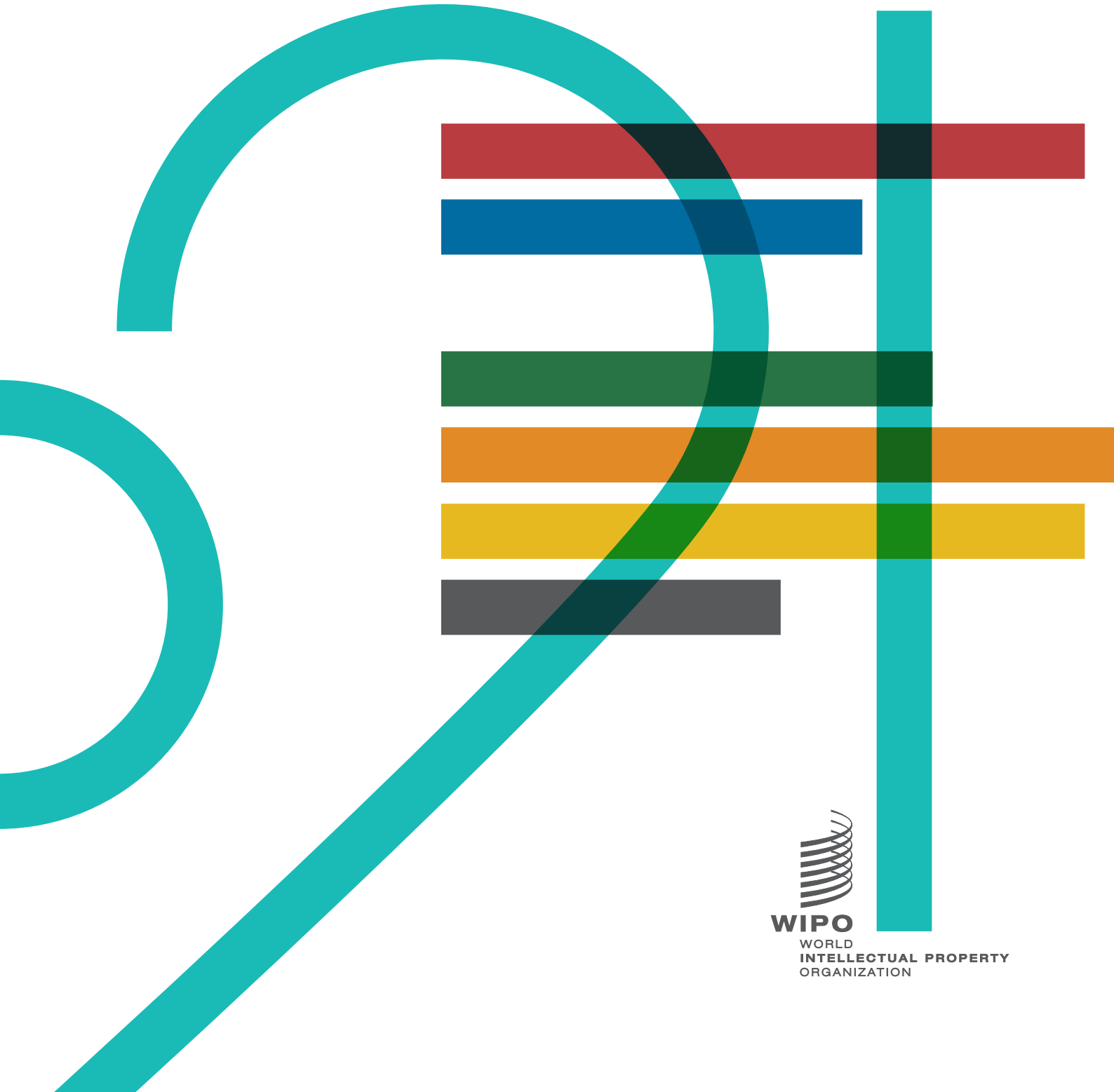
World Intellectual Property Indicators 2021



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Foreword

As the world responded to an unexpected and unpredictable global crisis, 2020 was a year like no other.

In this uncertain environment, innovation and creativity quickly proved indispensable to fighting the COVID-19 pandemic and to mitigating its worst excesses. It was thanks to the development and quick rollout of new ideas and technologies that we have ensured better health outcomes, helped people and businesses to stay connected and smoothed out some of the disruption caused by the pandemic.

This year's benchmark *World Intellectual Property Indicators* report confirms that intellectual property (IP) filings – patents, trademarks, designs and others – have proven highly resilient, despite the deepest economic shock of modern times.

Patent filings increased by 1.6 per cent in 2020 to just under 3.3 million applications around the world. Designs contained in applications grew by 2 per cent and trademark classes specified in applications rose by 13.7 per cent.

This countercyclical growth underlines the increasingly important role IP, innovation and creativity will play in the global economy and the contribution each will make in driving the post-pandemic recovery forward.

This year's report also illustrates that IP's center of gravity continues to shift. This is best evidenced by the ever increasing number of applications in Asia. While a decade ago, 5 out of 10 IP applications were filed in Asia, last year this number was close to 7 out of 10 IP applications.

The continued globalization of IP is a highly significant development and one which reinforces WIPO's newly developed Medium-Term Strategic Plan.

Our mission is to develop a balanced and effective IP ecosystem and to ensure that IP, innovation and creativity act as powerful catalysts for jobs, investments, economic development and social vibrancy for everyone, everywhere.

As we cast forward and towards what we hope will be a robust, sustainable and truly global economic and social recovery, the rich dataset of the *World Intellectual Property Indicators* report can help to guide policymakers and practitioners around the world. Inside, you will find key insights on the future direction of the global economy, as well as evidence of the increasingly important role that IP, innovation and creativity are playing in supporting economic, social and cultural development.

I would like to thank our Member States and national and regional IP Offices for their continued support of this report and for engaging with our work at WIPO.

Despite the considerable challenges we continue to face, the report's findings reveal a strong base from which to build back better. As we embark on this journey, WIPO looks forward to working with our full range of partners to foster a world where innovation and creativity from anywhere is supported by IP for the good of everyone.

Daren TANG
Director General

Acknowledgements

World Intellectual Property Indicators 2021 was prepared under the direction of Daren Tang (Director General) in the IP and Innovation Ecosystems Sector led by Marco Aleman (Assistant Director General), and supervised by Carsten Fink (Chief Economist). The report was prepared by Kyle Bergquist, Mosahid Khan, Ryan Lamb, Bruno Le Feuvre and Hao Zhou, all from the Department for Economics and Data Analytics. Peter Button and Ariane Besse of the International Union for the Protection of New Varieties of Plants (UPOV) provided comments and suggestions for the plant varieties section. Alexandra Grazioli and Matteo Gragnani of the Brands and Designs Sector provided comments and suggestions for the geographical indications section. Gratitude is also due to Enrico Turrin of the Federation of the European Publishers for sharing some of the creative economy data.

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Further information

Online resources

The electronic version of this report and the underlying data can be downloaded at *www.wipo.int/ipstats*. This webpage also provides a link to the IP Statistics Data Center, offering access to WIPO's statistical data.

Contact information

Economics and Statistics Division
Website: *www.wipo.int/ipstats*
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Key numbers

Patents	2019	2020	Growth rate (%)	Share of world total (%)
Applications worldwide	**3,226,100**	**3,276,700**	**1.6**	**100.0**
China	1,400,661	1,497,159	6.9	45.7
U.S.	621,453	597,172	–3.9	18.2
Japan	307,969	288,472	–6.3	8.8

Utility models				
Applications worldwide	**2,341,110**	**3,000,110**	**28.1**	**100.0**
China	2,268,190	2,926,633	29.0	97.6
Germany	11,668	12,318	5.6	0.4
Russian Federation	10,136	9,195	–9.3	0.3

Trademarks				
Application class counts worldwide	**15,130,000**	**17,198,300**	**13.7**	**100.0**
China	7,833,010	9,345,757	19.3	54.3
U.S.	672,644	870,306	29.4	5.1
Iran (Islamic Republic of)	454,925	541,750	19.1	3.2

Industrial designs				
Application design counts worldwide	**1,361,000**	**1,387,800**	**2.0**	**100.0**
China	711,617	770,362	8.3	55.5
EUIPO (EU office)	113,319	113,196	–0.1	8.2
Republic of Korea	69,359	70,821	2.1	5.1

Plant varieties				
Applications worldwide	**21,430**	**22,520**	**5.1**	**100.0**
China	7,834	8,960	14.4	39.8
Community Plant Variety Office (EU)	3,525	3,427	–2.8	15.2
U.S.	1,590	1,432	–9.9	6.4

Source: WIPO Statistics Database, September 2021.

Overview of IP filing activity

Table 1. Ranking of total (resident and abroad) IP filing activity by origin, 2020

Origin	Patents	Marks	Designs
China	1	1	1
U.S.	2	2	4
Germany	5	4	3
Japan	3	5	8
Republic of Korea	4	11	2
France	6	9	7
U.K.	7	7	9
India	9	6	13
Italy	11	13	5
Switzerland	8	14	10
Iran (Islamic Republic of)	21	3	12
Russian Federation	12	8	16
Turkey	23	10	6
Netherlands	10	19	14
Spain	22	17	11
Australia	20	15	18
Sweden	13	24	17
Brazil	26	12	20
Canada	14	18	28
Austria	16	27	22
Poland	28	25	15
Belgium	18	33	26
Denmark	17	39	21
China, Hong Kong SAR	32	26	25
Thailand	39	30	19
Ukraine	37	28	23
Mexico	33	16	40
Singapore	25	29	38
Indonesia	42	20	31
Portugal	36	31	27
Finland	19	44	34
Viet Nam	48	21	29
Israel	15	54	31
Czech Republic	34	36	33
Argentina	45	22	39
Luxembourg	30	50	30
New Zealand	31	37	42
Norway	29	47	36
Ireland (b)	27	51	45
South Africa	40	41	43
Saudi Arabia	24	45	57
Malaysia	35	42	51
Romania	47	40	47
Morocco	68	46	24
Philippines	56	35	53

Origin	Patents	Marks	Designs
Greece (b)	49	77	37
Malta	61	74	35
Cyprus	67	49	56
Slovakia	59	59	58
Algeria	81	57	41
Belarus	44	64	72
United Arab Emirates	51	48	82
Liechtenstein (a)	41	82	61
Croatia	73	63	52
Slovenia (a, b, c)	53	85	55
Peru	78	38	87
Estonia	70	73	65
Lithuania	69	72	67
Kazakhstan (c)	38	56	115
Kenya	62	75	73
Uzbekistan	65	65	80
Mongolia	104	53	54
Bangladesh	110	60	44
Serbia	76	71	69
Syrian Arab Republic	97	62	59
Latvia	77	86	60
Egypt (b, c)	46	115	64
Barbados (c)	54	109	66
Republic of Moldova	88	79	68
Monaco	84	80	76
Nigeria (b)	63	145	46
Azerbaijan	74	81	100
Georgia	90	90	80
Sudan	83	106	71
Sri Lanka (b)	64	127	70
Armenia	87	84	92
Jordan	99	87	78
Mauritius	91	83	90
Côte d'Ivoire (a, b, c)	72	107	86
Ecuador	116	55	95
Cameroon (a, b, c)	52	119	102
Qatar (c)	79	89	107
Yemen	108	78	93
Costa Rica (a)	99	61	120
Kyrgyzstan	89	114	77
Cuba	82	92	109
Iceland	71	96	119
Iraq (b, c)	55	116	115
Oman (a)	118	66	108
Bosnia and Herzegovina	109	105	79

Origin	Patents	Marks	Designs
Hungary	43	52	50
Bulgaria	57	43	49
Colombia	58	34	62
Chile	50	23	84
Pakistan	66	32	63

Origin	Patents	Marks	Designs
Panama	98	70	126
Paraguay	135	58	102
Ghana	137	111	48
Senegal (a, b, c)	75	122	101
Jamaica	139	91	74

Note: Rankings are based on the total numbers of applications filed by origin. Patent data refer to numbers of equivalent patent applications. Trademark data refer to numbers of equivalent trademark applications based on class counts – that is, the number of classes specified in applications. Industrial design data refer to numbers of equivalent industrial design applications based on design counts – that is, the number of designs contained in applications. This table lists those origins for which at least two types of IP filing data are available.

(a) Data on patent applications at the national IP office are not available.

(b) Data on trademark applications at the national IP office are not available.

(c) Data on industrial design applications at the national IP office are not available.

Source: WIPO Statistics Database, September 2021.

Table 2. Ranking of resident IP activity by origin, 2020

Origin	Patents	Marks	Designs
China	1	1	1
U.S.	2	2	9
Germany	5	8	3
Japan	3	5	8
Republic of Korea	4	10	2
France	7	9	5
India	8	4	12
Iran (Islamic Republic of)	11	3	11
Turkey	14	7	4
Russian Federation	6	6	14
U.K.	9	12	7
Italy	10	13	6
Brazil	16	11	15
Spain	23	15	10
Netherlands	13	21	17
Poland	17	24	13
Switzerland	12	23	19
Australia	24	16	22
Indonesia	30	17	24
Austria	19	32	21
Ukraine	29	25	18
Sweden	15	33	27
Viet Nam	33	18	25
Mexico	31	14	36
Canada	18	20	45

Origin	Patents	Marks	Designs
Malaysia	34	42	48
Singapore	26	45	54
Norway	28	50	50
Nigeria	51	..	37
Kazakhstan	38	52	..
Colombia	53	29	56
Pakistan	58	26	55
Algeria	62	47	31
Israel	27	70	43
Bulgaria	59	44	41
Hungary	45	55	44
New Zealand	56	38	57
Chile	52	22	79
Slovakia	60	53	51
Luxembourg	46	67	52
Mongolia	82	43	47
Bangladesh	88	54	33
Sri Lanka	55	..	62
Peru	67	34	77
Uzbekistan	54	57	72
Syrian Arab Republic	76	58	53
Croatia	66	64	58
Belarus	50	68	71
Kenya	57	66	67
Lithuania	65	69	61

Origin	Patents	Marks	Designs
Thailand	41	28	16
Argentina	37	19	30
Portugal	36	27	23
Belgium	22	37	29
Denmark	20	51	26
Czech Republic	39	35	28
Finland	21	49	32
Ireland	32	..	42
Saudi Arabia	25	40	49
China, Hong Kong SAR	49	31	35
Romania	40	36	40
Greece	44	..	34
South Africa	43	39	38
Morocco	61	41	20
Philippines	47	30	46

Origin	Patents	Marks	Designs
Republic of Moldova	71	76	60
Serbia	64	73	70
Estonia	75	71	64
Latvia	68	88	59
Ecuador	91	46	84
Sudan	63	96	63
Cyprus	81	77	66
Malta	79	81	65
United Arab Emirates	78	62	85
Georgia	74	85	74
Angola	71	86	..
Azerbaijan	69	75	93
Oman	..	60	98
Venezuela (Bolivarian Republic of)	..	61	97
Yemen	84	72	82

Note: Rankings are based on the numbers of resident applications filed by origin. Patent data refer to numbers of equivalent patent applications. Trademark data refer to numbers of equivalent trademark applications based on class counts – that is, the number of classes specified in applications. Industrial design data refer to numbers of equivalent industrial design applications based on design counts – that is, the number of designs contained in applications. This table lists origins for which at least two types of IP filing data are available.

.. indicates not available.

Source: WIPO Statistics Database, September 2021.

Patents

Highlights

Asian economies lead a worldwide bounce back to a 1.6% growth in patent applications in 2020

Despite the havoc caused in the global economy by the COVID-19 pandemic, innovators around the world managed to file what, given the circumstances, is an impressive 3.3 million patent applications in 2020. This represents an increase of 1.6% on 2019 (figure 1.1). A substantial rise in filings by China, which made 96,498 more applications than it did in 2019, combined with robust contributions from the Republic of Korea (7,784), China, Hong Kong SAR (5,024) and India (3,144), was the main driver of growth. However, despite an increase on 2019, the global total in 2020 still fell short of its 2018 peak by around 50,000 applications.

The 3.3 million applications filed worldwide comprised 2.3 million resident filings (70.3% of the total) and 1 million non-resident filings (29.7%). Resident filings increased by 3.3% in 2020 compared to 2019. In contrast, non-resident filings decreased by 2.2% – the first decline since 2016. The long-term trend in patent applications worldwide is upwards, applications having increased from approximately 1 million in 1995 to around 2 million by 2010, and reaching the 3 million mark in 2016.

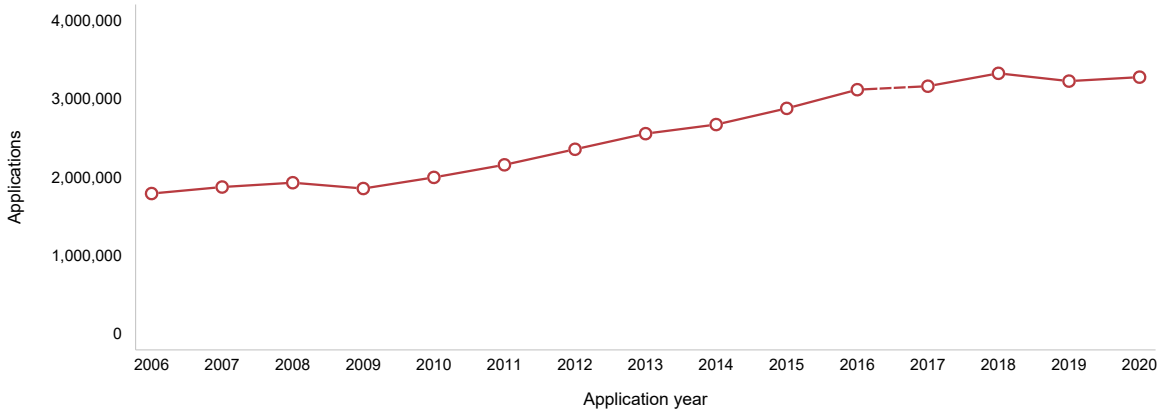
Following a sharp fall in 2019, China's office recorded a 6.9% growth in filings in 2020

The National Intellectual Property Administration of the People's Republic of China (CNIPA) received 1.5 million patent applications in 2020.[1] This is 2.5 times the amount received by the United States Patent and Trademark Office (USPTO). The USPTO – with 597,172 applications – ranked second, followed by the Japan Patent Office (JPO) (288,472), the Korean Intellectual Property Office (KIPO) (226,759) and the European Patent Office (EPO) (180,346). Together, the top five offices accounted for 85.1% of the world total in 2020, which is 7.7 percentage points higher than their combined share in 2010. This is mainly due to strong growth in China, whose share of the world total more than doubled during this period, from 19.6% in 2010 to 45.7% in 2020.

The composition and ranking of the top 10 intellectual property (IP) offices has remained almost the same since 2016. The only change occurred in 2019, when Canada and the Russian Federation swapped places in the ranking, with Canada moving up one spot to eighth while the latter dropped down to ninth position, before reverting back in 2020. Within the top 10 offices, there is a substantial variation in the source of the applications (figure 1.2). For example, non-resident applicants accounted for nine out of 10 applications received by the IP office of Australia, but only one in 10

Patent applications filed worldwide grew by 1.6% in 2020

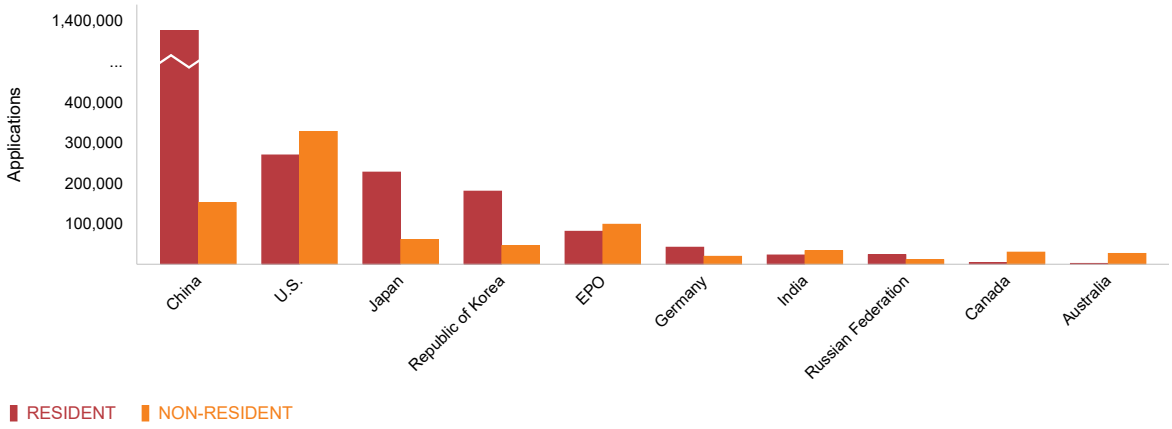
1.1. Patent applications worldwide, 2006–2020



Source: Figure A1.

Non-resident applicants represent a small proportion of the applications filed in China, Japan and the Republic of Korea

1.2. Patent applications at the top 10 offices, 2020



Source: Figure A8.

applications received by the IP office of China. Along with that of Australia (91.9%), the IP offices of Canada (87.1%), the EPO (54.8%), India (59.2%) and the United States of America (U.S.) (54.9%) received a majority of applications from non-resident applicants. A large proportion of the non-resident applications made at these five offices were filed by U.S.-based applicants (figure A20).

Following a 9.2% decline in filings in 2019, China's office returned to growth in 2020, recording a 6.9% increase in applications which came almost entirely from resident filings. The Republic of Korea was the only other office among the top five where the number of filings grew in 2020, rising by 3.6% to register a third successive year of growth. In contrast, Japan (–6.3%) and the U.S. (–3.9%) received considerably fewer applications in 2020, while the EPO (–0.6%) recorded a modest fall in applications. In every one of these offices, a decline in both resident and non-resident filings contributed to the overall decrease.

Only seven of the top 20 offices received a greater number of patent applications in 2020 than in 2019 (figure A9). Of these, the largest increases were in China, Hong Kong SAR (+30.4%), Italy (+8.7%) and the United Kingdom (U.K.) (+7.3%). In both China, Hong Kong SAR and the U.K. they were driven primarily by a rise in non-resident applications, whereas in Italy resident applications were the main driver of growth.

Of the 13 offices among the top 20 to have received fewer applications in 2020 than in 2019, Indonesia (–28.9%) reported the steepest decline, followed by Mexico (–10.2%), France (–9.8%) and Germany (–7.9%). A fall in both resident and non-resident filings contributed to the overall decline at all four offices.

Looking beyond the top 20 offices to selected offices of low- and middle-income countries shows the offices of Viet Nam (7,695), Thailand (7,525), Malaysia (6,828) and South Africa (6,688) to have all received more than 6,600 applications in 2020 (figure A10). That said, a majority of the offices selected received fewer applications in 2020 compared to 2019, ranging from –1.1% in Sri Lanka to –22.7% in Angola (figure A11).

Among the four regional offices, the Patent Office of the Cooperation Council for the Arab States of the Gulf (GCC) (+8.4%) reported strong growth. In contrast, the African Intellectual Property Organization (OAPI) (–6.8%), the African Regional Intellectual Property Organization (ARIPO) (–13.1%) and the Eurasian Patent Organization (EAPO) (–3.0%) all received fewer applications in 2020 compared to a year earlier.

Two-thirds of patent filing activity worldwide took place in Asia

Of the top 20 offices, nine were located in Asia, six in Europe, two each in North America and Latin America and the Caribbean (LAC), and one in Oceania. South Africa is the highest ranked African office, in 25th place.

Offices located in Asia received around 2.2 million applications in 2020, representing 66.6% of the world total (figure 1.3). The combined total for Europe and North America was just under the 1 million mark – less than half the total for Asia. Asia's share of all applications

filed worldwide increased from 51.5% in 2010 to 66.6% in 2020. This was primarily driven by a strong growth in filings in China, which in 2020 accounted for 68.6% of all applications filed in the region. Offices in North America accounted for almost one-fifth (19.3%) of the 2020 world total, while those in Europe accounted for just over one-tenth (10.9%). The combined share for Africa, LAC, and Oceania was 3.2%.

Included among the top 20 list are 12 offices located in high-income, five in upper middle-income and three in lower middle-income countries. The distribution of applications by income group shows offices of high-income countries accounted for 47.4% all applications filed worldwide in 2020, while those of upper middle-income countries accounted for 49.4% of the total (table A5). There has been a sizeable shift in the distribution of applications toward the upper middle-income group in recent years, largely explained by a strong growth in filings in China, coupled with a decline in Japan. The overall share for offices of upper middle-income countries as a whole has nearly doubled in the past 10 years, growing from 25.8% in 2010 to 49.4% in 2020. However, this disguises the fact that, if China is excluded from the total, the share for this income group has actually declined over the period, from 6.2% in 2010 to 3.7% in 2020.

U.S. applicants continue to file the highest number of abroad patent filings

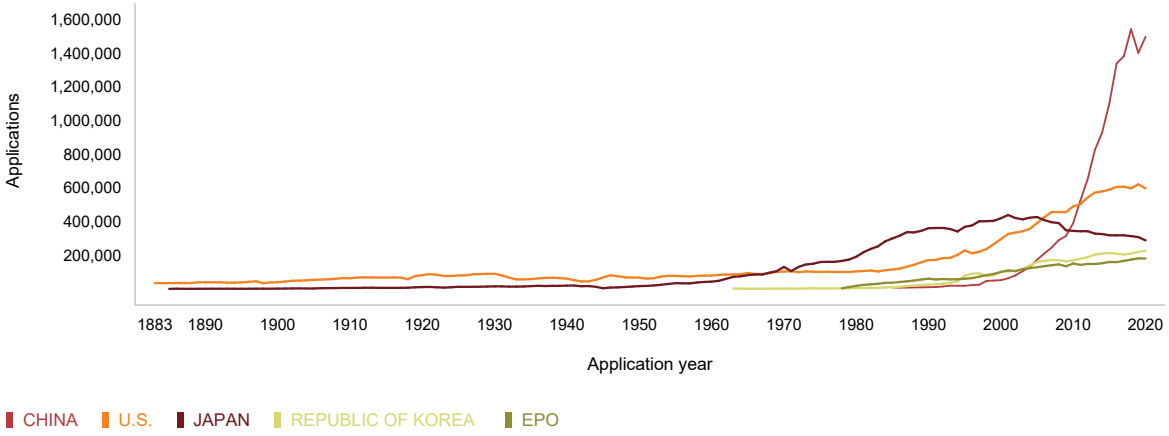
Applications received by offices from resident and non-resident applicants are referred to as office data, whereas applications filed by applicants at a national or regional office (resident applications) or at a foreign office (applications abroad) are referred to as origin data. Here, patent statistics based on the origin of residence of the first named applicant are reported in order to complement the picture of patent activity worldwide.

Applicants from China filed around 1.4 million equivalent patent applications worldwide in 2020 (resident plus abroad filings). China was followed by the U.S. (495,883), Japan (423,254), the Republic of Korea (260,610) and

Patent filings since 1883

From 1883 to 1963, the patent office of the U.S. was the leading office for world filings. Application numbers in Japan and the U.S. remained stable until the early 1970s, at which time Japan began to experience rapid growth – a pattern also observed for the U.S. from the 1980s onward. Among the top five offices, Japan surpassed the U.S. in 1968 and retained top position until 2005. Since the early 2000s, however, the number of applications filed in Japan has followed a downward trend. Both the EPO and the Republic of Korea have seen increases every year since the early 1980s, as has China since 1995. China surpassed the EPO and the Republic of Korea in 2005, Japan in 2010 and the U.S. in 2011, and now receives the most applications worldwide. There has been a gradual upward trend in the combined share of the top five offices in the world total – from 77.5% in 2010 to 85.1% in 2020.

Trend in patent applications for the top five offices, 1883–2020

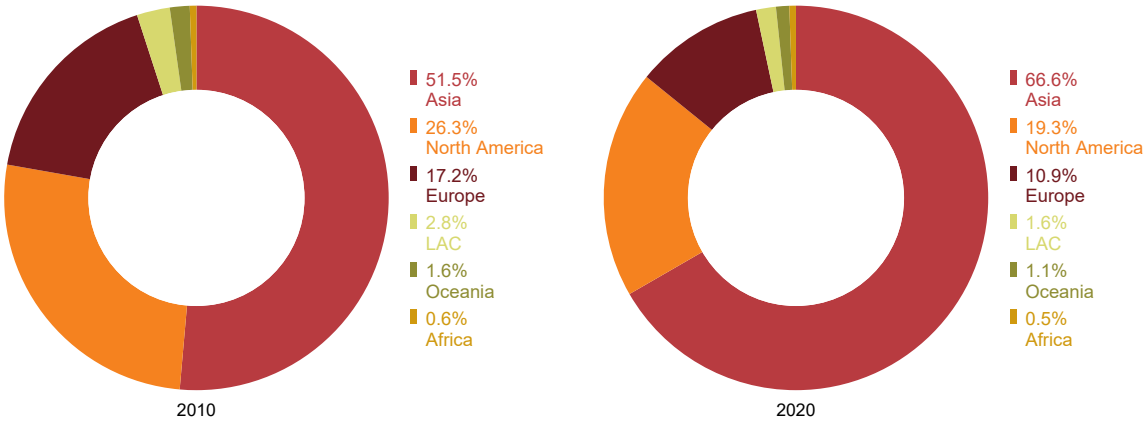


Note: The IP office of the Soviet Union – not represented in this figure – was the leading office globally in terms of filings from 1964 to 1969. Like Japan and the U.S., the amount of applications received by office of the Soviet Union remained stable until the early 1960s, after which it underwent a rapid growth.

Source: Figure A7.

Asia is the global hub of patent filing activity

1.3. Patent applications by region, 2010 and 2020



Source: Table A6.

Germany (168,005) (figure A19). The distribution of resident and abroad filings differs considerably between these offices, however. For example, only 6.7% of all applications from China were filed abroad. In contrast, filings abroad constituted 59.4% of total applications from Germany. For Japan (46.3%) and the U.S. (45.6%), filings abroad accounted for around 45% of all applications. Among the top 20 origins, applications filed abroad made up more than 80% of the total for Australia (80.1%), Canada (81.3%) and Israel (89.9%), whereas less than one-third of total applications originating from China (6.7%), the Republic of Korea (30.7%) and the Russian Federation (20%) were filed abroad.

Equivalent application count

Applications at regional IP offices are equivalent to multiple applications in countries that are members of the organizations establishing those offices. More particularly, in order to calculate the number of equivalent applications for the African Intellectual Property Organization (OAPI), the Eurasian Patent Organization (EAPO) and the Patent Office of the Cooperation Council for the Arab States of the Gulf (GCC Patent Office), each application needs to be multiplied by the corresponding number of member states. For the African Regional Intellectual Property Organization (ARIPO) and the European Patent Office (EPO) data, each application is counted as one application abroad, if the applicant does not reside in a member state, or as one resident application and one application abroad, if the applicant is resident in a member state. The equivalent application concept is used when reporting data by origin.

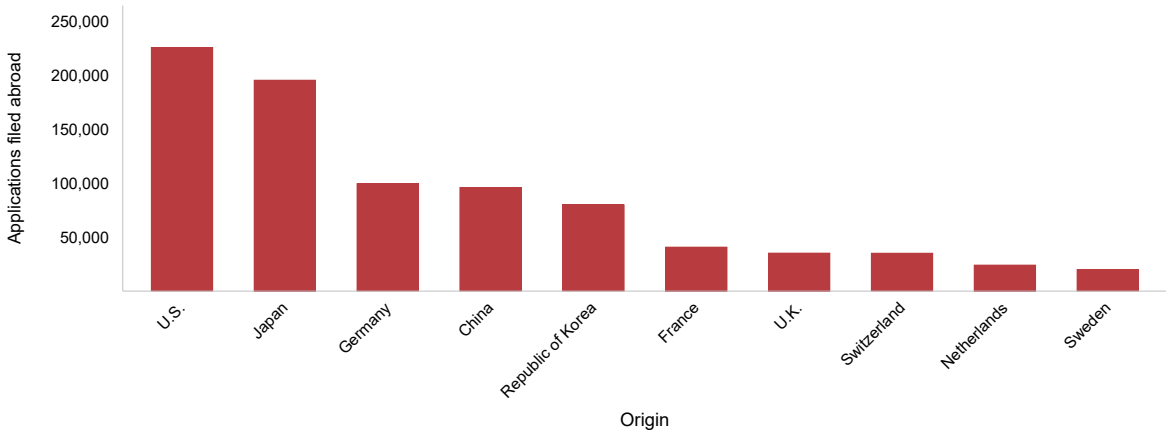
Focusing on abroad filings shows U.S.-based applicants filed the most equivalent applications abroad (226,297) in 2020, followed by Japan (195,906), Germany (99,791), China (96,268) and the Republic of Korea (80,133) (figure 1.4). Germany (–4.9%), Japan (–6%) and the U.S. (–4.4%) filed fewer applications abroad in 2020 compared to 2019, while abroad filing increased in China (+13.9%) and the Republic of Korea (+4.1%) in 2020. France (40,903), the U.K. (35,355), Switzerland (35,257), the Netherlands (24,235) and Sweden (20,034) round out the top 10 rankings for filing abroad.

Brazil (1,990) and Mexico (962) were the two highest ranking origins from the LAC region in 2020, while South Africa (915) and Cameroon (672) were the top ranking origins for Africa. Figures for origins with a low volume of aboard filings could be lower than the actual total, as not all offices provide data broken down by origin.

An analysis of the flow of non-resident applications between origins and offices shows that U.S. applicants accounted for a large proportion of the non-resident filings at 12 of the 20 offices presented in figure A20, ranging from 52% at the IP office of Canada to 18.5% at the Turkey office. Applicants resident in Japan accounted for the largest non-resident share at five of the 20 offices, the largest being at the offices of Germany (36.5%), Indonesia (33.8%) and China (31.4%). German applicants accounted for 26.7% of all non-resident applications filed in France, while China applicants had the largest share at the offices of China, Hong Kong SAR (31.4%) and Italy (25.9%).

China and Germany filed a similar number of patent applications abroad – just below 100,000 – although China filed almost eight times more applications overall than did Germany

1.4. Patent applications filed abroad by the top 10 origins, 2020



Source: Figure A19.

Finland and the U.S. share a similar patent-to-GDP ratio, although U.S. resident patent filings are 77 times those of Finland

Variations in the patenting activity across countries reflects differences in the size and structure of their economies. It is therefore informative to examine resident patent activity with regard to variables such as population, research and development spending, and gross domestic product (GDP).

With 8,249 resident patent applications per unit of USD 100 billion GDP, the Republic of Korea continued to be the country filing the most patent applications in 2020 (figure 1.5). China (5,845) scored the second highest ratio, followed by Japan (4,696), Germany (1,609) and Switzerland (1,605). These five have been the top ranking countries since 2018. The U.S. (1,358), Finland (1,333), Sweden (1,178), Denmark (1,123) and the Islamic Republic of Iran (1,091) round out the top 10 origins. Among the top 10 origins, China has seen a considerable improvement in its resident patent applications-to-GDP ratio, which has increased from 2,466 in 2010 to 5,845 in 2020.

A number of countries with a low resident patent applications count, such as Austria, Denmark, Finland, Luxembourg and Norway, rank among the top 20 origins once resident patent applications are adjusted by GDP (figure A37). The list of top 20 origins predominantly comprises high-income countries; however, three middle-income countries – China, the Islamic Republic of Iran and the Russian Federation – also feature. Turkey (356) and India (274) – two large middle-income countries – occupy 22nd and 25th spots in the ranking, respectively. Brazil, with 177 resident patents per GDP, is the highest ranked origin in the LAC region, while in Africa it is Kenya, with 151.

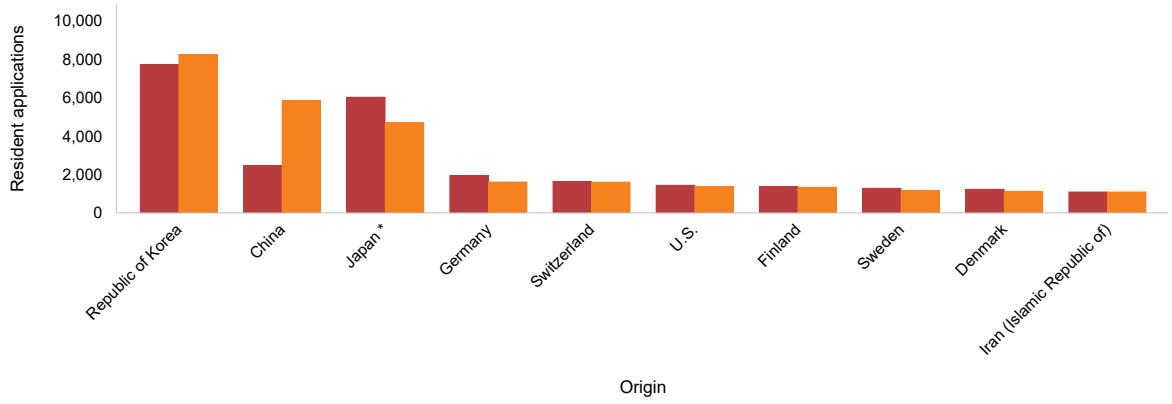
The profile of resident applications per million population is similar to that adjusted for GDP, but there are subtle differences. The list of top 10 origins for resident applications according to GDP and by population is almost identical, except that the Islamic Republic of Iran is one of the top 10 origins according to GDP and Austria among the top 10 origins by population. The Republic of Korea retains its lead when resident applications are expressed according to population, followed by Japan and Switzerland, ahead of China and Germany (figure A38). Moving outside the top 10 origins finds Poland and Singapore among the top 20 origins for resident patent application by population, which was not the case for patents according to GDP.

Patent filings for unique inventions grew by 6.3% in 2018 – the slowest year-on-year growth since 2014

Patent rights are territorial in nature. In order to protect inventions in several countries, applicants often file patent applications for the same invention in multiple jurisdictions. This being the case, adding patent data from different jurisdictions would inflate the number of new inventions. Patent family data are therefore frequently used in order to eliminate (or at least minimize) double counting. The basic idea behind a patent

The Republic of Korea continued to file the greatest number of resident applications according to GDP in 2020

1.5. Resident patent applications per USD 100 billion GDP for the top 10 origins, 2010 and 2020

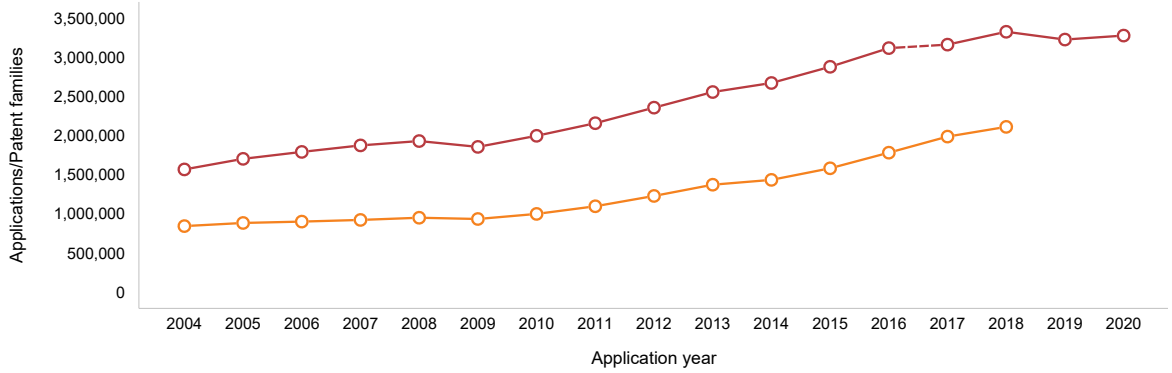


* indicates 2019 data.

Source: Figure A37.

Patent filings for unique inventions exceeded 2 million in 2018

1.6. Patent applications and patent families worldwide, 2004–2020



Sources: Figures A1 and A23.

family is to group together all applications – original and subsequent filings – that are related to each other via priority filing(s). WIPO has developed indicators for patent families that aims to capture the number of unique inventions by excluding double counting as far as possible. The drawback of such data is the consequent time lag which can be up to three years.

Patent families worldwide grew by 6.3% in 2018, the slowest year-on-year growth since 2014. The total number of patent families worldwide amounted to 2.1 million in 2018, which is double the 2010 total (figure 1.6). Applicants from China accounted for more than three-fifths of all patent families (63.5%), followed by Japan (10.6%), the U.S. (8.8%) and the Republic of Korea (6.5%). However, the U.S. (200,875) and Japan (152,709) created by far the most foreign-oriented patent families for the period 2016–2017 (figure A26), and far more than Germany (60,503), China (56,779) or the Republic of Korea (52,852).

The size of a patent family (i.e., the number of offices where a patent is filed) reflects its geographical coverage. Around 86% of the patent families created worldwide between 2016 and 2018 were filed at a single office (figure A24). There is considerable variation among top origins, however. For example, close to two-thirds of total patent families originating from Sweden covered two or more offices. Over half the patent families originating from France (54%), the Netherlands (62.8%)

and Switzerland (61.4%) likewise covered two or more offices, whereas this was the case for less than one-tenth of patent families filed in China (2.2%), Brazil (8.5%), Poland (9.4%) and the Russian Federation (2.9%).

Patent families

A patent family is a set of interrelated patent applications filed at one or more offices to protect the same invention. The patent applications in a family are interlinked by one or more of the following: priority claim, Patent Cooperation Treaty (PCT) national phase entry, continuation, continuation-in-part, internal priority and addition or division. A special subset comprises foreign-oriented patent families – that is, those patent families that have at least one filing office that differs from the office of the applicant's country of origin. Some foreign-related patent families include only one filing office. This is because applicants may choose to file only at a foreign office. For example, if a Canadian applicant files a patent application directly with the United States Patent and Trademark Office (USPTO) without having previously filed with the patent office of Canada, that patent family will constitute a foreign-oriented patent family with just one office.

More than a quarter of a million patent applications published worldwide in 2019 were in the field of computer technology

In 2019 – the latest year for which complete data are available due to the delay between application and publication – computer technology was the most frequently featured technology in published patent applications worldwide, with 284,146 published applications (table A29). It was followed by electrical machinery (210,429), measurement (182,612), digital communication (155,011) and medical technology (154,706). These five fields have occupied the top five spots in the ranking since 2012 – albeit in a varying order. Together, these five fields accounted for 31% of all published applications globally in 2019.

Among the top 10 technology fields, other special machines (+10.2%), machine tools (+9.8%) and measurement (+9.1%) are the three to have witnessed the fastest average annual growth between 2009 and 2019, whereas pharmaceuticals-related patents only grew by a modest 2.7%. As data are available only up until 2019, it is too early to observe the impact of the COVID-19 crisis on pharmaceuticals patenting activity. Each of the top 10 fields of technology recorded a growth in published applications between 2009 and 2019, the slowest being a modest 6.5% average annual growth for electrical machinery.

Among the top 10 origins during the period from 2017 to 2019, China (8.6% of all published applications), the U.K. (7.5%) and the U.S. (11.8%) filed most heavily in computer technology (figure A30). Japan (10%) and the Republic of Korea (8.5%) filed mostly in electrical machinery; France (11.1%) and Germany (10.6%) in transport; Switzerland (9.7%) and the U.K. (7.5%) in pharmaceuticals; the Netherlands (12.2%) in medical technology; and the Russian Federation (8.2%) in measurement.

Among large middle-income countries during the same period, applicants residing in India (17.8% of total published applications) and Mexico (10.5%) filed most heavily in pharmaceuticals; Brazil (7.2%) in other special machines; and Turkey (8.3%) in transport.

Brazil's patent office granted 86.4% more patents in 2020 than in 2019

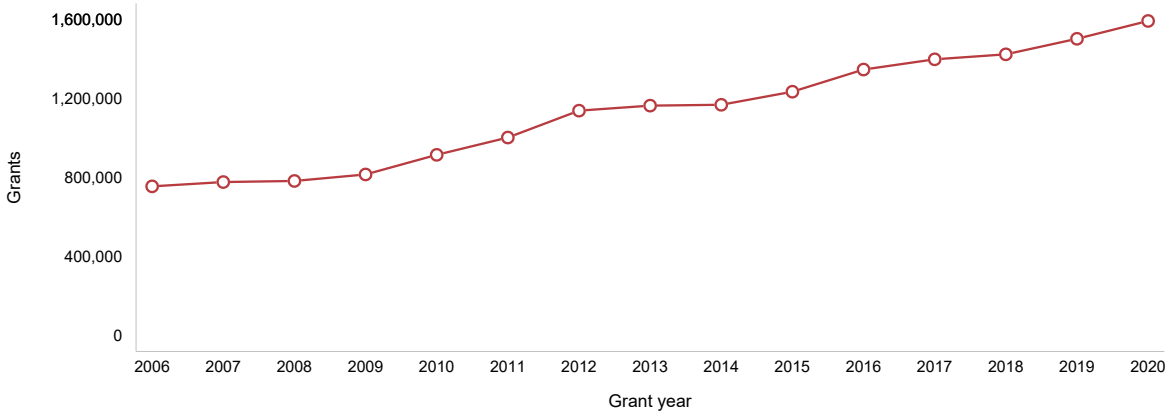
Offices carry out a formal and substantive examination before deciding whether to issue a patent. The procedure for granting a patent varies between offices, and differences in the numbers of patents granted among offices depend on factors such as examination capacity and procedural delays. For this reason, application data for a given year should not be compared with grant data from the same year.

In 2020, an estimated 1.6 million patents were granted worldwide, up 6% on 2019 (figure 1.7). China (530,127) issued the highest number of patents in 2020, followed by the U.S. (351,993), Japan (179,383), the Republic of Korea (134,766) and the EPO (133,706) (figure A15). Among the top 10 offices, Brazil granted 86.4% more patents in 2020 than it did in 2019 (figure A16). China (+17.1%) and India (+11.8%) also recorded a double-digit growth in patents granted in 2020. A marked increase in patents granted to non-resident applicants drove overall growth in Brazil. In contrast, resident grants were responsible for almost all the growth in China. As for India, both resident and non-resident grants contributed equally to total growth. The Republic of Korea moved up from fifth to fourth position in the ranking due to a 7.2% growth rate.

Looking beyond the top 10 offices to the top 20 list, Germany (17,305) and France (12,874) each issued more than 12,000 patents (figure A15). The office of Malaysia (+99.9%) recorded the fastest growth among the top 20 offices in 2020, followed by Brazil (86.4%), the U.K. (+64.3%) and Singapore (28.6%). At all four of these offices, a strong growth in non-resident grants was the primary driver of overall growth.

Patents granted worldwide grew by 6% in 2020

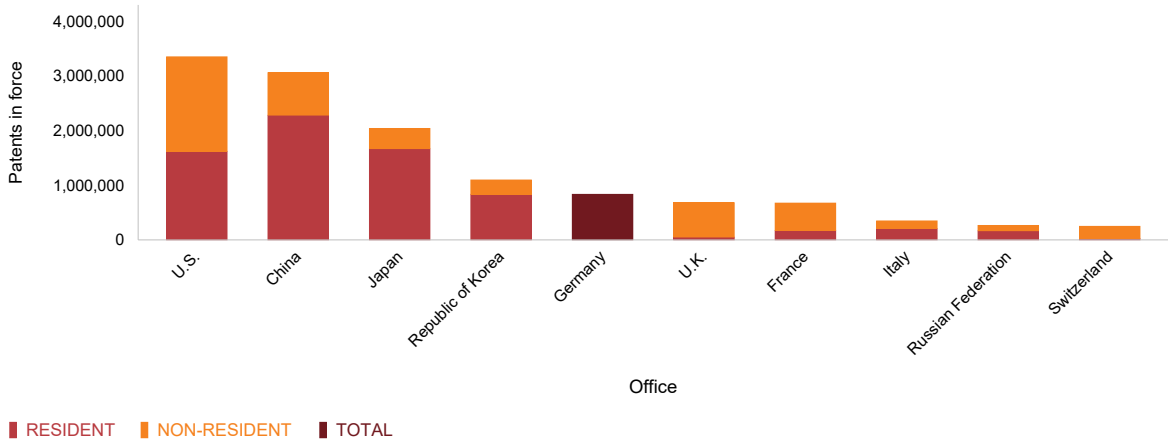
1.7. Patent grants worldwide, 2006–2020



Source: Figure A3.

More than 3 million patents were in force in China and in the U.S. in 2020

1.8. Patents in force at the top 10 offices, 2020



Source: Figure A40.

Asia's share of worldwide patent grants was 58.1% in 2020, 6.7 percentage points above its global share a decade earlier in 2010. This reflects the fact that three of the top five patent issuing authorities – China, Japan and the Republic of Korea – are located in this region. Offices located in North America accounted for almost one-quarter (23.4%) of patent grants worldwide in 2020, while those in Europe accounted for 14.5% of the world total (table A13). The combined share for Africa, LAC, and Oceania was 3.9%.

Around 15.9 million patents were in force globally in 2020

Patent rights generally last for up to 20 years from the date an application is filed. An estimated 15.9 million patents were in force across 135 jurisdictions in 2020, representing an increase of 5.9% on 2019. In 2020, the highest number of patents in force was in the U.S. (3.3 million), followed by China (3.1 million), Japan (2 million), the Republic of Korea (1.1 million) and Germany (0.8 million) (figure 1.8). Among the top five jurisdictions, China saw the fastest growth in patents in force in

2020 (+14.5%), followed by Germany (+8.1%), the U.S. (+6.9%) and the Republic of Korea (+4.6%), whereas Japan reported a small decrease (–0.7%) in 2020.

The source of the patents in force in the top five jurisdictions differs considerably (figure A40). More than half of all patents in force in the U.S. (51.6%) originated from non-resident applicants, while non-resident applicants accounted for a small proportion of patents in force in Japan (18.3%), the Republic of Korea (24%) and China (25.5%). A resident versus non-resident breakdown is unavailable for Germany.

A holder must pay a maintenance/renewal fee in order for a patent to remain valid, and may opt to let a patent lapse before the end of its full term. For the 92 offices that reported in-force data broken down by year of filing, around 41.3% of patents granted remained in force for at least 7 years after the filing date, and about 18.9% lasted the full 20-year term (figure A41).

Although patents can be maintained for 20 years, the average age of patents varies across offices. Among the selected 20 offices reported in figure A42, the average age of all patents in force in 2020 varied from 12.8 years in Brazil to 7.6 years in China. Along with Brazil, India (12 years), Israel (11.5 years), Germany (11 years), Chile (10.9 years) and Canada (10.8 years) also had patents in force of a similarly high average age.

IP offices of Brazil, Germany and the U.S. granted less than 42% of all applications processed in 2020

A patent office examines applications and decides whether to grant patent rights. Examination processes differ across offices, which makes cross-country comparisons difficult. Every effort has, however, been made to compile examination outcome data based on common definitions and concepts. In 2020, more than 60 IP offices shared data on patent examination outcomes – granted, rejected or withdrawn – with WIPO.

