

Table SINV-30

International patent families granted in handling, 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	11,098	11,681	9,407	9,341	9,843	10,271	10,458	10,085	11,313	12,255	12,324	12,964	13,993	15,496	17,316	17,692	18,833	19,703	24,097	25,895	25,872	25,479	27,273
North America	na	2,120	2,257	2,103	1,977	1,814	1,761	1,519	1,374	1,557	1,406	1,383	1,456	1,729	1,787	1,772	2,068	2,035	1,911	1,904	1,865	1,925	2,173	2,053
Canada	High	120	107	136	142	104	110	99	86	89	84	92	73	100	106	113	139	149	123	131	124	123	151	109
Mexico	Upper middle	3	5	8	10	12	8	7	5	3	1	4	6	3	4	3	4	7	7	24	16	19	13	11
United States	High	1,997	2,146	1,959	1,825	1,698	1,643	1,412	1,283	1,465	1,322	1,287	1,378	1,626	1,678	1,656	1,925	1,879	1,781	1,749	1,725	1,783	2,009	1,933
Central America and Caribbean	na	3	1	1	0	0	3	2	0	2	1	3	1	0	1	1	2	0	0	2	0	4	4	3
Puerto Rico	High	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
South America	na	13	14	16	10	15	18	24	16	13	20	21	46	33	41	50	43	32	27	34	40	79	84	65
Argentina	Upper middle	2	3	5	3	3	4	4	0	1	4	2	3	0	0	2	2	0	1	3	2	4	5	5
Brazil	Upper middle	9	9	10	5	10	13	20	13	12	13	17	37	30	36	42	37	30	25	30	33	71	74	55
Europe	na	3,418	3,431	3,072	2,914	2,964	3,227	3,604	3,060	3,054	2,866	2,961	2,702	2,940	2,799	2,973	2,844	2,885	2,806	3,098	3,761	3,432	3,524	3,173
EU-27 + UK ^a	na	2,962	3,044	2,728	2,588	2,555	2,711	3,048	2,558	2,475	2,382	2,413	2,158	2,468	2,413	2,566	2,389	2,432	2,387	2,743	3,330	3,027	3,049	2,785
United Kingdom	High	241	208	194	182	225	217	227	196	195	172	185	148	142	151	165	138	133	129	142	144	134	132	150
EU-27 ^b	na	2,722	2,836	2,534	2,406	2,330	2,494	2,821	2,362	2,280	2,210	2,228	2,011	2,326	2,262	2,401	2,250	2,299	2,259	2,602	3,186	2,893	2,917	2,635
Austria	High	57	62	56	41	47	83	45	55	67	56	83	67	81	82	70	97	66	99	89	81	92	112	108
Belgium	High	41	26	27	25	28	20	36	21	29	23	24	32	26	21	25	25	21	49	87	54	63	66	61
Denmark	High	16	20	17	27	29	27	25	21	22	24	31	27	31	30	39	45	40	43	56	48	38	38	31
Finland	High	78	54	79	69	62	95	67	78	67	87	83	82	103	71	91	73	100	114	108	123	88	85	96
France	High	533	533	497	497	461	497	469	359	479	446	407	418	485	413	477	426	465	457	423	364	305	432	480
Germany	High	854	794	722	797	855	1,009	892	900	1,013	896	975	769	898	871	968	1,004	947	969	1,112	1,135	1,056	1,144	1,133
Hungary	High	6	3	5	2	4	10	11	6	3	5	6	2	8	6	4	7	5	4	3	5	3	5	3
Ireland	High	25	16	7	6	6	11	11	9	12	9	4	8	4	9	8	11	12	14	11	7	13	9	7
Italy	High	453	724	631	395	343	252	701	367	70	71	96	78	176	263	202	69	78	48	115	743	643	423	223
Netherlands	High	238	217	177	208	177	191	187	196	217	186	196	180	182	159	176	168	173	131	184	206	188	196	166
Spain	High	109	105	105	110	81	102	124	152	139	182	126	131	135	135	129	107	161	134	137	131	143	104	71
Sweden	High	182	161	121	111	134	122	163	99	85	88	92	66	84	92	90	74	69	62	73	82	78	101	99
Other Europe	na	456	387	345	326	409	516	556	502	579	484	548	544	471	386	408	456	453	419	354	431	405	474	388
Other Europe-2020 ^b	na	697	595	538	508	634	733	783	698	774	656	733	691	614	537	572	594	586	548	496	575	539	607	538
Belarus	Upper middle	2	0	0	1	1	2	1	2	5	9	7	16	10	5	9	2	3	2	4	5	6	7	5

