	10	9	4	8	8	4	2
Norway	High	32	19	26	25	34	46	46	45	60	41	56	59	63	65	57	55	60	80	73	71	61	59	68
Russia	Upper middle	1,293	933	929	796	1,088	1,218	1,235	1,475	1,534	1,429	1,624	1,842	1,575	1,477	1,591	1,646	1,844	2,088	1,493	1,906	2,025	2,014	1,604
Switzerland	High	130	104	136	136	173	175	170	147	164	185	246	287	274	216	252	299	391	343	406	425	406	456	493
Ukraine	Lower middle	34	15	20	23	46	171	517	144	96	222	232	230	200	181	149	171	225	176	116	82	94	37	5
Asia	na	6,864	9,289	7,194	7,196	7,447	8,062	8,267	8,523	9,197	10,284	11,110	12,597	15,092	20,703	24,283	26,465	27,687	29,978	34,268	39,311	40,703	45,420	50,533
China	Upper middle	86	67	139	168	182	470	785	875	1,017	1,338	2,186	3,938	5,299	8,383	10,189	10,829	12,682	18,827	22,370	26,926	28,306	32,664	37,789
India	Lower middle	1	3	2	2	10	12	16	15	16	31	32	25	30	30	47	71	86	95	87	109	113	132	153
Japan	High	6,142	7,214	6,284	6,168	6,020	6,309	5,962	5,800	5,903	6,409	6,804	6,769	7,409	9,021	9,760	10,055	9,424	6,504	7,470	6,990	7,323	7,230	7,182
Malaysia	Upper middle	0	1	5	4	2	7	6	9	15	23	22	17	18	23	32	25	34	29	35	36	29	13	9
Singapore	High	8	11	16	24	26	27	18	22	14	16	23	19	17	21	25	17	27	27	37	53	50	61	63
South Korea	High	507	1,829	560	552	968	874	1,015	1,341	1,658	1,842	1,687	1,447	1,905	2,722	3,563	4,336	4,153	3,305	3,392	4,230	4,013	4,519	4,661
Taiwan	High	114	158	187	273	231	356	459	456	569	614	351	380	405	497	659	1,122	1,265	1,171	864	944	849	781	658
Middle East	na	40	41	69	66	85	73	78	62	72	60	76	75	89	79	104	115	120	154	148	198	205	236	238
Israel	High	37	39	54	55	64	64	69	44	55	48	68	68	76	61	78	90	85	108	105	147	139	140	157
Africa	na	25	38	25	21	15	20	25	26	15	20	23	28	21	16	26	22	36	13	13	12	23	21	16
South Africa	Upper middle	20	32	18	13	11	12	14	19	12	14	20	26	15	9	12	9	12	5	5	7	9	9	4
Australia and Oceania	na	82	97	131	193	239	366	434	212	201	157	115	98	110	89	99	101	99	100	89	86	88	102	118
Australia	High	73	87	124	186	233	354	417	203	189	146	101	88	96	73	77	65	73	81	70	69	75	85	110
New Zealand	High	8	9	7	8	6	11	17	8	12	11	14	10	15	16	22	35	26	19	19	17	11	17	8
Unclassified	na	84	239	247	40	15	3	99	451	137	10	31	0	10	6	5	10	2	4	28	3	9	3	2

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

EU = European Union; UK = United Kingdom.

<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):**

International Patent Documentation (INPADOC) patent families across all patent offices covered in the Worldwide Patent Statistical Database (PATSTAT) are counted according to the year of the first granted patent in the patent family. Patent families are allocated according to patent inventorship information found on the priority patent of the INPADOC patent families. To account for missing ownership information in PATSTAT for some offices, a method designed by de Rassenfosse et al. (2013) is used to fill missing information on priority patents using information in successive filings within the families. Priority patents not indexed in PATSTAT are replaced by the next utility patent(s) in the families according to filing dates. Patent families 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. China includes Hong Kong. Data were extracted in June 2021. Because of data coverage issues for some patent offices in PATSTAT, statistics for some countries may be underestimated partially for some years or across the whole trend. Countries with identified issues include India (missing data) and South Africa (no data for 2018). For Italy, because of data gaps regarding information on granted patents, patent applications are used instead, which slightly overestimates Italy's output and creates a small shift in year for which its output is accounted. As patent authorities become more involved with the European Patent Organisation, these gaps should disappear in the future, strengthening the robustness of statistics for these countries.

**Source(s):**

National Center for Science and Engineering Statistics; Science-Metrix; PATSTAT, accessed October 2021.

*Science and Engineering Indicators*