Among 10 selected offices, Brazil, Germany and the U.S. granted patents for less than 42% of applications processed in 2020 (figure 1.9).[2] Rejected applications as a share of the total were highest in China (35.5%), the Republic of Korea (26.7%) and the U.S. (45.2). In terms of absolute numbers, China and the U.S. each rejected more than 380,000 applications, while the Republic of Korea rejected around 47,000 applications.

The proportion of withdrawn or abandoned applications was greatest in Brazil (57.8%), Germany (38.3%) and India (37.7%). In terms of absolute numbers, the IP office of Brazil reported in excess of 33,000 applications as either withdrawn or abandoned. For Germany and India this was around 16,000 and 19,000 applications, respectively.

Brazil reduced its stock of applications pending by 20.8% in 2020

Patent offices must assess whether the claims made in applications meet the standards of novelty, non-obviousness and industrial applicability defined in national laws. Processing patents therefore consumes time and resources. The total number of potential applications pending worldwide stood at 5.2 million in 2020, which is marginally lower than the 2019 total (5.4 million). This estimate is based on data from 110 offices.

China and the USPTO had a similar amount of applications pending in 2020 – each with around 1 million (figure A44). They were followed by Japan (886,025), the EPO (560,736) and Germany (387,683). Among these five offices, China (+3.3%) is the only one where there were more applications pending in 2020 than in 2019. The EPO (–4.6%), Japan (–2.1%) and the U.S. (–2.9%) all managed to reduce considerably the stock of applications pending. The number of applications pending in Germany has remained static over the same period.

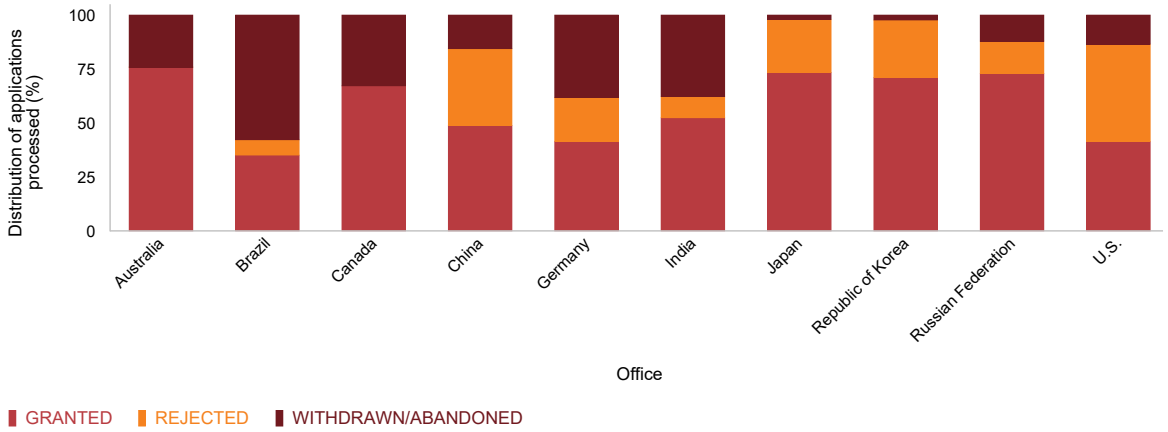
Among selected middle-income countries, Brazil (146,856) and India (117,336) both had a substantial number of applications still pending in 2020. However, both offices had sharply reduced the amount of applications pending compared to a year earlier by –20.8% and –23.4%, respectively. Indonesia (35,302) Malaysia (31,402) and the Russian Federation (32,877) each had a similar magnitude of applications pending, though Malaysia and the Russian Federation had both managed to reduce its stock of applications pending by around 12%.

Applications pending

Applications pending are all patent applications, at any stage in the process, awaiting a final decision by a patent office, including those applications for which applicants have not filed a request for examination (where applicable).

China and the U.S. each rejected more than 380,000 patent applications in 2020

1.9. Distribution of patent examination outcomes for selected offices, 2020



Source: Figure A43.

China extended its lead in 2020 as the biggest user of WIPO's PCT System

An international treaty administered by WIPO, the Patent Cooperation Treaty (PCT) allows applicants to seek patent protection for an invention simultaneously in a large number of countries by filing a single PCT international application. The granting of patents remains under the control of national and regional patent offices and is carried out in what is called the "national phase" or "regional phase."

International patent applications filed via WIPO's PCT – one of the most widely used metrics for measuring innovative activity – reached 275,900 applications in 2020 (figure A48), representing a 4% increase on 2019 and an eleventh consecutive year of growth. Applicants residing in China (68,720 applications) extended its lead in 2020 as the biggest user of WIPO's PCT System, followed by the U.S. (59,230), Japan (50,520), the Republic of Korea (20,060) and Germany (18,643) (figure A49).

Among the top 20 origins, China (+16.1%) is the only one to have recorded a double-digit annual growth between 2019 and 2020. Austria (+6%), Denmark (+7.5%), Switzerland (+5.5%) and the Republic of Korea (+5.2%) also saw strong growth, whereas Canada (–4%), India (–6.5%) and Japan (–4.1%) all reported a decline over the same period.

Applicants based in Asia accounted for 53.7% of all PCT applications filed in 2020, while Europe (22.3%) and North America (22.4%) each accounted for less than one-quarter. The combined share for Africa, LAC, and Oceania amounted to 1.6%.

Women inventors accounted for only 16.5% of all inventors listed in PCT applications in 2020

In 2020, women accounted for 16.5% of all inventors listed in PCT applications and men the remaining 83.5% (figure A33). The proportion of women inventors has increased from 11.3% in 2006 to 16.5% in 2020. Moreover, the proportion of women inventors has grown in every region of the world over the past decade. About 33.7% of PCT applications named at least one woman as inventor in 2020, and 95.9% named at least one man as inventor (figure A34). The share of PCT applications with at least one woman as inventor has risen from 22% in 2006 to 33.7% in 2020, while the share for those with at least one man as inventor has decreased within the same period, from 97.3% down to 95.9%.

The gender gap among PCT inventors varies considerably across countries. Within the top 20 origins, Spain (27.2%), China (22.4%) and the Republic of Korea (20.5%) had the largest proportion of inventors who were women in 2020 (figure A35). Conversely, Germany (10.8%), Japan (10.4%) and Austria (8.1%) had the smallest.

Fields of technology related to the life sciences had comparatively high shares of PCT applications with women inventors in 2020. Women represented more than one-quarter of inventors listed in published PCT applications in the fields of biotechnology (29.5%), food chemistry (29.4%), pharmaceuticals (28.6%), analysis of biological materials (25.9%) and organic fine chemistry (25.2%) (figure A36).

Australia's IP office recorded a 137.3% growth in utility model applications in 2020

A utility model (UM) is a special form of patent right granted by a state or jurisdiction to an inventor or the inventor's assignee for a fixed time period. The terms and conditions for granting a UM differ slightly from those for normal patents, including a shorter term of protection and less stringent eligibility requirements.

In 2020, the total number of UM applications worldwide reached 3 million, comprising 2.98 million resident applications and only 19,670 non-resident applications (figure A53). The IP office of China received 97.6% of the world total – the other 81 offices together accounted for just 2.4%.

The IP office of China received nearly 2.9 million applications in 2020, followed by Germany (12,318), the Russian Federation (9,195), Japan (6,018) and Ukraine (5,281) (figure A54). Among the top 10 offices, the IP office of Australia received 137.3% more applications in 2020 compared to a year earlier. This steep growth in applications could be explained by the fact that the Australian Government has begun phasing out innovation (i.e., UM) patents. Applicants may therefore have hurried to submit applications before the new legislation comes into force. The IP offices of China (+29%), Japan (+14.8%), Spain (+25.1%) and Turkey (+22.1%) also recorded a strong growth in 2020.

In the long term, demand for UM patents appears to be on the decline in four out of the five top offices – China being the exception. For example, applications at the office of Germany decreased from 20,418 in 2005 to 12,318 in 2020, while applications in Japan declined from 11,387 in 2005 to 6,018 in 2020. In contrast, China has seen an enormous growth in UM patent filings over the same period – applications increasing from 139,566 in 2005 to 2.9 million by 2020.

1 Patent applications data refer to invention patents and do not include utility model (UM) applications. UM applications data are reported separately (see figures A53–55). In the U.S., invention patents are referred to as "utility patents," which are not be confused with utility models.
2 Patents granted out of the total processed applications data presented here should not be interpreted as the "grant rate."

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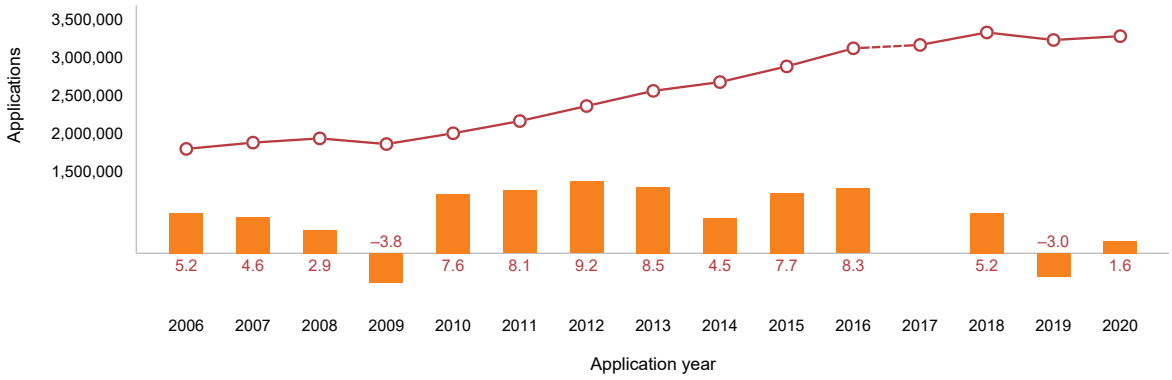
Patent applications and grants worldwide

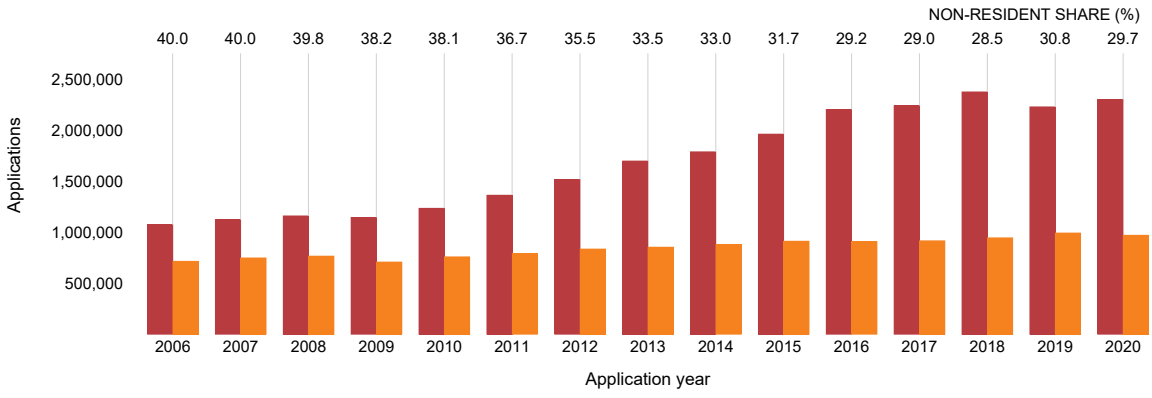
A1. Trend in patent applications worldwide, 2006–2020



Note: World totals are WIPO estimates using data covering 161 patent offices. These totals include applications filed directly with national and regional offices and applications entering offices through the Patent Cooperation Treaty national phase (where applicable). China's pre-2017 data are not comparable due to a change in methodology. Due to this break in the data series, and to the high number of filings in China, it is not possible to report an accurate 2017 growth rate at world level (see the data description section in Additional information for details).

Source: WIPO Statistics Database, September 2021.

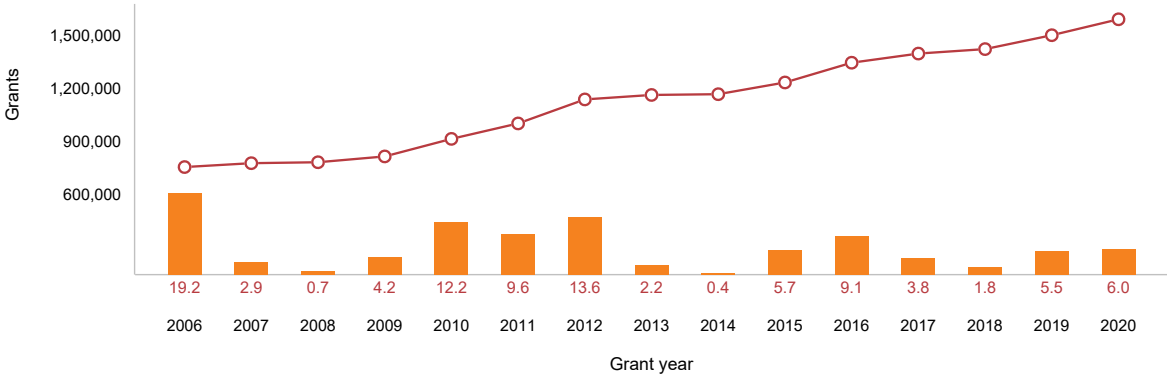
A2. Resident and non-resident patent applications worldwide, 2006–2020



Note: World totals are WIPO estimates using data covering 161 patent offices. These totals include applications filed directly with national and regional offices and applications entering offices through the Patent Cooperation Treaty national phase (where applicable). See the glossary for definitions of resident and non-resident.

Source: WIPO Statistics Database, September 2021.

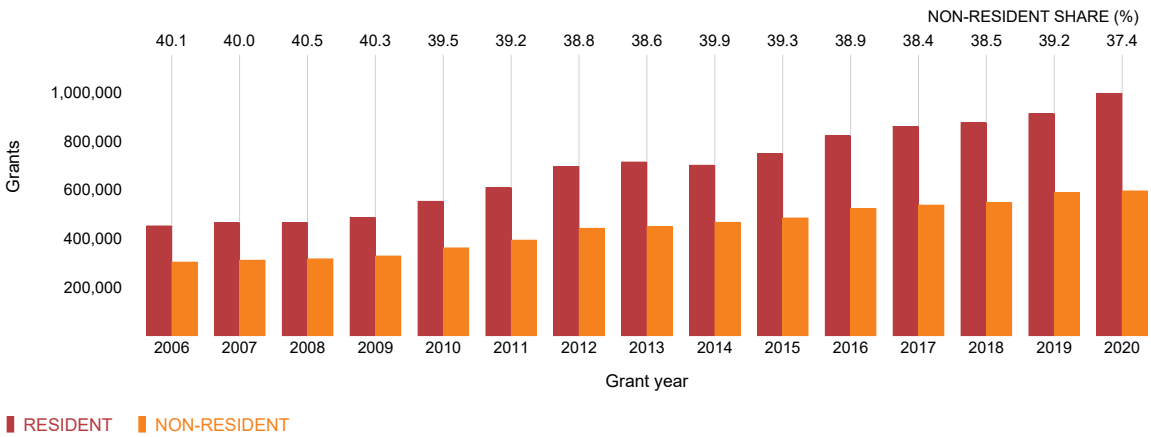
A3. Trend in patent grants worldwide, 2006–2020



Note: World totals are WIPO estimates using data covering 155 patent offices. These totals include patent grants based on applications filed directly with national and regional offices and patents granted by offices on the basis of the Patent Cooperation Treaty national phase (where applicable).

Source: WIPO Statistics Database, September 2021.

A4. Resident and non-resident patent grants worldwide, 2006–2020



Note: World totals are WIPO estimates using data covering 155 patent offices. These totals include patent grants based on applications filed directly with national and regional offices and patents granted by offices on the basis of the Patent Cooperation Treaty national phase (where applicable). See the glossary for definitions of resident and non-resident.

Source: WIPO Statistics Database, September 2021.

Patent applications and grants by office

A5. Patent applications by income group, 2010 and 2020

	Number of applications		Resident share (%)		Share of world total (%)		Average growth (%)
Income group	2010	2020	2010	2020	2010	2020	2010–2020
High-income	1,393,900	1,552,800	61.8	56.0	69.8	47.4	1.1
Upper middle-income	515,500	1,617,100	66.1	86.0	25.8	49.4	12.1
Lower middle-income	78,300	104,900	32.8	40.4	3.9	3.2	3.0
Low-income	9,700	1,900	89.7	31.6	0.5	0.1	–15.0
World	**1,997,400**	**3,276,700**	**61.9**	**70.3**	**100.0**	**100.0**	**5.1**

Note: Totals by income group are WIPO estimates using data covering 161 IP offices. Each category includes the following number of offices: high-income countries/economies (59), upper middle-income (48), lower middle-income (38) and low-income (16). European Patent Office data are allocated to the high-income group, because most of its member states are high-income countries. For the same reason, data for the African Regional Intellectual Property Organization and the African Intellectual Property Organization are allocated to the low-income group, while those for the Eurasian Patent Organization are allocated to the lower middle-income group. For information on income group classification, see the data description section in Additional information.

Source: WIPO Statistics Database, September 2021.

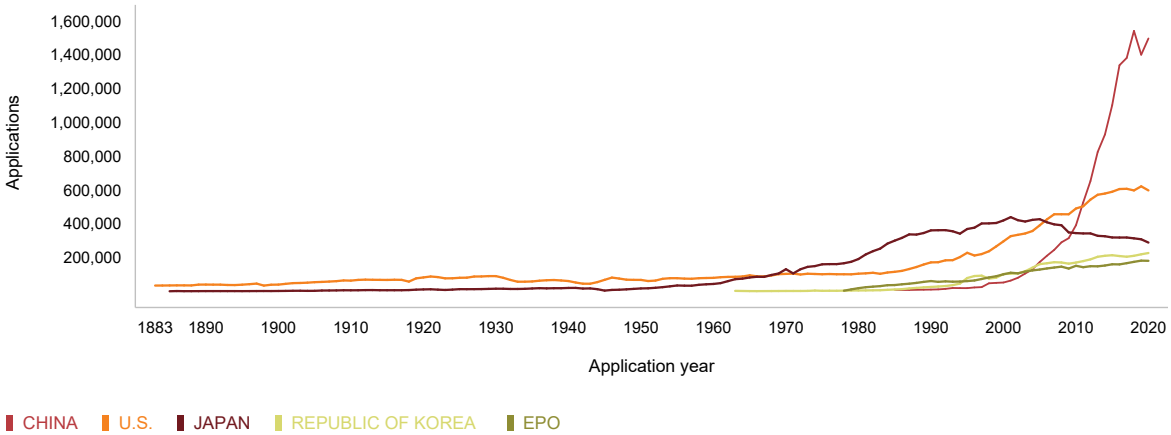
A6. Patent applications by region, 2010 and 2020

	Number of applications		Resident share (%)		Share of world total (%)		Average growth (%)
Region	2010	2020	2010	2020	2010	2020	2010–2020
Africa	12,700	16,400	15.7	20.7	0.6	0.5	2.6
Asia	1,028,700	2,183,400	73.5	82.9	51.5	66.6	7.8
Europe	343,300	357,900	64.6	57.8	17.2	10.9	0.4
Latin America and the Caribbean	55,400	52,200	11.7	16.3	2.8	1.6	–0.6
North America	525,700	631,700	46.9	43.4	26.3	19.3	1.9
Oceania	31,600	35,100	12.7	7.7	1.6	1.1	1.1
World	**1,997,400**	**3,276,700**	**61.9**	**70.3**	**100.0**	**100.0**	**5.1**

Note: Totals by geographical region are WIPO estimates using data covering 161 IP offices. Each region includes the following number of offices: Africa (31), Asia (46), Europe (45), Latin America and the Caribbean (32), North America (2) and Oceania (5).

Source: WIPO Statistics Database, September 2021.

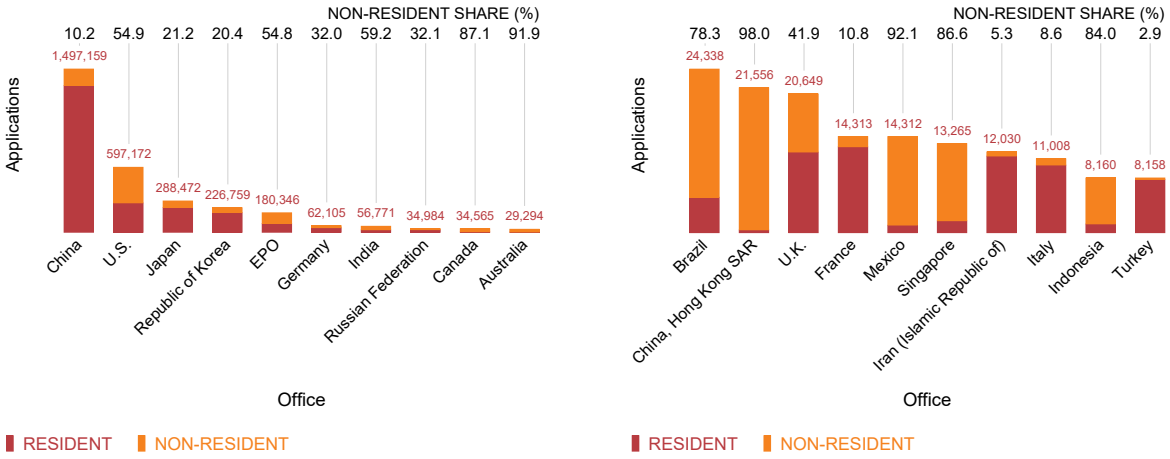
A7. Trend in patent applications for the top five offices, 1883–2020



Note: EPO is the European Patent Office. The top five offices were selected based on 2020 totals.

Source: WIPO Statistics Database, September 2021.

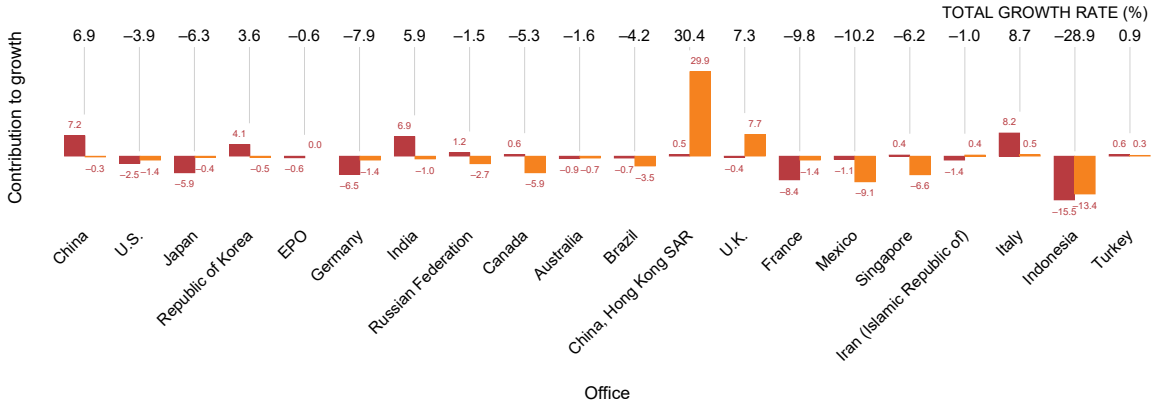
A8. Patent applications at the top 20 offices, 2020



Note: EPO is the European Patent Office. In general, the national offices of EPO member states receive lower volumes of applications, because applicants may apply via the EPO to seek protection within any EPO member state.

Source: WIPO Statistics Database, September 2021.

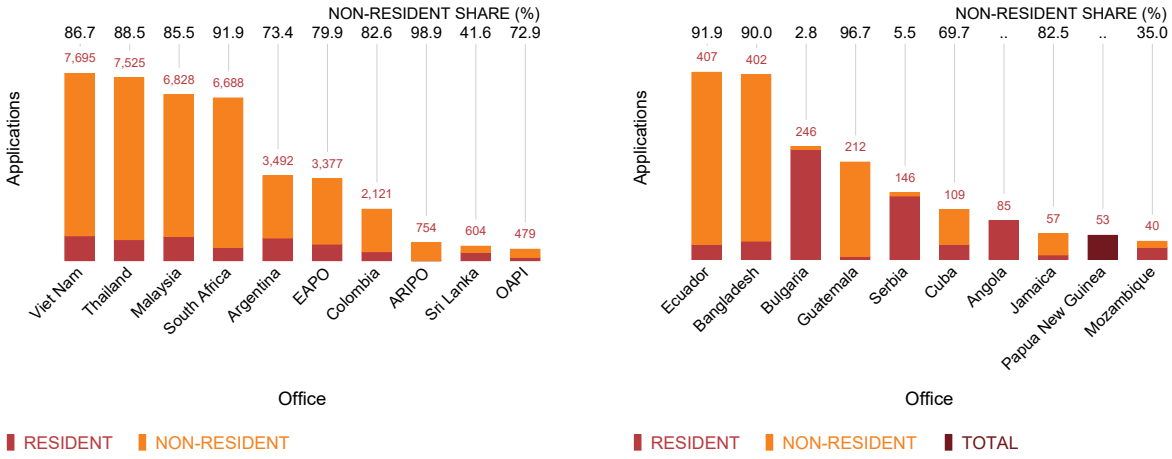
A9. Contribution of resident and non-resident applications to total growth for the top 20 offices, 2019–2020



Note: EPO is the European Patent Office. This figure shows the total growth or decrease in applications at each office, broken down by the respective contributions of resident and non-resident applications. For example, applications filed at the IP office of China grew by 6.9%. Growth in resident applications accounted for 7.2 percentage points of this increase, while non-resident applications decreased by 0.3 percentage points.

Source: WIPO Statistics Database, September 2021.

A10. Patent applications at offices of selected low- and middle-income countries, 2020

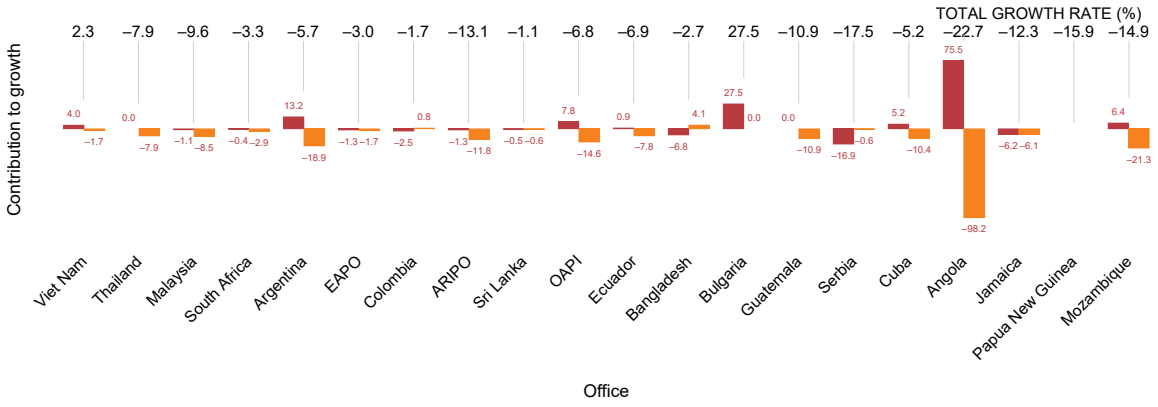


Note: ARIPO is the African Regional Intellectual Property Organization, EAPO is the Eurasian Patent Organization and OAPI is the African Intellectual Property Organization. The selected IP offices are from different world regions and income groups (low-income, lower middle-income and upper middle-income). Where available, data for all offices are presented in table A58.

.. indicates not available.

Source: WIPO Statistics Database, September 2021.

A11. Contribution of resident and non-resident applications to total growth for offices of selected low- and middle-income countries, 2019–2020



Note: ARIPO is the African Regional Intellectual Property Organization, EAPO is the Eurasian Patent Organization and OAPI is the African Intellectual Property Organization. The selected IP offices are from different world regions and income groups (low-income, lower middle-income and upper middle-income). This figure shows the total growth or decrease in applications at each office, broken down by the respective contributions of resident and non-resident applications. For example, applications filed in Malaysia declined by 9.6%. A fall in resident applications accounted for 1.1 percentage points of this decrease, while the remaining 8.5 percentage points came from a decline in non-resident applications. A resident versus non-resident breakdown is not available for Papua New Guinea.

Source: WIPO Statistics Database, September 2021.

A12. Patent grants by income group, 2010 and 2020

	Number of grants		Resident share (%)		Share of world total (%)		Average growth (%)
Income group	2010	2020	2010	2020	2010	2020	2010–2020
High-income	684,300	926,400	62.6	55.9	74.9	58.2	3.1
Upper middle-income	198,200	615,100	54.7	75.9	21.7	38.6	12.0
Lower middle-income	24,600	49,100	37.7	22.3	2.7	3.1	7.2
Low-income	7,100	1,400	91.1	22.9	0.8	0.1	–15.0
World	**914,200**	**1,592,000**	**60.5**	**62.6**	**100.0**	**100.0**	**5.7**

Note: Totals by income group are WIPO estimates using data covering 155 offices. Each category includes the following number of IP offices: high-income countries/economies (56), upper middle-income (46), lower middle-income (37) and low-income (16). European Patent Office data are allocated to the high-income group, because most of its member states are high-income countries. For similar a reason, data for the African Regional Intellectual Property Organization and the African Intellectual Property Organization are allocated to the low-income group, while those for the Eurasian Patent Organization are allocated to the lower middle-income group. For information on income group classification, see the data description section in Additional information.

Source: WIPO Statistics Database, September 2021.

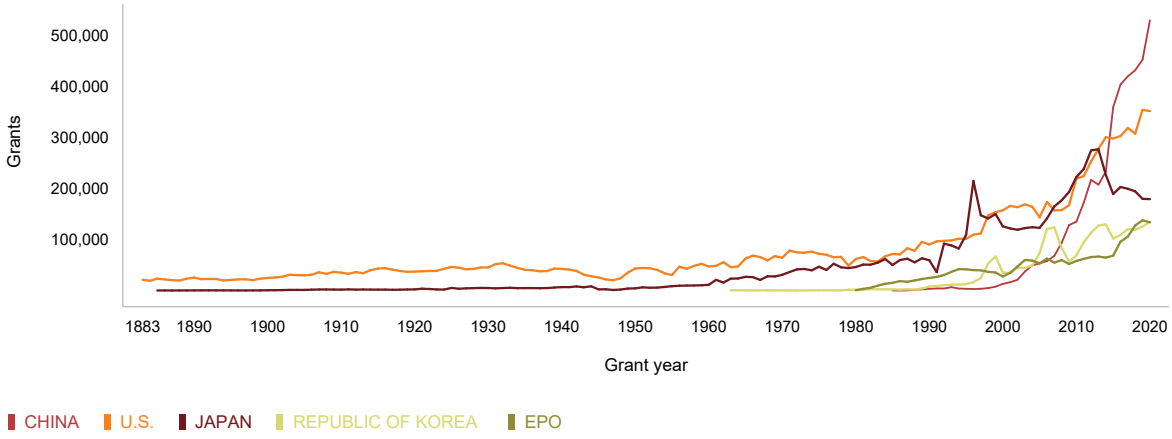
A13. Patent grants by region, 2010 and 2020

Region	Number of grants		Resident share (%)		Share of world total (%)		Average growth (%)
	2010	2020	2010	2020	2010	2020	2010–2020
Africa	9,000	7,000	14.2	14.9	1.0	0.4	– 2.5
Asia	469,600	924,500	71.5	75.8	51.4	58.1	7.0
Europe	160,800	231,500	64.2	53.6	17.6	14.5	3.7
Latin America and the Caribbean	17,200	36,100	5.6	8.5	1.9	2.3	7.7
North America	238,700	373,300	45.9	44.6	26.1	23.4	4.6
Oceania	18,900	19,600	8.3	5.2	2.1	1.2	0.4
World	**914,200**	**1,592,000**	**60.5**	**62.6**	**100.0**	**100.0**	**5.7**

Note: Totals by geographical region are WIPO estimates using data covering 155 offices. Each region includes the following number of offices: Africa (31), Asia (43), Europe (45), Latin America and the Caribbean (29), North America (2) and Oceania (5).

Source: WIPO Statistics Database, September 2021.

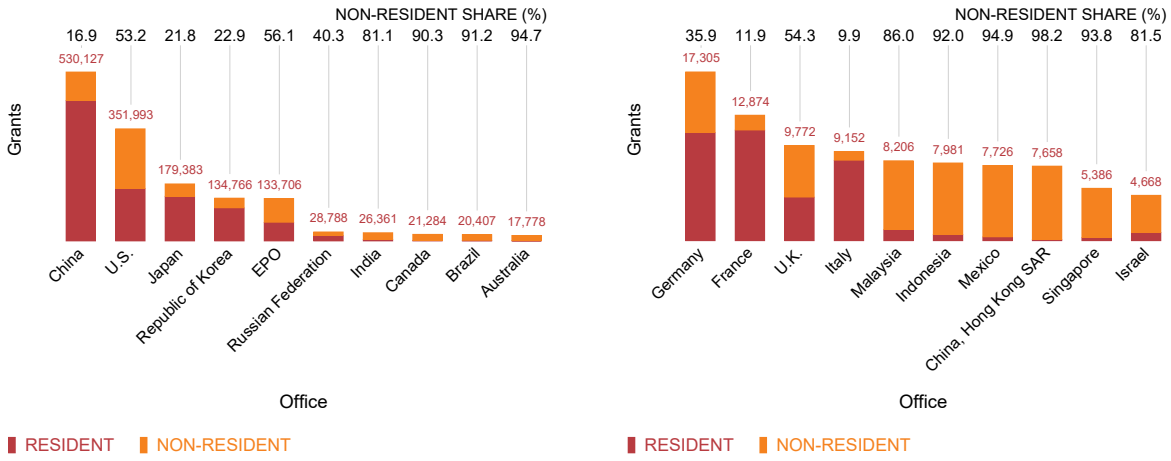
A14. Trend in patent grants for the top five offices, 1883–2020



Note: EPO is the European Patent Office. The top five offices were selected based on 2020 totals.

Source: WIPO Statistics Database, September 2021.

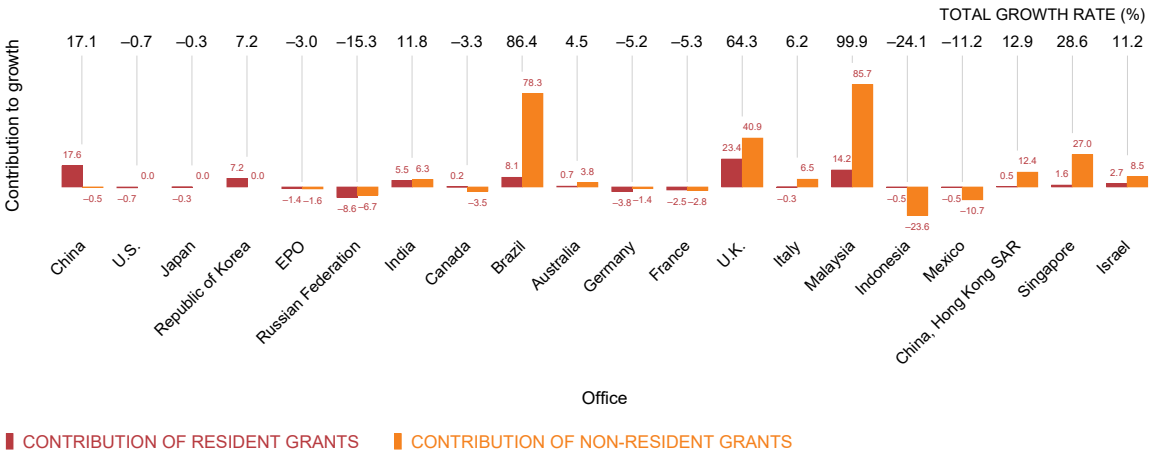
A15. Patent grants for the top 20 offices, 2020



Note: EPO is the European Patent Office. The procedure for issuing patents varies between offices, and differences in the numbers of patents granted across offices depend on factors such as examination capacity and procedural delays. The examination process can also be a lengthy one therefore there is a time lag between application and grant dates. For this reason, data on applications for a given year ought not to be compared with data on grants for the same year.

Source: WIPO Statistics Database, September 2021.

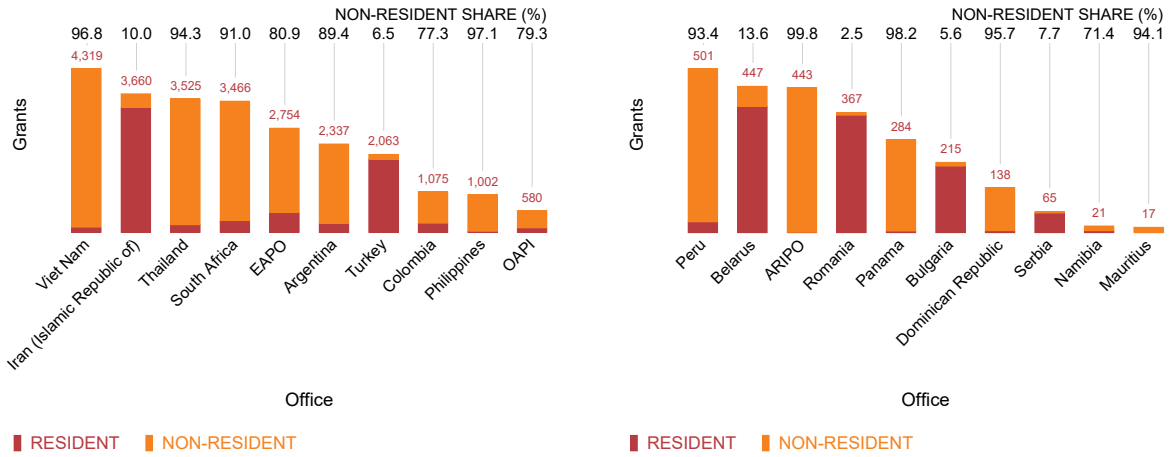
A16. Contribution of resident and non-resident grants to total growth for the top 20 offices, 2019–2020



Note: EPO is the European Patent Office. This figure shows the total growth or decrease in grants at each office, broken down by the respective contributions of resident and non-resident grants. For example, the total number of patents granted by the IP office of Brazil grew by 86.4%. Growth in non-resident grants accounted for 78.3 percentage point of this increase, while the remaining 8.1 percentage points came from growth in resident grants.

Source: WIPO Statistics Database, September 2021.

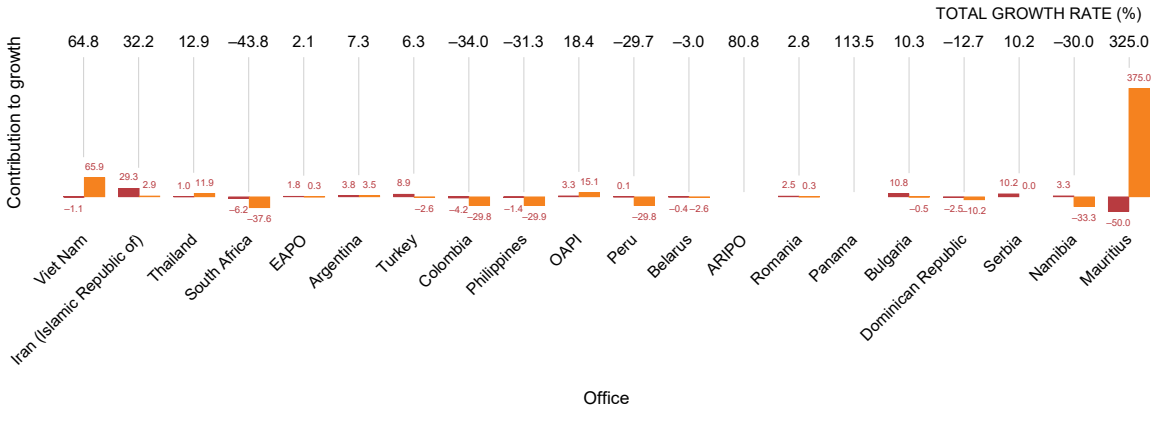
A17. Patent grants for offices of selected low- and middle-income countries, 2020



Note: ARIPO is the African Regional Intellectual Property Organization, EAPO is the Eurasian Patent Organization and OAPI is the African Intellectual Property Organization. The selected offices are from different world regions and income groups (low-income, lower middle-income and upper middle-income). Where available, data for all offices are presented in table A59.

Source: WIPO Statistics Database, September 2021.

A18. Contribution of resident and non-resident grants to total growth for offices of selected low- and middle-income countries, 2019–2020



Note: A resident versus non-resident breakdown is not available for ARIPO and Panama. ARIPO is the African Regional Intellectual Property Organization, EAPO is the Eurasian Patent Organization and OAPI is the African Intellectual Property Organization. This figure shows the total growth or decrease in grants at each office, broken down by the respective contributions of resident and non-resident grants. For example, the total number of patents granted by the IP office of Thailand grew by 12.9%. Growth in non-resident grants accounted for 11.9 percentage points of this increase, while the remaining 1 percentage point came from growth in resident grants.

Source: WIPO Statistics Database, September 2021.

Patent applications and grants by origin

A19. Equivalent patent applications for the top 20 origins, 2020

Note: Patent filing activity by origin includes resident applications and applications filed abroad. The origin of a patent application is determined by the residence of the first named applicant. Applications filed at regional offices are considered equivalent to multiple applications in the relevant member states. See the glossary for the definition of equivalent application.

Source: WIPO Statistics Database, September 2021.

A20. Patent applications for the top 20 offices and origins, 2020

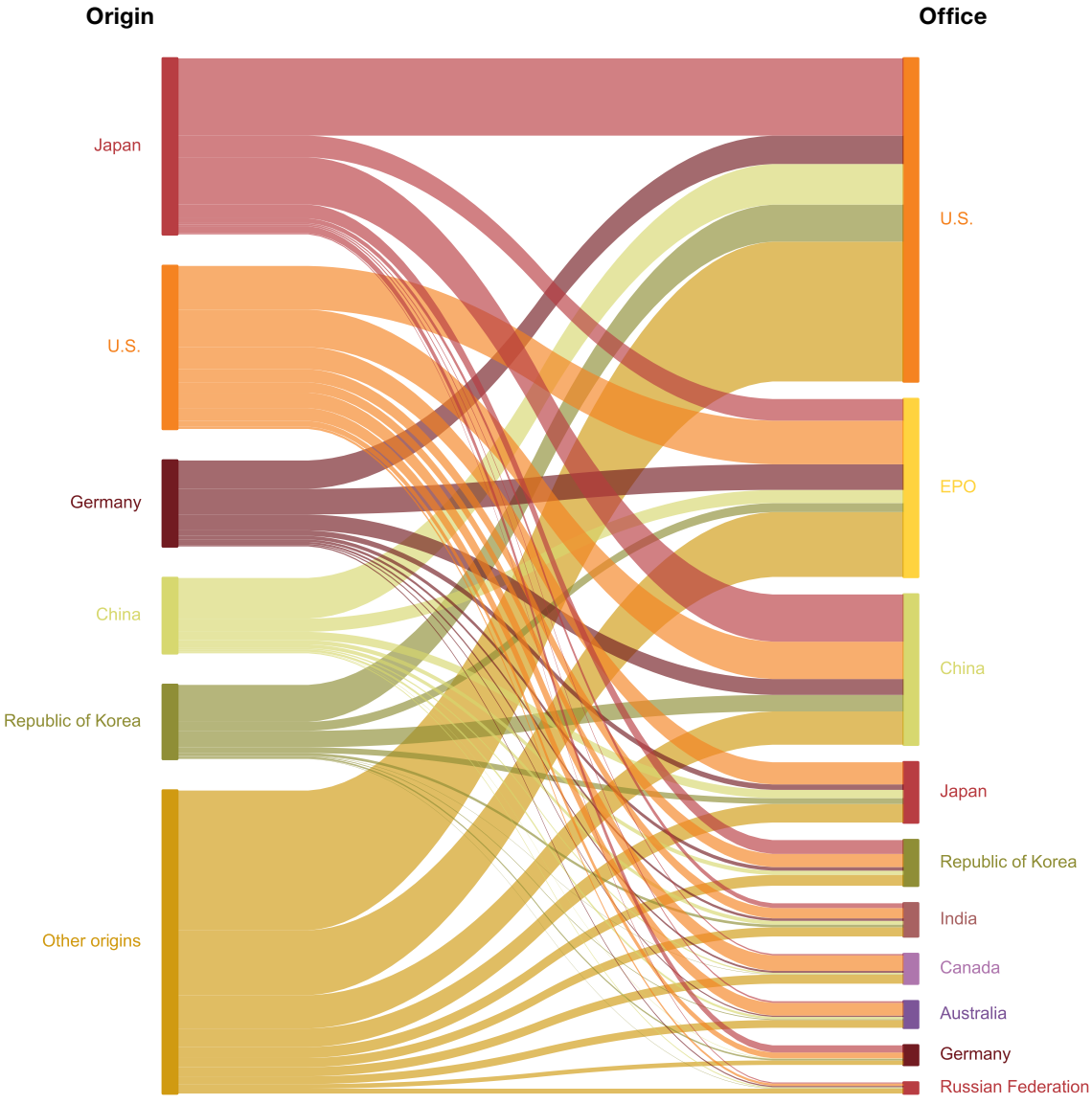
	Office									
Origin	Australia	Brazil	Canada	China	China, Hong Kong SAR	EPO	France	Germany	India	Indonesia
Australia	2,368	168	535	729	175	965	5	17	276	73
Austria	140	188	226	958	64	2,303	2	765	251	37
Belgium	242	271	344	713	148	2,390	71	80	283	44
Canada	522	228	4,452	1,061	272	1,771	6	64	317	34
China	2,312	1,168	1,426	1,344,817	6,644	13,374	104	499	3,775	746
Denmark	285	266	283	975	111	2,403		38	375	55
France	705	1,027	1,380	4,887	305	10,606	12,771	301	1,043	177
Germany	1,300	1,666	1,967	16,115	833	25,954	411	42,260	2,525	374
India	176	148	161	302	33	704	6	22	23,141	125
Iran (Islamic Republic of)		2	7	6		5		2	6	2
Israel	330	291	354	1,053	134	1,689	2	17	358	12
Italy	386	513	560	1,742	168	4,608	83	103	567	60
Japan	1,646	1,559	1,446	47,862	1,186	21,906	197	7,247	4,826	2,318
Netherlands	428	745	531	3,116	169	6,376	17	168	1,071	238
Republic of Korea	814	366	383	16,725	404	9,085	26	1,617	2,682	399
Russian Federation	35	55	81	202	26	270	2	27	57	41
Sweden	434	474	454	2,340	238	4,419	46	321	774	115
Switzerland	953	1,026	1,041	3,732	909	8,108	114	777	1,041	258
U.K.	1,206	586	1,244	2,850	605	5,719	46	173	963	133
U.S.	12,939	7,098	15,652	37,880	6,445	44,275	129	5,882	10,478	1,074
Others/Unknown	2,073	6,493	2,038	9,094	2,687	13,416	275	1,725	1,962	1,845
Total	**29,294**	**24,338**	**34,565**	**1,497,159**	**21,556**	**180,346**	**14,313**	**62,105**	**56,771**	**8,160**

	Office									
Origin	Iran (Islamic Republic of)	Italy	Japan	Mexico	Republic of Korea	Russian Federation	Singapore	Turkey	U.K.	U.S.
Australia	7	1	485	115	225	74	187	1	121	3,469
Austria	10	9	395	92	324	138	46		43	2,316
Belgium	18	33	512	136	262	138	82	6	127	2,480
Canada	9		616	230	403	87	97	1	134	12,234
China	49	245	8,406	578	4,282	1,084	1,646	36	1,647	41,210
Denmark	13		475	170	223	132	76		79	2,253
France	56	58	2,375	434	1,454	693	297	1	125	11,309
Germany	38	146	5,540	1,034	3,646	1,302	537	27	464	28,747
India	8	2	219	98	116	51	94	10	48	10,588
Iran (Islamic Republic of)	11,396			2	3		2	5	1	98
Israel		6	767	117	364	126	109	4	101	8,234
Italy	31	10,061	758	259	424	399	75	3	69	5,053
Japan	33	42	227,348	919	14,026	1,152	1,751	31	535	78,308
Netherlands	11	7	1,861	317	923	468	102	2	180	4,412
Republic of Korea	17	9	5,881	234	180,477	406	430	11	185	37,490
Russian Federation	13		99	26	94	23,759	18	4	5	1,233
Sweden	3	51	1,164	333	722	416	87	5	150	5,064
Switzerland	62	111	2,602	632	1,309	767	387	9	340	5,475
U.K.	13	45	1,946	366	1,109	419	424	2	11,990	13,229
U.S.	148	75	22,451	6,206	13,326	2,362	3,907	44	2,391	269,586
Others/Unknown	95	107	4,572	2,014	3,047	1,011	2,911	7,956	1,914	54,384
Total	**12,030**	**11,008**	**288,472**	**14,312**	**226,759**	**34,984**	**13,265**	**8,158**	**20,649**	**597,172**

Note: EPO is the European Patent Office. Origin data are based on absolute counts, not equivalent counts. The top 20 offices and origins were selected based on the available 2020 data, broken down by country of origin.

Source: WIPO Statistics Database, September 2021.

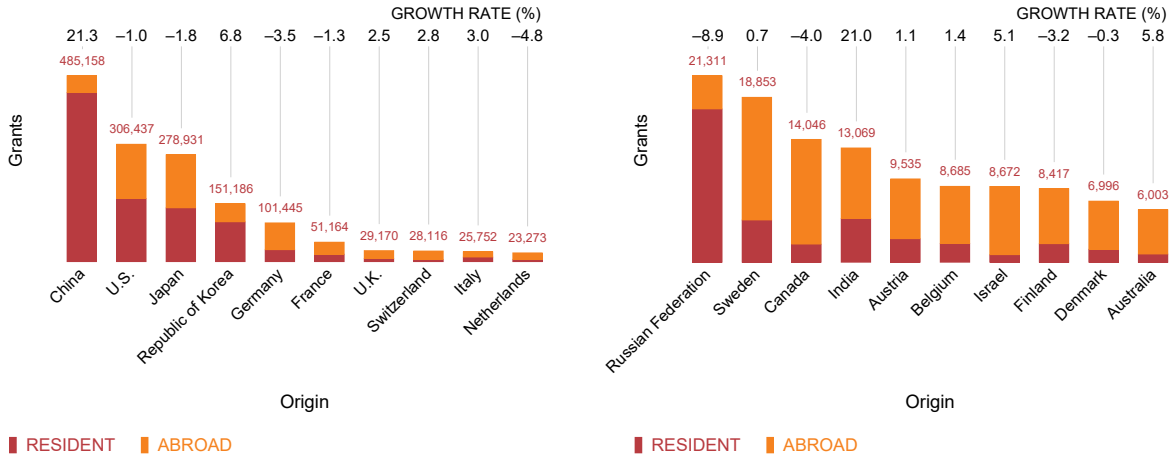
A21. Flows of non-resident patent applications between the top five origins and the top 10 offices, 2020



Note: EPO is the European Patent Office. Origin data are based on absolute counts, not equivalent counts.