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Moldova	Lower middle	3	5	4	1	2	7	2	1	2	3	2	2	2	2	5	2	2	1	1	3	2	3	1
Norway	High	32	26	33	18	23	26	23	22	33	21	18	30	25	25	18	21	23	20	30	41	24	39	34
Russia	Upper middle	280	236	179	183	227	271	271	322	296	275	333	317	260	182	188	232	206	203	139	194	188	238	214
Switzerland	High	117	107	114	105	128	132	130	111	150	115	143	124	127	127	140	140	173	146	144	144	136	157	115
Ukraine	Lower middle	16	6	8	14	23	69	126	41	89	56	39	51	40	33	35	48	35	29	27	29	32	16	4
Asia	na	5,281	5,732	3,957	4,136	4,767	4,951	4,941	5,362	6,482	7,766	7,736	8,544	9,074	10,686	12,323	12,552	13,696	14,775	18,870	20,085	20,293	19,528	21,831
China	Upper middle	21	33	60	69	86	148	190	222	295	395	540	929	1,220	1,905	2,763	2,806	3,489	7,322	9,948	11,581	11,923	10,723	13,076
India	Lower middle	0	1	3	0	1	0	3	3	1	5	2	3	4	7	14	5	11	15	11	16	17	22	37
Japan	High	4,841	4,993	3,452	3,584	3,949	4,169	4,045	4,197	4,615	5,670	5,777	6,498	6,540	6,936	7,261	6,888	7,378	5,189	6,236	5,639	5,445	5,531	5,487
Malaysia	Upper middle	4	2	3	0	1	2	5	3	6	20	3	4	12	9	9	11	10	11	9	10	17	3	4
Singapore	High	6	4	12	12	11	15	7	13	16	16	8	10	6	4	5	9	6	8	8	10	11	6	11
South Korea	High	305	583	312	342	566	467	540	769	1,316	1,323	1,213	860	1,022	1,502	1,959	2,492	2,467	1,958	2,199	2,416	2,536	2,886	2,893
Taiwan	High	101	116	115	124	149	148	148	150	231	336	191	237	263	315	304	336	319	264	448	404	338	352	315
Middle East	na	10	9	12	12	14	22	17	9	12	10	12	13	14	14	33	22	27	34	27	33	33	38	39
Israel	High	8	8	10	11	9	18	15	7	8	8	11	11	12	7	23	15	23	26	20	24	25	27	29
Africa	na	113	102	77	93	70	69	88	72	47	53	94	77	62	28	45	37	28	16	12	6	10	13	4
South Africa	Upper middle	109	94	65	83	65	58	83	62	45	50	91	73	61	20	38	33	26	12	7	5	7	9	1
Australia and Oceania	na	129	118	139	196	198	220	254	170	140	132	113	124	141	136	117	121	128	131	148	103	93	114	102
Australia	High	118	103	127	183	184	202	241	157	125	117	97	112	120	117	100	97	108	107	121	86	85	101	92
New Zealand	High	11	15	12	13	14	17	13	13	15	15	16	13	21	19	17	23	20	24	27	17	8	13	10
Unclassified	na	10	17	28	3	2	0	10	22	6	0	1	1	0	2	1	1	2	2	2	2	1	1	2

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

EU = European Union; UK = United Kingdom.

^a The United Kingdom was a part of the EU for data purposes from 1973 to 2019.^b 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