Source: WIPO Statistics Database, September 2021.

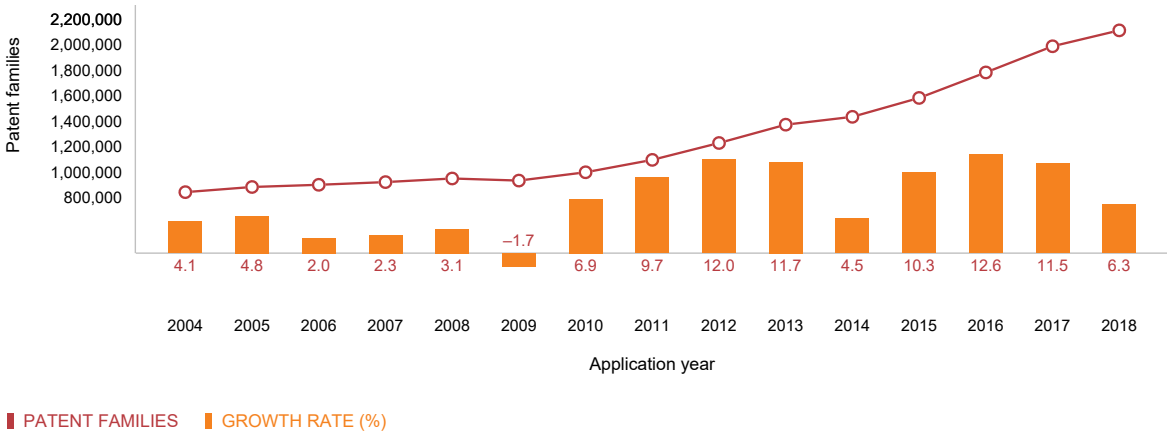
A22. Equivalent patent grants for the top 20 origins, 2020



Note: See the glossary for the definition of an equivalent grant.
Source: WIPO Statistics Database, September 2021.

Patent families

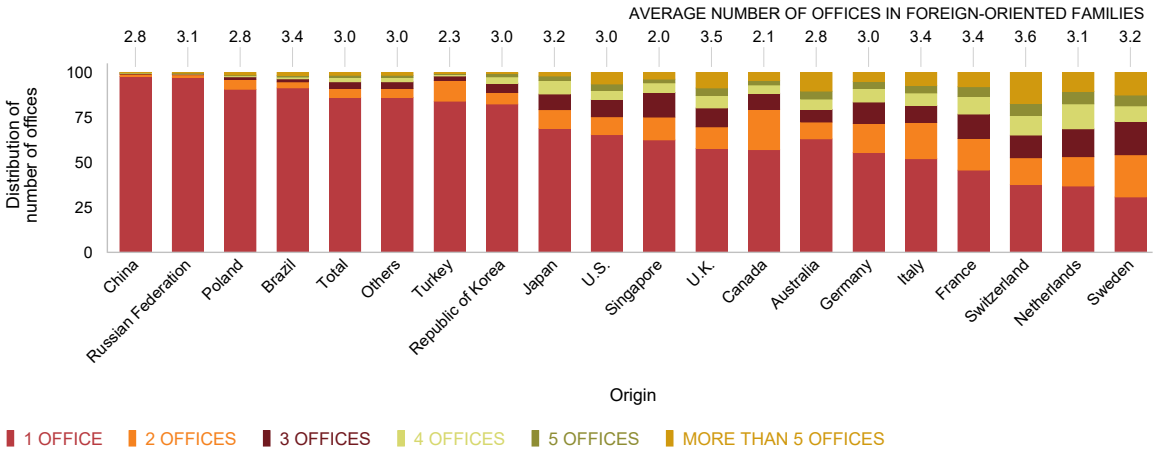
A23. Trend in patent families worldwide, 2004–2018



Note: Applicants often file patent applications in multiple jurisdictions therefore some inventions are recorded more than once. To take this into account, WIPO has indicators related to patent families, defined as patent applications interlinked by one or more of the following: priority claim, Patent Cooperation Treaty national phase entry, continuation, continuation-in-part, internal priority and addition or division. Patent families here include only those associated with patent applications for inventions and exclude patent families associated with utility model applications.

Sources: WIPO Statistics Database and EPO PATSTAT database, September 2021.

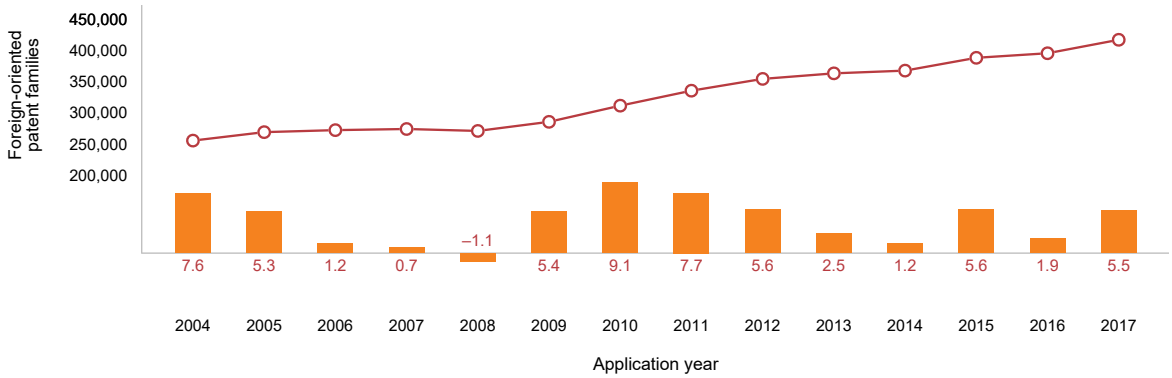
A24. Distribution of patent families by number of offices for the top origins, 2016–2018



Note: A patent family is defined as comprising patent applications interlinked by one or more of the following: priority claim, Patent Cooperation Treaty national phase entry, continuation, continuation-in-part, internal priority and addition or division. Patent families here include only those associated with patent applications for inventions and exclude patent families associated with utility model applications.

Sources: WIPO Statistics Database and EPO PATSTAT database, September 2021.

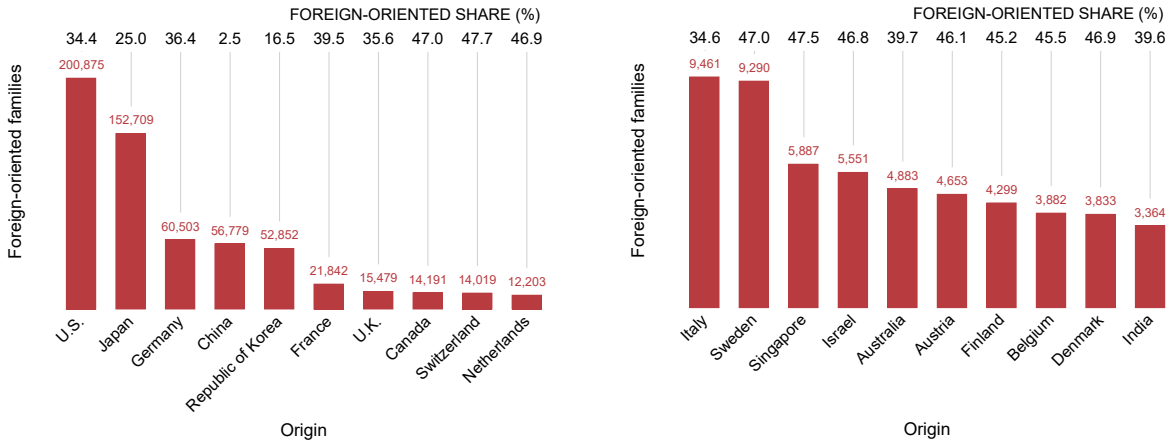
A25. Trend in foreign-oriented patent families worldwide, 2004–2017



Note: A special subset of patent families comprises foreign-oriented patent families: this includes only patent families that have at least one filing office different from the office of the applicant's country of origin. Some foreign-oriented patent families include only one filing office, because applicants may choose to file directly with a foreign office. For example, if a Canadian applicant files a patent application directly with the United States Patent and Trademark Office (USPTO) without having previously filed with the patent office of Canada, that application and any applications filed subsequently with the USPTO will form a foreign-oriented patent family.

Sources: WIPO Statistics Database and EPO PATSTAT database, September 2021.

A26. Foreign-oriented patent families for the top 20 origins, 2016–2017



Note: A special subset of patent families comprises foreign-oriented patent families: this includes only patent families that have at least one filing office different from the office of the applicant's country of origin. Some foreign-oriented patent families include only one filing office, because applicants may choose to file directly with a foreign office. For example, if a Canadian applicant files a patent application directly with the United States Patent and Trademark Office (USPTO) without having previously filed with the patent office of Canada, that application and any applications filed subsequently with the USPTO will form a foreign-oriented patent family.

Sources: WIPO Statistics Database and EPO PATSTAT database, September 2021.

A27. Distribution of technology fields for selected applicants based on patent families, 2016–2018

Field of technology	Applicant									
	Canon Inc	Huawei Technologies	Toyota Motor Corp	IBM	Samsung Electronics	LG Electronics Inc	Mitsubishi Electric Corp	China Petroleum & Chemicals	Robert Bosch GmbH	Gree Electric
Electrical machinery, apparatus, energy	2.9	2.4	23.4	1.3	4.8	6.1	20.3	0.8	15.0	7.4
Audio-visual technology	16.6	5.4	1.2	2.9	9.2	5.9	4.4	0.1	2.1	2.3
Telecommunications	6.4	11.2	0.4	2.2	8.2	8.4	4.1	0.1	0.9	2.9
Digital communication	3.2	54.4	0.9	14.7	17.3	34.9	3.7	0.2	2.4	3.2
Basic communication processes	0.2	2.1	0.2	0.9	1.7	0.5	1.6	0.0	0.6	0.4
Computer technology	13.6	17.5	2.8	47.6	23.0	3.3	6.6	2.8	4.4	8.4
IT methods for management	0.5	0.7	1.3	6.1	1.2	0.5	1.4	1.8	0.4	0.9
Semiconductors	2.6	1.0	2.9	10.2	14.4	2.9	6.5	0.0	1.2	0.5
Optics	29.9	1.6	0.2	0.9	3.5	1.4	2.9	0.0	1.6	0.1
Measurement	2.1	1.5	4.2	2.6	3.3	1.6	6.4	11.3	12.2	2.7
Analysis of biological materials	0.0	0.0	0.0	0.2	0.2	0.1	0.0	0.7	0.3	0.1
Control	0.7	0.7	4.7	2.6	1.1	1.2	5.1	0.8	5.0	3.8
Medical technology	3.6	0.3	0.6	2.1	2.3	0.8	0.5	0.1	0.9	0.4
Organic fine chemistry	0.1	0.0	0.0	0.2	0.3	0.0	0.0	12.3	0.0	0.0
Biotechnology	0.0	0.0	0.1	0.1	0.2	0.0	0.0	0.7	0.1	0.0
Pharmaceuticals	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Macromolecular chemistry, polymers	0.3	0.0	0.1	0.4	0.3	0.0	0.1	10.3	0.1	0.1
Food chemistry	0.0	0.0	0.0	0.0	0.0	0.4	0.0	0.0	0.0	0.1
Basic materials chemistry	0.9	0.0	0.2	0.2	0.7	0.2	0.1	17.4	0.1	0.1
Materials, metallurgy	0.2	0.0	1.6	0.1	0.4	0.3	0.2	4.1	0.8	0.1
Surface technology, coating	0.5	0.1	1.3	0.2	0.6	0.3	0.4	0.6	0.6	0.2
Micro-structural and nano-technology	0.1	0.0	0.0	0.3	0.2	0.0	0.0	0.2	1.4	0.0
Chemical engineering	0.2	0.0	0.8	0.3	0.3	1.2	0.5	15.0	1.0	1.4
Environmental technology	0.4	0.0	2.3	0.0	0.2	0.8	0.6	6.9	2.5	1.8
Handling	3.1	0.1	1.1	0.3	0.4	1.9	5.1	0.6	1.2	1.3
Machine tools	0.2	0.0	2.6	0.2	0.2	0.2	1.5	0.2	4.5	0.7
Engines, pumps, turbines	0.1	0.0	10.9	0.1	0.2	4.1	3.6	0.3	13.2	5.1
Textile and paper machines	9.3	0.0	0.0	0.0	0.0	0.0	0.4	0.9	0.1	0.0
Other special machines	1.5	0.0	1.3	0.3	0.3	0.5	0.6	1.3	2.0	0.4
Thermal processes and apparatus	0.0	0.1	0.6	0.2	1.3	8.1	13.6	0.5	1.4	42.5
Mechanical elements	0.5	0.1	9.1	0.1	0.3	0.8	1.1	1.0	5.8	1.9
Transport	0.1	0.4	24.4	0.8	0.7	1.8	4.3	0.2	16.9	1.6
Furniture, games	0.0	0.0	0.3	0.3	0.9	3.3	2.4	0.0	0.3	6.3
Other consumer goods	0.1	0.0	0.1	0.2	2.0	8.0	1.4	0.1	0.2	3.1
Civil engineering	0.0	0.0	0.4	0.1	0.2	0.6	0.4	8.7	0.4	0.4

Note: WIPO's International Patent Classification (IPC) technology concordance table was used to convert IPC symbols into 35 corresponding fields of technology. For an electronic version of the IPC technology concordance table, visit *www.wipo.int/ipstats*.

Sources: WIPO Statistics Database and EPO PATSTAT database, September 2021.

A28. Distribution of technology fields for selected universities and PROs based on patent families, 2016–2018

	Applicant											
Field of technology	Zhejiang University	Tianjin University	CEA	IFP Energies Nouvelles	Fraunhofer Ges Forschung	DLR	AIST	Tokyo University	Korea Electronics Telecomm	KAIST	University of California	MIT
Electrical machinery, apparatus, energy	6.8	7.2	12.9	5.1	5.6	5.6	9.2	6.8	2.6	6.8	3.9	5.0
Audio-visual technology	0.8	1.7	2.1	0.2	7.3	0.6	0.9	1.7	9.4	2.6	0.7	1.2
Telecommunications	1.4	1.8	1.7	0.0	6.6	2.6	0.9	0.9	7.7	4.8	1.2	2.0
Digital communication	1.8	2.1	1.9	0.0	8.3	2.5	0.4	1.2	29.0	7.4	1.2	1.7
Basic communication processes	0.3	2.1	2.4	0.2	1.6	1.8	0.4	0.5	1.4	2.1	1.1	0.9
Computer technology	12.5	15.8	8.2	1.4	7.4	3.2	2.9	5.5	23.1	17.2	5.1	8.2
IT methods for management	2.1	2.0	0.2	0.3	0.3	0.5	0.7	1.5	4.1	2.7	0.2	0.5
Semiconductors	1.4	1.2	19.1	0.0	5.2	1.1	9.9	2.5	3.5	7.2	3.8	4.4
Optics	1.4	0.9	4.7	0.0	5.1	1.3	3.5	2.1	3.5	4.0	3.0	2.9
Measurement	15.0	16.7	12.3	4.4	11.3	15.0	14.9	11.8	4.8	7.5	5.7	7.4
Analysis of biological materials	1.0	0.9	0.9	1.7	1.1	0.2	2.1	5.3	0.3	1.9	4.9	4.6
Control	4.3	1.9	0.9	0.3	1.1	4.5	0.7	1.4	3.1	1.0	0.6	1.1
Medical technology	3.5	3.2	2.2	0.2	3.2	1.5	3.1	6.1	2.3	5.0	12.8	7.4
Organic fine chemistry	3.4	3.0	0.8	10.1	0.5	0.0	6.6	2.9	0.0	0.7	5.8	2.7
Biotechnology	5.4	3.0	0.8	2.9	2.5	0.1	6.1	14.0	0.1	3.9	17.5	16.4
Pharmaceuticals	3.4	1.0	0.5	0.0	1.0	0.0	1.1	7.4	0.0	1.6	17.1	7.9
Macromolecular chemistry, polymers	2.3	2.4	0.7	1.1	1.6	0.3	2.2	5.0	0.0	1.2	1.3	2.2
Food chemistry	2.8	0.6	0.1	0.5	0.3	0.0	0.7	0.5	0.0	0.3	0.7	0.4
Basic materials chemistry	2.0	2.5	1.6	18.3	1.7	0.7	3.1	1.9	0.1	1.2	1.5	1.2
Materials, metallurgy	3.2	5.1	3.0	4.1	4.1	1.9	9.9	2.7	0.2	2.4	1.8	2.5
Surface technology, coating	1.1	1.6	3.3	0.4	3.3	1.8	3.8	1.5	0.2	1.9	0.9	2.5
Micro-structural and nano-technology	0.7	1.1	2.7	0.2	1.0	0.1	2.1	1.3	0.2	1.1	0.8	1.2
Chemical engineering	3.4	3.9	2.5	24.0	2.3	0.5	5.4	1.9	0.2	3.6	3.1	4.4
Environmental technology	3.0	3.4	1.7	4.7	0.8	0.7	1.6	0.8	0.1	1.1	0.9	1.6
Handling	1.2	1.1	1.4	0.1	1.5	7.1	0.6	1.5	0.5	1.0	0.5	1.1
Machine tools	1.1	2.2	0.9	0.2	4.1	1.1	1.4	1.5	0.1	0.2	0.2	0.4
Engines, pumps, turbines	1.9	1.7	2.1	9.3	1.0	5.6	0.4	1.3	0.1	1.4	0.3	0.8
Textile and paper machines	0.6	0.2	0.2	0.1	1.0	0.9	1.0	0.4	0.1	0.7	0.2	0.7
Other special machines	3.4	2.0	1.8	0.6	4.0	11.4	2.6	2.7	0.6	1.6	1.4	3.0
Thermal processes and apparatus	1.6	1.7	3.3	2.3	1.5	7.3	0.7	0.9	0.1	0.6	0.5	0.4
Mechanical elements	1.6	0.7	1.0	1.9	1.0	3.5	0.2	0.5	0.0	0.6	0.2	1.0
Transport	2.4	1.1	1.2	1.9	1.6	15.2	0.1	0.8	1.9	2.1	0.5	1.2
Furniture, games	0.5	0.2	0.2	0.1	0.3	0.2	0.2	0.0	0.4	0.5	0.1	0.0
Other consumer goods	0.5	0.3	0.4	0.0	0.5	0.6	0.3	0.1	0.1	0.6	0.2	0.4
Civil engineering	2.3	3.7	0.5	3.3	0.3	0.4	0.3	3.0	0.1	1.3	0.2	0.5

Note: PRO means public research organization. A patent family is defined as comprising patent applications interlinked by one or more of the following: priority claim, Patent Cooperation Treaty national phase entry, continuation, continuation-in-part, internal priority and addition or division. Patent families include only those associated with patent applications for inventions and exclude patent families associated with utility model applications. Le Commissariat à l'énergie atomique et aux énergies alternatives (CEA); Deutsches Zentrum für Luft- und Raumfahrt E.V. (DLR); National Institute of Advanced Industrial Science and Technology (AIST); Korea Advanced Institute of Science and Technology (KAIST); and Massachusetts Institute of Technology (MIT).

Sources: WIPO Statistics Database and EPO PATSTAT database, September 2021.

Published patent applications by field of technology

A29. Published patent applications worldwide by field of technology, 2009, 2014 and 2019

Field of technology		Number of published applications			Share of total (%)	Average growth (%)
		2009	2014	2019	2019	2009–2019
Electrical engineering	Electrical machinery, apparatus, energy	111,980	172,934	210,429	6.6	6.5
	Audio-visual technology	83,019	76,268	86,827	2.7	0.4
	Telecommunications	60,237	52,058	57,973	1.8	–0.4
	Digital communication	73,146	115,628	155,011	4.9	7.8
	Basic communication processes	17,147	16,931	17,670	0.6	0.3
	Computer technology	131,516	188,469	284,146	8.9	8.0
	IT methods for management	24,698	41,372	77,523	2.4	12.1
	Semiconductors	77,777	87,859	93,337	2.9	1.8
Instruments	Optics	69,336	64,784	75,040	2.4	0.8
	Measurement	76,685	114,007	182,612	5.7	9.1
	Analysis of biological materials	11,909	14,547	19,745	0.6	5.2
	Control	29,395	43,425	78,422	2.5	10.3
	Medical technology	78,793	106,647	154,706	4.9	7.0
Chemistry	Organic fine chemistry	55,245	58,896	65,540	2.1	1.7
	Biotechnology	38,403	50,185	70,520	2.2	6.3
	Pharmaceuticals	73,865	90,655	96,737	3.0	2.7
	Macromolecular chemistry, polymers	28,877	40,932	53,901	1.7	6.4
	Food chemistry	27,416	57,073	56,343	1.8	7.5
	Basic materials chemistry	43,244	70,992	81,429	2.6	6.5
	Materials, metallurgy	35,695	58,723	76,570	2.4	7.9
	Surface technology, coating	32,643	40,905	48,716	1.5	4.1
	Micro-structural and nano-technology	3,222	5,053	5,724	0.2	5.9
	Chemical engineering	36,375	53,859	91,855	2.9	9.7
	Environmental technology	24,535	36,993	63,462	2.0	10.0
Mechanical engineering	Handling	43,376	60,461	99,202	3.1	8.6
	Machine tools	40,731	66,581	103,286	3.2	9.8
	Engines, pumps, turbines	48,489	62,345	63,404	2.0	2.7
	Textile and paper machines	32,685	36,404	46,688	1.5	3.6
	Other special machines	48,393	76,095	127,302	4.0	10.2
	Thermal processes and apparatus	27,652	38,854	54,797	1.7	7.1
	Mechanical elements	47,500	63,919	77,066	2.4	5.0
	Transport	70,844	96,819	142,882	4.5	7.3
Other fields	Furniture, games	43,943	58,633	80,049	2.5	6.2
	Other consumer goods	32,379	46,012	59,532	1.9	6.3
	Civil engineering	55,477	81,760	120,436	3.8	8.1
	Unknown	5,847	3,786	3,790	0.1	–4.2
Total		**1,742,474**	**2,350,864**	**3,182,672**	**100.0**	**6.2**

Note: Data refer to published patent applications. There is a minimum delay of 18 months between the application date and the publication date. WIPO's International Patent Classification (IPC) technology concordance table was used to convert IPC symbols into 35 corresponding fields of technology. For an electronic version of the IPC technology concordance table, visit *www.wipo.int/ipstats*.

Sources: WIPO Statistics Database and EPO PATSTAT database, September 2021.

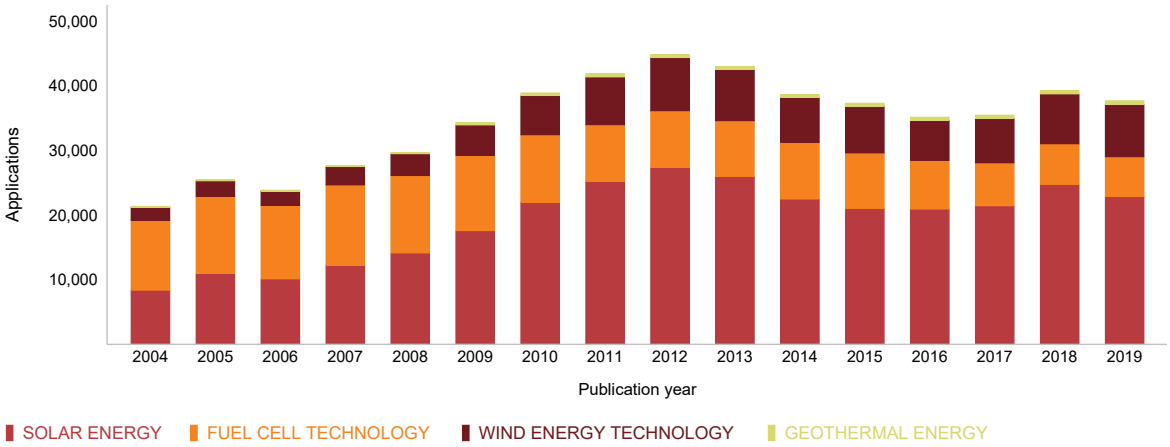
A30. Distribution of published patent applications by technology field for the top 10 origins, 2017–2019

	Origin									
Field of technology	China	U.S.	Japan	Republic of Korea	Germany	France	U.K.	Switzerland	Netherlands	Russian Federation
Electrical machinery, apparatus, energy	6.4	4.3	10.0	8.5	8.9	6.5	5.4	6.5	6.6	3.6
Audio-visual technology	2.2	2.6	4.4	4.9	1.5	2.0	1.9	0.9	1.9	0.6
Telecommunications	1.7	2.3	2.3	2.6	1.0	1.8	1.6	0.5	1.3	1.4
Digital communication	4.7	7.5	2.9	6.0	1.8	4.0	2.9	1.4	2.3	0.8
Basic communication processes	0.3	0.8	0.8	0.6	0.6	0.6	0.7	0.3	0.8	0.8
Computer technology	8.6	11.8	5.8	8.2	3.3	5.0	7.5	2.4	5.9	3.0
IT methods for management	2.2	2.7	1.5	3.0	0.5	0.9	1.4	0.7	0.6	0.6
Semiconductors	1.5	2.7	5.3	6.2	2.2	2.2	1.3	0.8	3.0	0.8
Optics	1.4	1.8	6.0	3.2	1.8	2.1	1.6	0.9	5.5	0.8
Measurement	6.4	3.9	4.7	3.8	6.1	4.8	4.9	7.9	5.3	8.2
Analysis of biological materials	0.5	0.9	0.4	0.5	0.6	0.9	1.1	1.2	0.7	2.2
Control	2.8	2.2	2.4	1.7	2.3	1.5	1.6	1.7	1.2	1.9
Medical technology	2.9	8.7	3.7	3.9	4.5	4.8	7.1	8.6	12.2	8.1
Organic fine chemistry	1.9	2.8	1.4	1.9	3.0	4.6	4.4	5.5	3.9	1.8
Biotechnology	1.6	4.0	1.1	1.6	1.9	3.1	4.7	6.0	3.8	1.7
Pharmaceuticals	2.5	5.9	1.3	2.1	2.5	4.2	7.5	9.7	3.5	4.3
Macromolecular chemistry, polymers	1.8	1.3	2.3	1.4	2.0	2.0	0.8	1.8	3.0	0.9
Food chemistry	3.2	1.2	0.8	2.1	0.4	0.9	0.9	3.5	3.5	8.0
Basic materials chemistry	3.5	2.6	2.2	1.8	3.1	2.3	2.6	3.0	4.4	2.8
Materials, metallurgy	3.2	1.2	2.4	1.8	1.9	2.4	1.5	1.5	0.9	4.6
Surface technology, coating	1.4	1.3	2.5	1.5	1.7	1.6	1.0	1.5	1.6	1.5
Micro-structural and nano-technology	0.2	0.2	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.8
Chemical engineering	4.1	2.1	1.4	2.3	2.7	2.8	3.1	2.3	2.6	3.9
Environmental technology	2.9	1.1	1.1	1.6	1.5	1.3	1.8	0.8	1.4	2.8
Handling	3.5	2.2	3.1	2.3	3.4	2.5	2.6	6.5	3.1	1.0
Machine tools	4.9	1.6	2.4	1.9	3.7	1.4	1.3	1.9	1.1	2.6
Engines, pumps, turbines	1.3	2.2	2.9	1.8	5.6	4.5	3.2	1.6	0.9	4.5
Textile and paper machines	1.6	0.9	2.5	0.8	1.5	0.7	1.0	2.2	1.4	0.5
Other special machines	5.1	3.2	2.9	3.1	4.0	4.2	2.8	2.7	5.0	5.7
Thermal processes and apparatus	2.1	0.9	1.8	1.9	1.5	1.6	1.0	1.0	1.0	1.8
Mechanical elements	2.0	1.9	3.2	2.5	7.1	4.2	3.2	1.9	1.4	4.0
Transport	3.1	3.9	6.0	4.9	10.6	11.1	5.3	1.8	2.4	5.0
Furniture, games	2.4	2.2	4.4	2.7	1.8	1.5	2.8	2.6	2.3	1.2
Other consumer goods	1.8	1.8	1.5	2.9	1.9	2.7	4.5	6.2	2.3	1.0
Civil engineering	4.4	3.1	2.3	3.9	3.1	3.2	4.5	2.1	3.2	6.8

Note: Data refer to published patent applications. There is a minimum delay of 18 months between the application date and the publication date. WIPO's International Patent Classification (IPC) technology concordance table was used to convert IPC symbols into 35 corresponding fields of technology. For an electronic version of the IPC technology concordance table, visit *www.wipo.int/ipstats*. The top 10 origins were selected based on 2017–2019 total published applications.

Sources: WIPO Statistics Database and EPO PATSTAT database, September 2021.

A31. Trend in patent applications in energy-related technologies, 2004–2019



Note: For definitions of the technologies – fuel cells, geothermal, solar and wind energy – see annex A. The correspondence between International Patent Classification (IPC) symbols and technology fields is not always apparent (there is no one-to-one correspondence). It is therefore difficult to capture all patents in a specific technology field. Even so, the IPC-based definitions are likely to capture the vast majority of patent applications in these areas. Data refer to published patent applications.

Sources: WIPO Statistics Database and EPO PATSTAT database, September 2021.

A32. Top 10 applicants in energy-related technologies, 2010–2019

Applicants	Origin	Number of patent applications: Fuel cell
Toyota Motor Corp	Japan	5,626
Honda Motor Co Ltd	Japan	2,553
Nissan Motor	Japan	2,303
Hyundai Motor Co Ltd	Republic of Korea	1,698
Panasonic Corp	Japan	1,677
Commissariat Energie Atomique	France	960
Sumitomo Electric Industries	Japan	938
Daimler AG	Germany	938
Kyocera Corp	Japan	800
GM Global Tech Operations Inc	U.S.	764

Applicants	Origin	Number of patent applications: Solar energy
Sharp KK	Japan	2,851
LG Electronics Inc	Republic of Korea	1,995
LG Innotek Co Ltd	Republic of Korea	1,909
Mitsubishi Electric Corp	Japan	1,787
Sunpower Corp	U.S.	1,641
Sanyo Electric Co	Japan	1,352
Commissariat Energie Atomique	France	1,334
Osram Opto Semiconductors GMBH	Germany	1,334
Samsung Electronics Co Ltd	Republic of Korea	1,314
Kyocera Corp	Japan	1,224

Applicants	Origin	Number of patent applications: Geothermal
Abell Foundation Inc	U.S.	51
Ohbayashi Corp	Japan	34
Hunan Dadao New Energy Dev Co Ltd	China	34
Rehau AG & Co	Germany	26
Lockheed Corp	U.S.	25
Mitsubishi Heavy Ind Ltd	Japan	24
Daikin Ind Ltd	Japan	24
Dae Sung Groundwater Ltd	Republic of Korea	24
DCNS	France	22
Korea Energy Research Institute	Republic of Korea	21
McAalister Technologies LLC	U.S.	21
Univ Xi An Jiaotong	China	21
Sekisui Chemical Co Ltd	Japan	21

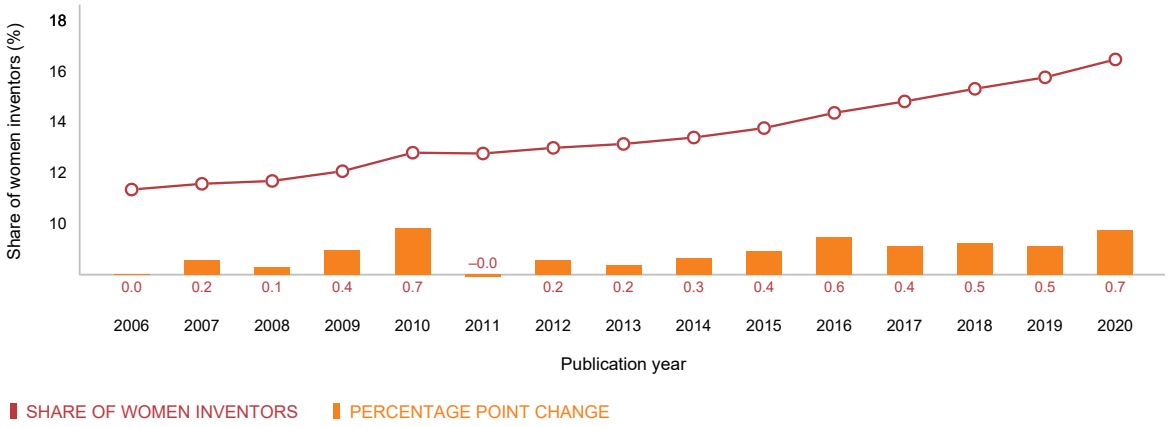
Applicants	Origin	Number of patent applications: Wind energy
Vestas Wind Sys AS	Denmark	3,497
Gen Electric	U.S.	3,126
Wobben Properties GMBH	Germany	2,895
Siemens AG	Germany	2,691
Mitsubishi Heavy Ind Ltd	Japan	1,883
Senvion GMBH	Germany	716
Beijing Goldwind Science & Creation Windpower Equipment Co Ltd	China	581
Samsung Heavy Ind	Republic of Korea	572
Nordex Energy GMBH	Germany	528
Hitachi Ltd	Japan	496

Note: For definitions of the technologies – fuel cells, geothermal, solar and wind energy – see annex A. The correspondence between International Patent Classification (IPC) symbols and technology fields is not always apparent (there is no one-to-one correspondence). It is therefore difficult to capture all patents in a specific technology field. Even so, the IPC-based definitions are likely to capture the vast majority of patent applications in these areas. Data refer to published patent applications.

Sources: WIPO Statistics Database and EPO PATSTAT database, September 2021.

Participation of women inventors in PCT applications

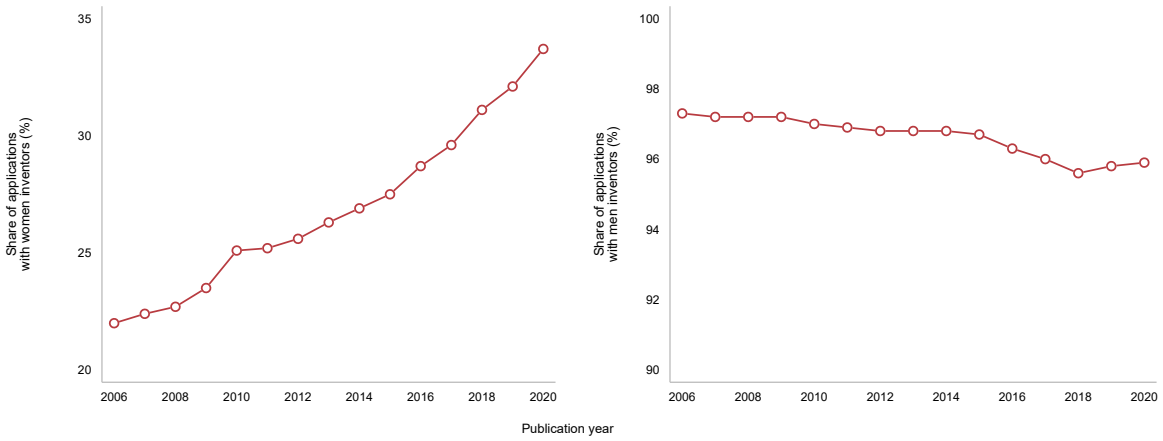
A33. Share of women among listed inventors in PCT applications, 2006–2020



Note: In order to attribute gender to inventors' names recorded in PCT applications, WIPO produced a world gender-name dictionary based on information from 13 different public sources. Gender is attributed to a given name on a country-by-country basis, because certain names may be considered male in one country but female in another.

Source: WIPO Statistics Database, September 2021.

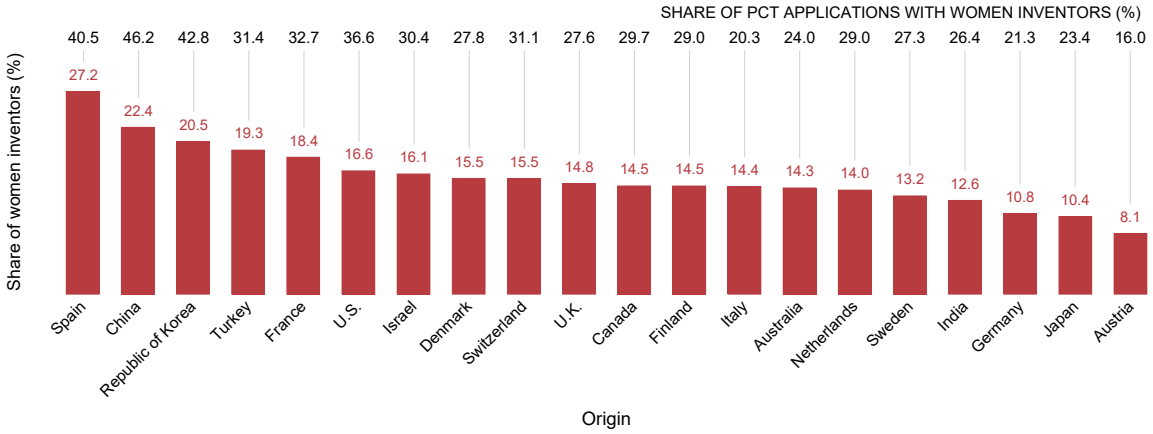
A34. Share of PCT applications with at least one woman as inventor and with at least one man as inventor, 2006–2020



Note: In order to attribute gender to inventors' names recorded in PCT applications, WIPO produced a gender-name dictionary based on information from 13 different public sources. Gender is attributed to a given name on a country-by-country basis, because certain names may be considered male in one country but female in another.

Source: WIPO Statistics Database, September 2021.

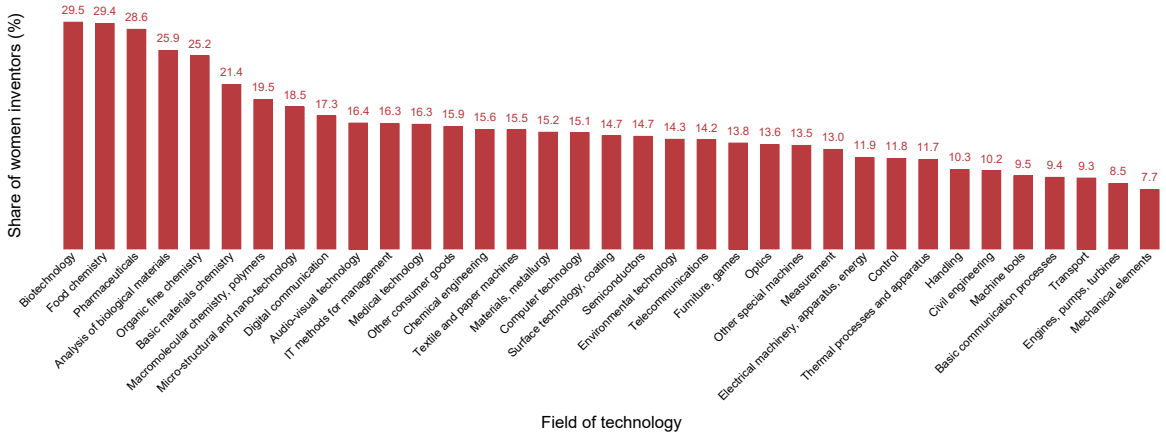
A35. Share of women among listed inventors and share of PCT applications with at least one woman as inventor for the top 20 origins, 2020



Note: In order to attribute gender to inventors' names recorded in PCT applications, WIPO produced a gender-name dictionary based on information from 13 different public sources. Gender is attributed to a given name on a country-by-country basis, because certain names may be considered male in one country but female in another.

Source: WIPO Statistics Database, September 2021.

A36. Share of PCT patent applications with women inventors by field of technology, 2020

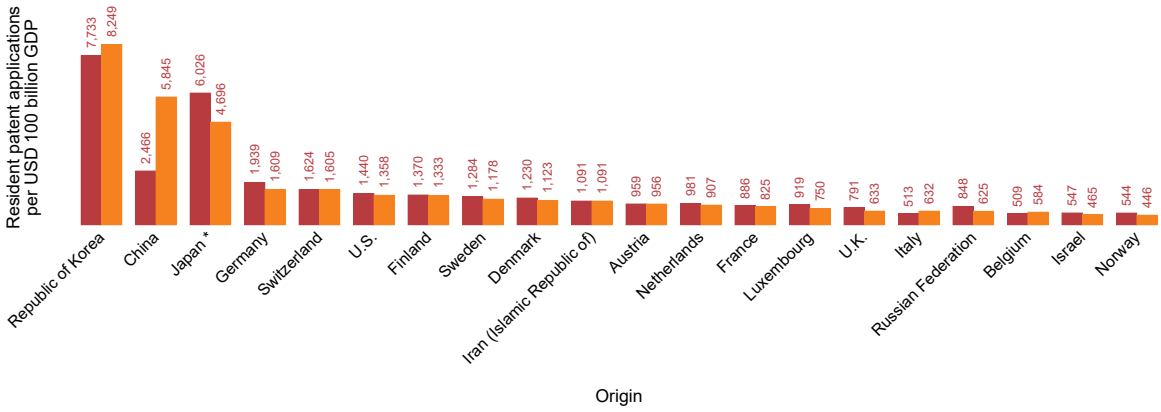


Note: In order to attribute gender to inventors' names recorded in PCT applications, WIPO produced a gender-name dictionary based on information from 13 different public sources. Gender is attributed to a given name on a country-by-country basis, because certain names may be considered male in one country but female in another.

Source: WIPO Statistics Database, September 2021.

Patent applications in relation to GDP and population

A37. Resident patent applications per USD 100 billion GDP for the top 20 origins, 2010 and 2020

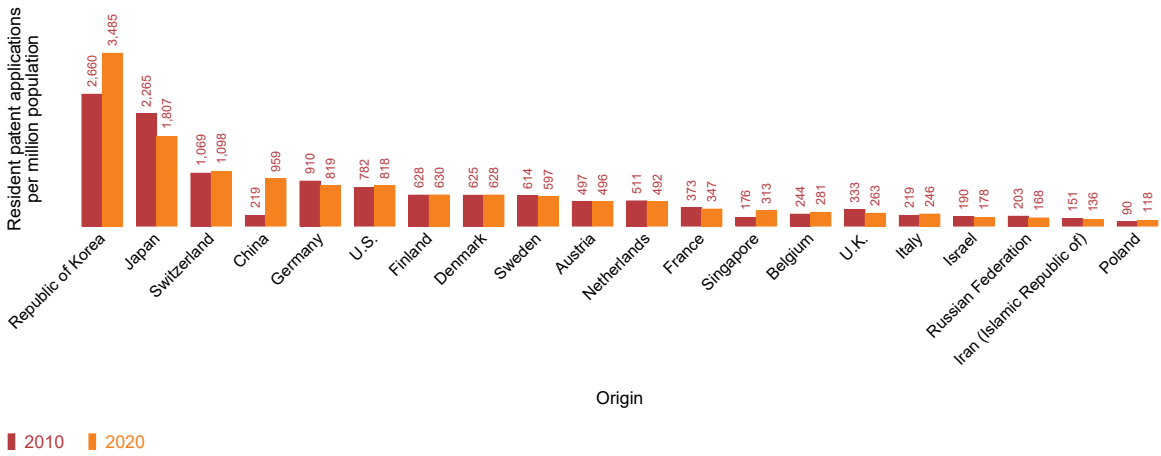


Note: GDP data are in 2017 US purchasing power parity (PPP) dollars. The top 20 origins were included if they had a GDP greater than USD 25 billion PPP and more than 100 resident patent applications. Due to space constraints, only the top 20 origins that fulfil these criteria are presented. Data for Japan refer to 2019 as GDP data at 2017 PPP$ is missing from the World Bank database.

* 2019 data.

Sources: WIPO Statistics Database and World Bank, September 2021.

A38. Resident patent applications per million population for the top 20 origins, 2010 and 2020

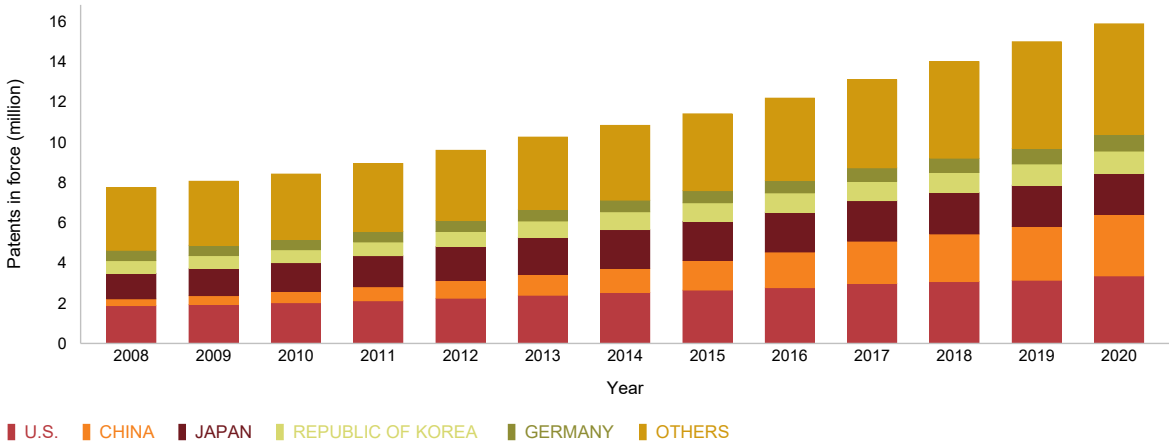


Note: The top 20 origins were included if they had a population greater than 5 million and if they had more than 100 resident patent applications. Due to space constraints, only the top 20 origins that fulfil these criteria are presented.

Sources: WIPO Statistics Database and World Bank, September 2021.

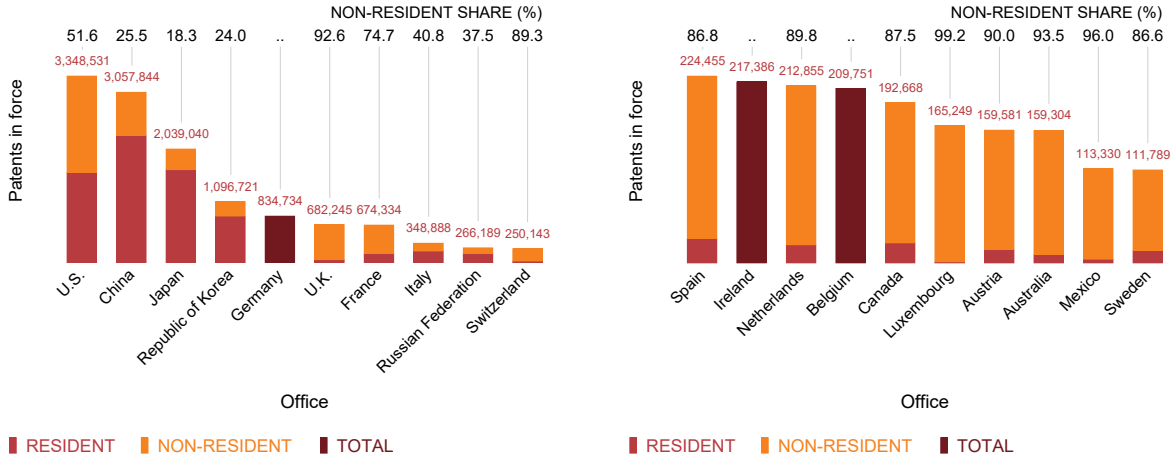
Patents in force

A39. Trend in patents in force worldwide, 2008–2020



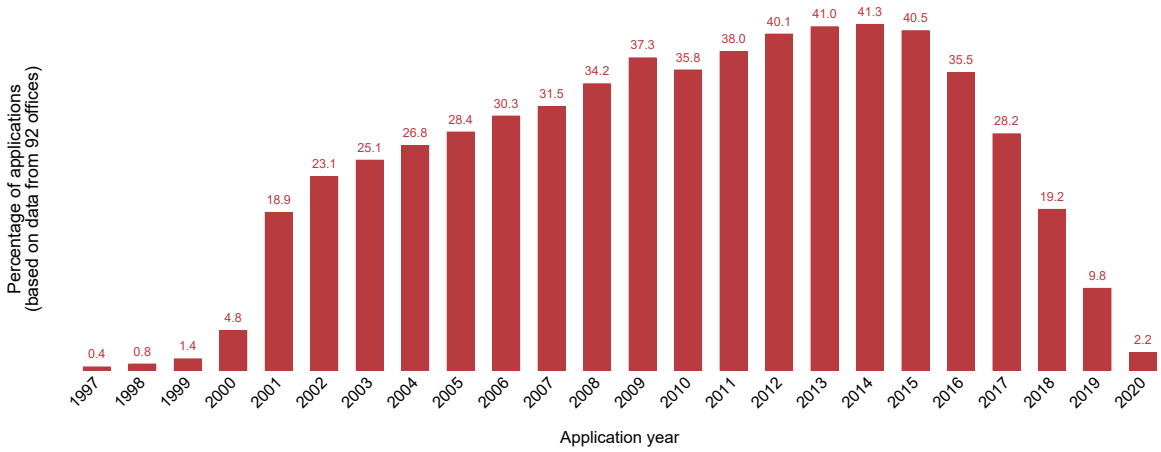
Note: World totals are WIPO estimates using data covering 135 offices.
Source: WIPO Statistics Database, September 2021.

A40. Patents in force at the top 20 offices, 2020



.. indicates not available.
Source: WIPO Statistics Database, September 2021.

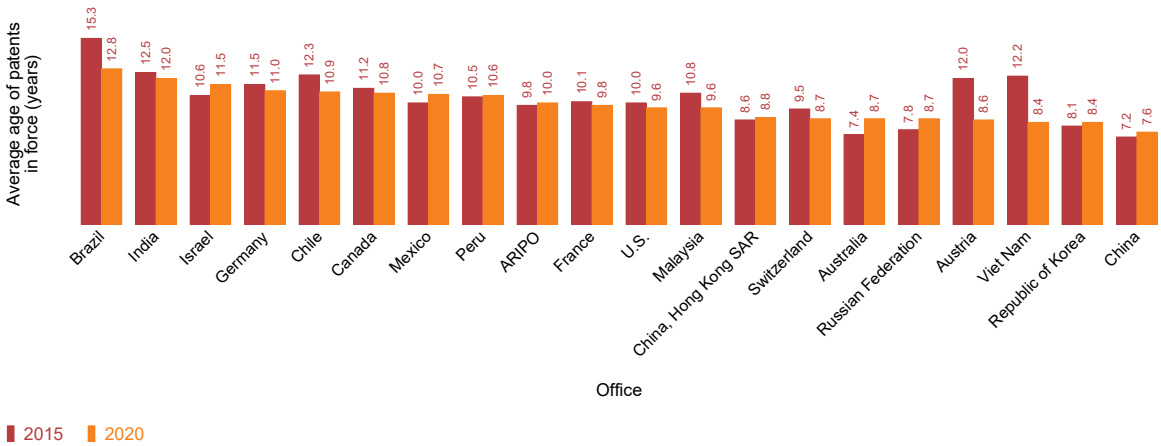
A41. Patents in force in 2020 as a percentage of total applications



Note: Percentages are calculated as the number of patent applications filed in year *t* and in force in 2020, divided by the total number of patent applications filed in year *t*. Patent holders must pay maintenance fees in order to maintain the validity of their patents. Depending on technological and commercial considerations, patent holders may opt to let a patent lapse before the end of the full protection term. This figure shows the distribution of patents in force in 2020 as a percentage of total applications in the year of filing. However, not all offices provide these data. Data for 92 offices show that 41.3% of the applications for which patents were eventually granted remained in force for at least 7 years after the application date, and about 18.9% lasted the full 20-year term.

Source: WIPO Statistics Database, September 2021.

A42. Average age of patents in force at selected offices, 2015 and 2020

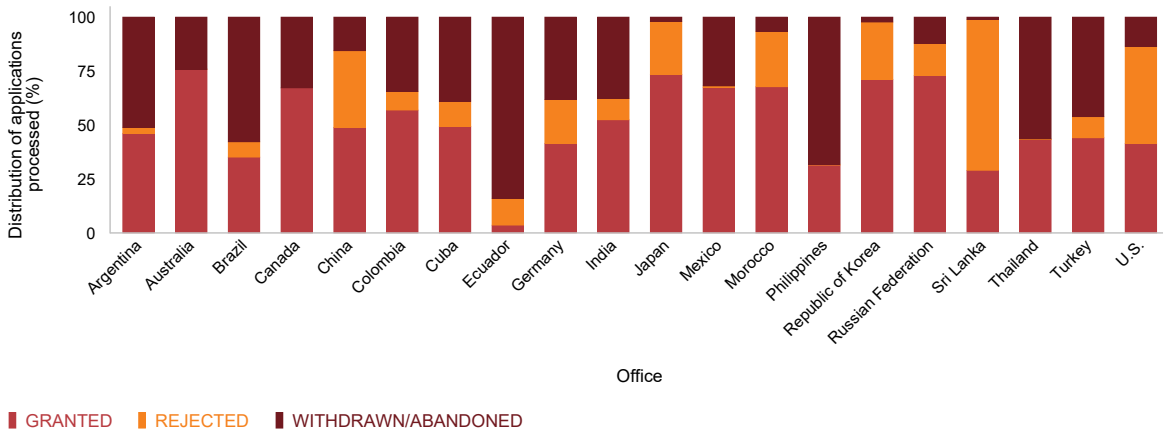


Note: ARIPO is the African Regional Intellectual Property Organization. The average age of patents in force is calculated using the following formula: $\Sigma(p*y)/\Sigma p$, where p is the number of patents in force and y the number of years between filing and reporting year.

Source: WIPO Statistics Database, September 2021.

Patent office procedural data

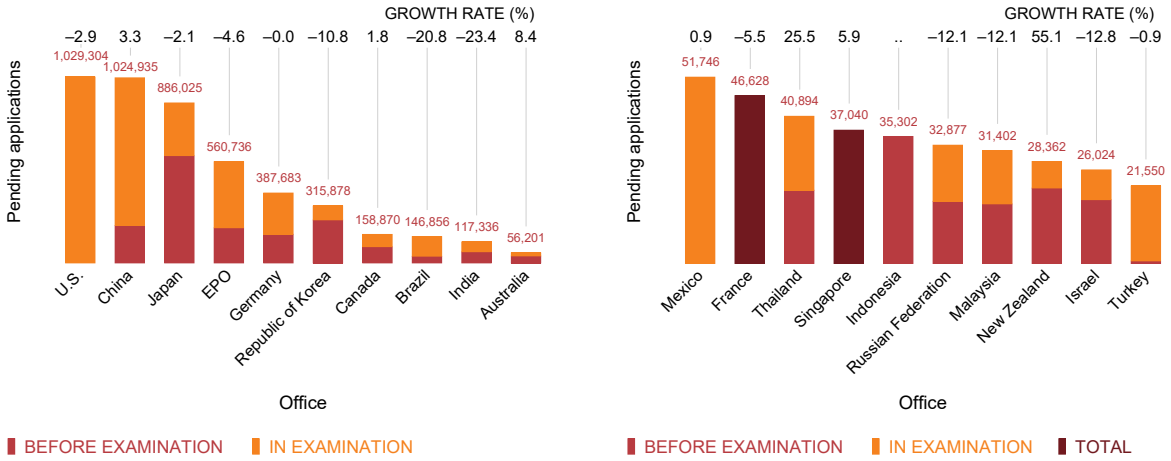
A43. Distribution of patent examination outcomes for selected offices, 2020



Note: The share of applications granted ought not to be interpreted as grant rates, as they are based on the examination date rather than the date when the application was filed. The number of grants in a given year relates to applications filed in previous years. WIPO collects data from IP offices using a common questionnaire and methodology. However, due to differences in patent procedures between offices, data cannot be fully harmonized. Therefore, caution should be exercised when making comparisons across offices.

Source: WIPO Statistics Database, September 2021.

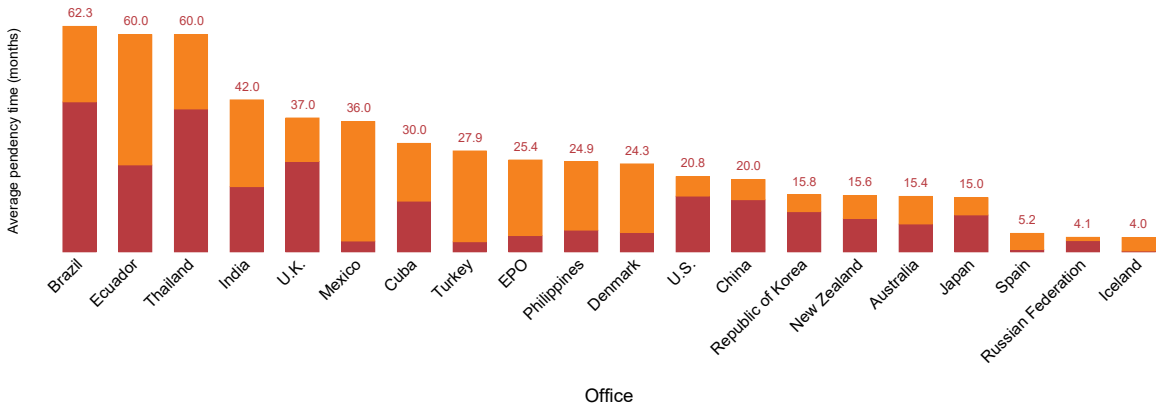
A44. Potentially pending applications at the top 20 offices, 2020



Note: EPO is the European Patent Office. Application processing varies between offices, making it difficult to measure pending applications. In some offices, patent applications automatically proceed to the examination stage, unless applicants withdraw them; in others, applications do not proceed to examination, unless applicants file a separate request for examination. To take account of procedural differences, pending application data are separated between (a) all patent applications, at any stage in the process, that are awaiting a final decision by a patent office, including those for which applicants have not filed a request for examination (where applicable), and (b) patent applications undergoing examination for which the applicant has requested examination (where such separate requests are necessary).

Source: WIPO Statistics Database, September 2021.

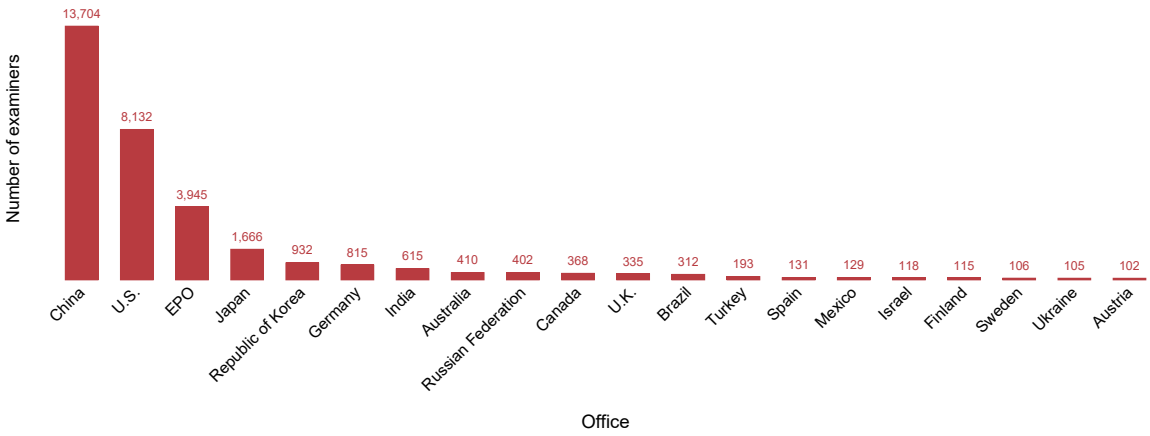
A45. Average pendency times for first office action and final decision at selected offices, 2020



Note: EPO is the European Patent Office. WIPO collects data from IP offices using a common questionnaire and methodology. However, due to differences in patent procedures between offices, data cannot be fully harmonized. Therefore, caution should be exercised when making comparisons across offices.

Source: WIPO Statistics Database, September 2021.

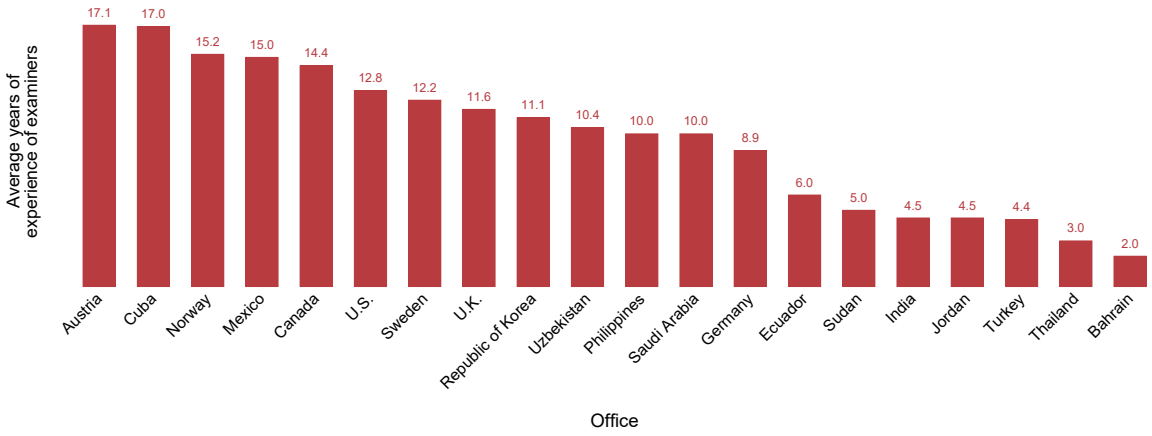
A46. Number of patent examiners for selected offices, 2020



Note: EPO is the European Patent Office.

Source: WIPO Statistics Database, September 2021.

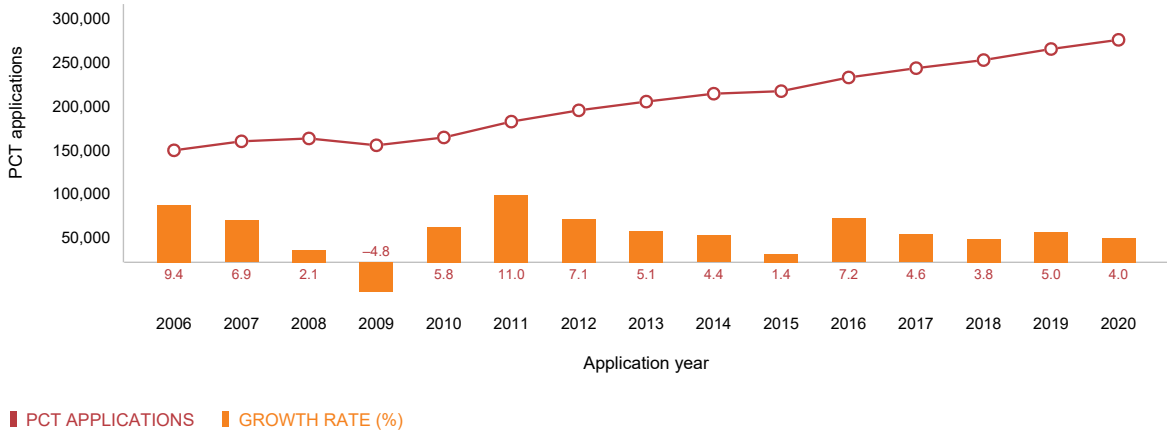
A47. Average years of experience of patent examiners for selected offices, 2020



Source: WIPO Statistics Database, September 2021.

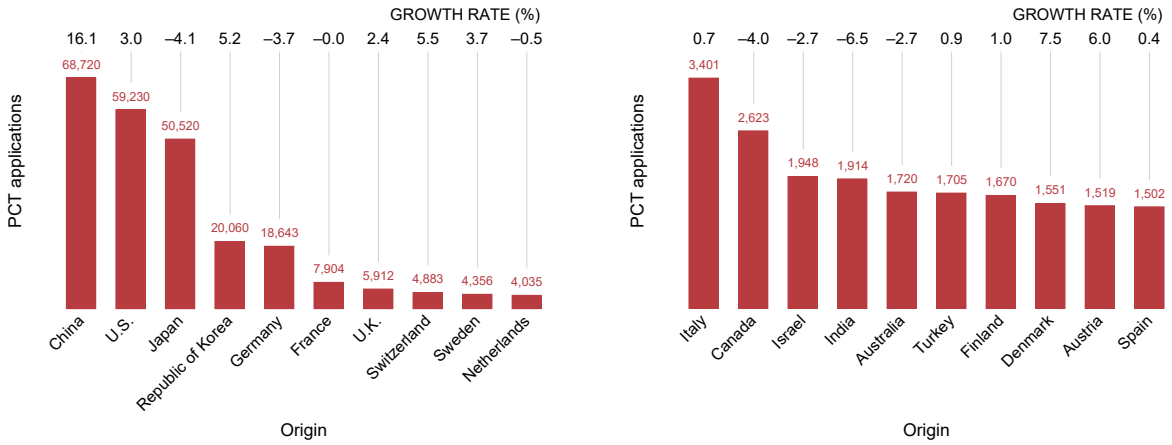
Patent applications filed through the Patent Cooperation Treaty (PCT) System

A48. Trend in PCT applications, 2006–2020



Note: Data refer to the international phase of the Patent Cooperation Treaty System. Counts are based on the international application date.
Source: WIPO Statistics Database, September 2021.

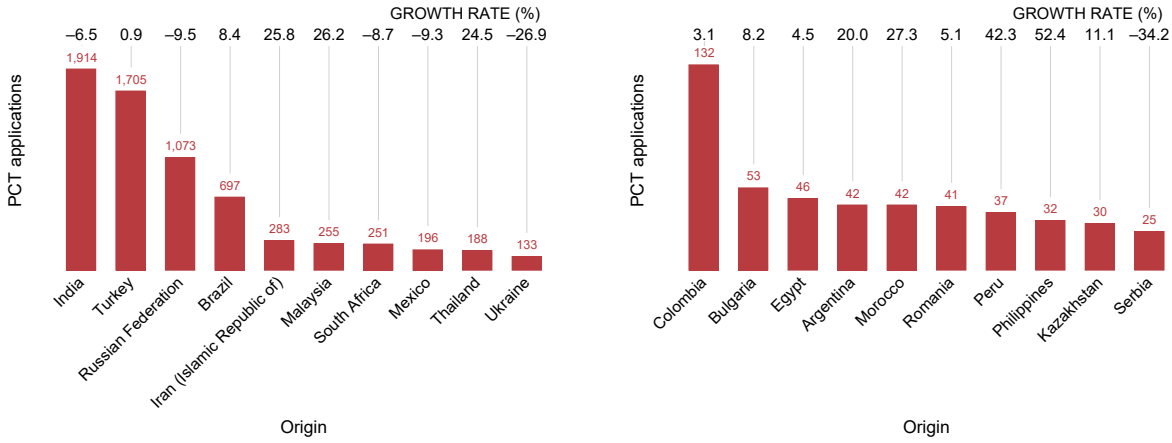
A49. PCT applications for the top 20 origins, 2020



Note: Data refer to the international phase of the Patent Cooperation Treaty System. Counts are based on the residency of the first named applicant and the international application date.

Source: WIPO Statistics Database, September 2021.

A50. PCT applications for selected low- and middle-income origins, 2020



Note: Data refer to the international phase of the Patent Cooperation Treaty System. Counts are based on the residency of the first named applicant and the international application date.

Source: WIPO Statistics Database, September 2021.

Patent prosecution highway (PPH)

A51. PPH requests by office of first filing and offices of later examination, 2020

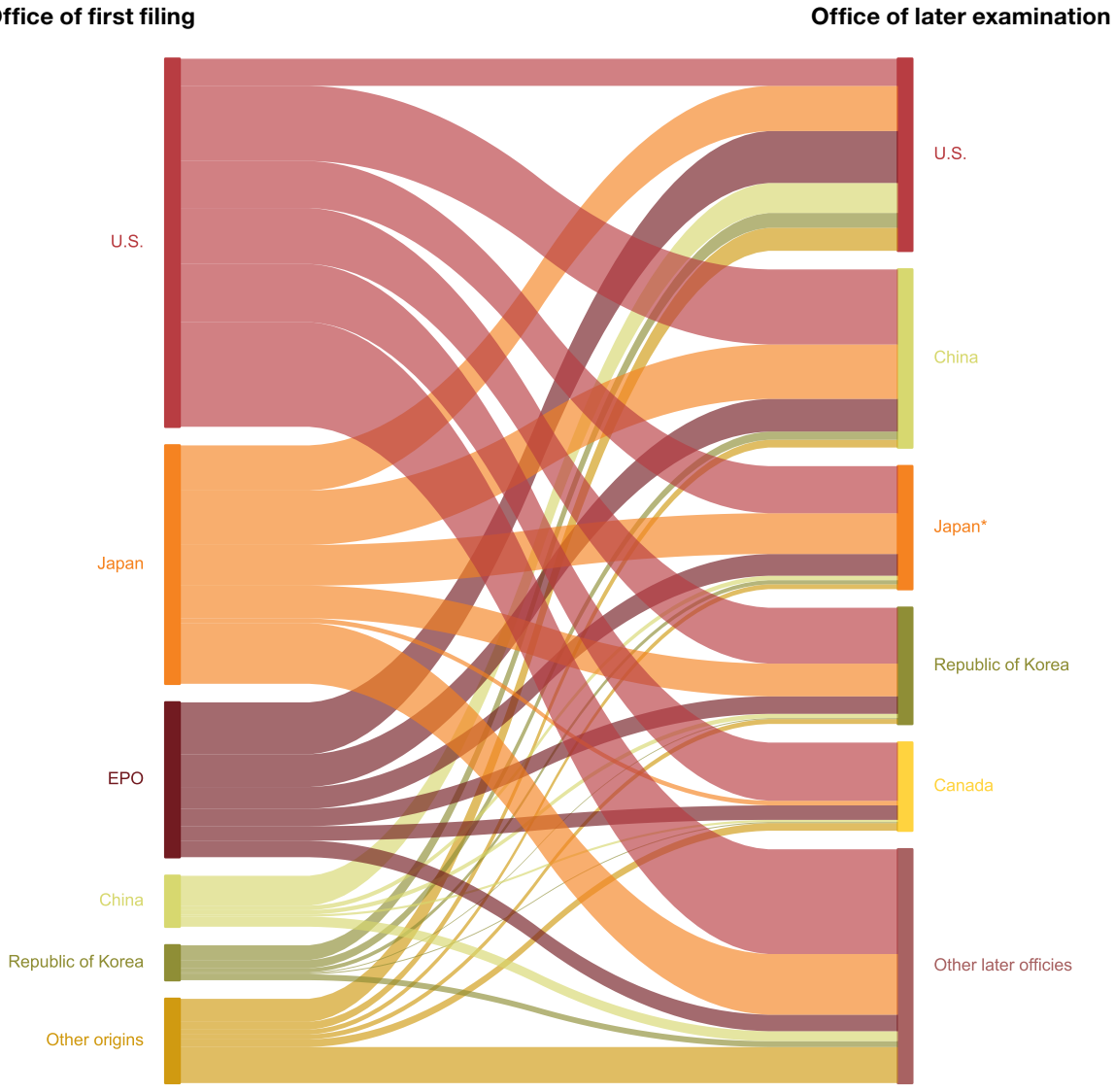
	Office of first filing															
Office of later examination	**Australia**	**Canada**	**China**	**Denmark**	**EPO**	**Finland**	**Germany**	**Israel**	**Japan**	**Republic of Korea**	**Russian Federation**	**Singapore**	**U.K.**	**U.S.**	**Others/Unknown**	**Total**
Australia	37	7	29	3	98	5	16	15	86	8	4	9	38	839	63	**1,257**
Brazil		1	18	2			1		68	11			3	248	57	**409**
Canada	71	111	72	1	474	3	6	13	153	33	13	9	9	1,906	13	**2,887**
China		28		36	1,070	20	52	22	1,783	269	25	9	33	2,459	30	**5,836**
EPO	12	47	132					16	377	82	9	4		649	4	**1,332**
Germany	1		10	1		1		1	379	7	1	1	9	311	5	**727**
Israel	20	2	4		155	1	1	36	30	8	1		1	392	8	**659**
Japan*	27	17	146	17	712	10	4	5	1,336	133	20	15	12	1,543	33	**4,030**
Mexico		8	18		179				101	10		1		423	12	**752**
Philippines									108	10				120	8	**246**
Republic of Korea	34	14	141	21	573	9	12	7	1,072	31	19	16	19	1,831	9	**3,808**
Singapore	1	2	59	2	20	2			45	10	1	5		84	1	**232**
Thailand									411						0	**411**
U.K.	5	1	34	4		3	1	1	23	1	1	1		140	1	**216**
U.S.	92	153	982	20	1,703	52	68	94	1,479	485	79	30	90	890	78	**6,295**
Viet Nam									201	36					0	**237**
Others/Unknown	25	11	25	2	88	6	7	2	319	9	1	4	21	227	605	**1,352**
Total	**325**	**402**	**1,670**	**109**	**5,072**	**112**	**168**	**212**	**7,971**	**1,143**	**174**	**104**	**235**	**12,062**	**927**	**30,686**

Note: EPO is the European Patent Office. A patent prosecution highway is a bilateral agreement between two offices that enables applicants to request a fast-track examination whereby patent examiners can make use of work already undertaken by the other office.

* indicates data based on office of earlier examination rather than office of first filing.

Source: WIPO Statistics Database, September 2021.

A52. Flows of PPH requests between offices of first filing and offices of later examination, 2020



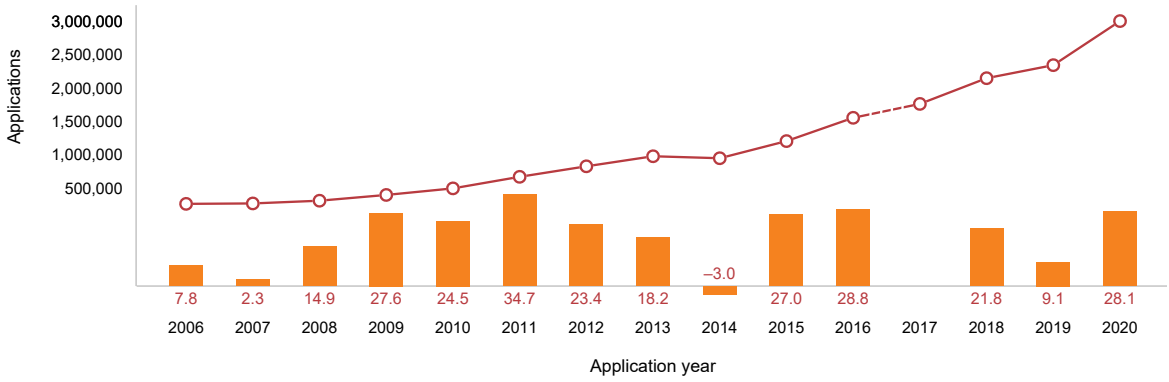
Note: EPO is the European Patent Office. Japan data refers to the office of earlier examination rather than the office of first filing. A patent prosecution highway (PPH) is a bilateral agreement between two offices that enables applicants to request a fast-track examination whereby patent examiners can make use of work already undertaken by the other office. This graph shows the flows of PPH requests between offices of first filing and offices of later examination.

* indicates data based on office of earlier examination rather than office of first filing.

Source: WIPO Statistics Database, September 2021.

Utility model applications

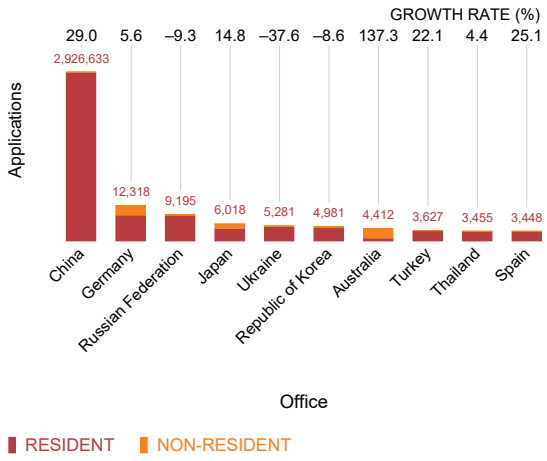
A53. Trend in utility model applications worldwide, 2006–2020

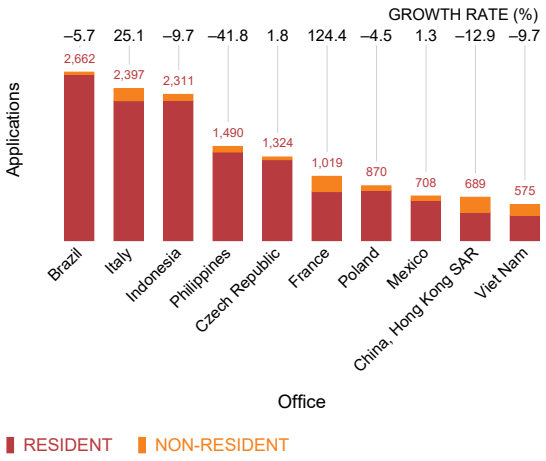


Note: World totals are WIPO estimates using data covering 82 patent offices. These totals include applications filed directly with national and regional offices and applications entering offices through the Patent Cooperation Treaty national phase (where applicable). China's pre-2017 data are not comparable due a change in methodology. Due to this break in the data series and to the high number of filings in China, it is not possible to report accurately the 2017 growth rate at world level (see the data description section in Additional information for details).

Source: WIPO Statistics Database, September 2021.

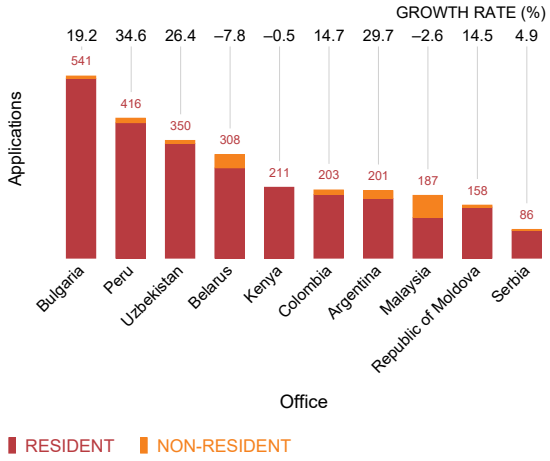
A54. Utility model applications for the top 20 offices, 2020

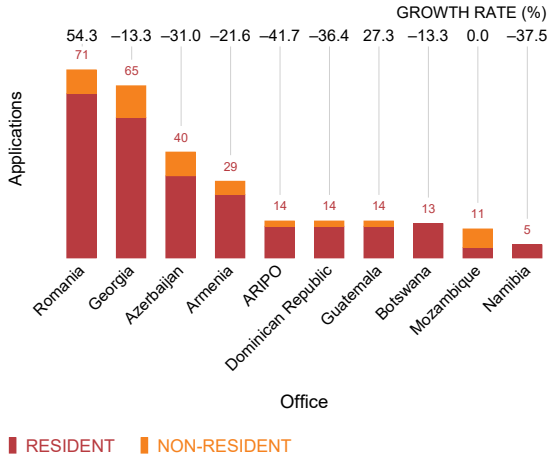




Source: WIPO Statistics Database, September 2021.

A55. Utility model applications for offices of selected low- and middle-income countries, 2020

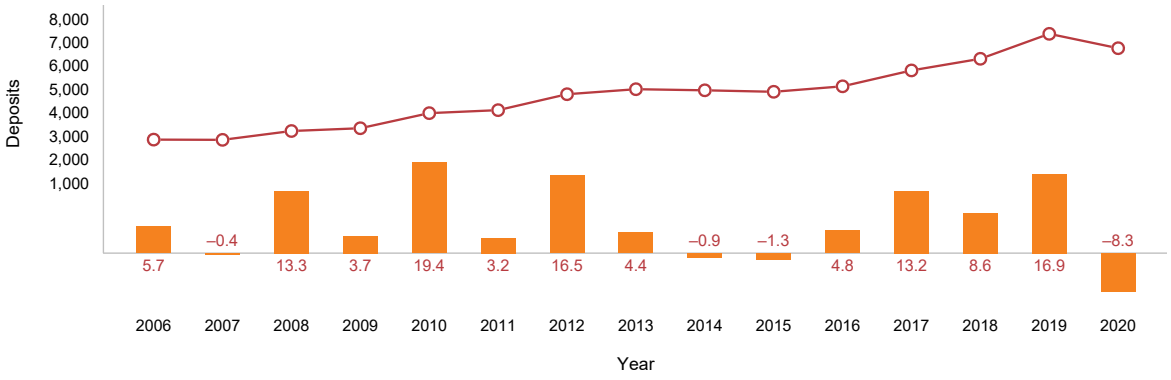




Note: ARIPO is the African Regional Intellectual Property Organization.
Source: WIPO Statistics Database, September 2021.

Microorganisms

A56. Trend in microorganism deposits worldwide, 2006–2020



Note: Deposits of microorganisms for patent procedures are important for biotechnological inventions. Disclosing an invention is a requirement for receiving a patent.

Source: WIPO Statistics Database, September 2021.

A57. Deposits at the top international depositary authorities, 2020

Note: ATCC is the American Type Culture Collection (U.S.), CCTCC is the China Center for Type Culture Collection (China), CGMCC is the China General Microbiological Culture Collection Center (China), CM-CNRG is the Colección de Microorganismos del Centro Nacional de Recursos Genéticos (Mexico), CNCM is the Collection Nationale de Cultures de Micro-organismes (France), DSMZ is the Leibniz-Institut DSMZ (Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH; Germany), GDMCC is the Guangdong Microbial Culture Collection Center (China), KCCM is the Korean Culture Center of Microorganisms (Republic of Korea), KCTC is the Korean Collection for Type Cultures (Republic of Korea), MTCC is the Microbial Type Culture Collection and Gene Bank (India), NCIMB is the National Collection of Industrial, Food and Marine Bacteria (U.K.), NCMA is the Provasoli-Guillard National Center for Marine Algae and Microbiota (U.S.), NPMD is the National Institute of Technology and Evaluation, Patent Microorganisms Depositary (Japan), NRRL is the Agriculture Research Service Culture Collection (U.S.) and PCM is the Polish Collection of Microorganisms (Poland).

Source: WIPO Statistics Database, September 2021.

Statistical tables

A58. Patent applications by office and origin, 2020

Name	Applications by office			Equivalent applications by origin	PCT international applications		PCT national phase entry	
	Total	Resident	Non-resident	Total [a]	Receiving office	Origin	Office	Origin
Afghanistan (b)	..	..	..	8	n.a.	0	..	..
African Intellectual Property Organization	479	130	349	n.a.	0	n.a.	324	n.a.
African Regional Intellectual Property Organization	754	8	746	n.a.	1	n.a.	705	n.a.
Albania	12	..	..	3	0	1	..	1
Algeria	710	163	547	173	13	14	541	1
Andorra	8	3	5	45	n.a.	1	..	33
Angola (c)	85	85	0	85	n.a.	0	77	77
Antigua and Barbuda (b)	..	..	..	532	0	68	..	415
Argentina	3,492	930	2,562	1,238	n.a.	42	..	125
Armenia	70	63	7	135	0	4	5	29
Australia	29,294	2,368	26,926	11,906	1,600	1,720	21,125	8,083
Austria	2,297	2,124	173	13,762	458	1,519	468	6,738
Azerbaijan	108	90	18	244	5	7	16	14
Bahamas (b)	..	..	..	26	n.a.	6	..	4
Bahrain	264	7	257	37	0	2	256	3
Bangladesh	402	40	362	56	n.a.	1	..	7
Barbados (c)	29	29	0	667	n.a.	40	29	135
Belarus	394	317	77	1,278	14	14	59	54
Belgium	1,150	862	288	13,472	0	1,331	..	7,647
Belize	23	0	23	19	0	4	23	5
Benin (b,d,g)	n.a.	n.a.	n.a.	51	n.a.	1	n.a.	..
Bermuda (b)	..	..	..	55	n.a.	10	..	34
Bhutan	6	0	6	1	n.a.	0	..	1
Bolivia (Plurinational State of) (b)	..	..	..	3	n.a.	0	..	1
Bosnia and Herzegovina	55	50	5	61	7	7	8	7
Botswana	4	2	2	6	0	0	..	..
Brazil	24,338	5,280	19,058	7,270	659	697	17,979	1,388
Brunei Darussalam	120	5	115	10	0	1	112	1
Bulgaria	246	239	7	602	43	53	7	171
Burkina Faso (b,d,g)	n.a.	n.a.	n.a.	153	n.a.	0	n.a.	..
Burundi	7	2	5	3	n.a.	0	..	..
Cabo Verde	5	1	4	1	n.a.	0	..	..
Cambodia	248	0	248	11	0	1	47	1
Cameroon (b,d,g)	n.a.	n.a.	n.a.	714	n.a.	2	n.a.	..
Canada	34,565	4,452	30,113	23,846	1,936	2,623	27,580	9,720
Central African Republic (b,d,g)	n.a.	n.a.	n.a.	68	n.a.	0	n.a.	..
Chad (b,d,g)	n.a.	n.a.	n.a.	51	n.a.	0	n.a.	..
Chile	2,805	372	2,433	861	210	262	2,402	434
China	1,497,159	1,344,817	152,342	1,441,085	72,349	68,720	87,954	52,872
China, Hong Kong SAR	21,556	423	21,133	2,129	n.a.	0	..	468
China, Macao SAR	66	3	63	35	n.a.	0	..	16
Colombia	2,121	369	1,752	596	19	132	1,706	144
Congo (b,d,g)	n.a.	n.a.	n.a.	204	n.a.	1	n.a.	..
Costa Rica (b)	..	..	..	75	6	10	..	15

Name	Applications by office			Equivalent applications by origin	PCT international applications		PCT national phase entry	
	Total	Resident	Non-resident	Total [a]	Receiving office	Origin	Office	Origin
Côte d'Ivoire (b,d,g)	n.a.	n.a.	n.a.	278	n.a.	0	n.a.	1
Croatia	129	117	12	248	8	21	1	85
Cuba	109	33	76	170	11	12	77	128
Curaçao (b)	..	..	..	5	n.a.	0	..	1
Cyprus	3	2	1	360	3	42	..	184
Czech Republic	729	673	56	1,953	157	219	25	554
Democratic People's Republic of Korea (b)	..	..	..	12	2	2	..	7
Democratic Republic of the Congo	182	72	110	75	n.a.	1	45	..
Denmark	1,478	1,261	217	13,580	425	1,551	78	7,677
Djibouti (b)	..	..	..	1	0	0	..	1
Dominica (b)	..	..	..	3	n.a.	0	..	1
Dominican Republic	217	10	207	35	6	10	201	19
Ecuador	407	33	374	46	1	4	374	12
Egypt	2,207	978	1,229	1,187	38	46	1,199	48
El Salvador	147	4	143	6	1	1	123	..
Estonia	23	21	2	297	2	55	..	122
Eswatini (b,f)	..	..	..	9	n.a.	1	..	..
Ethiopia	60	6	54	13	n.a.	0	..	..
Eurasian Patent Organization	3,377	679	2,698	n.a.	10	n.a.	2,486	n.a.
European Patent Office	180,346	81,511	98,835	n.a.	39,052	n.a.	106,854	n.a.
Fiji (b)	..	..	..	1	n.a.	0	..	..
Finland	1,685	1,588	97	12,053	900	1,670	41	6,585
France	14,313	12,771	1,542	64,280	2,582	7,904	..	32,667
Gabon (b,d,g)	n.a.	n.a.	n.a.	68	n.a.	1	n.a.	..
Gambia (f)	16	0	16	..	n.a.	0	16	..
Georgia	215	81	134	120	6	6	134	31
Germany	62,105	42,260	19,845	168,005	1,485	18,643	7,525	69,758
Ghana	20	12	8	12	0	0	8	..
Greece	763	400	363	1,129	65	103	..	356
Grenada	2	2	0	3	0	0	2	2
Guatemala	212	7	205	18	0	2	196	3
Guinea (b,d,g)	n.a.	n.a.	n.a.	69	n.a.	0	n.a.	..
Guinea-Bissau (b,d,g)	n.a.	n.a.	n.a.	17	n.a.	0	n.a.	..
Honduras	161	..	..	..	0	0	..	..
Hungary	456	428	28	1,298	105	139	5	647
Iceland	47	44	3	286	25	51	2	170
India	56,771	23,141	33,630	37,880	1,050	1,914	26,956	4,906
Indonesia	8,160	1,309	6,851	1,358	4	16	6,130	89
International Bureau (b)	..	..	..	n.a.	13,508	n.a.	..	n.a.
Iran (Islamic Republic of)	12,030	11,396	634	11,550	48	283	..	48
Iraq	733	635	98	646	n.a.	0	..	..
Ireland	129	75	54	7,061	8	793	..	3,140
Israel	8,123	1,642	6,481	16,219	1,377	1,948	6,908	8,004
Italy	11,008	10,061	947	32,537	420	3,401	..	13,958

Name	Applications by office			Equivalent applications by origin	PCT international applications		PCT national phase entry	
	Total	Resident	Non-resident	Total [a]	Receiving office	Origin	Office	Origin
Jamaica	57	10	47	11	n.a.	0	..	..
Japan	288,472	227,348	61,124	423,254	49,537	50,520	67,634	135,181
Jordan	337	36	301	75	11	20	244	19
Kazakhstan	900	803	97	1,548	27	30	97	24
Kenya	376	341	35	424	6	7	31	31
Kuwait (b)	..	..	..	97	n.a.	13	..	3
Kyrgyzstan	64	63	1	127	2	4	..	..
Lao People's Democratic Republic (b,c)	..	..	..	8	n.a.	0	..	7
Latvia	94	93	1	231	6	30	..	70
Lebanon (b)	..	..	..	84	n.a.	2	..	27
Liberia (b)	..	..	..	1	0	0	..	..
Libya (b)	..	..	..	3	0	3	..	1
Liechtenstein (b,e)	..	..	..	1,416	n.a.	250	..	821
Lithuania	113	95	18	325	0	41	..	142
Luxembourg	808	129	679	2,686	0	318	105	1,681
Madagascar (c)	27	6	21	9	n.a.	0	18	2
Malaysia	6,828	989	5,839	1,923	232	255	4,839	379
Mali (b,d,g)	n.a.	n.a.	n.a.	73	n.a.	0	n.a.	2
Malta	11	6	5	428	0	42	..	179
Mauritania (b,d,g)	n.a.	n.a.	n.a.	20	n.a.	0	n.a.	..
Mauritius	25	6	19	115	n.a.	14	..	45
Mexico	14,312	1,132	13,180	2,094	130	196	11,515	594
Monaco	13	6	7	155	0	20	..	75
Mongolia	148	66	82	70	0	0	80	..
Montenegro (c)	5	5	0	21	0	0	..	15
Morocco	2,688	250	2,438	340	34	42	2,029	79
Mozambique (f)	40	26	14	26	n.a.	0	10	..
Namibia (b,f)	..	..	..	5	n.a.	5	..	3
Nauru (b)	..	..	..	..	n.a.	1	..	..
Nepal (b)	..	..	..	3	n.a.	0	..	1
Netherlands	3,023	2,198	825	32,809	849	4,035	..	19,139
New Zealand	5,765	348	5,417	2,377	181	311	4,385	1,342
Nicaragua (b)	..	..	..	..	2	2	..	..
Niger (b,d,g)	n.a.	n.a.	n.a.	136	n.a.	0	n.a.	..
Nigeria (c)	1,008	410	598	423	n.a.	4	589	2
North Macedonia	47	47	0	91	3	6	3	42
Norway	1,444	880	564	5,982	324	702	511	3,662
Oman (c)	529	..	..	41	10	11	..	5
Pakistan	900	338	562	376	n.a.	0	..	2
Palau (b)	..	..	..	2	n.a.	0	..	..
Panama	319	22	297	80	5	21	290	53
Papua New Guinea	53	0	53	..	0	0	50	..
Paraguay	337	14	323	16	n.a.	0	..	..
Patent Office of the Cooperation Council for the Arab States of the Gulf	2,343	894	1,449	n.a.	n.a.	n.a.	..	n.a.

Name	Applications by office			Equivalent applications by origin	PCT international applications		PCT national phase entry	
	Total	Resident	Non-resident	Total [a]	Receiving office	Origin	Office	Origin
Peru	1,267	125	1,142	218	35	37	1,092	84
Philippines	3,993	476	3,517	630	25	32	3,237	34
Poland	4,098	4,010	88	6,333	196	363	40	1,137
Portugal	958	695	263	1,872	62	269	15	729
Qatar	685	81	604	210	15	23	610	39
Republic of Korea	226,759	180,477	46,282	260,610	19,766	20,060	38,078	34,531
Republic of Moldova	96	85	11	132	5	5	8	9
Romania	864	817	47	1,157	32	41	11	89
Russian Federation	34,984	23,759	11,225	30,282	1,097	1,073	9,079	3,003
Saint Kitts and Nevis (b)	..	..	..	48	0	1	..	44
Saint Lucia (b,c)	..	..	..	1	n.a.	0	..	1
Saint Vincent and the Grenadines (c)	5	0	5	..	n.a.	0	5	..
Samoa	2	0	2	34	0	4	..	1
San Marino	718	9	709	37	0	7	..	8
Saudi Arabia	3,568	1,294	2,274	9,782	22	956	2,451	2,139
Senegal (b,d,g)	n.a.	n.a.	n.a.	239	n.a.	2	n.a.	18
Serbia	146	138	8	236	22	25	2	61
Seychelles	12	3	9	53	0	3	..	8
Singapore	13,265	1,778	11,487	7,946	805	1,278	9,163	3,219
Slovakia	221	206	15	569	30	50	5	226
Slovenia (b)	..	..	..	671	37	86	..	314
South Africa	6,688	542	6,146	1,457	73	251	5,498	783
Spain	1,555	1,431	124	10,162	890	1,502	72	4,940
Sri Lanka (c)	604	353	251	412	n.a.	23	240	25
Sudan	160	153	7	163	4	6	3	6
Sweden	2,196	1,764	432	26,217	1,301	4,356	65	17,631
Switzerland	1,675	1,374	301	44,739	33	4,883	92	24,460
Syrian Arab Republic	92	76	16	82	0	2	16	6
Tajikistan	8	0	8	32	0	0	..	..
Thailand	7,525	863	6,662	1,512	97	188	5,975	390
Togo (b,d,g)	n.a.	n.a.	n.a.	85	n.a.	0	n.a.	..
Trinidad and Tobago	112	1	111	4	0	1	111	1
Tunisia	257	..	..	23	3	4	..	11
Turkey	8,158	7,920	238	10,110	1,666	1,705	265	1,657
Tuvalu	10	0	10	..	n.a.	0	..	..
Uganda (f)	19	13	6	18	0	1	..	3
Ukraine	3,183	1,361	1,822	1,710	113	133	1,583	157
United Arab Emirates (c)	1,908	39	1,869	836	n.a.	86	1,803	344
United Kingdom	20,649	11,990	8,659	53,064	3,460	5,912	2,329	27,182
United Republic of Tanzania (b,f)	..	..	..	5	n.a.	0	..	5
United States of America	597,172	269,586	327,586	495,883	56,114	59,230	161,565	191,020
Uruguay (b)	..	..	..	73	n.a.	7	..	53
Uzbekistan	588	356	232	379	0	0	203	1
Venezuela (Bolivarian Republic of)	207	..	..	9	n.a.	0	..	..
Viet Nam	7,695	1,021	6,674	1,133	18	24	5,748	35

Name	Applications by office			Equivalent applications by origin	PCT international applications		PCT national phase entry	
	Total	Resident	Non-resident	Total [a]	Receiving office	Origin	Office	Origin
Yemen	68	60	8	63	n.a.	0	..	..
Zambia	27	16	11	21	1	1	..	5
Zimbabwe	11	..	..	7	0	2	..	1
Others/Unknown	..	..	..	54,257	n.a.	230	..	8,409
Total (2020 estimates)	**3,276,700**	**2,304,400**	**972,300**	**n.a.**	**275,900**	**275,900**	**664,700**	**n.a.**

(a) Equivalent applications by origin data are incomplete because some offices do not report by origin.
(b) The office did not report resident applications therefore the equivalent applications by origin data may be incomplete.
(c) The International Bureau acts as the receiving office for PCT applications.
(d) The African Intellectual Property Organization (OAPI) acts as the receiving office for PCT applications.
(e) The Swiss Federal Institute of Intellectual Property (IFPI) acts as the receiving office for PCT applications.
(f) The African Regional Intellectual Property Organization (ARIPO) acts as the receiving office for PCT applications.
(g) The African Intellectual Property Organization (OAPI) acts as the national office for patent applications.
.. indicates not available.
n.a. indicates not applicable.
Source: WIPO Statistics Database, September 2021.

A59. Patent grants by office and origin, and patents in force, 2020

Name	Grants by office			Equivalent grants by origin	In force by office
	Total	Resident	Non-resident	Total [a]	Total
Afghanistan	..	..	..	3	..
African Intellectual Property Organization	580	120	460	n.a.	..
African Regional Intellectual Property Organization	443	1	442	n.a.	2,086
Albania	5	..	..	4	5,833
Algeria	421	49	372	49	..
Andorra	13	2	11	14	33
Angola	33	33	0	33	85
Antigua and Barbuda	..	..	..	15	..
Argentina	2,337	247	2,090	439	14,550
Armenia	72	65	7	106	189
Aruba	..	..	..	1	..
Australia	17,778	940	16,838	6,003	159,304
Austria	1,058	933	125	9,535	159,581
Azerbaijan	110	96	14	336	252
Bahamas	..	..	..	36	..
Bahrain	34	0	34	9	131
Bangladesh	140	..	..	9	1,732
Barbados	..	..	..	489	..
Belarus	447	386	61	1,203	1,752
Belgium	994	777	217	8,685	209,751
Belize	3	0	3	5	45
Benin (b)	n.a.	n.a.	n.a.	51	..
Bermuda	..	..	..	81	..
Bhutan	..	..	..	..	1
Bolivia (Plurinational State of)	..	..	..	3	..
Bosnia and Herzegovina	18	2	16	3	160
Botswana	..	..	..	1	..
Brazil	20,407	1,793	18,614	2,859	57,942
Brunei Darussalam	27	0	27	10	652
Bulgaria	215	203	12	369	14,790
Burkina Faso (b)	n.a.	n.a.	n.a.	68	..
Burundi	5	2	3	12	..
Cambodia	96	0	96	2	..
Cameroon (b)	n.a.	n.a.	n.a.	646	..
Canada	21,284	2,075	19,209	14,046	192,668
Central African Republic (b)	n.a.	n.a.	n.a.	34	..
Chad (b)	n.a.	n.a.	n.a.	86	..
Chile	2,904	262	2,642	532	17,120
China	530,127	440,691	89,436	485,158	3,057,844
China, Hong Kong SAR	7,658	139	7,519	1,192	53,726
China, Macao SAR	18	0	18	69	353
Colombia	1,075	244	831	357	8,365
Congo (b)	n.a.	n.a.	n.a.	68	..
Costa Rica	..	..	..	42	..
Côte d'Ivoire (b)	n.a.	n.a.	n.a.	375	..
Croatia	10	4	6	66	11,041
Cuba	38	2	36	57	581
Curaçao	..	..	..	26	..

Name	Grants by office			Equivalent grants by origin	In force by office
	Total	Resident	Non-resident	Total [a]	Total
Cyprus	..	..	..	284	21
Czech Republic	499	467	32	1,346	50,193
Democratic People's Republic of Korea	..	..	..	34	..
Democratic Republic of the Congo	27	15	12	16	15
Denmark	353	219	134	6,996	68,961
Dominican Republic	138	6	132	10	861
Ecuador	9	2	7	9	80
Egypt	495	65	430	115	5,655
El Salvador	67	1	66	3	..
Estonia	12	10	2	103	11,444
Eswatini	..	..	..	53	..
Ethiopia	1	1	0	1	..
Eurasian Patent Organization	2,754	525	2,229	n.a.	n.a.
European Patent Office	133,706	58,653	75,053	n.a.	n.a.
Fiji	..	..	..	1	..
Finland	602	553	49	8,417	55,898
France	12,874	11,339	1,535	51,164	674,334
Gabon (b)	n.a.	n.a.	n.a.	51	..
Gambia	16	0	16	..	16
Georgia	152	45	107	50	910
Germany	17,305	11,084	6,221	101,445	834,734
Greece	223	213	10	654	28,492
Grenada	..	..	..	1	..
Guatemala	40	0	40	8	839
Guinea (b)	n.a.	n.a.	n.a.	18	..
Honduras	40	..	..	..	252
Hungary	94	77	17	726	33,566
Iceland	9	4	5	152	9,001
India	26,361	4,988	21,373	13,069	92,897
Indonesia	7,981	641	7,340	665	59,394
Iran (Islamic Republic of)	3,660	3,294	366	3,444	38,642
Iraq	404	384	20	385	3,546
Ireland	42	18	24	4,005	217,386
Israel	4,668	862	3,806	8,672	35,096
Italy	9,152	8,247	905	25,752	348,888
Jamaica	5	..	..	12	..
Japan	179,383	140,329	39,054	278,931	2,039,040
Jordan	334	8	326	42	694
Kazakhstan	709	573	136	1,112	3,152
Kenya	35	15	20	56	..
Kuwait	..	..	..	80	..
Kyrgyzstan	49	45	4	69	194
Lao People's Democratic Republic	14	0	14	1	574
Latvia	60	46	14	106	9,249
Lebanon	..	..	..	23	..
Liechtenstein	..	..	..	704	..
Lithuania	106	76	30	159	12,354
Luxembourg	438	119	319	2,273	165,249

Name	Grants by office			Equivalent grants by origin	In force by office
	Total	Resident	Non-resident	Total [a]	Total
Madagascar	4	0	4	..	209
Malaysia	8,206	1,147	7,059	1,717	31,975
Maldives	..	..	..	1	..
Mali (b)	n.a.	n.a.	n.a.	155	..
Malta	10	5	5	238	248
Marshall Islands	..	..	..	2	..
Mauritius	17	1	16	79	..
Mexico	7,726	397	7,329	1,098	113,330
Monaco	16	8	8	92	109,213
Mongolia	124	49	75	51	1,317
Montenegro	4	4	0	5	..
Morocco	400	89	311	143	10,192
Mozambique	..	..	..	..	3,791
Namibia	21	6	15	9	664
Nepal	..	..	..	2	..
Netherlands	1,911	1,545	366	23,273	212,855
New Zealand	1,841	71	1,770	1,310	28,048
Niger (b)	n.a.	n.a.	n.a.	51	..
Nigeria	..	..	..	3	451
North Macedonia	22	22	0	24	4,610
Norway	907	430	477	3,911	46,406
Oman	11	..	..	25	529
Pakistan	201	20	181	41	1,973
Panama	284	5	279	31	1,490
Papua New Guinea	5	0	5	1	86
Paraguay	27	2	25	14	148
Patent Office of the Cooperation Council for the Arab States of the Gulf	753	199	554	n.a.	7,771
Peru	501	33	468	54	3,657
Philippines	1,002	29	973	131	25,715
Poland	2,308	2,260	48	3,609	102,531
Portugal	110	100	10	777	41,374
Qatar	4	2	2	47	205
Republic of Korea	134,766	103,881	30,885	151,186	1,096,721
Republic of Moldova	44	33	11	86	289
Romania	367	358	9	541	27,475
Russian Federation	28,788	17,181	11,607	21,311	266,189
Rwanda	..	..	..	1	..
Saint Kitts and Nevis	..	..	..	6	..
Saint Lucia	..	..	..	1	..
Saint Vincent and the Grenadines	19	0	19	6	19
Samoa	..	..	..	33	2
San Marino	715	13	702	34	..
Saudi Arabia	705	107	598	2,819	4,175
Senegal (b)	n.a.	n.a.	n.a.	358	..
Serbia	65	60	5	143	7,528
Seychelles	30	2	28	49	225
Singapore	5,386	332	5,054	4,088	46,640
Slovakia	89	79	10	239	21,912

Name	Grants by office Total	Resident	Non-resident	Equivalent grants by origin Total [a]	In force by office Total
Slovenia	..	..	..	373	..
South Africa	3,466	313	3,153	1,023	78,787
Spain	641	576	65	5,339	224,455
Sri Lanka	273	52	221	69	939
Sudan	117	114	3	114	..
Sweden	1,534	1,251	283	18,853	111,789
Switzerland	745	547	198	28,116	250,143
Syrian Arab Republic	..	..	..	2	65
Thailand	3,525	202	3,323	568	17,306
Togo (b)	n.a.	n.a.	n.a.	85	..
Trinidad and Tobago	67	1	66	22	..
Tunisia	..	..	..	10	..
Turkey	2,063	1,929	134	3,244	88,753
Turkmenistan	..	..	..	2	..
Tuvalu	10	0	10	..	27
Ukraine	2,179	1,086	1,093	1,331	21,190
United Arab Emirates	506	3	503	295	2,416
United Kingdom	9,772	4,470	5,302	29,170	682,245
United Republic of Tanzania	2	1	1	1	..
United States of America	351,993	164,562	187,431	306,437	3,348,531
Uruguay	..	..	..	28	..
Uzbekistan	278	138	140	181	1,159
Vanuatu	..	..	..	2	..
Venezuela (Bolivarian Republic of)	58	..	..	5	..
Viet Nam	4,319	139	4,180	194	12,625
Yemen	19	5	14	6	..
Zambia	9	2	7	4	7,735
Zimbabwe	6	..	..	5	4
Others/Unknown	..	..	..	23,171	..
Total (2020 estimates)	**1,592,000**	**996,500**	**595,500**	**n.a.**	**15,867,300**

(a) Equivalent grants by origin data are incomplete, because some offices do not report by origin.
(b) The African Intellectual Property Organization (OAPI) acts as the national office for patent grants.
.. indicates not available.
n.a. indicates not applicable.
Source: WIPO Statistics Database, September 2021.

A60. Patent office procedural data, 2020

Office	Total applications processed	Granted	Rejected	Withdrawn or abandoned	Number of examiners (FTE)	First office action (months)	Final office decision (months)
Albania	..	5	15	..	2.0	2.0	6.0
Algeria	..	322	427	..	6.0	11.0	15.0
Argentina	5,087	2,346	135	2,606	59.0	60.0	76.0
Armenia	90	70	6	14	6.0	1.5	4.2
Australia	23,448	17,778	23	5,647	410.5	7.7	15.4
Austria	1,872	1,058	698	116	102.0	7.6	22.8
Bahrain	..	34	..	8	5.0	4.0	12.0
Bangladesh	380	140	238	2	6.0	10.0	19.5
Belarus	515	434	77	4	10.0	12.0	14.5
Bhutan	..	..	..	11	2.0	36.0	48.0
Bosnia and Herzegovina	..	..	..	..	5.0	2.0	30.0
Brazil	58,192	20,407	4,131	33,654	312.0	41.4	62.3
Burundi	..	..	..	..	2.0	..	..
Cabo Verde	..	..	..	..	1.0	..	..
Canada	..	21,284	..	10,405	368.0	10.3	26.0
China	1,085,208	530,127	385,753	169,328	13,704.0	14.4	20.0
China, Hong Kong SAR	..	..	..	25	6.0	7.1	..
China, Macao SAR	..	18	43	..	..	5.7	13.3
Colombia	1,849	1,052	159	638	50.0	11.0	18.0
Croatia	33	10	20	3	6.0	27.0	49.0
Cuba	77	38	9	30	10.0	14.0	30.0
Czech Republic	961	499	175	287	32.0	..	..
Democratic Republic of the Congo	..	..	..	..	10.0	..	..
Denmark	1,669	353	12	1,304	58.7	5.5	24.3
Ecuador	251	9	31	211	5.0	24.0	60.0
Egypt	1,024	525	109	390	100.0	18.0	27.0
El Salvador	..	69	..	..	6.0	20.0	20.0
Estonia	39	12	3	24	9.0	0.2	23.7
European Patent Office	..	133,706	..	..	3,945.0	4.5	25.4
Finland	1,450	602	4	844	115.0	6.6	27.1
France	14,880	12,471	1,881	528	114.0	..	..
Georgia	291	152	17	122	18.0	15.0	21.0
Germany	41,738	17,305	8,453	15,980	815.1	..	..
Guatemala	115	40	36	39	3.0	6.0	48.0
Hungary	563	94	27	442	47.0	6.0	20.0
Iceland	..	2	..	12	..	0.3	4.0
India	50,341	26,361	4,994	18,986	615.0	18.0	42.0
Indonesia	13,882	8,644	123	5,115	113.0	2.0	45.0
Iran (Islamic Republic of)	11,631	2,090	1,102	8,439	13.0	1.5	7.0
Israel	7,719	4,669	13	3,037	118.0	27.5	42.0
Italy	11,862	9,152	2,156	554	20.0	..	..
Jamaica	..	..	..	5	..	..	..
Japan	224,510	164,846	55,154	4,510	1,666.0	10.2	15.0
Jordan	..	334	306	..	6.0	12.0	24.0
Kenya	..	..	..	..	7.0	..	..
Kyrgyzstan	..	..	..	..	8.0	4.0	18.0
Lao People's Democratic Republic	188	14	3	171	1.0	24.0	50.0
Latvia	79	60	12	7	5.0	..	..
Lithuania	123	106	12	5	4.0	0.4	3.0
Madagascar	53	4	2	47	2.0	18.0	18.0
Mexico	13,639	9,177	115	4,347	129.0	3.0	36.0
Monaco	18	16	1	1	1.0	6.0	9.0
Mongolia	168	124	37	7	4.0	9.0	9.0
Montenegro	..	178	..	..	3.0	2.0	20.0
Morocco	595	403	153	39	13.0	4.2	14.0
Mozambique	..	..	..	..	2.0	..	..
Namibia	..	..	..	..	1.0	..	..
Netherlands	2,575	1,911	339	325	21.0	6.0	9.0
New Zealand	..	1,841	..	2,123	57.4	9.2	15.6

Office	Total applications processed	Granted	Rejected	Withdrawn or abandoned	Number of examiners (FTE)	First office action (months)	Final office decision (months)
Nigeria	..	..	..	..	5.0	..	..
North Macedonia	1,102	1,093	6	3	4.0	12.0	18.0
Norway	2,352	1,211	8	1,133	76.0	6.6	22.0
Pakistan	..	201	..	111	9.0	18.0	36.0
Panama	..	263	..	11	7.0	12.0	24.0
Papua New Guinea	..	..	..	..	2.0	..	..
Paraguay	..	..	..	..	6.0	..	..
Patent Office of the Cooperation Council for the Arab States of the Gulf	824	753	64	7	33.0	9.2	24.6
Peru	..	494	140	..	33.0	33.2	38.1
Philippines	2,959	930	12	2,017	107.0	6.0	24.9
Poland	4,373	2,739	993	641	76.0	..	34.9
Portugal	186	103	69	14	23.0	..	33.6
Qatar	..	44	..	19	4.0	6.0	24.0
Republic of Korea	177,556	126,228	47,331	3,997	932.0	11.1	15.8
Republic of Moldova	99	66	18	15	9.0	3.0	14.0
Romania	847	367	293	187	30.0	12.0	45.0
Russian Federation	39,471	28,773	5,918	4,780	402.0	3.1	4.1
Rwanda	..	..	..	..	2.0	..	..
Saint Vincent and the Grenadines	..	..	..	9	2.0	0.2	6.0
Saudi Arabia	3,126	931	709	1,486	32.0	34.0	12.5
Serbia	202	56	94	52	13.0	12.0	18.0
Seychelles	..	29	..	1	3.0	..	..
Singapore	..	..	..	..	100.0	..	..
Slovakia	219	89	53	77	23.0	39.2	40.2
Spain	2,625	2,006	195	424	131.0	0.7	5.2
Sri Lanka	942	273	659	10	8.0	38.7	59.3
Sudan	388	116	12	260	8.0	..	2.0
Sweden	2,881	1,534	24	1,323	106.9	6.8	30.1
Syrian Arab Republic	53	35	13	5	5.0	3.0	12.0
Thailand	8,157	3,525	28	4,604	102.0	39.4	60.0
Trinidad and Tobago	..	..	..	..	6.0	..	..
Turkey	6,232	2,746	608	2,878	193.0	2.8	27.9
Tuvalu	..	..	..	..	1.0	..	..
Ukraine	3,635	2,359	159	1,117	105.0	15.0	18.3
United Arab Emirates	..	506	..	17	24.0	35.1	..
United Kingdom	..	9,772	14,882	..	335.3	25.0	37.0
United Republic of Tanzania	..	..	..	..	2.0	..	..
United States of America	850,376	351,997	383,990	114,389	8,132.0	15.4	20.8
Uzbekistan	509	287	20	202	10.0	2.0	4.3
Venezuela (Bolivarian Republic of)	..	..	..	..	1.0	..	..
Viet Nam	6,368	4,319	1,921	128	63.0	40.6	52.6
Zambia	..	..	..	..	2.0	..	..
Zimbabwe	..	..	..	..	1.0	..	..

Note: FTE is full-time equivalent. Grant data differ slightly from grant data reported elsewhere in this report due to different dates of extraction. Every effort has been made to compile procedural data based on common definitions and concepts, but procedural differences make it extremely difficult to fully harmonize such data. For instance, "rejection" is not recorded as a final decision in Canada. Rather, applicants are informed of the action that they must take or questions that they must answer in order for an application to be considered, and if an applicant cannot provide the required information, they are regarded as having abandoned the application. A similar situation exists in Australia.

.. indicates not available.

Source: WIPO Statistics Database, September 2021.

A61. Utility model applications and grants by office and origin, 2020

Name	Applications by office			Equivalent applications by origin	Grants by office		
	Total	Resident	Non-resident	Total [a]	Total	Resident	Non-resident
African Regional Intellectual Property Organization	14	12	2	n.a.	3	2	1
Albania	2	2	0	2	..	..	..
Andorra	..	..	..	6	..	..	..
Argentina	201	177	24	186	6	6	0
Armenia	29	24	5	31	29	24	5
Australia	4,412	962	3,450	1,075	3,652	911	2,741
Austria	440	295	145	528	406	276	130
Azerbaijan	40	31	9	32	40	24	16
Bahrain	..	..	..	1	..	..	..
Barbados	..	..	..	6	..	..	..
Belarus	308	268	40	351	296	238	58
Belgium	..	..	..	125	..	..	..
Bolivia (Plurinational State of)	..	..	..	1	..	..	..
Botswana	13	13	0	13	11	11	0
Brazil	2,662	2,626	36	2,677	855	782	73
Brunei Darussalam	..	..	..	1	..	..	..
Bulgaria	541	533	8	542	549	540	9
Burundi	3	3	0	3	2	2	0
Cambodia	..	..	..	11	..	..	..
Canada	..	..	..	114	..	..	..
Chile	157	136	21	151	73	52	21
China	2,926,633	2,918,874	7,759	2,924,010	2,377,223	2,368,651	8,572
China, Hong Kong SAR	689	451	238	613	729	467	262
China, Macao SAR	43	10	33	15	6	0	6
Colombia	203	189	14	194	133	118	15
Cook Islands	..	..	..	2	..	..	..
Costa Rica	9	8	1	10	3	3	0
Côte d'Ivoire	..	..	..	1	..	..	..
Croatia	19	17	2	21	..	..	..
Cuba	2	2	0	4	..	..	..
Cyprus	..	..	..	70	..	..	..
Czech Republic	1,324	1,277	47	1,440	1,155	1,111	44
Democratic People's Republic of Korea	..	..	..	2	..	..	..
Democratic Republic of the Congo	..	..	..	8	..	..	..
Denmark	140	105	35	171	101	69	32
Dominica	..	..	..	31	..	..	..
Dominican Republic	14	12	2	12	7	6	1
Ecuador	34	0	34	1	..	..	..
Egypt	..	..	..	3	..	..	..
El Salvador	4	4	0	4	1	0	1
Estonia	43	36	7	50	44	40	4
Ethiopia	361	357	4	363	50	49	1
Finland	319	296	23	410	293	268	25
France	1,019	773	246	1,309	403	124	279
Gambia	1	1	0	1	1	1	0
Georgia	65	53	12	55	34	33	1

Name	Applications by office			Equivalent applications by origin	Grants by office		
	Total	Resident	Non-resident	Total [a]	Total	Resident	Non-resident
Germany	12,318	8,895	3,423	9,925	10,735	7,414	3,321
Greece	17	10	7	14	20	9	11
Guatemala	14	12	2	12	2	0	2
Hungary	228	215	13	241	133	122	11
Iceland	..	..	..	3	..	..	..
India	..	..	..	513	..	..	..
Indonesia	2,311	2,216	95	2,225	655	577	78
Iran (Islamic Republic of)	..	..	..	2	..	..	..
Iraq	..	..	..	3	..	..	..
Ireland	163	116	47	151	73	39	34
Israel	..	..	..	54	..	..	..
Italy	2,397	2,206	191	2,707	2,101	1,833	268
Japan	6,018	4,377	1,641	6,814	5,518	3,921	1,597
Jordan	..	..	..	4	..	..	..
Kazakhstan	..	..	..	17	1,107	1,027	80
Kenya	211	211	0	219	54	54	0
Kyrgyzstan	24	19	5	24	24	22	2
Lao People's Democratic Republic	..	..	..	1	..	..	..
Liechtenstein	..	..	..	26	..	..	..
Lithuania	..	..	..	4	..	..	..
Luxembourg	..	..	..	32	..	..	..
Malaysia	187	121	66	179	297	216	81
Malta	..	..	..	6	..	..	..
Marshall Islands	..	..	..	2	..	..	..
Mauritius	..	..	..	1	..	..	..
Mexico	708	639	69	652	177	127	50
Monaco	..	..	..	1	..	..	..
Mongolia	222	220	2	222	197	194	3
Morocco	..	..	..	2	..	..	..
Mozambique	11	4	7	4	11	4	7
Namibia	5	5	0	5	5	5	0
Netherlands	..	..	..	290	..	..	..
New Zealand	..	..	..	68	..	..	..
Nigeria	..	..	..	2	..	..	..
Norway	..	..	..	14	..	..	..
Oman	..	..	..	3	..	..	..
Panama	8	4	4	6	4	1	3
Paraguay	9	6	3	6	..	..	..
Peru	416	402	14	414	135	125	10
Philippines	1,490	1,398	92	1,402	1,118	1,069	49
Poland	870	793	77	879	552	533	19
Portugal	94	56	38	64	47	24	23
Qatar	..	..	..	1	..	..	..
Republic of Korea	4,981	4,595	386	5,593	2,056	1,842	214
Republic of Moldova	158	152	6	152	89	88	1
Romania	71	62	9	67	32	28	4
Russian Federation	9,195	8,859	336	9,012	6,748	6,502	246

Name	Applications by office			Equivalent applications by origin	Grants by office		
	Total	Resident	Non-resident	Total [a]	Total	Resident	Non-resident
Rwanda	6	6	0	7	3	3	0
Saint Kitts and Nevis	..	..	..	1	..	..	..
Samoa	..	..	..	5	..	..	..
San Marino	..	..	..	5	..	..	..
Saudi Arabia	..	..	..	14	..	..	..
Serbia	86	82	4	84	54	54	0
Seychelles	..	..	..	11	..	..	..
Sierra Leone	..	..	..	1	..	..	..
Singapore	..	..	..	581	..	..	..
Slovakia	390	342	48	392	323	272	51
Slovenia	..	..	..	7	..	..	..
South Africa	..	..	..	8	..	..	..
Spain	3,448	3,302	146	3,539	2,391	2,274	117
Sri Lanka	..	..	..	1	..	..	..
Sweden	..	..	..	172	..	..	..
Switzerland	..	..	..	458	..	..	..
Thailand	3,455	3,317	138	3,372	1,340	1,243	97
Tunisia	..	..	..	1	..	..	..
Turkey	3,627	3,577	50	3,643	1,179	1,145	34
Uganda	19	19	0	19	15	15	0
Ukraine	5,281	5,063	218	5,199	6,385	6,229	156
United Arab Emirates	9	4	5	10	2	0	2
United Kingdom	..	..	..	246	..	..	..
United Republic of Tanzania	1	1	0	1	1	1	0
United States of America	..	..	..	2,207	..	..	..
Uruguay	..	..	..	9	..	..	..
Uzbekistan	350	341	9	344	109	107	2
Viet Nam	575	400	175	406	278	201	77
Yemen	..	..	..	..	1	1	0
Zimbabwe	..	..	..	16	..	..	..
Others/Unknown	..	..	..	1,676	..	..	..
Total (2020 estimates)	**3,000,110**	**2,980,440**	**19,670**	**n.a.**	**..**	**..**	**..**

(a) Equivalent applications by origin data are incomplete, because some offices do not report by origin.

.. indicates not available.

n.a. indicates not applicable.

Source: WIPO Statistics Database, September 2021.

Trademarks

Highlights

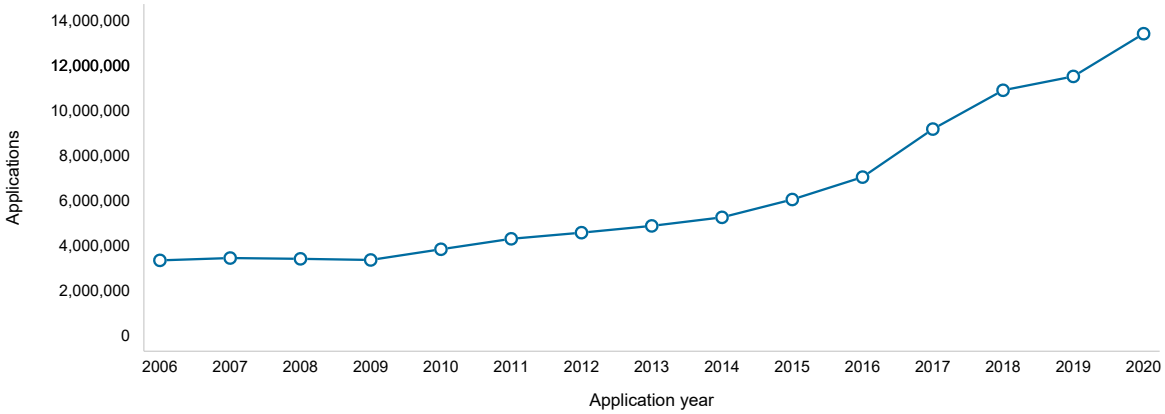
Applications increased sharply by 16.5% in 2020

An estimated 13.4 million trademark applications were filed worldwide in 2020. This is almost 1.9 million more than filed in 2019 and represents an increase of 16.5% on the year. This high rate of growth was achieved despite the onset of the COVID-19 pandemic and the global economic slowdown that ensued (figure 2.1). It also marks an eleventh consecutive year of increase following the end of the global financial crisis, and a return to double-digit growth, up from 5.7% in 2019. Trademark applications in 2020 were four times the number filed in 2006, due in large part to the double-digit increases recorded in seven out of the last 15 years, and despite the small declines seen in both 2008 and 2009.

When differences in filing systems across national and regional offices are harmonized using the application class count, trademark filing in 2020 grew by an impressive 13.7% on the previous year. The total number of classes specified in applications – known as the application class count – reached an estimated 17.2 million (figure 2.2).

An estimated 13.4 million trademark applications were filed worldwide in 2020

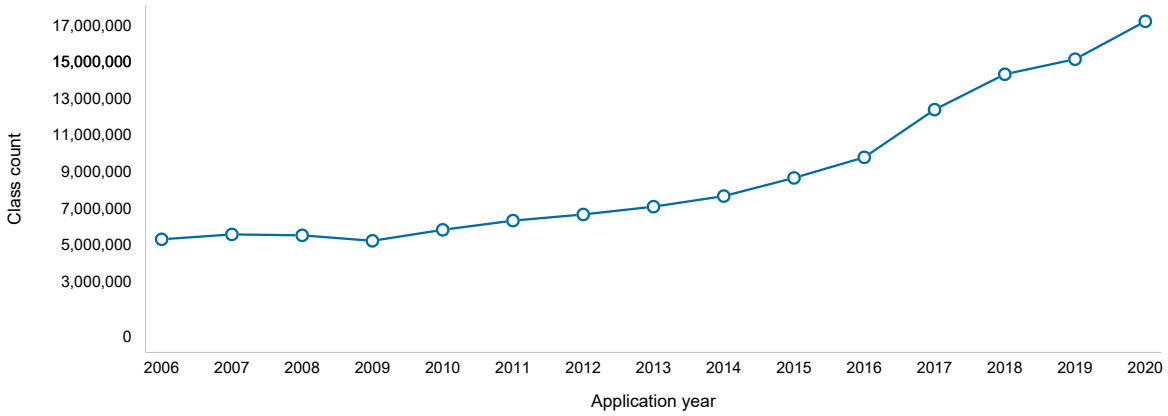
2.1. Trademark applications worldwide, 2006–2020



Source: Figure B1.

The total number of classes specified in trademark applications increased by 13.7% from 2019 to 2020

2.2. Trademark application class counts worldwide, 2006–2020



Source: Figure B2.

Class count

A trademark application may refer to different classes of goods or services. Many offices use the Nice Classification, an international classification of goods and services for registering trademarks and service marks. Applications received at these offices are classified according to one or more of the 45 Nice classes (see *www.wipo.int/classifications/nice*). Some offices allow single-class filing only, meaning applicants have to file a separate application for each class. Others permit multi-class filings, enabling applicants to file a single application in which a number of classes can be specified. To improve international comparisons of the numbers of applications received, it helps to compare class counts across offices. Class counts are also used to make trademark registration internationally comparable. This method for comparing offices began in 2004, the first year for which complete class count data are available.

Offices with the most trademark filing

As with other forms of intellectual property (IP), the increase in total trademark filing worldwide (measured in application class counts) is primarily due to the sheer volume of trademark applications filed in China. For example, in 2020, the IP office of China alone accounted for 73.1% of the annual increase in global trademark filing using this measure. China's office was followed by that of the United States of America (U.S.) (9.6%), the Russian Federation (4.4%), the Islamic Republic of Iran (4.2%) and Turkey (3.9%), each constituting a considerably smaller portion of the total increase.

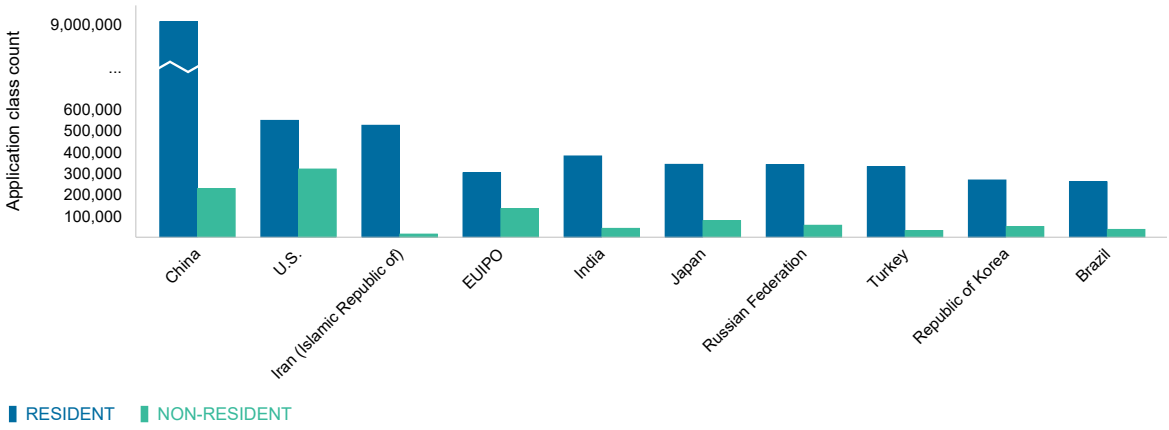
The office of China's class count of 9.3 million was followed by a count of 870,306 at the office of the U.S. (figure 2.3). These two have been the top offices since the early 2000s; however, China's class count has grown from about twice that of the U.S. in 2006 to almost 11 times as much in 2020. This is mainly due to the high number of trademark applications filed domestically by residents in China. These two top-ranked offices were followed by the office of the Islamic Republic of Iran (541,750), the European Union Intellectual Property Office (EUIPO) (438,511) and the office of India (424,583). The top five offices in 2020 differed slightly from those in 2019 in that India's office surpassed that of Japan to become the fifth largest in terms of trademark filing. About 68% of worldwide trademark filing was concentrated at these five offices, up from the 39% held by the top five offices a decade earlier in 2010, comprising China, France, Germany and the U.S., as well as the EUIPO.

Of the top 20 offices, 16 had higher levels of trademark filing in 2020 than in 2019. Ten recorded a high growth rate of between 12% and 30% – and one surpassed 40%. The largest increases seen were in Indonesia (+44.3%), the Russian Federation (+29.7%), the U.S. (+29.4%) and Turkey (+28.8%), followed by the United Kingdom (U.K.) (+26.5%), Brazil (+21%) and China (+19.3%). In contrast, the offices of Canada (–15.5%), France (–6.9%), Japan (–22.9%) and Viet Nam (–3.3%) each saw a decrease on the year before (figure B11).

In 2020, nine of the top 20 offices were in either low- or middle-income countries, the same number as in 2019, but up from only six in 2010. Other offices located in

Non-resident applicants only accounted for between 2–3% of total trademark filing in China and the Islamic Republic of Iran

2.3. Trademark application class counts for the top 10 offices, 2020



Note: EUIPO is the European Union Intellectual Property Office.

Source: Figure B10.

selected low- and middle-income countries, namely, Argentina (78,500), Thailand (63,486), Ukraine (62,665) and the Philippines (56,698), saw comparatively high volumes of trademark filing (figure B12). Among the 20 selected offices located in countries from these income groups, annual growth exceeded 10% in Argentina (+21.9%), Bangladesh (+10.1%), Mongolia (+12.2%) and Samoa (+43) (figure B13). In contrast, the offices of Papua New Guinea (–22%) and Ukraine (–21.1%) recorded double-digit decreases in trademark filing from 2019 to 2020.

At most offices, trademark applications are filed mainly by residents seeking protection within their domestic jurisdiction. In 2020, residents filing at their respective home or regional office accounted for 86.1% of global filing, with the remaining 13.9% associated with non-resident filings (figure B3). Over the last decade, the growth in domestic filings has outpaced that of non-resident filings. This is demonstrated by an annual increase of 16% in the world resident application class count in 2020. At only 1.2%, the increase in the application class count for non-residents of was much lower in comparison.

Due primarily to the large volume of resident trademark applications filed in China, non-resident filing as a proportion of the global total has shrunk by about 18 percentage points, from 32.1% in 2008 down to 13.9% in 2020. However, when China is excluded from the overall count, the non-resident share has fallen by only around seven percentage points over this period.

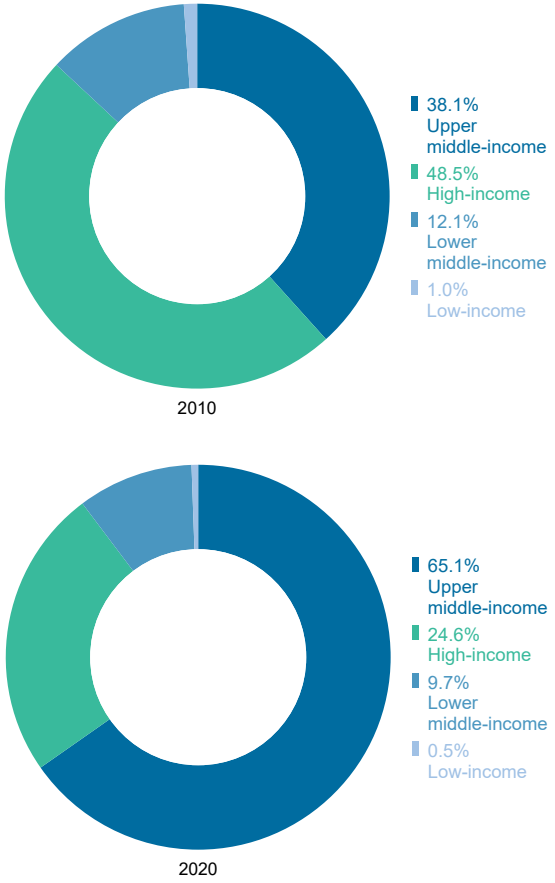
Recording filings in excess of the global non-resident share, six of the top 20 offices received one-third or more of their total filing from non-residents, with Australia (39.8%), Canada (57.5%), Indonesia (34.9%), Switzerland (55.5%), the U.K. (33.3%) and the U.S. (36.9%) reporting the highest shares (figure B10). The lowest non-resident shares were recorded at the offices of China (2.5%), France (5.6%) and the Islamic Republic of Iran (2.8%). The low non-resident shares for France and several other European Union (EU) member state offices, such as those of Germany (9.9%) and Italy (10.6%), can be explained by the fact that many non-resident applicants file for protection in these countries via the EUIPO.

Resident filing overwhelmingly drove the 19% or higher annual growth rate in Brazil, China, Indonesia, the Islamic Republic of Iran, the Russian Federation, Turkey and the U.K. in 2020, whereas non-resident filing accounted for the greater share of overall growth at the EUIPO and in the U.S. (figure B11). In France, the decline in total filing can be attributed to a drop in both resident and non-resident applications. For Viet Nam, however, filing by residents increased slightly on the previous year, but this was more than offset by a decline in non-resident filing, resulting in a net annual decrease.

The list of top 20 offices in 2020 is the same as in 2019, but ranked somewhat differently. For example, a large increase in resident trademark filing at the office of the Islamic Republic of Iran, coupled with a considerable drop in resident filing at the office of Japan, moved the

Trademark filing at offices of upper middle-income countries increased from 38.1% of global filing in 2010 to 65.1% in 2020

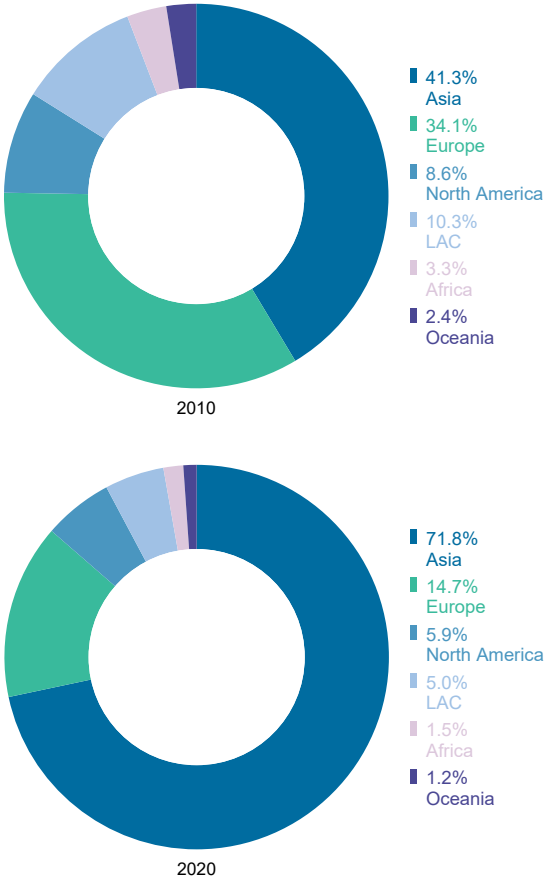
2.4. Trademark application class counts by income group, 2010 and 2020



Source: Table B7.

Offices in Asia accounted for 71.8% of all trademark filing in 2020

2.5. Trademark application class counts by region, 2010 and 2020



Source: Table B8.

Islamic Republic of Iran up from fourth in the ranking in 2019 to top third spot in 2020. The EUIPO and India likewise moved up one spot to become the fourth and fifth top-ranked offices, respectively. The office of the Russian Federation also moved up one spot in the ranking, from eighth to seventh in 2020. Turkey moved from 10th position in 2019 to rank eighth in 2020, ahead of the Republic of Korea. The biggest declines in ranking were for the offices of France and Japan, the former dropping down from seventh spot in 2019 to 11th in 2020, while the latter went down from the third to sixth.

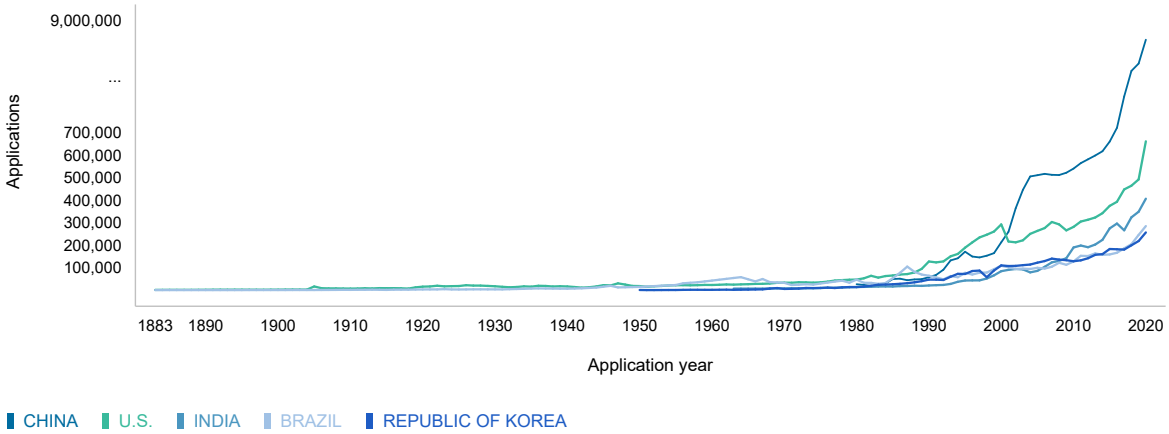
Total application class counts at the offices of high-income economies grew by 4.2% between 2010 and 2020 (figure B7). This is lower than the average annual growth rates for the upper and lower middle-income groups, but close to the 4.1% growth rate seen by offices of low-income economies over the same period. The largest rate of growth (+17.6%) during this period was recorded by the offices of upper middle-income countries, followed by the offices of lower middle-income (+9%) countries.

Similar to 2019, 11 of the top 20 offices in 2020 were in high-income economies. Five were in upper middle-income (Brazil, China, Mexico, the Russian Federation and Turkey) and four in lower middle-income countries (India, Indonesia, the Islamic Republic of Iran and Viet Nam). In 2020, the offices of high-income countries combined accounted for around one-quarter (24.6%) of total filing worldwide, down from almost a half (48.5%) in 2010. In contrast, the share for offices of

Trademark applications filed since 1883

Trademark applications remained fairly low and stable up until the mid-1980s. Applications filed at China's office took off in the 1990s, and in 2001 exceeded those received by the U.S. office, making it the largest office in terms of the amount of applications received. Even so, filings at the U.S. office have more than tripled since the mid-1990s, despite declines in 2001 and 2002 at the end of the dot-com era and again during the global financial crisis in 2008 and 2009. Having remained below 100,000 until 2006, India's annual trademark filings exceeded 400,000 in 2020. At the office of Brazil they were about 285,000, while in the Republic of Korea they approached 260,000.

Trend in trademark applications for the top five offices, 1883–2020



Source: Figure B9.

upper middle-income countries has risen from 38.1% in 2010 to 65.1% in 2020 (figure 2.4). However, if China is excluded from the count, the combined share of the world total claimed by upper middle-income countries actually decreased from 19.5% to 10.8% over this period. The shares of total global filing for lower middle-income (9.7% in 2020) and low-income countries (0.5%) also fell between 2010 and 2020, albeit to a lesser extent (from 12.1% and 1% respectively).

Eight of the top 20 ranking offices in 2020 were in Asia, seven in Europe, two each in Latin America and the Caribbean (LAC) and North America, and one in Oceania. Offices in Asia accounted for 71.8% of all trademark filing, up from a combined share of 41.3% in 2010. This partly explains the decline in overall shares for the other five geographical regions over the same period (figure 2.5). Offices in Europe accounted for 14.7% of the world total in 2020, followed by North America (5.9%), LAC (5%), Africa (1.5%) and Oceania (1.2%).

Equivalent application class count

Applications filed at some regional IP offices are equivalent to multiple applications in countries that are members of the organizations establishing those offices. For example, to calculate the number of equivalent applications for the EUIPO, each application is multiplied by the corresponding number of EU member states. So, an application filed with the EUIPO in 2020 by an applicant residing outside the EU is counted as 28 applications abroad – equivalent to the 28 member countries of the EU. An application filed by an applicant residing in an EU country is counted as 1 resident application and 27 applications abroad for 2020. The same multiplier is applied to the classes specified in these applications. The equivalent application class count concept is used for reporting data by origin.

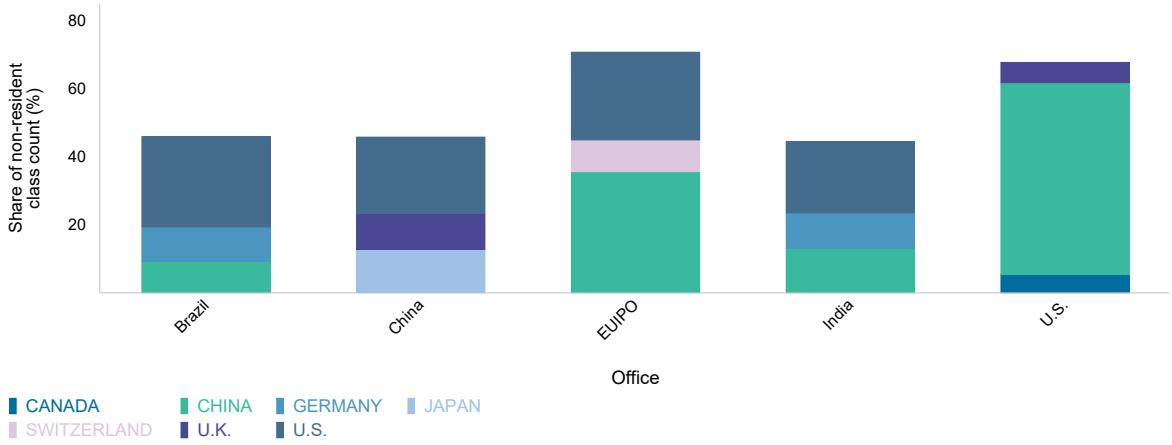
German applicants continue to file the greatest number of applications abroad

Trademark applications received by offices from resident and non-resident applicants are referred to as office data, whereas applications filed by applicants at a national or regional office (resident applications) or at foreign offices (applications abroad) are referred to as origin data. Here, trademark statistics based on the origin of the residence of the applicant are reported in order to complement the picture of trademark filing worldwide.

In terms of filing abroad based on equivalent class count, more applicants from Germany seek protec-

Applicants from the U.S. were the most active foreign filers in Brazil, China and India

2.6. Share of total non-resident filing by origin at selected offices, 2020



Note: EUIPO is the European Union Intellectual Property Office
Source: Figure B24.

tion for their trademarks abroad than do applicants from any other origin, a position Germany has held since 2006. In 2020, German filing abroad recorded an equivalent application class count of 2.4 million, followed by applicants from China (1.8 million), which surpassed the U.S. (1.3 million) to become the second most active origin in terms of filing abroad. These top three countries of origin where followed by the U.K. (1.1 million) and Italy (1 million) (figure B21).[1] The high equivalent class counts for applications abroad from these origins can be explained not only by high application class counts at numerous offices abroad, but also by the frequent use of the EUIPO – with its multiplier effect – to seek protection within the EU as a whole.

Looking at absolute counts – thereby removing the EUIPO's multiplier effect – 95.3% of all filing (application class counts) undertaken by China-based applicants in 2020 was in China alone, with only 4.7% attributable to seeking protection abroad. In fact, every year for the last two decades, at least 93% of all filing by China-based applicants has been domestic. Similarly, applicants residing in many middle-income countries with high trademark filing volumes, such as Argentina, Brazil, India, Indonesia, the Islamic Republic of Iran, Mexico, Turkey and Viet Nam, directed less than 10% of trademark filing towards seeking protection abroad. With regard to applicants based in the Islamic Republic of Iran, only 0.2% of total filing was directed abroad.

Among top 20 origins, 70% of filing by Switzerland-based applicants occurred outside the country, the highest share of application class counts abroad as a proportion of total filing. Switzerland was followed by top origins the U.K. (44.3%), the Netherlands (41%), the U.S. (40.3%) and Canada (39.2%).

Between 22% and 27% of all trademark filing by applicants from the upper middle-income countries of Armenia (22.9%), Georgia (22.3%), Guatemala (23.9%), Jordan (27.1%) and Malaysia (24.7%) took place abroad. However, applicants based in Bulgaria (44.9%) and Serbia (43.7%) had far higher proportions of total filing abroad. For the lower and upper middle-income countries of Algeria, Pakistan, Paraguay, Uzbekistan and Zambia, the share was only between about 2–4%.

When deciding where to seek trademark protection, applicants consider such factors as the relative appeal of the various foreign markets for selling their goods and services, geographical proximity to these markets and the existence of well-established historical ties between the trademark holder's country of residence and the destination country. In 2020, 22.5% of all non-resident filing in China came from U.S. applicants, followed by 12.7% from Japan and 10.5% from the U.K. Together, applicants from these three countries accounted for nearly a half (45.7%) of all non-resident trademark filing in China for that year (figure 2.6). Up from 34% in 2019 to 56.2% in 2020, applicants from China accounted for by far the largest share of non-resident trademark filing in the U.S. They were followed by the much smaller volumes held by applicants from the U.K. (6%) and Canada (5.4%) to add to a combined share of over two-thirds (67.6%) of all filing the U.S. received from abroad.

In India, the three origins to record the largest shares of total non-resident filing were the U.S. (20.9%), China (13%) and Germany (10.4%), together accounting for 44.3% of total non-resident filing in that country. For the EUIPO, 70.6% of its non-resident filing originated from applicants based in just three countries: China (35.5%), the U.S. (25.8%) and Switzerland (9.3%).

In addition to being the most active foreign filers in the U.S., applicants from China were also the most active at eight other top 20 ranking offices in terms of filing. They accounted for between about 16% and 36% of application class counts in filings received from abroad by the offices of France, Germany, Indonesia, the Islamic Republic of Iran, Italy, Japan and Viet Nam, plus the EUIPO. Likewise, US-based applicants were the largest source of non-resident filing at nine of the top 20 offices, accounting for between 13% to 39% of the total recorded by each. Germany-based applicants filed the largest volumes of non-resident trademarks received by the offices of Switzerland (35.5%) and Turkey (17.4%). In addition to claiming a large share of foreign filing in China, applicants located in Japan were also either the second or third largest origin of foreign filing in regional neighbors China, Hong Kong SAR, Indonesia, the Republic of Korea, Thailand and Viet Nam.

Adjusting for GDP and population

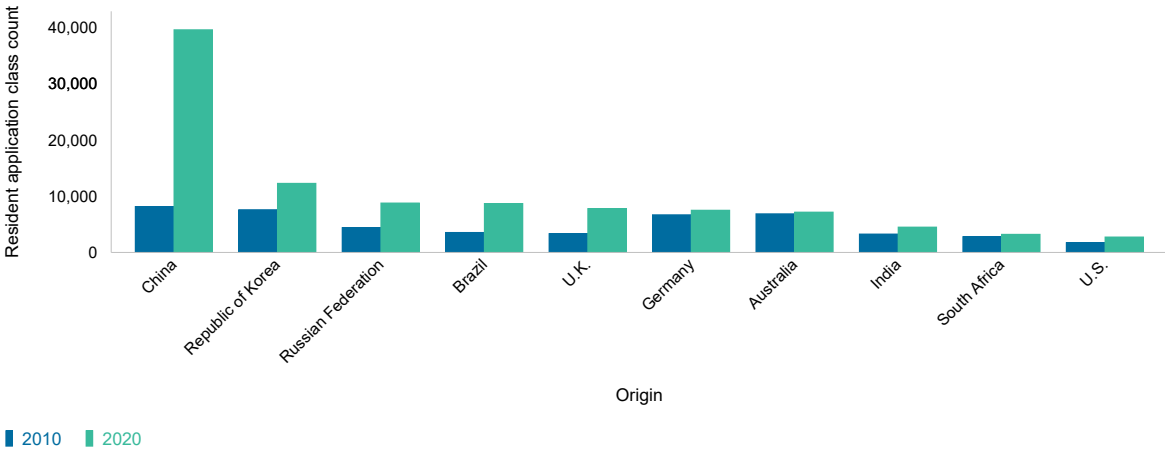
Variations in trademark filing across countries reflect differences in the size and structure of their economies. It is therefore informative to examine resident application class counts with regard to gross domestic product (GDP) and the size of population.

When resident trademark applications are viewed as class counts and adjusted according to GDP, countries with a relatively lower number of classes specified in resident applications, such as Brazil and South Africa, may rank above countries like the U.S. that have higher class counts. Of selected origins, China (39,620), the Republic of Korea (12,310), the Russian Federation (8,809), Brazil (8,723) and the U.K. (7,825) had among the highest ratios of resident application class count to GDP in 2020 (figure 2.7). China (+31,428), Brazil (+5,144), the Republic of Korea (+4,683), the U.K. (+4,454) and the Russian Federation (+4,376) all saw particularly large increases in the resident application class count per unit of GDP between 2010 and 2020.

Data reflecting application class count per million population show that China, with a population of about 1.4 billion, had a resident application class count of 6,502 per million population – one of the most intensive

Brazil, China, the Republic of Korea, the Russian Federation and the U.K. each saw a large increase in resident application class count per unit of GDP between 2010 and 2020

2.7. Resident trademark application class count per USD 100 billion GDP for selected origins, 2010 and 2020



Source: Figure B32.

among all countries of origin in 2020. The Republic of Korea, with a population of around 51.8 million, recorded a resident application class count of 5,201 per million population. Switzerland whose population is far lower, at approximately 8.6 million in 2020, had a comparable resident application class count per million population ratio of 5,214. Among other selected origins, this ratio ranged from just over 2,100 to about 3,850 for the following: Australia (3,503), Chile (2,444), Germany (3,835), Italy (2,125), the Russian Federation (2,369) and the U.K. (3,257). It was between 1,200 and about 1,700 for Argentina (1,420), Brazil (1,227), Canada (1,646), Paraguay (1,719) and the U.S. (1,667). Malaysia, South Africa and Thailand each had ratios of between about 370 and 570 (figure B33).

Which classes and industries attracted the most filing from applicants filing abroad?

Trademarks are registered in relation to particular classes of goods or services. The Nice Classification of goods and services is used in the international trademark system and at certain national and regional offices. Nice Classification statistics offer insights into the relative importance of different goods and services. In 2020, goods class 9, which includes scientific, photographic, measuring instruments, recording equipment, computers and software, was represented in 11.4% of all reported non-resident trademark filing by class. Nice class 9 is followed by services class 35 (7%), which covers advertising, business management, business administration and office functions, and by goods class 5 (6.3%) and services class 42, which accounted for 5.4% of the total. Goods class 5 relates to pharmaceutical preparations, baby food, dietary supplements for humans and animals, disinfectants, fungicides and herbicides, and services class 42 includes scientific and technological services, design and development of computer hardware and software (figure B25).

The 11 service-related classes accounted for 27.2% of all Nice classes specified in applications filed abroad in 2020, down from 30.4% in 2019. Services classes accounted for between about 28% and 35% of all filing in China, India, Indonesia, the Russian Federation, the U.S. and at the EUIPO, and 45% or more at the offices of Brazil, France, the Islamic Republic of Iran, Japan, Mexico and Turkey, with Brazil (60.3%) recording the highest share among the top offices (figure B29).

It is useful to group the 45 Nice classes into 10 industry sectors. Research and technology was the top sector in which applicants sought trademark protection abroad in 2020, accounting for 19.3% of the global non-resident trademark filing reported. It was followed by the health (16.3%), clothing and accessories (11.9%) and agriculture (10.1%) sectors. Trademarks relating to leisure and education (10%) and household equipment (9.6%) accounted for the next largest shares of the total. In contrast, industries relating to chemicals (3.1%) and construction (5.1%) accounted for the smallest shares of filing abroad (figure B27).

Research and technology was the sector to attract the biggest proportion of total filing at the EUIPO (20.9%) and at the offices of Japan (22.3%) and the U.S. (17%) (figure B28). Agriculture was the top sector in China (23.4%), the Republic of Korea (18%) and the Russian Federation (15.1%), and ranked among the top three sectors at seven of the top 10 offices. Filing for marks relating to the health sector attracted the largest proportion of applications filed in India (23.7%), the second largest in the Republic of Korea (16.8%) and at the EUIPO (12.3%), and the third largest in China (12.3%). Business services topped the list of industry sectors in Brazil (24.6%), the Islamic Republic of Iran (21.2%) and Turkey (23.6%), accounting for the largest shares of total trademark filing. Like agriculture, the business services sector also ranked among the top three sectors at seven of the top 10 offices. Filing relating to leisure and education featured as the either the second or third top sector at three offices: Brazil, Japan and the U.S. Clothing and accessories was the second top sector in both the Russian Federation and the U.S. Only the office of the Islamic Republic of Iran (20.6%) included transportation among its top three sectors.

A total of 8.6 million trademark registrations were recorded worldwide in 2020

After concluding the examination process, an office may decide to register a trademark. The number of registrations issued can fluctuate greatly from year to year, due in part to the amount of resources offices dedicate to examining trademark applications. For this reason, it is not possible to accurately compare the number of applications filed at an office in any given year with the number of registrations issued by that office in the same year.

The estimated 8.6 million trademark registrations recorded worldwide in 2020 represents a decrease of 7%, or 643,300 fewer registrations, compared to the previous year (figure B4).

Just as class counts make application filing activity internationally comparable, they also permit a more meaningful comparison of registrations. In 2020, an estimated 11.1 million classes were specified in trademark registrations, 6.2% less than the previous year's

total (figure B5). This represents the first annual decline since the ones recorded in 2011 and 2012. Registrations measured in class counts at the office of China saw a large drop of almost 627,000 from 2019 to 2020, resulting in a decrease of 9.8% and contributing most to the overall decline in worldwide registration activity. Considerable declines in registration of between 39,000 and 64,500 class counts at the offices of Brazil (–45,776), Canada (–54,879), France (–56,135), India (–64,495) and the U.S. (–39,264) also contributed to the overall decrease in world trademark registration.

China's office registered trademarks in which about 5.8 million classes were specified, accounting for over half (52.1%) of all trademark registration recorded in 2020. It was followed by the office of the U.S. (400,220), the EUIPO (384,955) and the office of India (258,511) (figure B17). These three offices combined accounted for 9.4% of total registration activity.

Despite the large annual declines at a number of top offices, several others experienced double- and even triple-digit increases in registration activity, such as those of Indonesia (+363.5%), the Islamic Republic of Iran (+13.7%), Mexico (+28.4%) and Turkey (+15.2%). In the case of Indonesia, its office recorded a much higher volume of trademark registrations in 2020 compared to 2019 due to the implementation of a new system to expedite the process.

Active trademarks grew by 11.2%

Unlike most forms of IP, trademarks can be maintained indefinitely by the payment of renewal fees at defined time intervals. In 2020, there were an estimated 64.4 million active trademark registrations at 149 IP offices worldwide, representing an increase of 11.2% on 2019 figures (figure B36).

Once again, the office of China had by far the greatest number of trademark registrations in force in 2020, with about 30.2 million. It was followed by the offices of the U.S., with 2.6 million registrations in force, India recording 2.4 million, and Japan, with almost 2 million. Each reporting between 1.2 and almost 1.6 million trademark registrations in force, the EUIPO and the offices of Brazil, France, Mexico, the Republic of Korea and Turkey also recorded high numbers of active trademarks. The offices of Argentina (878,713) and the U.K. (828,929) had a comparable number of trademark registrations in force, while Australia (655,595) and Canada (620,860) also had a similar amount as each other (figure B37).

About 18.4 million trademark registrations in force at 82 offices in 2020 can be distributed according to the year in which they were initially registered. This represents 60% of a total of approximately 30.7 million trademark registrations recorded at these offices between 1996 and 2020.

Just over one-fifth (22.2%) of those trademarks registered in 1996 remained in force in 2020, a testimony to the enduring value of marks (figure B38). For those registered in 2011 and later, the percentage rises above 70%. Over half (54.6%) of the 18.4 million registrations in force have a recent registration date, dating back only to 2014.

Demand for Madrid international trademark registrations fell slightly in 2020

To obtain trademark protection in multiple countries or jurisdictions, applicants can either file applications directly at each individual office – known as the Paris route – or file an application for international registration through the Madrid System – the Madrid route (see the glossary). The Paris route involves filing separate applications directly at IP offices in the countries or regions where protection is sought (under the Paris Convention for the Protection of Industrial Property). In contrast, by paying a single set of fees in one currency (Swiss francs), the Madrid System allows trademark holders to submit a single application in one language (English, French or Spanish), indicating the Madrid members where protection is sought (designations).

In 2020, the Madrid System enabled trademark holders to obtain protection for their branded products and services in an area covering a total of 123 countries. Combined, Madrid members represent 64% of all countries, and are home to about 80% of the world's population, in which close to 87% of global GDP occurs, with the potential to increase these shares as membership grows.

Use of the international trademark system dipped, but only slightly. This was to be expected given that trademarks tend to represent the introduction of new brands, the expansion of products and services, as well as brand evolution – all of which slowed as a result of the COVID-19 pandemic. International trademark applications filed via the WIPO-administered Madrid System for the International Registration of Marks decreased by 0.5% to 63,837 in 2020, representing the first decline in over a decade (figure B46).

Despite on-year declines, applicants based in the U.S. (10,014) and Germany (7,326) continued to file the highest numbers of Madrid applications in 2020. They were followed by those located in China (6,696), France (3,716) and the U.K. (3,693). From among the top 10 origins, China (+10.1%) is the only one to have recorded a double-digit growth in 2020. However, the U.K. (+5.5%) and Italy (+4.2%) also reported notable growth rates. In contrast, Madrid applications from Germany (–4.8%), France (–16.3%), Switzerland (–5.8%) and Turkey (–5.9%) saw the biggest on-year declines among the top 10 origins (figure B47).

For the fourth year in a row, the EU (26,997) attracted the most designations in Madrid applications in 2020. It was followed by the U.S. (25,016), which surpassed China (22,366) to become the second biggest recipient of designations in applications from trademark holders abroad (figure B48). This means that in 2020 Madrid applicants sought to extend protection for their marks to the 28 EU member countries as a whole more than they did to any other Madrid member jurisdiction. For a fifth consecutive year, the 20 most designated Madrid members, combined, received over 60% of all designations made in Madrid applications filed in 2020. Including China, nine of the top 20 designated Madrid members were middle-income countries, notably Brazil (9,250), India (12,321), Mexico (10,865), the Russian Federation (15,890) and Turkey (9,182). Among the top 20 destinations for international trademark registration via the Madrid System, the U.K. saw the biggest surge in annual growth of 23.3% during the lead-up to Brexit. In fact, the U.K. jumped from eighth most designated Madrid member in 2019 to fifth spot in 2020, ahead of top designated members Australia, Japan, the Russian Federation and Switzerland. For comparison, the next highest increase in designations received was for the U.S. (+2.3%), followed by New Zealand (+2%). In contrast, 14 of the top 20 destinations for designations saw on-year decreases, with China (–9.1%), the Republic of Korea (–6%), India (–4.9%) and the Russian Federation (–4.8%) recording the biggest declines. Canada, which joined the Madrid System in 2019, became the fourth-ranked top recipient of designations in 2020. Brazil – likewise a recent member – ranked among the top 20 designated Madrid members at 14th spot. For further information and statistics, see WIPO's *Madrid Yearly Review 2021*.[2]

1 Equivalent application class counts differ from the absolute class counts presented in figure B19 and do not take into account the multiplying effect of regional offices.

2 Data presented in the *Madrid Yearly Review 2021* have been updated since its publication in May 2021 and may differ somewhat from the numbers provided in the *World Intellectual Property Indicators 2021*.

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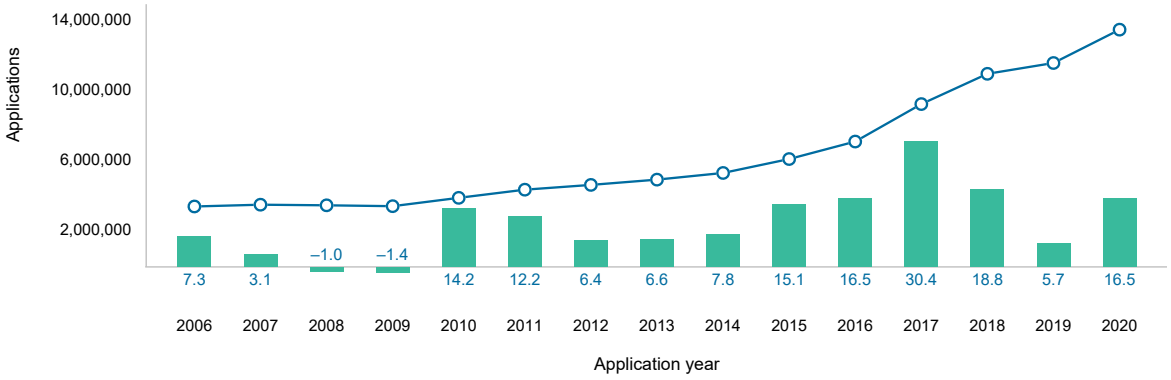
Trademark applications and registrations worldwide

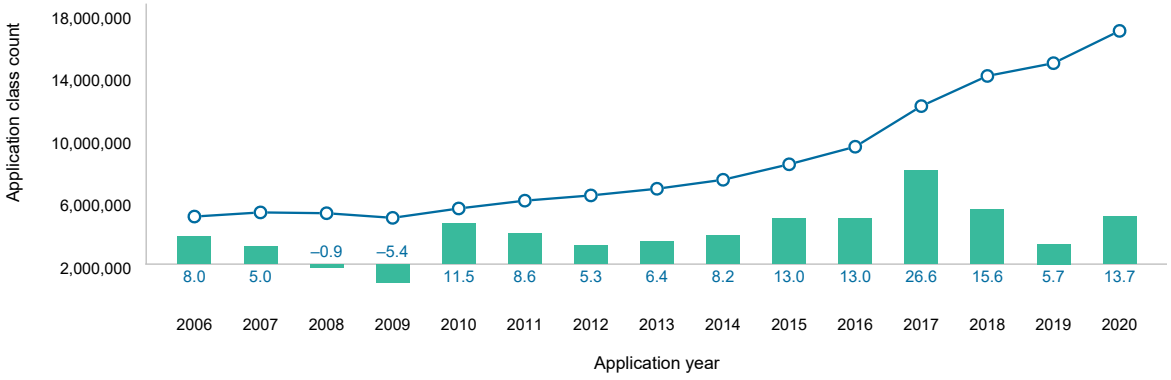
B1. Trend in trademark applications worldwide, 2006–2020



Note: World totals are WIPO estimates using data covering 168 IP offices. Each total includes the number of applications filed directly with national or regional offices (the Paris route), as well as the number of designations received by offices via the Madrid System (where applicable).

Source: WIPO Statistics Database, September 2021.

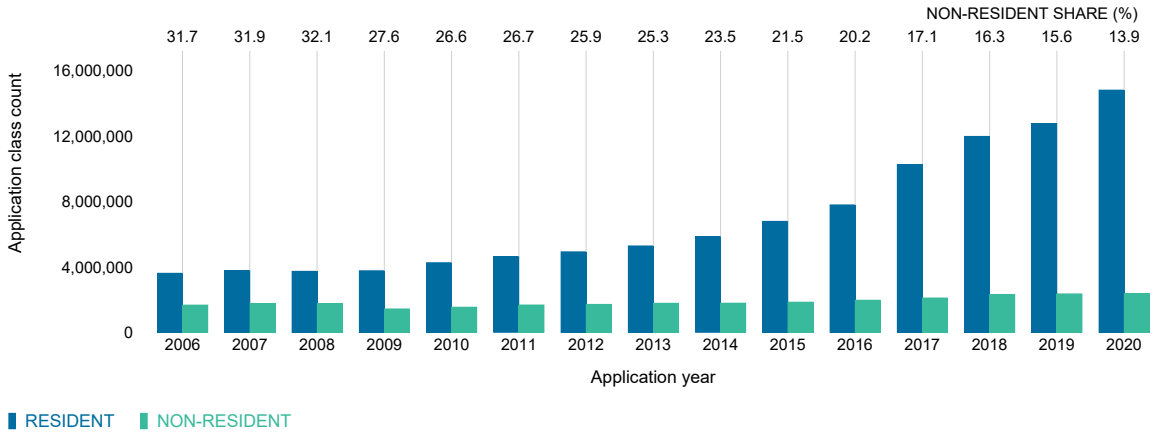
B2. Trend in trademark application class counts worldwide, 2006–2020



Note: World totals are WIPO estimates using data covering 168 IP offices. These totals include class counts in applications filed directly with national and regional offices (the Paris route), as well as class counts in designations received by offices via the Madrid System (where applicable). See the glossary for the definition of class count.

Source: WIPO Statistics Database, September 2021.

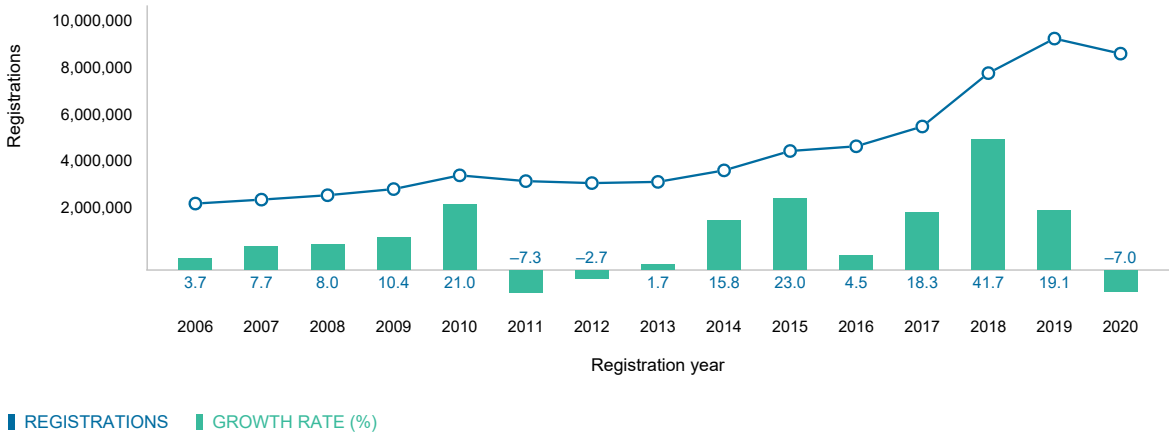
B3. Resident and non-resident trademark application class counts worldwide, 2006–2020



Note: World totals are WIPO estimates using data covering 168 IP offices. These totals include class counts in applications filed directly with national and regional offices (the Paris route), as well as class counts in designations received by offices via the Madrid System (where applicable). See the glossary for definitions of class count, resident and non-resident.

Source: WIPO Statistics Database, September 2021.

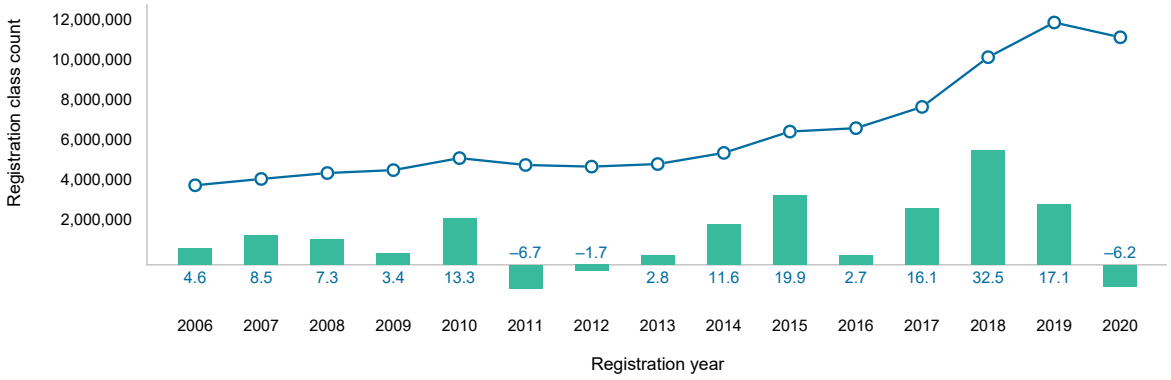
B4. Trend in trademark registrations worldwide, 2006–2020



Note: World totals are WIPO estimates using data covering 168 IP offices. Each total includes the number of registrations issued by national and regional offices for applications filed directly with offices (the Paris route), as well as the number of designations received by offices via the Madrid System (where applicable).

Source: WIPO Statistics Database, September 2021.

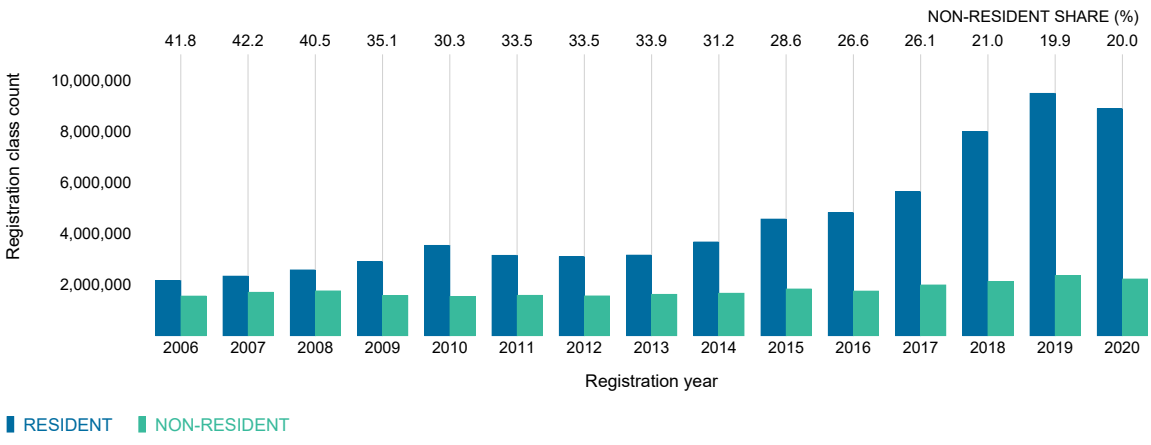
B5. Trend in trademark registration class counts worldwide, 2006–2020



Note: World totals are WIPO estimates using data covering 168 IP offices. These totals include class counts in registrations issued by national and regional offices for applications filed directly with offices (the Paris route), as well as designations received by offices via the Madrid System (where applicable). See the glossary for the definition of class count.

Source: WIPO Statistics Database, September 2021.

B6. Resident and non-resident trademark registration class counts worldwide, 2006–2020



Note: World totals are WIPO estimates using data covering 168 IP offices. These totals include class counts in registrations issued by national and regional offices for applications filed directly with offices (the Paris route), as well as for designations received by offices via the Madrid System (where applicable). See the glossary for definitions of class count, resident and non-resident.

Source: WIPO Statistics Database, September 2021.

Trademark applications and registrations by office

B7. Trademark application class counts by income group, 2010 and 2020

	Application class count		Resident share (%)		Share of world total (%)		Average growth (%)
Income group	2010	2020	2010	2020	2010	2020	2010–2020
High-income	2,821,000	4,238,100	71.9	69.2	48.5	24.6	4.2
Upper middle-income	2,214,200	11,198,200	77.3	93.8	38.1	65.1	17.6
Upper middle-income without China	*1,134,100*	*1,852,400*	*65.1*	*74.9*	*19.5*	*10.8*	*5.0*
Lower middle-income	702,100	1,667,300	69.7	79.2	12.1	9.7	9.0
Low-income	58,300	86,900	42.9	48.1	1.0	0.5	4.1
World	**5,816,900**	**17,198,300**	**73.4**	**86.1**	**100.0**	**100.0**	**11.4**

Note: Totals by income group are WIPO estimates using data covering 167 IP offices. Each category includes the following number of offices: high-income (60), upper middle-income (48), lower middle-income (42) and low-income (17). Data for the European Union Intellectual Property Office are allocated to the high-income group, because most EU member states are high-income countries. For the same reason, data for the African Regional Intellectual Property Organization and the African Intellectual Property Organization are allocated to the low-income group. For information on income group classification, see the data description section in Additional information.

Source: WIPO Statistics Database, September 2021.

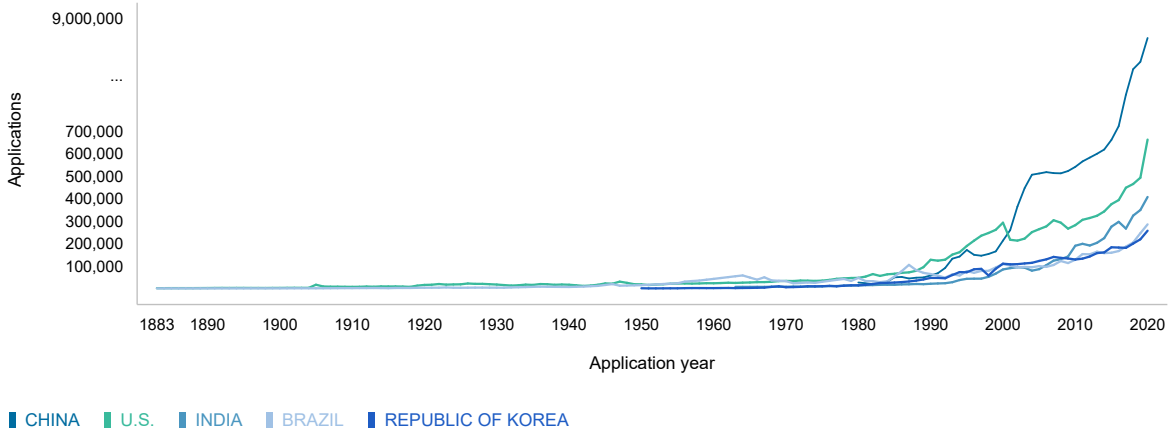
B8. Trademark application class counts by region, 2010 and 2020

	Application class count		Resident share (%)		Share of world total (%)		Average growth (%)
Region	2010	2020	2010	2020	2010	2020	2010–2020
Africa	193,300	256,500	46.9	48.6	3.3	1.5	2.9
Asia	2,400,000	12,342,100	78.6	92.7	41.3	71.8	17.8
Europe	1,981,900	2,521,700	72.9	74.7	34.1	14.7	2.4
Latin America and the Caribbean	600,700	851,600	66.3	74.1	10.3	5.0	3.6
North America	501,100	1,017,600	72.9	60.1	8.6	5.9	7.3
Oceania	139,900	208,800	59.0	54.1	2.4	1.2	4.1
World	**5,816,900**	**17,198,300**	**73.4**	**86.1**	**100.0**	**100.0**	**11.4**

Note: Totals by geographical region are WIPO estimates using data covering 168 IP offices. Each region includes the following number of offices: Africa (35), Asia (47), Europe (42), Latin America and the Caribbean (36), North America (2) and Oceania (6).

Source: WIPO Statistics Database, September 2021.

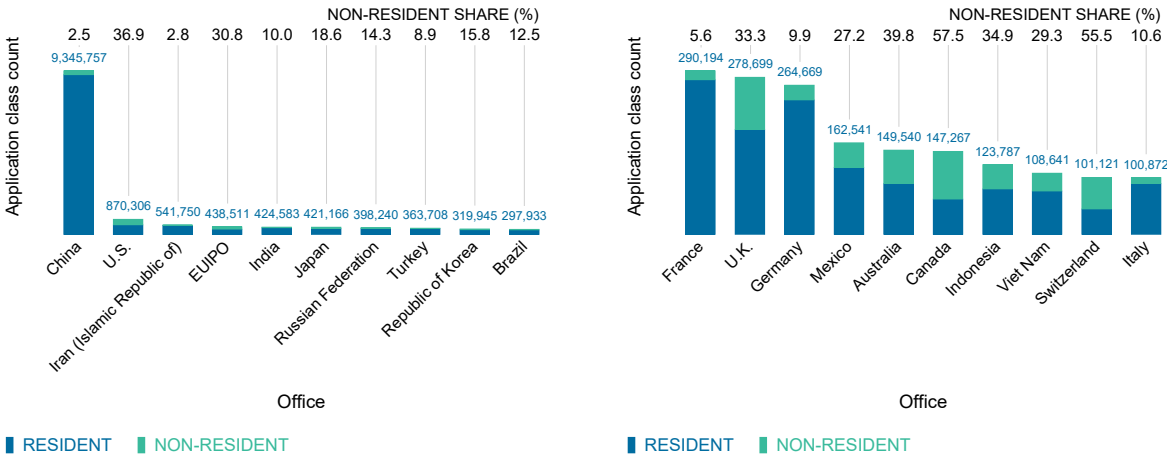
B9. Trend in trademark applications for the top five offices, 1883–2020



Note: Data are based on the numbers of applications filed; that is, differences between single-class and multi-class filing systems across IP offices are not taken into account. The top five offices were selected based on 2020 application totals.

Source: WIPO Statistics Database, September 2021.

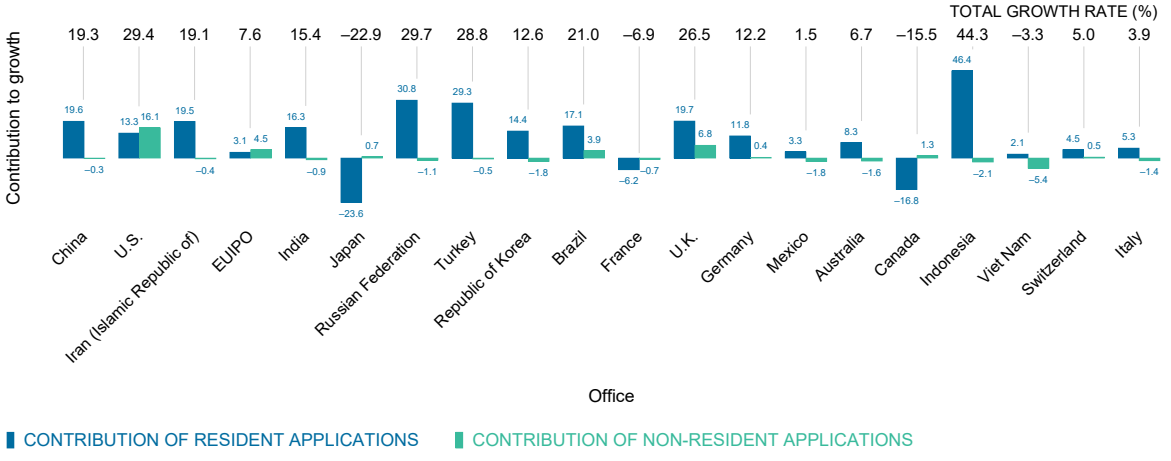
B10. Trademark application class counts for the top 20 offices, 2020



Note: EUIPO is the European Union Intellectual Property Office.

Source: WIPO Statistics Database, September 2021.

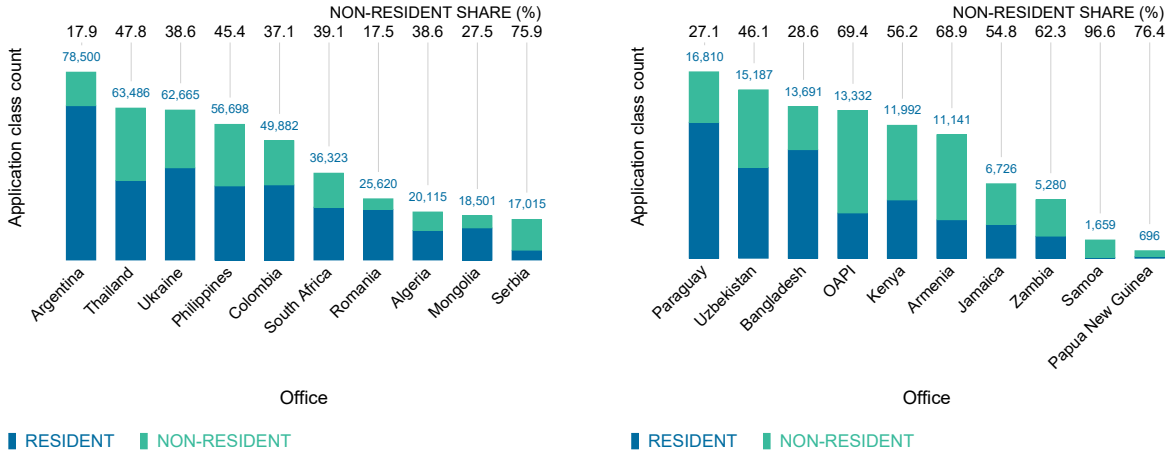
B11. Contribution of resident and non-resident application class counts to total growth for the top 20 offices, 2019–2020



Note: EUIPO is the European Union Intellectual Property Office. This figure shows the total growth or decrease in application class counts for each office, broken down by the respective contribution made by resident and non-resident filing activity. For example, the total number of classes specified in trademark applications in the U.K. grew by 26.5%. Growth in resident filing activity accounted for 19.7 percentage points of this increase, while the remaining 6.8 percentage points came from non-resident filing activity.

Source: WIPO Statistics Database, September 2021.

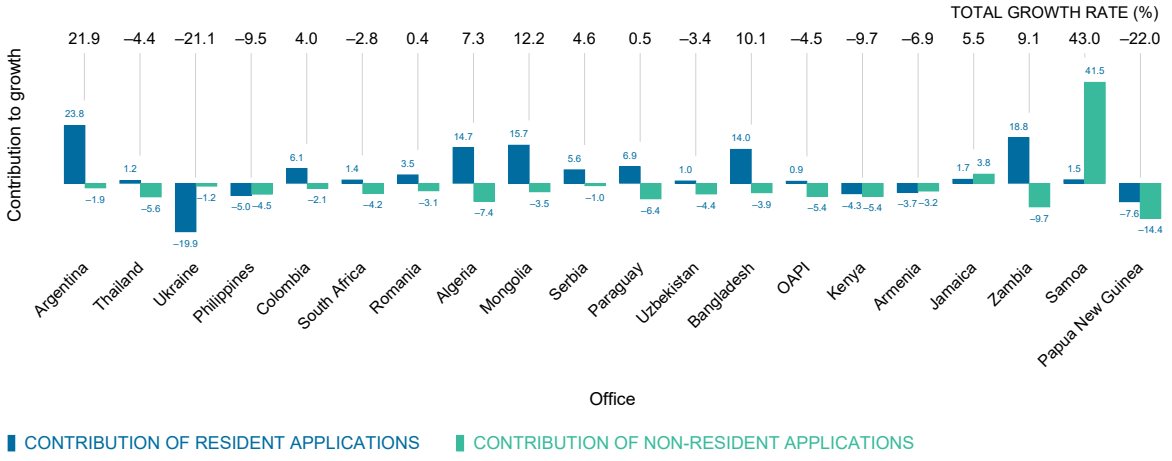
B12. Trademark application class counts for offices of selected low- and middle-income countries, 2020



Note: The selected offices are from different world regions and income groups (low-income, lower middle-income and upper middle-income). OAPI is the African Intellectual Property Organization, which receives applications on behalf of its 17 member states. Where available, data for all offices are presented in statistical table B49 at the end of this section.

Source: WIPO Statistics Database, September 2021.

B13. Contribution of resident and non-resident application class counts to total growth for offices of selected low- and middle-income countries, 2019–2020



Note: The selected offices are from different world regions and income groups (low-income, lower middle-income and upper middle-income). OAPI is the African Intellectual Property Organization, which receives applications on behalf of its 17 member states. Where available, data for all offices are presented in statistical table B49 at the end of this section. This figure shows the total growth or decrease in application class counts for each office, broken down by the respective contributions of resident and non-resident applications. For example, the total number of classes specified in trademark applications at the IP office of the Philippines decreased by 9.5%. The drop in resident filing activity accounted for 5.0 percentage points of this decrease, while the remaining 4.5 percentage point drop was associated with a decline in non-resident filing activity.

Source: WIPO Statistics Database, September 2021.

B14. Trademark registration class counts by income group, 2010 and 2020

	Registration class count		Resident share (%)		Share of world total (%)		Average growth (%)
Income group	2010	2020	2010	2020	2010	2020	2010–2020
High-income	2,410,100	2,983,500	67.8	62.5	47.5	26.9	2.2
Upper middle-income	2,213,400	7,008,400	76.0	90.3	43.7	63.2	12.2
Upper middle-income without China	*854,200*	*1,229,300*	*55.0*	*61.4*	*16.9*	*11.1*	*3.7*
Lower middle-income	395,500	1,039,000	51.6	63.1	7.8	9.4	10.1
Low-income	41,000	59,100	26.1	34.7	0.8	0.5	3.7
World	**5,068,800**	**11,092,400**	**69.7**	**80.0**	**100.0**	**100.0**	**8.1**

Note: Totals by income group are WIPO estimates using data covering 167 IP offices. Each category includes the following number of offices: high-income (60), upper middle-income (48), lower middle-income (42) and low-income (17). Data for the European Union Intellectual Property Office are allocated to the high-income group, because most EU member states are high-income countries. For similar reasons, data for the African Regional Intellectual Property Organization and the African Intellectual Property Organization are allocated to the low-income group. For information on income group classification, see the data description section.

Source: WIPO Statistics Database, September 2021.

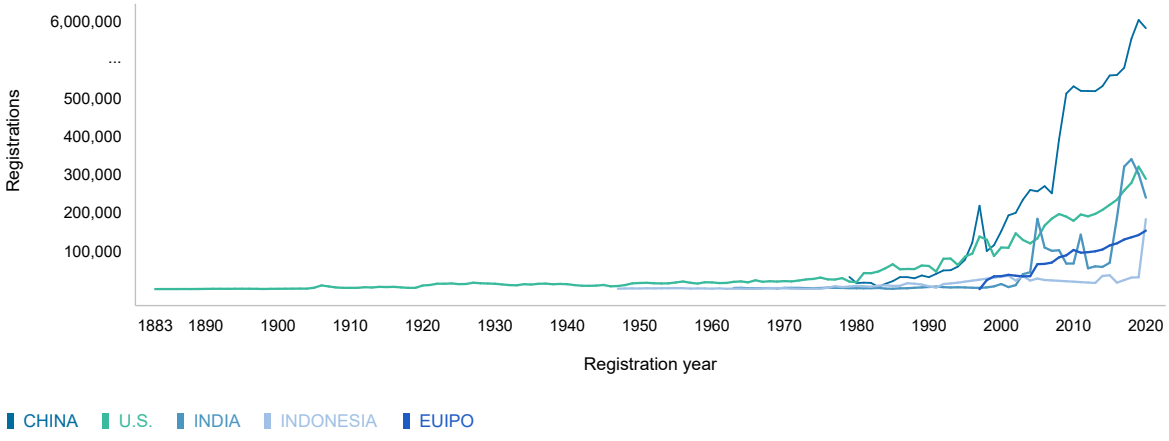
B15. Trademark registration class counts by region, 2010 and 2020

	Registration class count		Resident share (%)		Share of world total (%)		Average growth (%)
Region	2010	2020	2010	2020	2010	2020	2010–2020
Africa	184,400	198,700	38.3	35.9	3.6	1.8	0.7
Asia	2,214,500	7,682,400	76.0	87.8	43.7	69.3	13.2
Europe	1,791,900	1,960,500	69.4	69.1	35.4	17.7	0.9
Latin America and the Caribbean	456,100	571,700	62.3	63.1	9.0	5.2	2.3
North America	330,300	502,700	61.7	51.5	6.5	4.5	4.3
Oceania	91,600	176,400	52.7	45.5	1.8	1.6	6.8
World	**5,068,800**	**11,092,400**	**69.7**	**80.0**	**100.0**	**100.0**	**8.1**

Note: Totals by geographical region are WIPO estimates based on data covering 168 offices. Each region includes the following number of offices: Africa (35), Asia (47), Europe (42), Latin America and the Caribbean (36), North America (2) and Oceania (6).

Source: WIPO Statistics Database, September 2021.

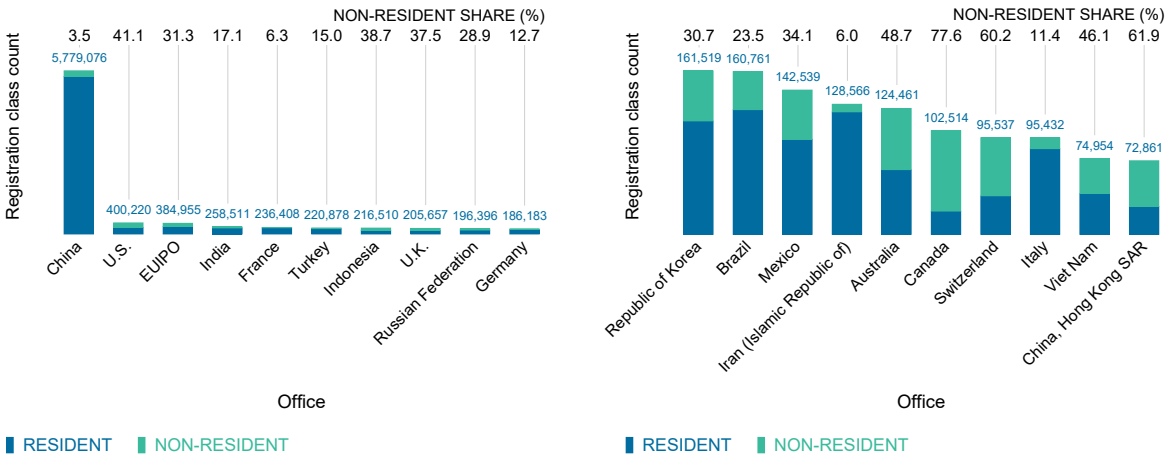
B16. Trend in trademark registrations for the top five offices, 1883–2020



Note: EUIPO is the European Union Intellectual Property Office. Data are based on the numbers of registrations recorded; that is, differences between single-class and multi-class registration systems across IP offices are not taken into account. The top five offices were selected based on 2020 registration totals.

Source: WIPO Statistics Database, September 2021.

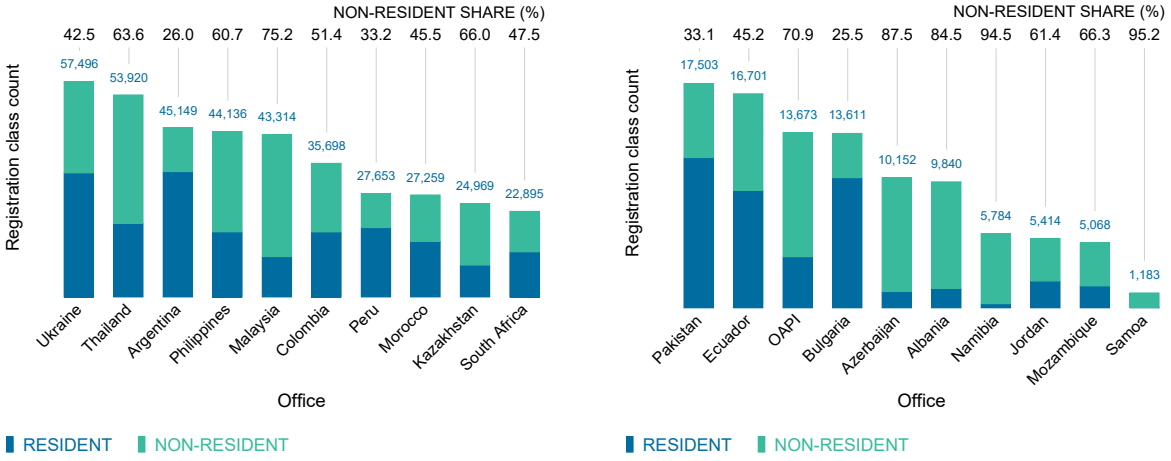
B17. Trademark registration class counts for the top 20 offices, 2020



Note: EUIPO is the European Union Intellectual Property Office. On the basis of an examination, a registration may be issued for a trademark application. The number of registrations issued may fluctuate greatly from one year to the next, in part reflecting the amount of resources that IP offices dedicate to examining trademark applications.

Source: WIPO Statistics Database, September 2021.

B18. Trademark registration class counts for offices of selected low- and middle-income countries, 2020

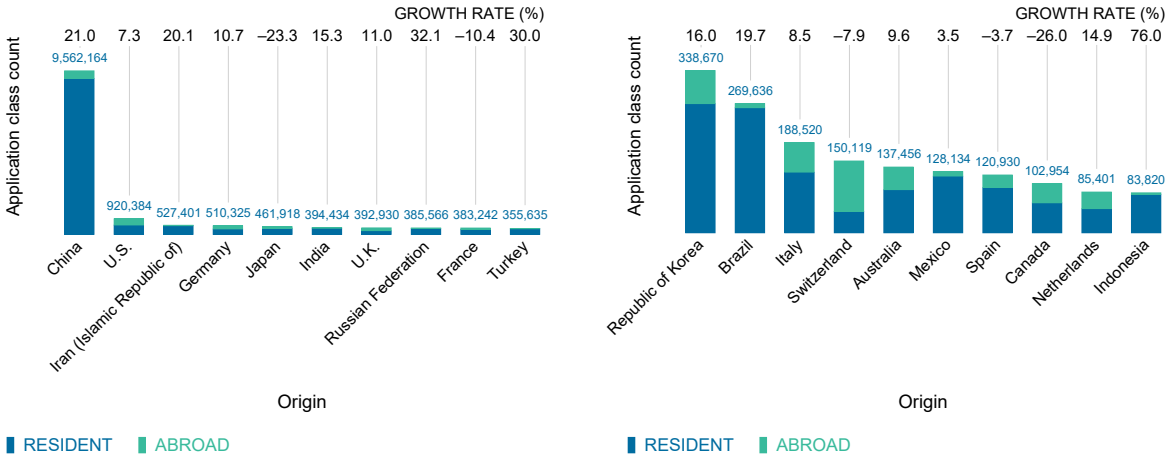


Note: The offices selected are from different world regions and income groups (low-income, lower middle-income and upper middle-income). OAPI is the African Intellectual Property Organization, which receives applications on behalf of its 17 member states. Where available, data for every office is presented in statistical table B50 at the end of this section.

Source: WIPO Statistics Database, September 2021.

Trademark applications by origin

B19. Trademark application class counts for the top 20 origins, 2020



Note: In this figure, trademark application filing activity by origin includes the number of classes specified in resident applications and in applications filed abroad and is based on absolute count, not equivalent count. The origin of a trademark application is determined by the residence of the applicant. An application filed at a regional office is considered a resident filing, if the applicant is a resident of one of the relevant member states.

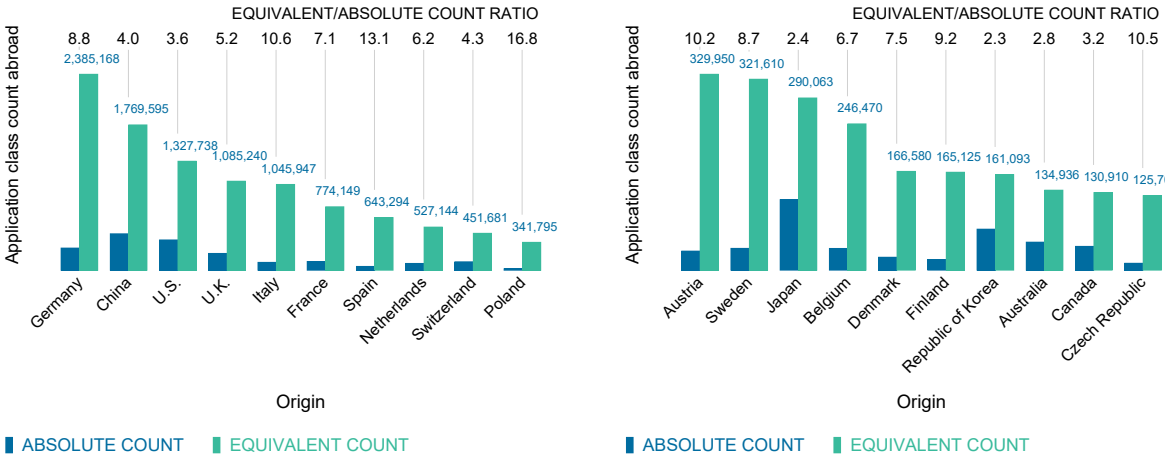
Source: WIPO Statistics Database, September 2021.

B20. Trademark application class counts for selected low- and middle-income origins, 2020

Note: In this figure, trademark application filing activity by origin includes the number of classes specified in resident applications and in applications filed abroad and is based on absolute count, not equivalent count. The origin of a trademark application is determined by the residence of the applicant. The origins selected are from different world regions and income groups (low-income, lower middle-income and upper middle-income). Where available, data for all origins are presented in statistical table B49 at the end of this section.

Source: WIPO Statistics Database, September 2021.

B21. Trademark application class counts abroad for the top 20 origins, 2020



Note: This figure distinguishes between absolute counts and equivalent counts for filing activity abroad; that is, resident applications are excluded. Based on equivalent application class counts, applicants from Germany had the highest level of trademark filing activity abroad. This was due not only to a high application class count at numerous foreign offices, but also to their frequent use of the European Union Intellectual Property Office – with its multiplier effect – to seek trademark protection within the entire EU. See the glossary for the definition of equivalent application. The origin of a trademark application is determined by the residence of the applicant.

Source: WIPO Statistics Database, September 2021.

B22. Trademark application class counts for the top 25 offices and origins, 2020

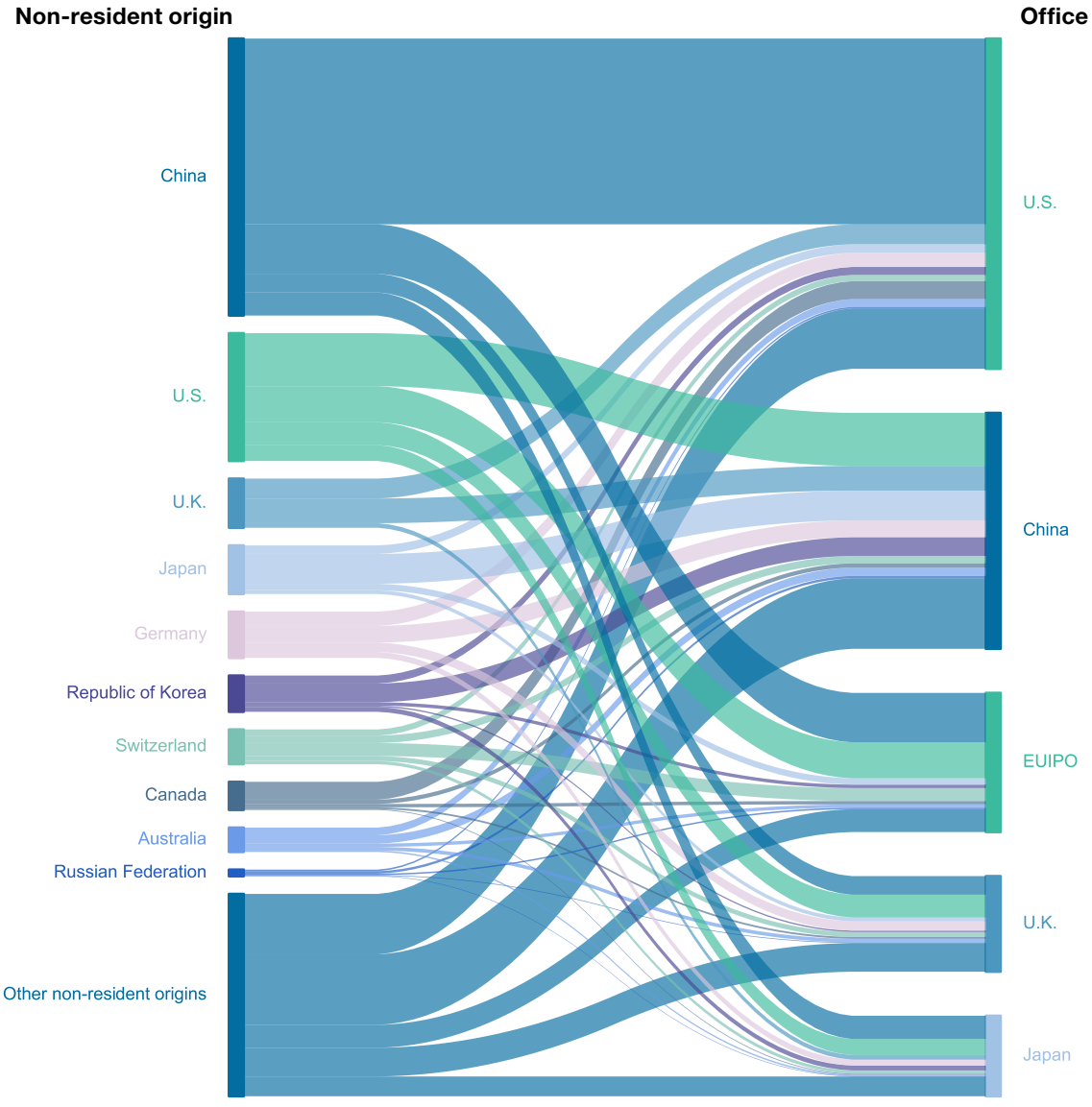
	Office												
Origin	China	U.S.	Iran (Islamic Republic of)	EUIPO	India	Japan	Russian Federation	Turkey	Republic of Korea	Brazil	France	U.K.	Germany
Argentina	198	313	1	205	10	16	26	5	18	336	1	25	1
Australia	8,053	7,492	40	3,219	890	1,426	395	170	1,021	370	120	3,503	231
Brazil	556	702	14	401	126	115	96	73	86	260,774	40	95	12
Canada	4,132	17,381	109	3,267	501	766	469	310	695	551	258	1,808	305
Chile	477	396		167	6	59	28	2	37	261	2	78	3
China	9,116,509	180,485	2,993	48,032	5,491	22,567	6,088	3,087	9,154	3,416	2,525	18,079	7,762
France	9,004	6,833	392	24,610	1,475	2,795	2,639	1,436	2,058	1,836	274,055	4,462	1,084
Germany	16,299	13,814	1,814	80,918	4,416	5,769	7,249	5,620	4,442	3,767	1,119	9,079	238,337
India	715	1,496	129	702	382,294	181	222	124	82	155	35	653	69
Indonesia	721	161	3	52	50	75	21	50	40	6	44	41	12
Iran (Islamic Republic of)	227	8	526,399	30	13	9	6	211	11	5	4	9	1
Italy	7,504	5,240	770	36,386	1,400	2,368	3,104	1,769	1,753	1,587	367	2,173	344
Japan	29,019	8,295	527	6,209	2,225	342,956	1,938	1,250	6,010	1,411	405	3,729	379
Mexico	385	2,525	5	422	75	57	55	46	59	299	12	98	4
Netherlands	3,878	2,959	257	15,548	692	841	887	789	596	679	350	1,801	868
Poland	1,019	668	53	12,346	141	121	581	145	114	143	67	229	110
Republic of Korea	18,137	7,747	280	3,313	1,241	4,712	1,364	492	269,318	745	277	1,334	251
Russian Federation	2,380	1,561	417	1,429	594	490	341,414	746	458	348	508	640	832
Spain	2,502	2,641	257	22,731	513	566	836	429	462	944	393	790	239
Sweden	2,637	2,705	133	10,923	695	1,024	781	462	779	563	108	862	119
Switzerland	7,154	6,066	805	12,577	2,037	3,192	3,484	2,114	2,046	2,119	1,751	4,758	3,554
Turkey	854	1,479	940	2,443	318	258	1,009	331,480	179	225	352	806	607
U.K.	23,978	19,337	1,082	33,118	3,744	4,442	3,157	2,167	3,241	2,538	1,370	185,818	1,540
U.S.	51,513	549,380	931	34,932	8,826	15,630	7,495	4,915	11,190	9,835	1,621	22,117	2,128
Viet Nam	349	471	5	116	26	142	93	7	172	2	44	90	35
Others	37,557	30,151	3,394	84,415	6,784	10,589	14,803	5,809	5,924	5,018	4,366	15,622	5,842
Total	**9,345,757**	**870,306**	**541,750**	**438,511**	**424,583**	**421,166**	**398,240**	**363,708**	**319,945**	**297,933**	**290,194**	**278,699**	**264,669**

	Office											
Origin	Mexico	Australia	Canada	Indonesia	Viet Nam	Switzerland	Italy	Spain	Argentina	China, Hong Kong SAR	Thailand	Ukraine
Argentina	189	14	31	9	7	27	41	56	64,413	7	4	11
Australia	421	89,991	2,519	1,219	747	285	72	62	124	1,043	582	88
Brazil	326	88	112	71	63	89	22	19	464	13	59	11
Canada	889	1,355	62,557	267	301	406	38	42	149	315	311	108
Chile	350	44	94	18	9	4		15	323	18	3,558	7
China	3,740	6,167	9,010	8,200	6,040	2,499	2,024	1,314	1,118	10,570	2,909	1,879
France	1,403	1,709	3,836	1,092	934	5,292	990	1,167	600	1,221	981	851
Germany	3,696	4,831	6,359	2,939	1,904	19,910	962	528	1,029	1,804	1,895	3,213
India	178	342	324	238	225	83	32	21	34	54	204	168
Indonesia	11	101	29	80,545	174	7	37	3	2	36	170	
Iran (Islamic Republic of)	5	5	24	3	2	18	5	9		1	3	9
Italy	1,325	1,474	1,996	1,089	690	2,637	90,169	231	385	858	644	999
Japan	1,523	2,839	2,709	5,089	3,426	1,321	219	125	498	4,721	4,244	574
Mexico	118,329	56	260	45	53	25	19	96	438	34	25	6
Netherlands	660	942	1,080	800	454	1,479	244	231	234	371	322	451
Poland	110	117	183	106	90	212	41	22	18	27	43	610
Republic of Korea	723	1,231	1,475	2,423	3,146	392	164	193	221	1,752	1,785	322
Russian Federation	253	307	471	322	457	486	515	432	34	61	159	1,909
Spain	1,552	483	652	405	188	507	167	71,904	621	244	150	257
Sweden	456	917	1,152	463	208	1,082	20	31	164	405	322	221
Switzerland	1,861	2,171	3,046	1,679	985	45,031	993	539	767	1,294	774	1,529
Turkey	190	243	398	244	102	299	289	264	32	46	104	537
U.K.	2,449	6,782	5,777	2,250	1,575	3,610	970	948	577	1,880	1,405	1,432
U.S.	16,788	16,703	33,349	5,528	4,237	6,197	884	858	4,107	7,076	4,482	2,434
Viet Nam	10	154	74	132	76,836	19	20	17	2	70	115	29
Others	5,104	10,474	9,750	8,611	5,788	9,204	1,935	1,305	2,146	36,052	38,236	45,010
Total	**162,541**	**149,540**	**147,267**	**123,787**	**108,641**	**101,121**	**100,872**	**80,432**	**78,500**	**69,973**	**63,486**	**62,665**

Note: EUIPO is the European Union Intellectual Property Office. The office and origin data shown consist of absolute application class counts rather than equivalent application class counts.

Source: WIPO Statistics Database, September 2021.

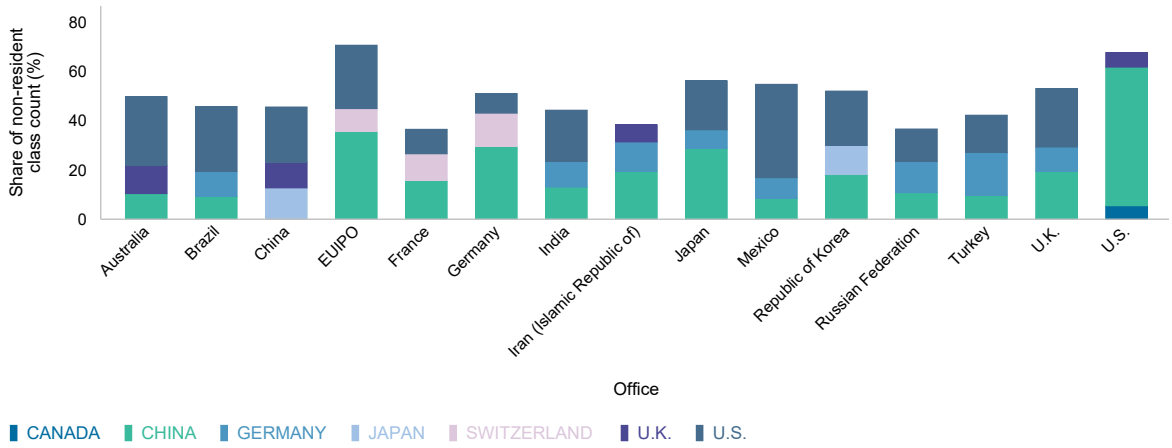
B23. Flows of non-resident trademark application class counts between selected top origins and offices, 2020



Note: EUIPO is the European Union Intellectual Property Office. The office and non-resident origin data shown consist of absolute application class counts rather than equivalent application class counts.

Source: WIPO Statistics Database, September 2021.

B24. Distribution of trademark application class counts for the top 15 offices and selected non-resident origins, 2020



Note: EUIPO is the European Union Intellectual Property Office. The office and origin data shown consist of absolute application class counts rather than equivalent application class counts.

Source: WIPO Statistics Database, September 2021.

Trademark applications by Nice class and industry sector

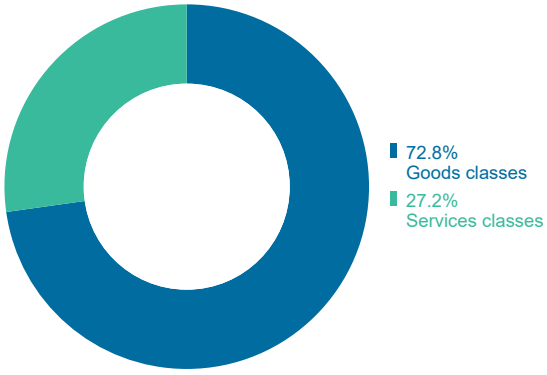
B25. Distribution of non-resident trademark applications by top Nice classes, 2020

Rank		Class	Class share (%)
1	9	Scientific, photographic, measuring instruments; recording equipment; computers and software	11.4
2	35	Advertising, business management, business administration and office functions	7.0
3	5	Pharmaceutical preparations, baby food, dietary supplements for humans and animals, disinfectants, fungicides and herbicides	6.3
4	42	Scientific and technological services, design and development of computer hardware and software	5.4
5	3	Bleaching preparations and other substances for laundry use; cleaning and abrasive preparations; soaps, perfumery and cosmetics	5.2
6	25	Clothing, footwear, headgear	4.8
7	41	Education, entertainment and sporting activities	4.1
8	11	Apparatus for lighting, heating, steam generating, cooking, refrigerating, drying, ventilating, water supply and sanitary purposes	3.2
9	10	Surgical, medical, dental and veterinary apparatus and instruments generally used for the diagnosis, treatment or improvement of function or condition of persons and animals	3.2
10	21	Small, hand-operated utensils and apparatus for household and kitchen use, as well as cosmetic and toilet utensils, glassware and certain goods made of porcelain, ceramic, earthenware, terra-cotta or glass	3.2
		Remaining classes	**46.2**

Note: Figures based on non-resident filing data from 135 IP offices. Some classes listed are abbreviated. See *www.wipo.int/classifications/nice* for a complete list of all classes.

Source: WIPO Statistics Database, September 2021.

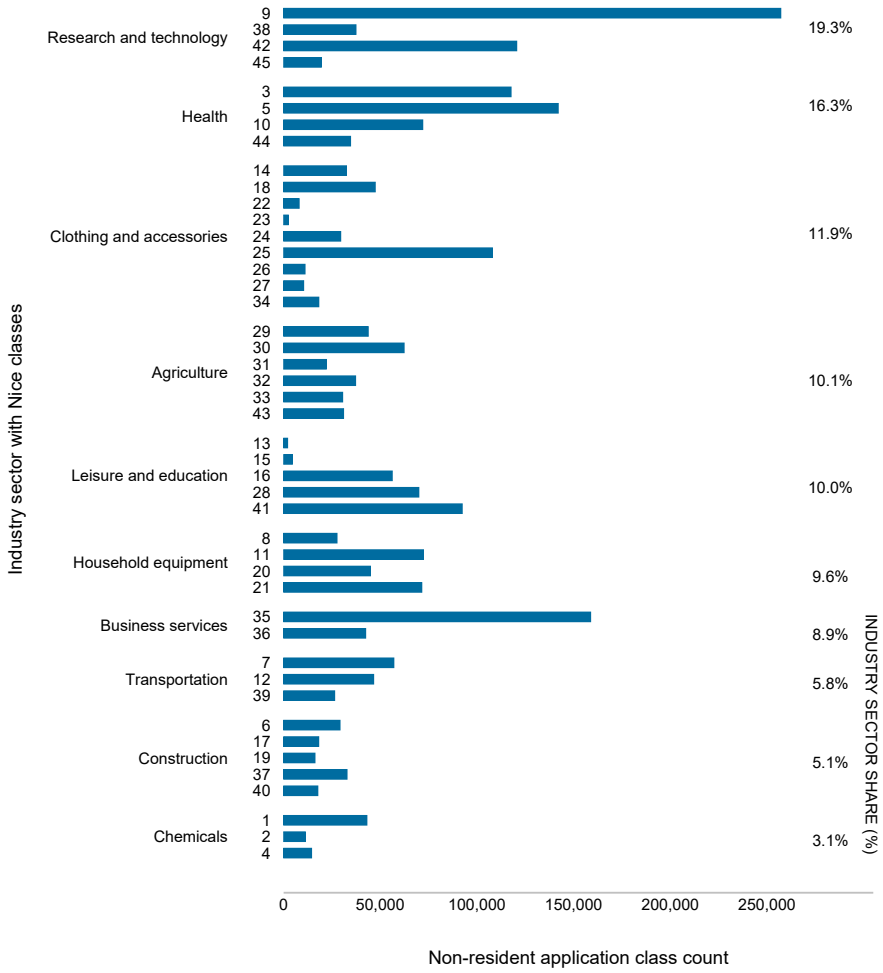
B26. Non-resident trademark applications by goods and services classes, 2020



Note: In the 45-class Nice Classification, the first 34 classes indicate goods and the remaining 11 refer to services. See *www.wipo.int/classifications/nice* for a complete list of classes. These figures are based on non-resident filing data from 135 IP offices.

Source: WIPO Statistics Database, September 2021.

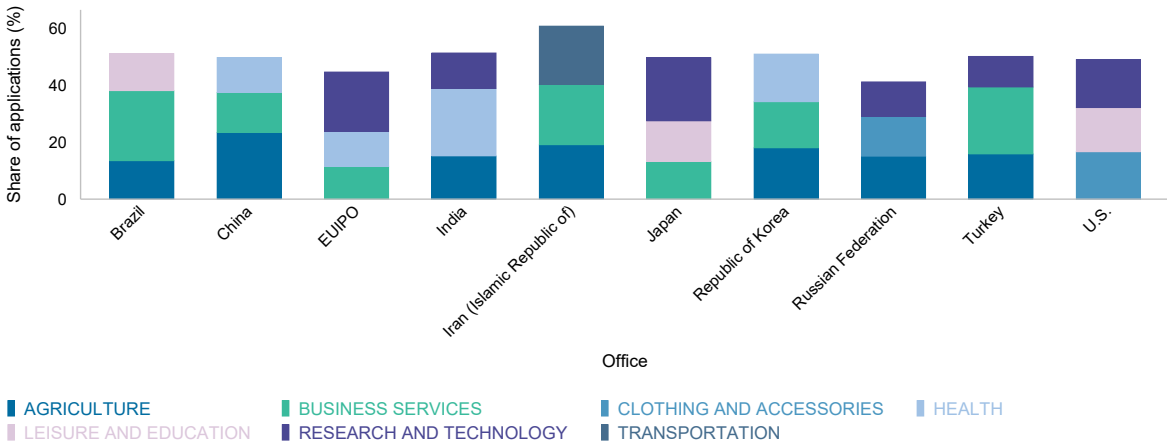
B27. Non-resident trademark applications by industry sector, 2020



Note: Industry sectors based on class groups are those defined by Edital. Some industry sectors are abbreviated. See annex B for full definitions and the composition of Nice goods and services classes. Figures based on non-resident filing data from 135 IP offices.

Source: WIPO Statistics Database, September 2021.

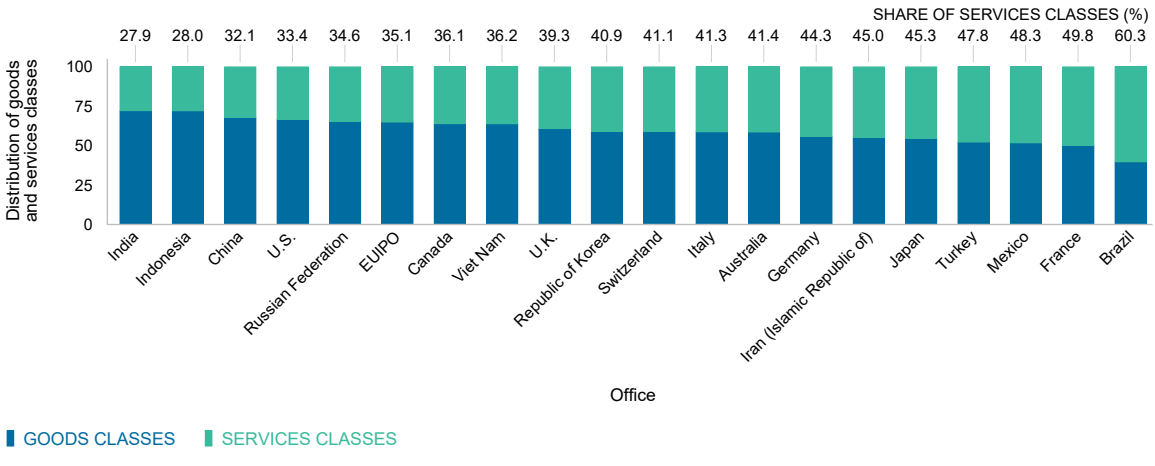
B28. Trademark applications by top three sectors at the top offices, 2020



Note: EUIPO is the European Union Intellectual Property Office. Industry sectors based on class groups are those defined by Edital. Some industry sectors are abbreviated. See *www.wipo.int/classifications/nice* for a complete list of classes. The top three sectors and top offices were selected based on 2020 totals.

Source: WIPO Statistics Database, September 2021.

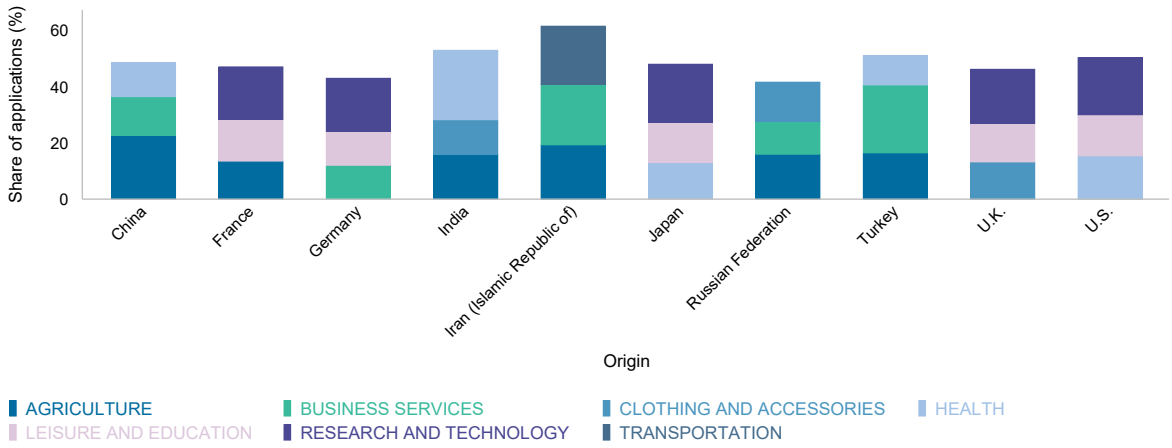
B29. Distribution of trademark applications by goods and services at the top offices, 2020



Note: EUIPO is the European Union Intellectual Property Office.

Source: WIPO Statistics Database, September 2021.

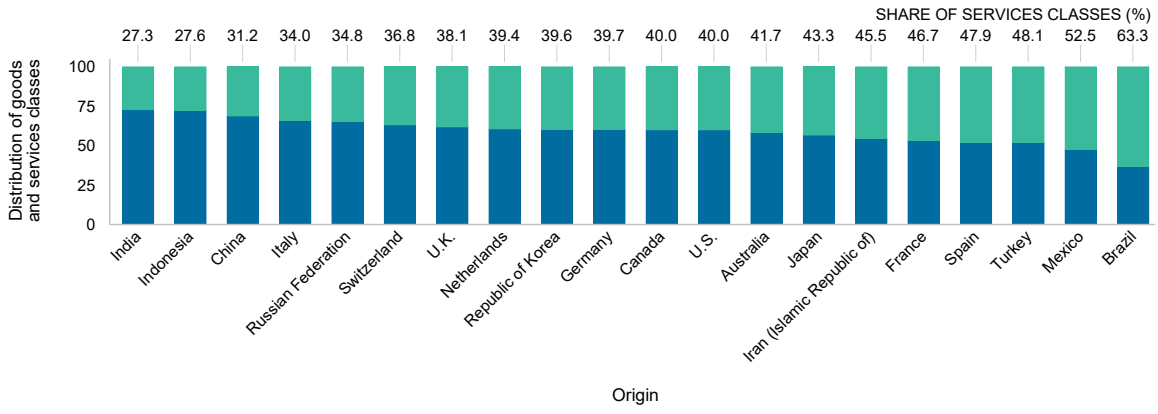
B30. Trademark applications by top three sectors for the top origins, 2020



Note: Industry sectors based on class groups are those defined by Edital. Some industry sectors are abbreviated. See annex B for full definitions. The top three sectors and top origins were selected based on 2020 totals.

Source: WIPO Statistics Database, September 2021.

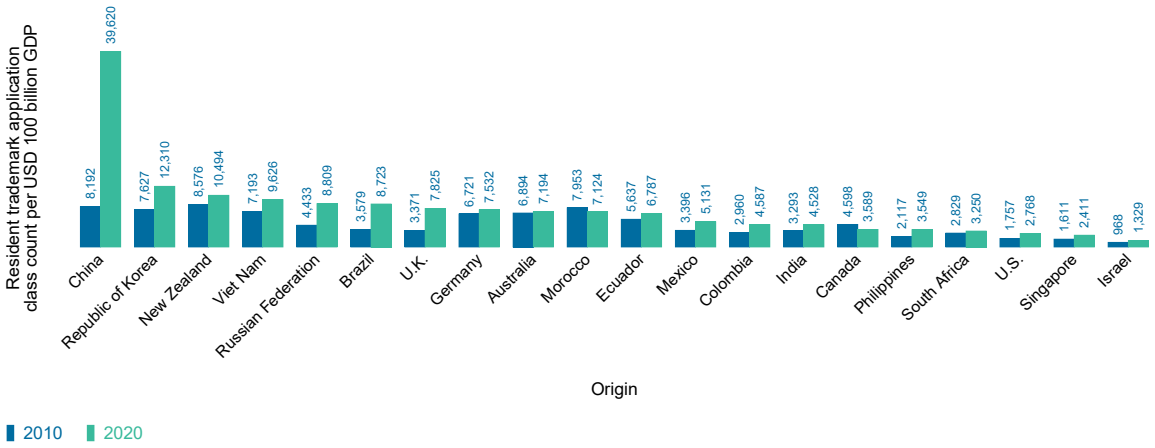
B31. Distribution of trademark applications by goods and services for the top origins, 2020



Source: WIPO Statistics Database, September 2021.

Trademark application class count in relation to GDP and population

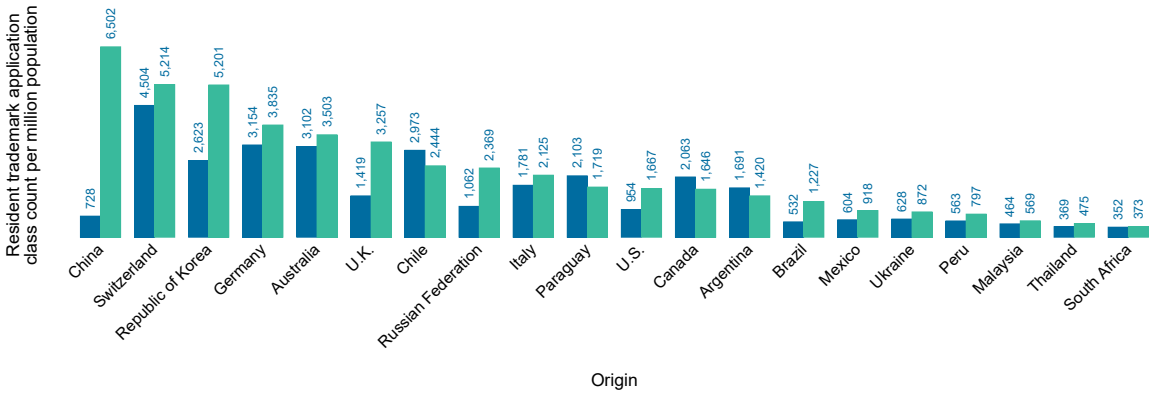
B32. Resident trademark application class count per USD 100 billion GDP for selected origins, 2010 and 2020



Note: GDP data are in 2017 US purchasing power parity (PPP) dollars. The selected 20 origins were included if they had a GDP greater than USD 25 billion PPP and a resident trademark application class count of at least 100. This figure does not provide an overall ranking of all origins; rather, it shows a selection across geographical regions and income groups.

Sources: WIPO Statistics Database and World Bank, September 2021.

B33. Resident trademark application class count per million population for selected origins, 2010 and 2020

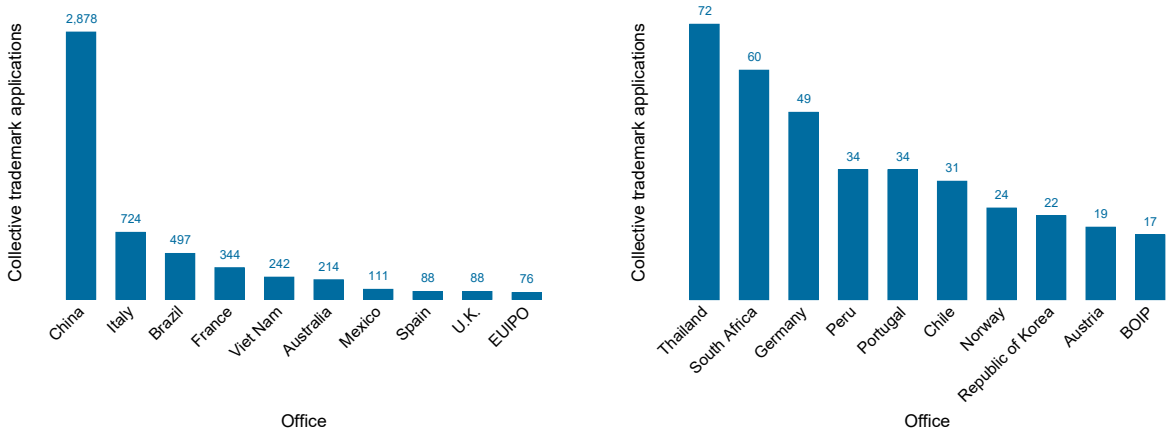


Note: The selected 20 origins were included if they had a population greater than 5 million and a resident trademark application class count of at least 100. This figure does not provide an overall ranking of all origins; rather, it shows a selection across geographical regions and income groups.

Sources: WIPO Statistics Database and World Bank, September 2021.

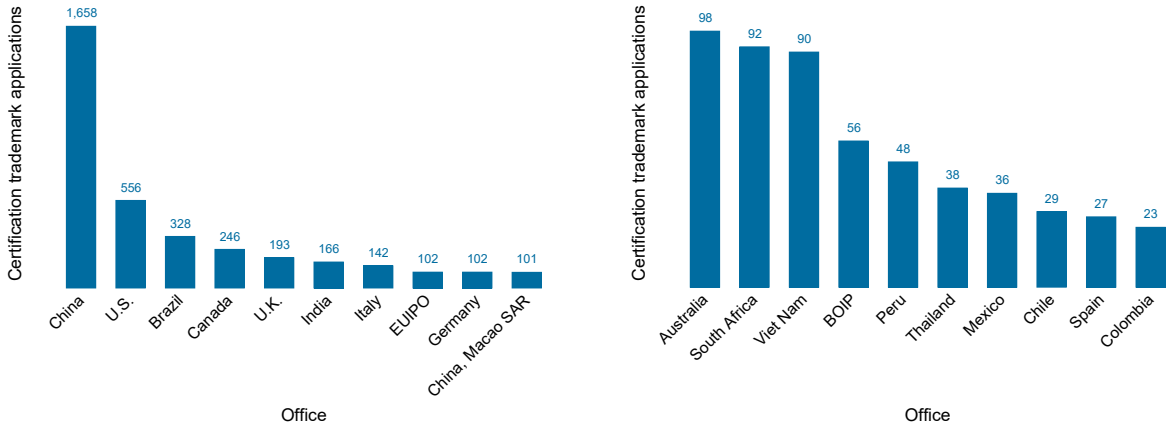
Collective and certification trademark applications by office

B34. Collective trademark applications for the top 20 offices, 2020



Note: EUIPO is the European Union Intellectual Property Office and BOIP is the Benelux Office for Intellectual Property.
Source: WIPO Statistics Database, September 2021.

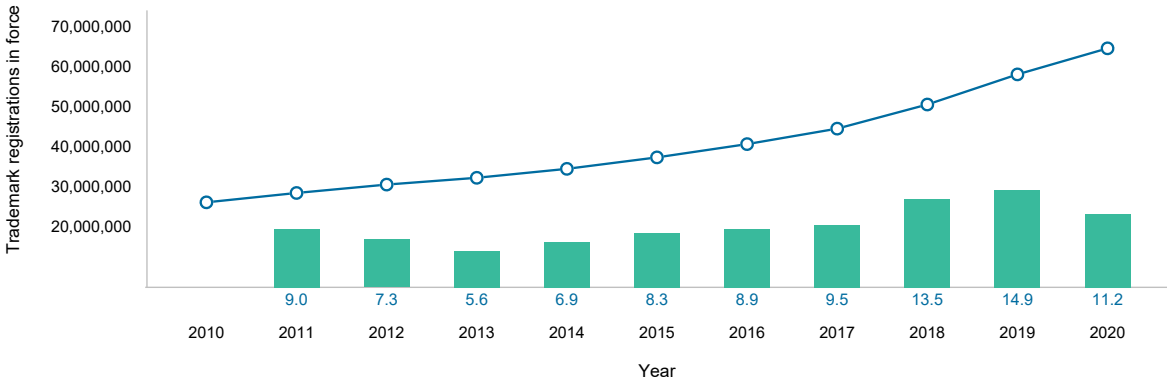
B35. Certification trademark applications for the top 20 offices, 2020



Note: EUIPO is the European Union Intellectual Property Office and BOIP is the Benelux Office for Intellectual Property.
Source: WIPO Statistics Database, September 2021.

Trademark registrations in force

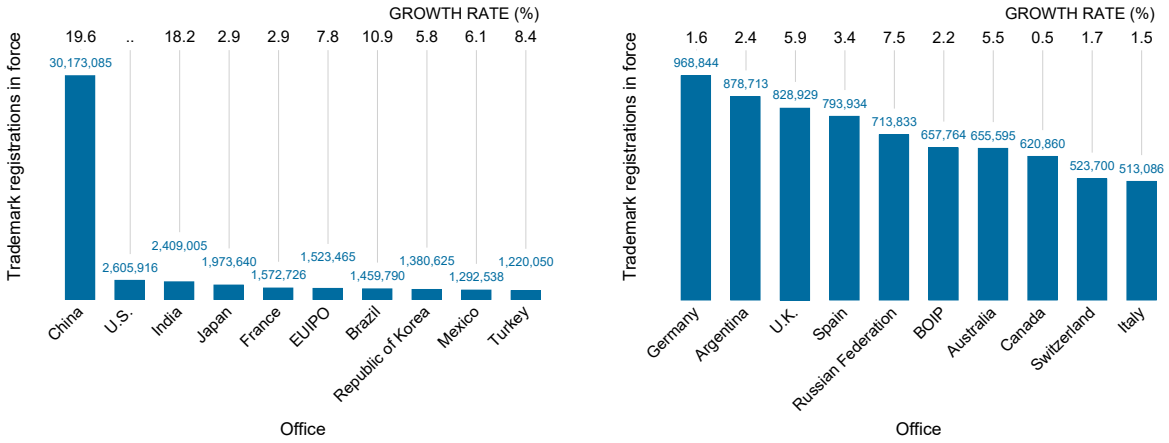
B36. Trend in trademark registrations in force worldwide, 2010–2020



Note: World totals are WIPO estimates using data covering 149 IP offices. Data refer to the number of trademark registrations in force, not the number of classes specified in those registrations. Trademark rights can be maintained indefinitely by paying renewal fees at defined intervals. Trademarks in force provide information on the volume of trademark registrations currently active, as well as the historical trademark life cycle.

Source: WIPO Statistics Database, September 2021.

B37. Trademark registrations in force for the top 20 offices, 2020

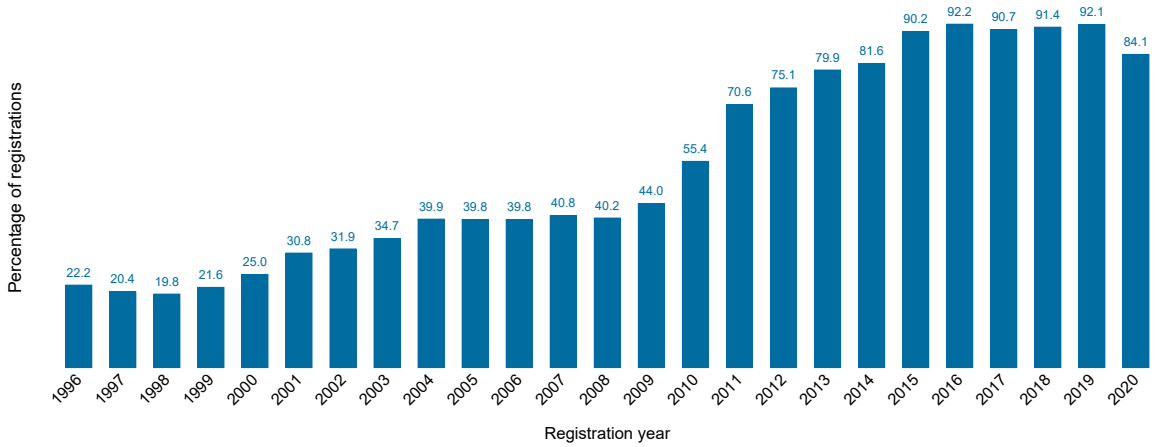


Note: EUIPO is the European Union Intellectual Property Office and BOIP is the Benelux Office for Intellectual Property. Data refer to the number of trademark registrations in force, not the number of classes specified in those registrations.

.. indicates not available. The growth rate for the U.S. is unavailable due to a change in methodology used for calculating registrations in force data for 2020.

Source: WIPO Statistics Database, September 2021.

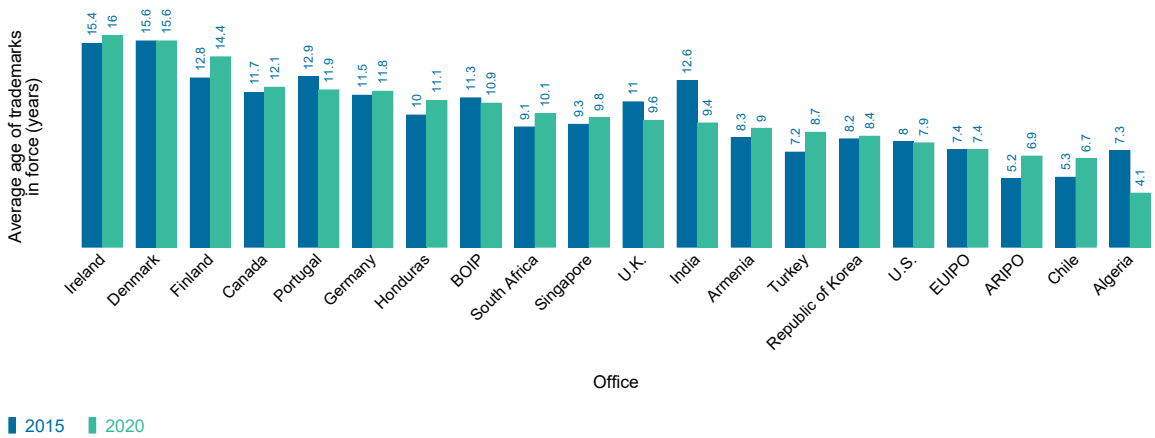
B38. Trademark registrations in force in 2020 as a percentage of total registrations recorded between 1996 and 2020



Note: Percentages are calculated as follows: the number of trademark registrations issued in year *t* and in force in 2020 divided by the total number of trademark registrations issued in year *t*. Trademark holders must pay renewal fees to maintain the validity of their marks, which in most cases can be maintained indefinitely. This figure is based on about 18.4 million active trademark registrations reported by the 82 offices that provided a breakdown by year of registration. Detailed data for several larger offices, such as those of China and Japan, are not available.

Source: WIPO Statistics Database, September 2021.

B39. Average age of trademarks in force at selected offices, 2015 and 2020

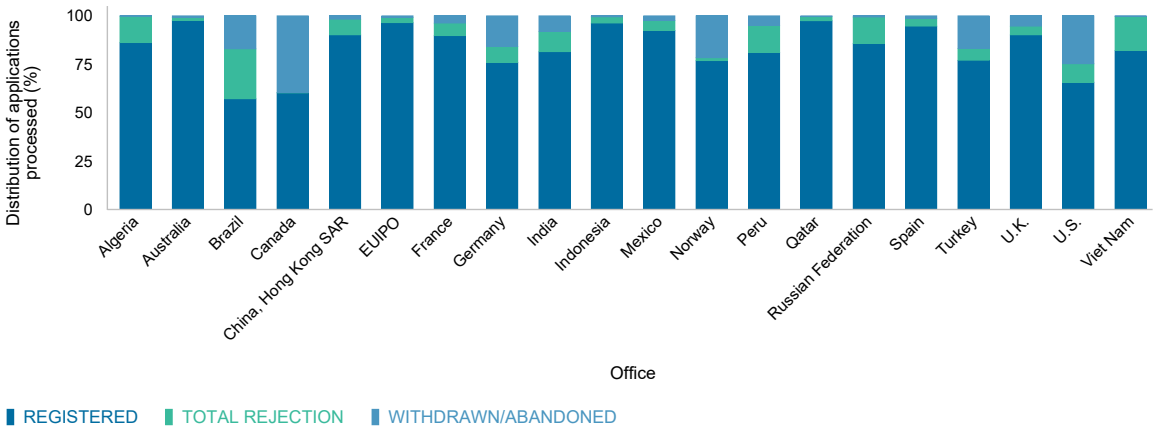


Note: ARIPO is the African Regional Intellectual Property Organization, BOIP is the Benelux Office for Intellectual Property and EUIPO is the European Union Intellectual Property Office.

Source: WIPO Statistics Database, September 2021.

Trademark office procedural data

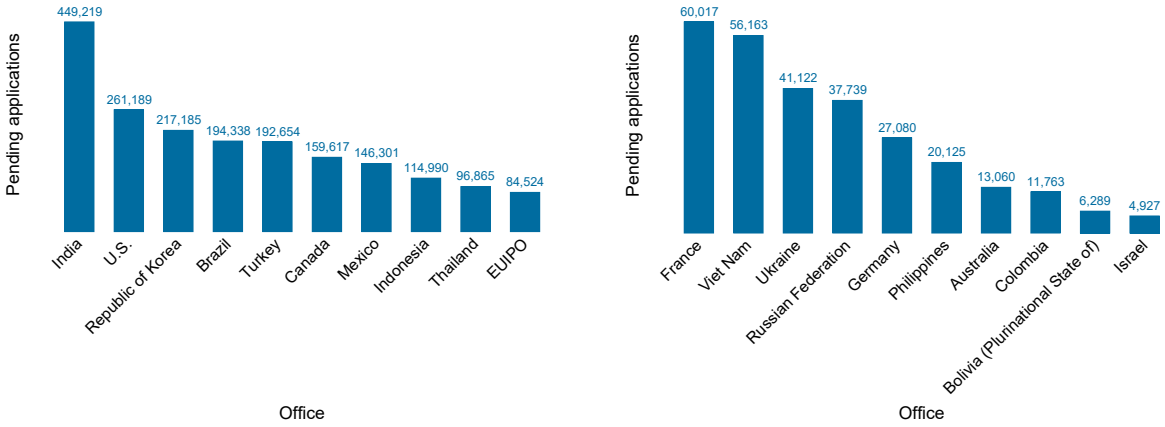
B40. Distribution of trademark examination outcomes for selected offices, 2020



Note: EUIPO is the European Union Intellectual Property Office. WIPO collects data from IP offices using a common questionnaire and methodology. However, due to differences in application processing procedures between offices, data cannot be fully harmonized. Therefore caution should be exercised when making comparisons across offices.

Source: WIPO Statistics Database, September 2021.

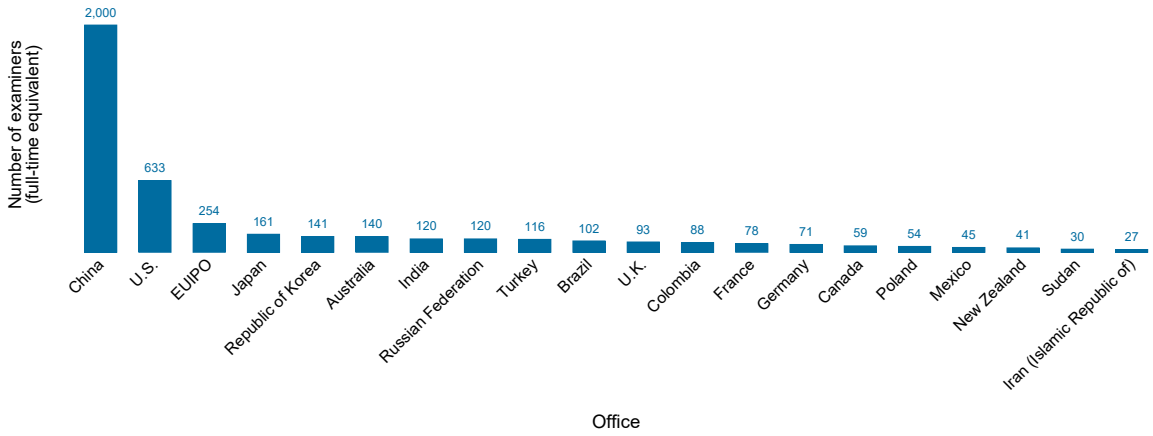
B41. Trademark applications pending for selected offices, 2020



Note: EUIPO is the European Union Intellectual Property Office. WIPO collects data from IP offices using a common questionnaire and methodology. However, due to differences in application processing procedures between offices, data cannot be fully harmonized. Therefore caution should be exercised when making comparisons across offices. Detailed data for several larger offices, such as those of China and Japan, are not available.

Source: WIPO Statistics Database, September 2021.

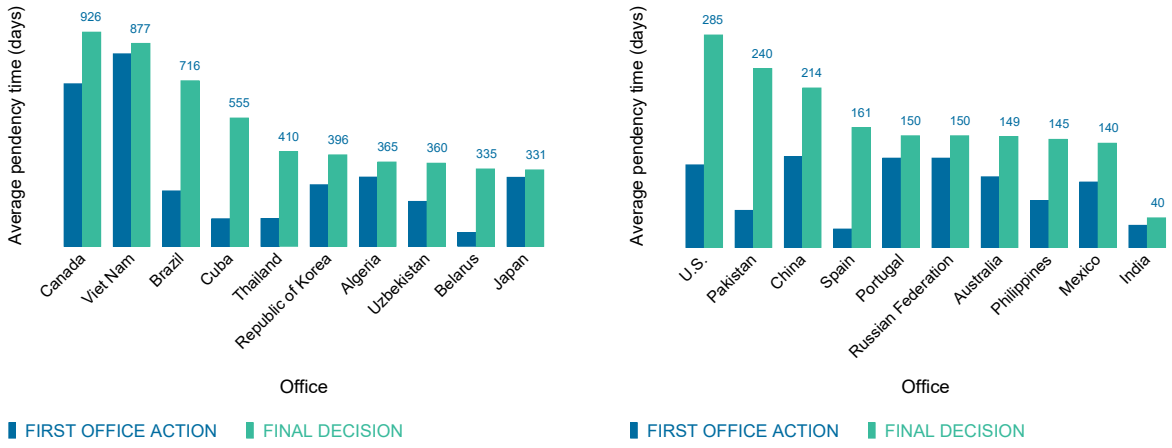
B42. Number of trademark examiners for selected offices, 2020



Note: EUIPO is the European Union Intellectual Property Office.

Source: WIPO Statistics Database, September 2021.

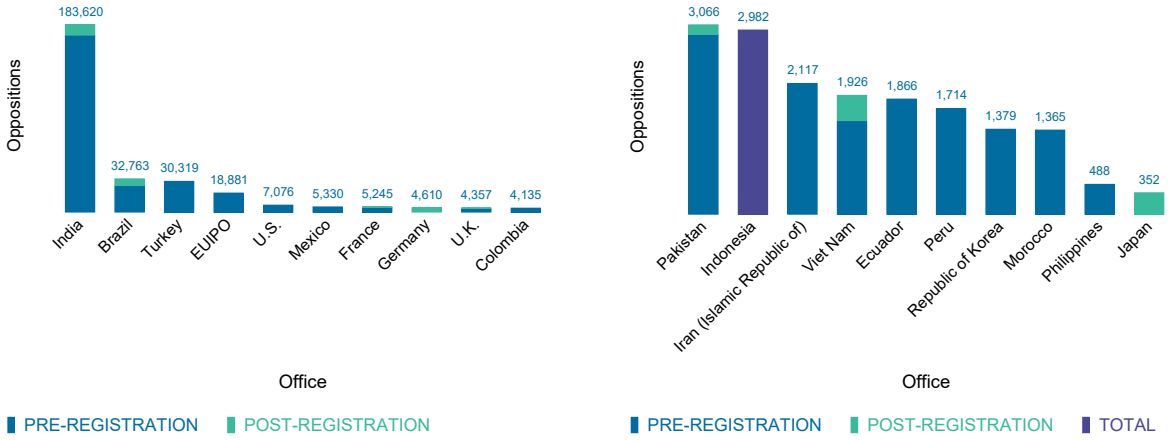
B43. Duration of trademark examination for selected offices, 2020



Note: WIPO collects data from IP offices using a common questionnaire and methodology. However, due to differences in application processing procedures between offices, data cannot be fully harmonized. Therefore caution should be exercised when making comparisons across offices.

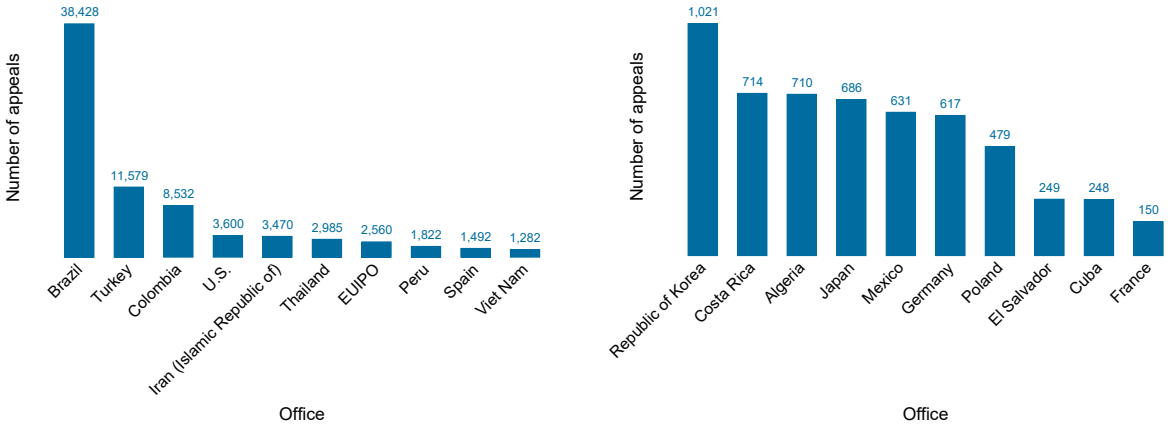
Source: WIPO Statistics Database, September 2021.

B44. Third-party oppositions for selected offices, 2020



Note: EUIPO is the European Union Intellectual Property Office.
Source: WIPO Statistics Database, September 2021.

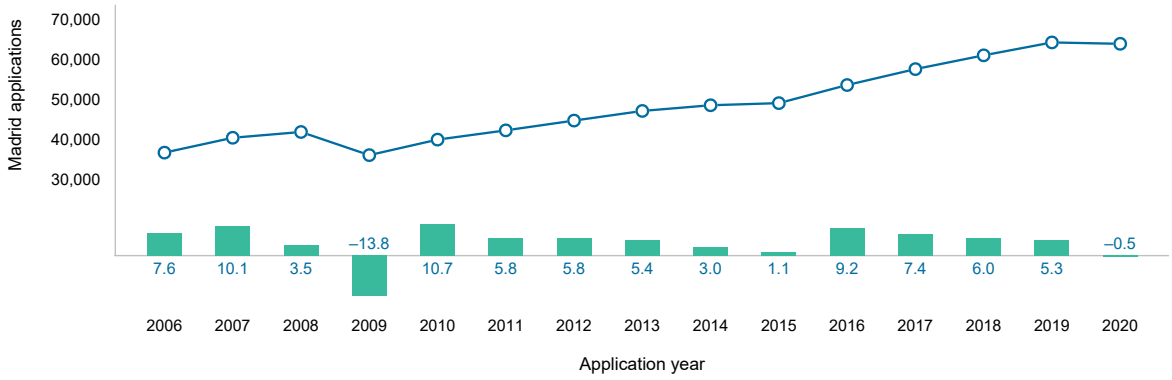
B45. Appeals against decisions by selected offices, 2020



Note: EUIPO is the European Union Intellectual Property Office.
Source: WIPO Statistics Database, September 2021.

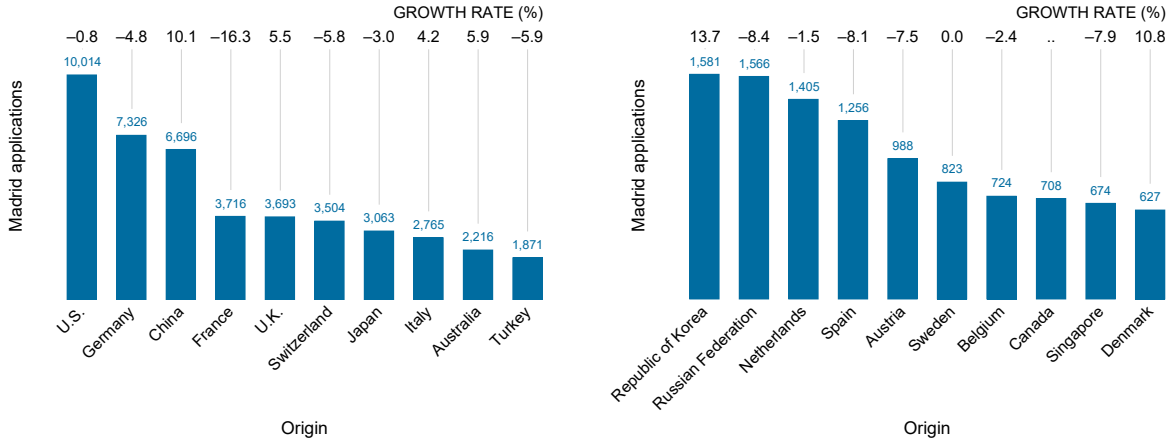
Trademark applications and registrations through the Madrid System

B46. Trend in Madrid international applications, 2006–2020



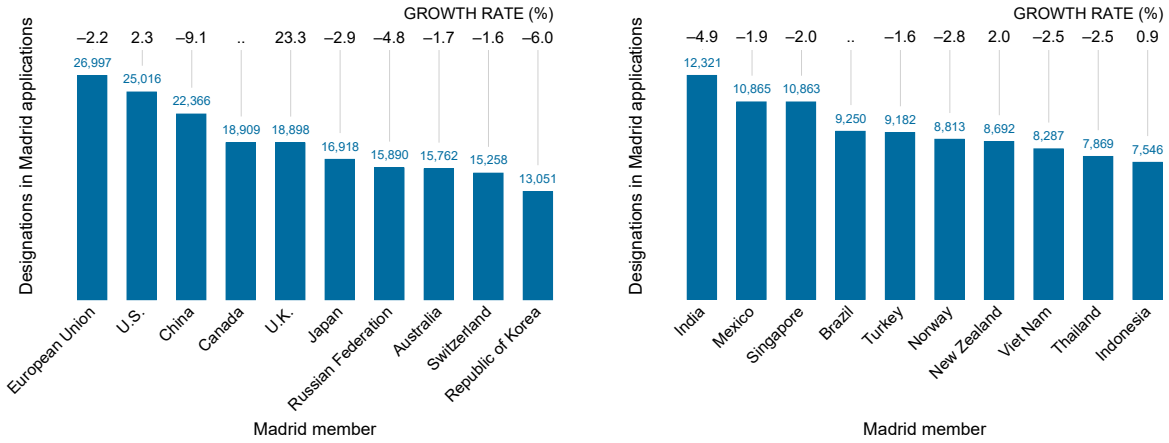
Source: WIPO Statistics Database, September 2021.

B47. Madrid applications for the top 20 origins, 2020



Note: Origin data are based on the country of the applicant's address.
.. indicates not available.
Source: WIPO Statistics Database, September 2021.

B48. Designations in Madrid international applications for the top 20 designated Madrid members, 2020



Note: The numbers of designations in applications for every Madrid member is reported in statistical table B49.

.. indicates not available.

Source: WIPO Statistics Database, September 2021.

Statistical tables

B49. Trademark applications by office and origin, 2020

Name	Application class count by office			Application class count by origin	Equivalent application class count by origin	Madrid international applications	
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [f]	Designated Madrid member
Afghanistan (b)	..	..	..	615	615	..	853
African Intellectual Property Organization	13,332	4,082	9,250	n.a.	n.a.	n.a.	2,216
African Regional Intellectual Property Organization	675	155	520	n.a.	n.a.	n.a.	n.a.
Albania	8,297	1,287	7,010	1,630	2,485	26	2,157
Algeria	20,115	12,350	7,765	12,557	13,513	15	2,461
Andorra	2,138	720	1,418	1,100	6,149	5	n.a.
Angola	3,920	2,546	1,374	2,570	2,732	..	n.a.
Antigua and Barbuda (b)	..	..	..	73	397	..	530
Argentina	78,500	64,413	14,087	68,439	73,992	1	n.a.
Armenia	11,141	3,469	7,672	4,501	5,225	33	2,476
Australia	149,540	89,991	59,549	137,456	224,927	2,216	15,762
Austria	25,469	16,674	8,795	49,092	358,043	988	2,394
Azerbaijan	12,312	3,967	8,345	4,823	5,109	11	2,868
Bahamas (b)	..	..	..	896	2,921	1	n.a.
Bahrain	9,869	363	9,506	622	1,243	2	1,572
Bangladesh	13,691	9,782	3,909	9,889	9,991	..	n.a.
Barbados	899	147	752	1,056	3,351	10	n.a.
Belarus	19,335	4,978	14,357	8,789	11,628	231	4,679
Belgium (c)	n.a.	n.a.	n.a.	36,933	269,775	724	n.a.
Belize (b)	..	..	..	312	1,311	7	n.a.
Benelux Office for Intellectual Property (d)	61,744	52,511	9,233	n.a.	n.a.	n.a.	2,683
Benin (b,h)	n.a.	n.a.	n.a.	159	2,687	..	n.a.
Bermuda (b)	..	..	..	282	579	7	n.a.
Bhutan	2,362	255	2,107	258	258	..	702
Bolivia (Plurinational State of) (g)	6,634	..	..	124	205	..	n.a.
Bonaire, Sint Eustatius and Saba (b,i)	..	..	..	4	31	1	486
Bosnia and Herzegovina	9,758	864	8,894	1,527	2,737	45	2,666
Botswana	3,162	663	2,499	685	797	..	749
Brazil	297,933	260,774	37,159	269,636	281,493	146	9,250
Brunei Darussalam	3,926	234	3,692	284	284	1	1,114
Bulgaria	14,310	10,791	3,519	24,115	95,942	293	1,189
Burkina Faso (b,h)	n.a.	n.a.	n.a.	320	5,296	..	n.a.
Burundi	260	42	218	55	55	..	n.a.
Cabo Verde	214	78	136	88	184	..	n.a.
Cambodia (g)	12,918	..	..	140	223	11	2,617
Cameroon (b,h)	n.a.	n.a.	n.a.	681	10,938	1	n.a.
Canada	147,267	62,557	84,710	102,954	193,467	708	18,909
Chad (b,h)	n.a.	n.a.	n.a.	33	529	..	n.a.
Chile	59,933	46,719	13,214	54,789	59,312	..	n.a.
China	9,345,757	9,116,509	229,248	9,562,164	10,886,104	6,696	22,366
China, Hong Kong SAR	69,973	29,657	40,316	51,496	138,473	..	n.a.
China, Macao SAR	13,467	2,319	11,148	2,721	3,288	..	n.a.
Colombia	49,882	31,370	18,512	34,996	37,605	47	4,357
Comoros (b)	..	..	..	26	314	..	n.a.
Congo (b,h)	n.a.	n.a.	n.a.	66	1,010	..	n.a.

Name	Application class count by office			Application class count by origin	Equivalent application class count by origin	Madrid international applications	
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [f]	Designated Madrid member
Cook Islands (b)	..	..	..	25	52	..	n.a.
Costa Rica	14,663	8,528	6,135	9,214	9,511	..	n.a.
Côte d'Ivoire (b,h)	n.a.	n.a.	n.a.	1,338	21,834	..	n.a.
Croatia	8,184	4,807	3,377	8,816	26,979	201	1,120
Cuba	6,283	2,859	3,424	3,169	3,397	7	1,252
Curaçao (i)	1,980	0	1,980	149	478	6	571
Cyprus	3,419	1,317	2,102	15,579	79,336	271	718
Czech Republic	26,207	21,458	4,749	33,435	151,526	312	1,460
Democratic People's Republic of Korea (b)	..	..	..	355	473	9	1,052
Democratic Republic of the Congo	606	405	201	426	566	..	n.a.
Denmark	9,189	5,275	3,914	27,393	177,381	627	1,225
Djibouti (b)	..	..	..	9	9	..	n.a.
Dominica (b)	..	..	..	67	169	1	n.a.
Dominican Republic	13,095	8,070	5,025	8,367	8,691	1	n.a.
Ecuador	18,692	12,369	6,323	12,962	13,502	1	n.a.
Egypt (b)	..	..	..	785	2,699	13	4,097
El Salvador	9,302	3,141	6,161	3,528	3,609	1	n.a.
Equatorial Guinea (b,h)	n.a.	n.a.	n.a.	31	138	1	n.a.
Estonia	5,520	2,865	2,655	6,716	54,555	84	920
Eswatini (b)	..	..	..	10	10	..	671
Ethiopia	2,992	1,558	1,434	1,570	1,570	..	n.a.
European Union Intellectual Property Office (e)	438,511	303,298	135,213	n.a.	n.a.	n.a.	26,997
Fiji (b)	..	..	..	33	33	..	n.a.
Finland	9,244	6,237	3,007	24,110	176,995	427	1,009
France	290,194	274,055	16,139	383,242	1,072,814	3,716	3,667
Gabon (b,h)	n.a.	n.a.	n.a.	69	1,045	..	n.a.
Gambia	2,044	127	1,917	131	195	..	791
Georgia	9,780	2,598	7,182	3,345	4,022	41	2,443
Germany	264,669	238,337	26,332	510,325	2,704,423	7,326	4,798
Ghana	5,338	858	4,480	957	1,687	3	1,348
Greece (g)	17,622	..	..	5,096	92,571	113	1,037
Grenada	393	27	366	34	61	..	n.a.
Guatemala	6,097	6,097	0	8,017	8,357	..	n.a.
Guinea (b,h)	n.a.	n.a.	n.a.	343	5,735	..	n.a.
Guinea-Bissau (b,h)	n.a.	n.a.	n.a.	39	663	..	n.a.
Guyana (b)	..	..	..	19	19	..	n.a.
Haiti (b)	..	..	..	39	39	..	n.a.
Honduras	5,381	1,722	3,659	1,985	1,985	..	n.a.
Hungary	11,054	7,388	3,666	14,340	65,821	226	1,199
Iceland	9,420	1,356	8,064	2,260	6,097	32	2,625
India	424,583	382,294	42,289	394,434	418,560	334	12,321
Indonesia	123,787	80,545	43,242	83,820	86,154	99	7,546
Iran (Islamic Republic of)	541,750	526,399	15,351	527,401	528,311	17	2,654
Iraq (b)	..	..	..	759	1,110	1	n.a.
Ireland (g)	7,202	..	..	14,485	100,210	274	1,021

Name	Application class count by office			Application class count by origin	Equivalent application class count by origin	Madrid international applications	
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [f]	Designated Madrid member
Israel	21,795	4,696	17,099	13,305	44,092	400	5,243
Italy	100,872	90,169	10,703	188,520	1,172,502	2,765	3,326
Jamaica	6,726	3,043	3,683	3,247	3,301	..	n.a.
Japan	421,166	342,956	78,210	461,918	633,019	3,063	16,918
Jordan	6,156	2,753	3,403	3,778	5,707	..	n.a.
Kazakhstan	25,784	10,454	15,330	12,751	13,872	91	4,871
Kenya	11,992	5,254	6,738	5,801	6,323	10	1,995
Kuwait (b)	..	..	..	847	2,351	1	n.a.
Kyrgyzstan	7,298	462	6,836	794	794	5	2,347
Lao People's Democratic Republic (g)	5,599	..	..	19	19	1	1,729
Latvia	4,809	1,821	2,988	4,050	20,876	83	1,038
Lebanon (b)	..	..	..	747	3,390	..	n.a.
Lesotho	2,028	68	1,960	85	85	..	578
Liberia (b)	..	..	..	28	542	..	723
Libya (b)	..	..	..	46	100	..	n.a.
Liechtenstein	8,705	365	8,340	4,662	17,466	85	2,067
Lithuania	6,490	3,398	3,092	6,883	44,461	148	1,156
Luxembourg (c)	n.a.	n.a.	n.a.	15,155	107,591	303	n.a.
Madagascar	5,683	2,723	2,960	2,745	2,857	1	909
Malawi (b)	..	..	..	5	6	..	653
Malaysia	45,286	18,414	26,872	24,446	29,689	102	5,864
Maldives (b)	..	..	..	9	9	..	n.a.
Mali (b,h)	n.a.	n.a.	n.a.	239	3,567	..	n.a.
Malta	1,462	1,100	362	6,231	57,529	64	n.a.
Marshall Islands (b)	..	..	..	419	2,138	6	n.a.
Mauritania (b,h)	n.a.	n.a.	n.a.	132	1,813	..	n.a.
Mauritius	4,434	2,466	1,968	4,563	9,072	8	n.a.
Mexico	162,541	118,329	44,212	128,134	139,748	22	10,865
Monaco	8,562	1,399	7,163	4,859	18,984	113	2,115
Mongolia	18,501	13,408	5,093	13,526	13,661	7	1,742
Montenegro	8,116	354	7,762	370	397	..	2,363
Morocco	30,169	18,481	11,688	20,007	26,841	99	3,492
Mozambique	5,119	1,708	3,411	1,752	1,833	..	1,038
Myanmar (b)	..	..	..	217	217	..	n.a.
Namibia	4,581	333	4,248	381	524	..	923
Nauru (b)	..	..	..	2	6	..	n.a.
Nepal (b)	..	..	..	25	25	..	n.a.
Netherlands (c)	n.a.	n.a.	n.a.	85,401	577,547	1,405	n.a.
New Zealand	55,649	22,625	33,024	32,890	50,816	542	8,692
Nicaragua (b)	..	..	..	156	291	..	n.a.
Niger (b,h)	n.a.	n.a.	n.a.	93	1,581	..	n.a.
Nigeria (g)	9,324	..	..	230	1,683	..	n.a.
North Macedonia (b)	..	..	..	481	1,330	28	2,396
Norway	42,202	11,059	31,143	18,151	63,249	288	8,813
Oman	12,578	7,918	4,660	8,436	9,288	5	1,825
Pakistan	40,578	36,448	4,130	37,025	38,920	..	n.a.

Name	Application class count by office			Application class count by origin	Equivalent application class count by origin	Madrid international applications	
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [f]	Designated Madrid member
Palau (b)	..	..	..	10	10	..	n.a.
Panama	10,982	5,408	5,574	7,896	14,300	2	n.a.
Papua New Guinea	696	164	532	174	228	..	n.a.
Paraguay	16,810	12,259	4,551	12,551	12,715	..	n.a.
Peru	37,250	26,280	10,970	27,910	29,213	2	n.a.
Philippines	56,698	30,935	25,763	33,659	34,490	56	6,477
Poland	37,629	31,560	6,069	51,959	385,701	407	2,135
Portugal	34,730	30,047	4,683	37,582	144,368	185	1,525
Qatar	7,153	1,282	5,871	3,373	5,826	3	n.a.
Republic of Korea	319,945	269,318	50,627	338,670	430,411	1,581	13,051
Republic of Moldova	12,058	3,910	8,148	4,881	6,052	104	2,607
Romania	25,620	21,143	4,477	25,893	109,199	80	1,416
Russian Federation	398,240	341,414	56,826	385,566	425,667	1,566	15,890
Rwanda	2,776	396	2,380	408	451	1	819
Saint Kitts and Nevis (b)	..	..	..	284	1,310	1	n.a.
Saint Lucia (b)	..	..	..	254	524	..	n.a.
Saint Vincent and the Grenadines	318	34	284	148	634	1	n.a.
Samoa	1,659	57	1,602	279	738	..	459
San Marino (b)	..	..	..	512	3,303	11	962
Sao Tome and Principe	1,391	21	1,370	45	207	..	497
Saudi Arabia	30,184	20,287	9,897	22,297	25,126	..	n.a.
Senegal (b,h)	n.a.	n.a.	n.a.	601	9,220	6	n.a.
Serbia	17,015	4,107	12,908	7,292	12,927	140	3,919
Seychelles	552	84	468	1,619	4,359	11	n.a.
Sierra Leone	2,274	160	2,114	168	216	..	744
Singapore	52,238	12,805	39,433	43,367	78,049	674	10,863
Sint Maarten (Dutch Part) (b,i)	..	..	..	..	..	..	526
Slovakia	13,020	8,780	4,240	12,304	49,450	89	1,055
Slovenia (b)	..	..	..	4,120	39,022	191	1,016
Solomon Islands (b)	..	..	..	10	10	..	n.a.
Somalia (b)	..	..	..	6	6	..	n.a.
South Africa	36,323	22,104	14,219	24,941	35,323	1	n.a.
Spain	80,432	71,904	8,528	120,930	737,929	1,256	2,931
Sri Lanka (b)	..	..	..	435	1,669	..	n.a.
Sudan	4,367	1,414	2,953	1,469	1,469	1	1,070
Suriname (b)	..	..	..	19	62	..	n.a.
Sweden	19,739	15,756	3,983	52,812	348,289	823	1,346
Switzerland	101,121	45,031	56,090	150,119	496,712	3,504	15,258
Syrian Arab Republic	13,762	8,189	5,573	8,860	11,322	7	905
Tajikistan	5,765	486	5,279	558	720	5	1,925
Thailand	63,486	33,165	30,321	39,650	44,563	116	7,869
Togo (b,h)	n.a.	n.a.	n.a.	234	4,075	..	n.a.
Tonga (b)	..	..	..	1	1	..	n.a.
Trinidad and Tobago	2,543	896	1,647	1,028	1,136	..	n.a.
Tunisia (b)	..	..	..	591	3,150	22	2,295
Turkey	363,708	331,480	32,228	355,635	425,486	1,871	9,182

Name	Application class count by office			Application class count by origin	Equivalent application class count by origin	Madrid international applications	
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [f]	Designated Madrid member
Turkmenistan (b)	..	..	..	90	90	..	1,663
Tuvalu	15	15	0	19	19	..	n.a.
Uganda	3,071	1,564	1,507	1,592	1,593	..	n.a.
Ukraine	62,665	38,496	24,169	45,632	59,911	420	6,962
United Arab Emirates	18,620	6,415	12,205	16,102	40,329	19	n.a.
United Kingdom	278,699	185,818	92,881	392,930	1,304,176	3,693	18,898
United Republic of Tanzania	3,625	1,934	1,691	1,996	2,101	..	n.a.
United States of America	870,306	549,380	320,926	920,384	1,877,118	10,014	25,016
Uruguay	9,336	4,098	5,238	5,704	6,784	1	n.a.
Uzbekistan	15,187	8,191	6,996	8,494	8,494	10	2,277
Vanuatu (b)	..	..	..	27	108	..	n.a.
Venezuela (Bolivarian Republic of)	7,773	7,773	0	8,090	8,225	..	n.a.
Viet Nam	108,641	76,836	31,805	80,008	83,282	175	8,287
Yemen	6,094	4,564	1,530	4,888	5,055	..	n.a.
Zambia	5,280	1,993	3,287	2,058	2,058	1	1,077
Zimbabwe (g)	3,271	..	..	164	315	2	997
Others/Unknown	12	0	12	63,648	167,424	770	2
Total (2020 estimates)	**17,198,300**	**14,809,400**	**2,388,900**	**17,198,300**	**n.a.**	**63,837**	**453,200**

(a) Data on application class count by origin are incomplete, because some offices do not report detailed statistics containing the origin of application class counts.

(b) Only Madrid designation data are available therefore application class count by office and origin data may be incomplete.

(c) This country does not have a national trademark office. All applications for trademark protection are filed at the Benelux Office for Intellectual Property or the European Union Intellectual Property Office.

(d) Resident applications include those filed by residents of Belgium, Luxembourg and the Netherlands.

(e) Resident applications include those filed by residents of EU member states.

(f) Origin is defined as the country/territory of the stated residence of the applicant in an international application.

(g) Total includes an aggregate direct application class count that cannot be broken down into direct and non-resident components.

(h) The African Intellectual Property Office (OAPI) is the competent office for processing applications.

(i) The country or municipality is not a Madrid member. The Netherlands has extended the application of the Madrid Protocol to the territories of Curaçao and Sint Maarten, Bonaire, Sint Eustatius and Saba.

n.a. indicates not applicable.

.. indicates not available.

Source: WIPO Statistics Database, September 2021.

B50. Trademark registrations by office and origin, and trademarks in force, 2020

Name	Registration class count by office			Registration class count by origin	Equivalent registration class count by origin	Madrid international registrations	In force by office
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [f]	Total
Afghanistan (b)	..	..	..	150	150	..	..
African Intellectual Property Organization	13,673	3,977	9,696	n.a.	n.a.	n.a.	..
African Regional Intellectual Property Organization	358	67	291	n.a.	n.a.	n.a.	2,510
Albania	9,840	1,526	8,314	1,665	2,050	12	11,978
Algeria	17,734	7,916	9,818	8,030	8,454	16	36,485
Andorra	2,183	759	1,424	1,108	6,022	5	20,378
Angola	2,567	942	1,625	966	1,020	..	26,097
Antigua and Barbuda (b)	..	..	..	175	337	3	..
Argentina	45,149	33,408	11,741	36,375	41,481	1	878,713
Armenia	10,486	2,457	8,029	3,069	3,564	23	21,952
Aruba (b)	..	..	..	2	2	..	..
Australia	124,461	63,856	60,605	110,487	199,877	2,172	655,595
Austria	22,323	14,138	8,185	47,574	310,255	990	98,771
Azerbaijan	10,152	1,266	8,886	1,454	1,535	2	74,409
Bahamas (b)	..	..	..	1,038	3,419	7	..
Bahrain	12,279	225	12,054	497	1,042	2	75,539
Bangladesh	1,591	361	1,230	432	621	..	61,315
Barbados (b)	..	..	..	906	3,066	10	11,198
Belarus	20,647	4,534	16,113	8,722	12,177	226	130,602
Belgium (c)	n.a.	n.a.	n.a.	32,884	228,978	714	n.a.
Belize (b)	..	..	..	283	1,174	7	..
Benelux Office for Intellectual Property (d)	50,579	41,763	8,816	n.a.	n.a.	n.a.	657,764
Benin (b,h)	n.a.	n.a.	n.a.	165	2,645	..	..
Bermuda (b)	..	..	..	623	1,622	17	..
Bhutan	1,663	133	1,530	133	133	..	..
Bolivia (Plurinational State of) (g)	6,599	..	..	119	146	..	..
Bonaire, Sint Eustatius and Saba (b,i)	..	..	..	6	6	..	..
Bosnia and Herzegovina	9,934	520	9,414	1,051	1,775	32	80,212
Botswana	2,527	313	2,214	345	379	..	20,396
Brazil	160,761	123,015	37,746	128,714	139,359	87	1,459,790
Brunei Darussalam	4,849	163	4,686	215	215	1	23,040
Bulgaria	13,611	10,136	3,475	22,229	77,663	236	55,379
Burkina Faso (b,h)	n.a.	n.a.	n.a.	258	4,306	..	..
Burundi	323	46	277	47	47	..	..
Cabo Verde	183	41	142	54	182	..	2,392
Cambodia (g)	13,093	..	..	81	191	3	..
Cameroon (b,h)	n.a.	n.a.	n.a.	839	11,928	1	..
Canada	102,514	22,972	79,542	59,102	173,349	701	620,860
Central African Republic (b,h)	n.a.	n.a.	n.a.	3	51	..	..
Chad (b,h)	n.a.	n.a.	n.a.	24	392	..	..
Chile	31,035	19,204	11,831	22,529	26,445	..	383,012
China	5,779,076	5,576,620	202,456	5,875,458	6,873,865	7,525	30,173,085
China, Hong Kong SAR	72,861	27,730	45,131	44,571	125,872	..	460,805
China, Macao SAR	13,666	2,133	11,533	2,653	3,328	..	138,318
Colombia	35,698	17,337	18,361	20,357	22,855	26	345,930

Name	Registration class count by office			Registration class count by origin	Equivalent registration class count by origin	Madrid international registrations	In force by office
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [f]	Total
Comoros (b)	..	..	..	19	259	..	..
Congo (b,h)	n.a.	n.a.	n.a.	66	898	..	..
Cook Islands (b)	..	..	..	39	39	..	..
Costa Rica	10,975	5,311	5,664	5,860	6,400	..	123,897
Côte d'Ivoire (b,h)	n.a.	n.a.	n.a.	1,250	20,346	7	..
Croatia	7,805	4,473	3,332	7,512	23,697	161	103,312
Cuba	6,948	1,820	5,128	2,137	2,700	6	41,070
Curaçao (i)	2,103	0	2,103	108	151	1	22,711
Cyprus	3,044	1,226	1,818	13,499	73,264	268	44,856
Czech Republic	26,666	21,893	4,773	32,554	130,560	284	126,696
Democratic People's Republic of Korea (b)	..	..	..	303	394	3	..
Democratic Republic of the Congo	425	281	144	306	590	..	..
Denmark	8,467	4,639	3,828	27,182	157,962	602	116,825
Dominica (b)	..	..	..	83	245	1	..
Dominican Republic	11,508	6,178	5,330	6,443	7,064	1	130,285
Ecuador	16,701	9,150	7,551	9,625	10,462	2	..
Egypt (b)	..	..	..	656	2,328	14	..
El Salvador	6,990	4,004	2,986	4,224	4,359	1	91,976
Equatorial Guinea (b,h)	n.a.	n.a.	n.a.	46	383	1	..
Estonia	5,082	2,411	2,671	6,411	48,389	85	54,479
Eswatini (b)	..	..	..	22	23	..	..
Ethiopia	1,205	854	351	865	919	..	15,236
European Union Intellectual Property Office (e)	384,955	264,488	120,467	n.a.	n.a.	n.a.	1,523,465
Fiji (b)	..	..	..	21	75	..	..
Finland	8,208	5,309	2,899	25,512	157,379	446	96,588
France	236,408	221,472	14,936	347,693	1,033,992	3,843	1,572,726
Gabon (b,h)	n.a.	n.a.	n.a.	97	1,569	..	..
Gambia	1,729	127	1,602	131	195	..	..
Georgia	9,293	1,436	7,857	2,130	3,347	36	66,008
Germany	186,183	162,564	23,619	436,360	2,327,902	7,359	968,844
Ghana	5,222	313	4,909	383	847	2	52,402
Greece (g)	11,133	..	..	4,662	79,260	94	..
Grenada	393	27	366	33	60	..	..
Guatemala	6,097	6,097	0	7,552	7,622	..	..
Guinea (b,h)	n.a.	n.a.	n.a.	319	5,056	..	..
Guinea-Bissau (b,h)	n.a.	n.a.	n.a.	26	426	..	..
Guyana (b)	..	..	..	8	8	..	..
Haiti (b)	..	..	..	10	10	..	..
Honduras	1,891	479	1,412	750	777	..	90,461
Hungary	9,083	5,560	3,523	12,170	58,723	184	54,251
Iceland	8,595	710	7,885	1,466	4,949	28	61,429
India	258,511	214,223	44,288	227,236	249,007	365	2,409,005
Indonesia	216,510	132,677	83,833	137,046	139,793	94	473,781
Iran (Islamic Republic of)	128,566	120,876	7,690	121,651	122,682	14	301,540
Iraq (b)	..	..	..	591	753	1	..
Ireland (g)	6,484	..	..	12,548	85,892	232	72,470

Name	Registration class count by office			Registration class count by origin	Equivalent registration class count by origin	Madrid international registrations	In force by office
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [f]	Total
Israel	22,284	3,519	18,765	10,728	40,350	346	143,695
Italy	95,432	84,530	10,902	180,957	1,057,112	2,733	513,086
Jamaica (b)	..	..	..	170	197	..	..
Japan (b)	..	..	..	130,350	315,767	3,122	1,973,640
Jordan	5,414	2,090	3,324	2,803	4,610	..	..
Kazakhstan	24,969	8,497	16,472	11,143	11,871	86	49,251
Kenya (b)	..	..	..	548	1,160	10	..
Kiribati (b)	..	..	..	3	3	..	..
Kuwait (b)	..	..	..	820	2,200	..	..
Kyrgyzstan	7,427	415	7,012	784	811	5	11,196
Lao People's Democratic Republic (g)	6,608	..	..	6	6	..	30,951
Latvia	4,595	1,723	2,872	4,233	18,060	82	25,941
Lebanon (b)	..	..	..	638	2,545	1	..
Lesotho	1,411	4	1,407	11	11	..	4,644
Liberia (b)	..	..	..	26	571	..	..
Libya (b)	..	..	..	59	194	..	..
Liechtenstein (b)	..	..	..	3,399	14,818	79	..
Lithuania	5,689	2,709	2,980	5,537	35,324	134	37,605
Luxembourg (c)	n.a.	n.a.	n.a.	17,081	90,414	333	n.a.
Madagascar	5,063	2,453	2,610	2,472	2,584	1	28,617
Malawi (b)	..	..	..	3	3	..	..
Malaysia	43,314	10,756	32,558	17,350	20,997	80	355,602
Maldives (b)	..	..	..	18	180	..	..
Mali (b,h)	n.a.	n.a.	n.a.	245	3,781	..	..
Malta	736	524	212	5,401	50,208	52	23,313
Marshall Islands (b)	..	..	..	393	1,444	4	..
Mauritania (b,h)	n.a.	n.a.	n.a.	186	1,835	..	..
Mauritius	4,137	2,180	1,957	3,727	9,028	6	..
Mexico	142,539	93,933	48,606	101,491	115,499	57	1,292,538
Monaco	8,330	1,378	6,952	4,055	16,596	79	10,354
Mongolia	14,672	9,348	5,324	9,508	9,778	7	17,703
Montenegro	8,811	281	8,530	438	1,248	4	59,039
Morocco	27,259	14,858	12,401	15,768	20,401	59	..
Mozambique	5,068	1,708	3,360	1,709	1,709	..	30,415
Myanmar (b)	..	..	..	86	86	..	..
Namibia	5,784	321	5,463	357	492	..	5,767
Nepal (b)	..	..	..	24	159	..	..
Netherlands (c)	n.a.	n.a.	n.a.	77,831	491,785	1,423	n.a.
New Zealand	50,338	16,282	34,056	25,945	43,876	463	285,419
Nicaragua (b)	..	..	..	100	289	..	..
Niger (b,h)	n.a.	n.a.	n.a.	102	1,670	..	..
Nigeria (g)	2,420	..	..	225	2,226	..	..
North Macedonia (b)	..	..	..	717	1,796	36	..
Norway	40,729	8,424	32,305	16,465	58,960	299	233,216
Oman	6,710	2,006	4,704	2,299	2,675	..	..
Pakistan	17,503	11,702	5,801	12,128	13,348	..	204,091
Palau (b)	..	..	..	50	50	..	..

Name	Registration class count by office			Registration class count by origin	Equivalent registration class count by origin	Madrid international registrations	In force by office
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [f]	Total
Panama	7,640	3,173	4,467	5,364	11,612	2	192,741
Papua New Guinea	32	15	17	50	50	..	..
Paraguay	10,472	6,223	4,249	6,550	6,577	..	..
Peru	27,653	18,486	9,167	19,803	21,073	2	380,325
Philippines	44,136	17,348	26,788	18,523	19,204	40	161,384
Poland	22,459	16,103	6,356	33,751	288,506	396	236,954
Portugal	27,888	23,393	4,495	31,667	120,892	199	302,508
Qatar	7,289	673	6,616	2,220	4,084	2	32,463
Republic of Korea	161,519	111,916	49,603	172,135	256,771	1,553	1,380,625
Republic of Moldova	10,608	2,366	8,242	3,600	5,261	89	73,988
Romania	17,191	13,101	4,090	17,453	81,712	86	84,083
Russian Federation	196,396	139,620	56,776	185,769	224,331	1,448	713,833
Rwanda	2,599	386	2,213	397	440	1	..
Saint Kitts and Nevis (b)	..	..	..	108	1,134	1	..
Saint Lucia (b)	..	..	..	126	558	..	..
Saint Vincent and the Grenadines	33	0	33	30	84	..	..
Samoa	1,183	57	1,126	348	1,158	..	4,727
San Marino (b)	..	..	..	445	3,068	9	..
Sao Tome and Principe (b)	..	..	..	22	103	..	..
Saudi Arabia	17,535	8,944	8,591	10,795	14,134	..	..
Senegal (b,h)	n.a.	n.a.	n.a.	601	9,132	9	..
Serbia	15,385	2,311	13,074	6,185	11,579	151	31,308
Seychelles	632	92	540	1,654	5,719	12	5,827
Sierra Leone	1,808	150	1,658	167	167	..	..
Singapore	54,943	11,098	43,845	41,519	75,030	672	344,597
Sint Maarten (Dutch Part) (b,i)	..	..	..	3	30	1	..
Slovakia	12,061	7,825	4,236	11,032	41,220	81	47,458
Slovenia (b)	..	..	..	4,525	34,047	209	..
Solomon Islands (b)	..	..	..	12	12	..	..
Somalia (b)	..	..	..	4	4	..	..
South Africa	22,895	12,022	10,873	14,085	22,665	..	381,094
Spain	65,207	56,975	8,232	106,229	657,051	1,201	793,934
Sri Lanka (b)	..	..	..	332	1,096	..	..
Sudan	3,017	389	2,628	484	484	1	20,455
Suriname (b)	..	..	..	35	180	..	..
Sweden	15,949	12,053	3,896	49,485	305,736	825	125,564
Switzerland	95,537	38,054	57,483	152,081	486,602	3,076	523,700
Syrian Arab Republic	6,253	3,314	2,939	3,749	5,722	9	..
Tajikistan	5,675	449	5,226	555	819	5	10,997
Thailand	53,920	19,644	34,276	26,237	31,731	123	423,061
Timor-Leste (b)	..	..	..	1	1	..	..
Togo (b,h)	n.a.	n.a.	n.a.	298	4,398	..	..
Tonga (b)	..	..	..	3	3	..	..
Trinidad and Tobago	1,805	623	1,182	652	922	..	23,100
Tunisia (b)	..	..	..	573	3,195	22	..
Turkey	220,878	187,733	33,145	210,774	276,662	1,114	1,220,050
Turkmenistan (b)	..	..	..	11	11	..	..

Name	Registration class count by office			Registration class count by origin	Equivalent registration class count by origin	Madrid international registrations	In force by office
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [f]	Total
Tuvalu	15	15	0	16	16	..	..
Uganda	2,091	761	1,330	769	769	..	..
Ukraine	57,496	33,074	24,422	41,273	54,062	402	201,053
United Arab Emirates	16,781	4,941	11,840	12,573	35,117	17	284,299
United Kingdom	205,657	128,623	77,034	264,760	1,063,743	3,195	828,929
United Republic of Tanzania	3,605	1,350	2,255	1,395	1,491	..	..
United States of America	400,220	235,711	164,509	588,755	1,500,524	9,738	2,605,916
Uruguay	7,297	2,783	4,514	4,435	5,274	1	82,988
Uzbekistan	9,610	2,677	6,933	2,984	3,027	11	24,482
Vanuatu (b)	..	..	..	14	14	..	..
Venezuela (Bolivarian Republic of)	2,383	2,383	0	2,662	3,067	..	..
Viet Nam	74,954	40,403	34,551	43,823	47,305	174	272,289
Yemen	4,320	3,056	1,264	3,276	3,383	..	..
Zambia	4,338	743	3,595	752	752	..	38,567
Zimbabwe (g)	2,344	..	..	85	365	1	68,226
Others/Unknown	..	..	..	58,629	155,468	729	..
Total (2020 estimates)	**11,092,400**	**8,873,300**	**2,219,100**	**11,092,400**	**n.a.**	**62,062**	**64,449,300**

(a) Data on registration class count by origin are incomplete, because some offices do not report detailed statistics containing the origin of registration class counts.

(b) Only Madrid designation data are available therefore registration class count by office and origin data may be incomplete.

(c) This country does not have a national trademark office. All trademark registrations for this country are issued by the Benelux Office for Intellectual Property or the European Union Intellectual Property Office.

(d) Resident registrations include those issued to residents of Belgium, Luxembourg and the Netherlands.

(e) Resident registrations include those issued to residents of EU member states.

(f) Origin is defined as the country/territory of the stated residence of the holder of an international registration.

(g) Total includes an aggregate direct registration class count that cannot be broken down into direct and non-resident components.

(h) The African Intellectual Property Office (OAPI) is the competent office for issuing registrations.

(i) The country or municipality is not a Madrid member. The Netherlands has extended the application of the Madrid Protocol to the territories of Curaçao and Sint Maarten, Bonaire, Sint Eustatius and Saba.

n.a. indicates not applicable.

.. indicates not available.

Source: WIPO Statistics Database, September 2021.

B51. Trademark office procedural data, 2020

Office	Total applications processed	Registered	Partial rejections	Total rejections	Withdrawn or abandoned	Applications pending	Number of examiners (FTE)	First office action (days)	Final office decision (days)
Albania	862	845	..	13	4	300	5	45	180
Algeria	6,462	5,567	..	884	11	6,898	16	300	365
Angola	..	..	..	..	..	3,896	4	..	..
Armenia	1,054	680	..	312	62	542	10	10	100
Australia	47,985	46,855	..	768	362	13,060	140	95	149
Azerbaijan	1,801	793	..	241	767	1,021	9	15	60
Bahrain	11,387	8,809	..	137	2,441	1,152	..	..	101
Bangladesh	13,691	4,225	..	160	9,306	45,171	8	40	55
Belarus	3,322	3,060	..	..	262	..	21	60	335
Bhutan	222	158	..	..	64	11	4	2	45
Bolivia (Plurinational State of)	6,595	6,595	..	..	..	6,289	4	15	150
Bosnia and Herzegovina	765	555	..	40	170	1,446	6	5	540
Botswana	..	..	..	..	..	..	4	..	..
Brazil	248,184	141,775	..	63,953	42,456	194,338	102	240.3	716
Brunei Darussalam	..	..	..	..	..	36	6	..	..
Bulgaria	4,476	3,103	..	475	898	..	9	7	220
Burundi	..	..	..	..	..	3	9	..	..
Cabo Verde	..	..	..	..	..	1,889	4	..	..
Canada	38,457	23,167	..	61	15,229	159,617	59	703	926
China	9,116,454	5,576,545	..	3,539,909	..	..	2,000	122	214
China, Hong Kong SAR	36,960	33,286	..	3,000	674	22,621	45.9	27	47
China, Macao SAR	14,794	13,666	..	1,085	43	4,430	7	186	186
Colombia	37,983	30,989	..	6,496	498	11,763	88	20	178
Costa Rica	1,981	..	..	61	1,920	3,373	..	29	..
Croatia	914	681	..	56	177	331	3	14	38
Cuba	1,824	1,576	..	214	34	1,436	11	120	555
Curaçao	392	390	..	2	..	20	5	60	60
Cyprus	16	16	..	..	..	112	7	3	30
Czech Republic	6,915	6,290	..	547	78	4,041	20	..	285
Democratic Republic of the Congo	..	..	..	..	..	..	5	..	..
Denmark	2,730	2,372	..	205	153	861	18	1	35.4
Dominican Republic	5,473	..	..	3	5,470	2,037	..	30	29
Ecuador	15,095	14,656	..	376	63	6,473	7	30	180
El Salvador	..	..	..	..	..	..	21	5	5
Estonia	1,675	1,361	..	9	305	941	11	4	220
European Union Intellectual Property Office	131,171	126,420	..	3,654	1,097	84,524	254	17	16
Finland	3,578	2,911	..	143	524	821	4.5	30.5	56
France	90,504	81,127	..	5,893	3,484	60,017	78	..	..
Gambia	..	..	..	..	..	..	3	..	..
Georgia	2,181	1,416	..	174	591	1,139	13	57	215
Germany	79,583	60,425	..	6,606	12,552	27,080	71.4	51.3	82.9
Greece	3,907	3,412	..	390	105	205	4	20	120
Grenada	234	234	..	..	..	..	2	5	25
Guatemala	10,409	10,409	..	..	..	4,312	4	5	20
Honduras	1,789	1,656	..	106	27	4,870	..	..	69
Hungary	3,962	2,955	..	171	836	2,513	12	15	178
Iceland	4,179	4,017	..	117	45	3,867	8	62	190
India	278,190	226,598	..	29,180	22,412	449,219	120	30	40
Indonesia	192,690	185,267	..	6,235	1,188	114,990	..	1	458
Iran (Islamic Republic of)	93,785	30,858	..	62,737	190	4,242	27	32.5	58.8
Israel	7,553	6,618	..	..	935	4,927	17	107	220
Jamaica	2,113	2,113	..	..	..	..	4	10	120
Japan	150,868	133,982	..	16,886	..	..	161	299	331
Kenya	..	..	..	..	..	..	5	..	..
Lao People's Democratic Republic	3	..	..	2	1	..	6	5	60
Latvia	1,043	902	..	97	44	63	5	1	65

Office	Total applications processed	Registered	Partial rejections	Total rejections	Withdrawn or abandoned	Applications pending	Number of examiners (FTE)	First office action (days)	Final office decision (days)
Lesotho	..	..	..	..	..	381	7	..	..
Lithuania	2,008	1,771	..	199	38	78	4.5	60	65
Madagascar	993	967	..	1	25	84	2	225	225
Malta	879	736	..	14	129	..	2	1	60
Mauritius	..	..	..	..	..	..	8	1	20
Mexico	128,620	118,834	..	6,615	3,171	146,301	45	88	140
Monaco	612	561	..	33	18	..	2	5	37
Mongolia	2,110	1,816	..	290	4	1,019	3	90	180
Montenegro	43	42	..	1	..	426	5	30	300
Morocco	5,872	5,597	..	126	149	..	12	31	137
Mozambique	..	..	..	..	..	218	11	..	..
Namibia	..	..	..	..	..	..	3	..	..
New Zealand	10,957	10,362	..	..	595	5,949	41	27.4	30
Norway	7,386	5,672	..	111	1,603	4,400	21.5	75	75
Oman	3,961	3,876	..	..	85	..	6	..	10
Pakistan	37,893	17,502	..	45	20,346	6,982	6	50	240
Panama	4,600	4,524	..	37	39	3,919	8	30	60
Papua New Guinea	..	..	..	..	..	629	3	..	..
Paraguay	..	..	..	..	..	..	6	..	..
Peru	33,277	26,968	..	4,605	1,704	13,094	51	4	50
Philippines	24,359	23,921	..	438	..	20,125	31	63	145.2
Poland	14,129	11,297	..	1,457	1,375	11,294	54	..	390.6
Portugal	22,946	17,402	..	5,231	313	1,571	22	120	150
Qatar	7,071	6,882	..	151	38	82	8	30	90
Republic of Korea	210,766	173,499	..	37,267	..	217,185	141	267	396
Republic of Moldova	1,615	1,380	..	146	89	2,630	8	11	241
Romania	9,447	8,044	..	1,224	179	1,353	36	7	180
Russian Federation	61,743	52,967	..	8,370	406	37,739	120	120	150
Rwanda	..	..	..	..	..	6	2	..	..
Saint Vincent and the Grenadines	29	21	..	8	..	149	3	7	14
Samoa	124	99	..	..	25	..	3	3	30
Saudi Arabia	21,919	17,726	..	191	4,002	..	9	..	..
Seychelles	669	651	..	..	18	58	3	2	5
Sierra Leone	..	..	..	..	..	32	3	..	..
Singapore	..	..	..	..	..	5,903	33	..	..
Slovakia	2,999	2,497	..	299	203	1,895	8	1	130
Spain	23,953	22,676	..	974	303	27,167	43	25	161
Sudan	1,585	711	..	191	683	451	30	10	15
Sweden	8,412	6,544	..	343	1,525	1,851	23	28	84
Thailand	115,848	..	..	53,233	62,615	96,865	34	121	410
Trinidad and Tobago	..	..	..	..	..	100	7	..	..
Tunisia	..	..	..	..	..	..	1	..	..
Turkey	128,317	98,782	..	7,888	21,647	192,654	116	13	52
Tuvalu	..	..	..	..	..	..	1	..	..
Ukraine	31,344	23,523	..	2,071	5,750	41,122	88	300.5	609
United Kingdom	89,692	80,837	..	4,024	4,831	21,919	93	23	23
United Republic of Tanzania	..	..	..	..	..	107	3	..	..
United States of America	325,780	214,040	..	30,929	80,811	261,189	633	111	285
Uruguay	403	..	..	402	1	9,448	..	252	..
Uzbekistan	2,419	1,443	..	338	638	984	10	195	360

Office	Total applications processed	Registered	Partial rejections	Total rejections	Withdrawn or abandoned	Applications pending	Number of examiners (FTE)	First office action (days)	Final office decision (days)
Venezuela (Bolivarian Republic of)	..	..	..	..	..	..	4	..	..
Viet Nam	50,940	41,763	..	8,949	228	56,163	68	832.4	877.4
Zambia	..	..	..	..	..	..	5	..	..
Zimbabwe	..	..	..	..	..	977	5	..	..

Note: FTE is full time equivalent. WIPO collects data from IP offices using a common questionnaire and methodology. Every effort has been made to compile procedural data based on common definitions and concepts, but procedural differences make it extremely difficult to fully harmonize such data. Therefore caution should be exercised when making comparisons across offices. The total number of applications processed for a given office may be incomplete due to the omission of one or several elements by the office.

.. indicates not available.

Source: WIPO Statistics Database, September 2021.

Industrial designs

Highlights

Driven by resident activity, designs in applications filed grew by 2% in 2020

In 2020, about 1.1 million industrial design applications were filed worldwide. This represents a sharp increase of 5.6% on 2019 (figure 3.1). Since 2006, industrial design applications have increased every year, except for 2014. Applications during this period have more than doubled, due in large part to a rapid growth in applications filed in China. Indeed, if China were to be excluded from the overall total, the number of applications filed in 2020 actually declined by 3.2%.

Statistics based on the number of designs contained in industrial design applications – known as application design counts – improve comparability worldwide by harmonizing data from those offices that allow several designs to be contained in a single application with those that allow only one. An estimated 1.4 million designs were contained in applications filed worldwide in 2020 (figure 3.2). This corresponds to a growth rate of 2% on 2019 entirely driven by the designs contained in resident applications, which grew by 2.9%. At the same time, designs contained in non-resident applications decreased by 3%.

The top 20 offices accounted for 94.2% of all designs in applications in 2020

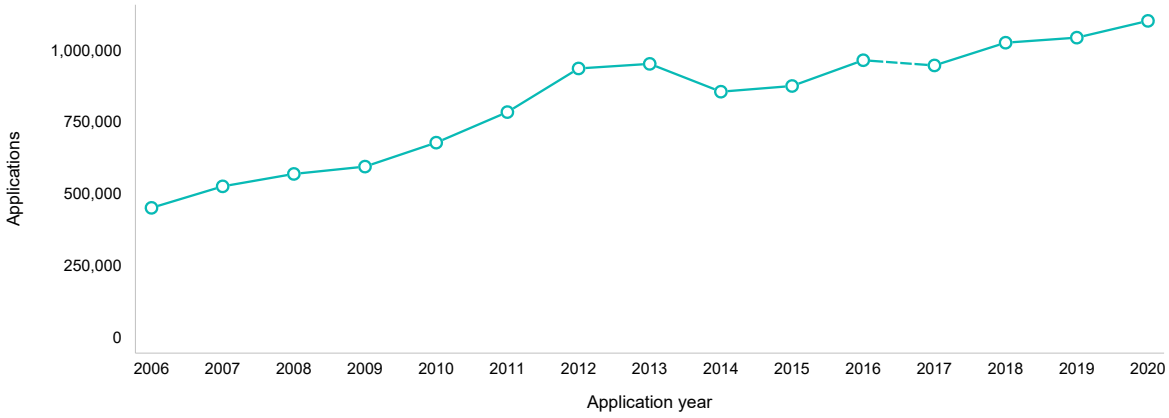
The office of China received 770,362 designs in applications in 2020, representing over half (55.5%) of activity worldwide. It was followed by the European Union Intellectual Property Office (EUIPO) (113,196), the Republic of Korea (70,821), the United States of America (U.S.) (50,743) and Turkey (47,653) (figure 3.3).

Combined, the top 20 offices accounted for 94.2% of all the designs in applications filed. Of these, 14 saw a decrease in application design count, half of which were double-digit declines (figure C11). The three offices where growth was greatest were Thailand (+9.9%), the U.K. (+9.5%) and China (+8.3%). In contrast, the three offices with the sharpest decreases were Ukraine (–26.3%), Spain (–23.5%) and Switzerland (–19.5%).

In 2020, seven of the top 20 offices recorded a rise in the number of designs contained in resident applications. However, there was no corresponding growth in non-resident filings at any of the seven offices. Growth in resident designs was particularly strong at the offices of China, Thailand and Turkey. The three offices that did experience an increase in non-resident design counts were the EUIPO, the U.K. and the U.S.

About 1.1 million industrial design applications were filed worldwide in 2020

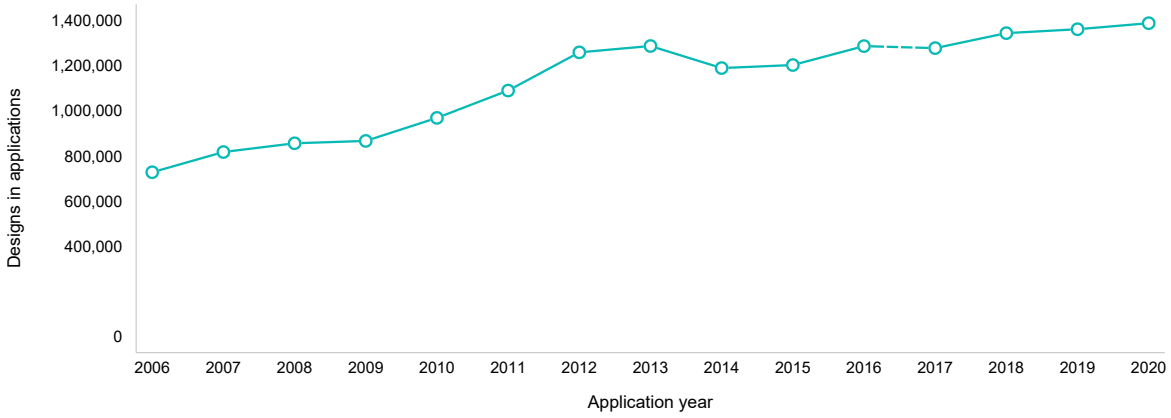
3.1. Industrial design applications worldwide, 2006–2020



Source: Figure C1.

Designs contained in applications totaled 1.4 million

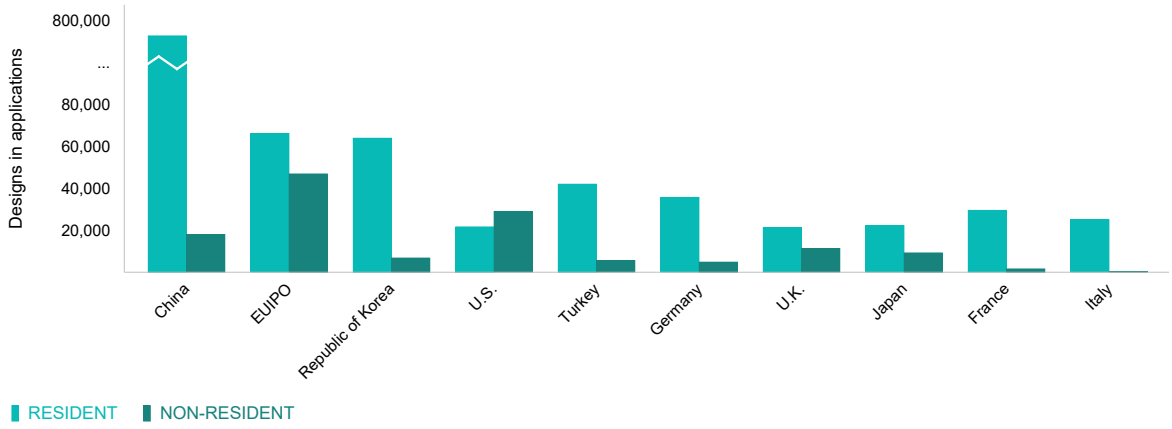
3.2. Number of designs in industrial design applications worldwide, 2006–2020



Source: Figure C2.

China received 55.5% of all designs contained in applications filed worldwide

3.3. Application design counts for the top 10 offices, 2020



Source: Figure C10.

Among offices located in low- and middle-income countries, the annual growth rate in 2020 was especially high for Indonesia (+31.9%), Colombia (+18.6%) and the African Regional Intellectual Property Organization (ARIPO) (+14.5%). Resident and non-resident filings grew at each of these three offices. In contrast, albeit from a low base, Azerbaijan (–39.3%), Madagascar (–30.8%) and the Republic of Moldova (–26.3%) all saw a sharp decline (figure C13).

Designs contained in resident applications amounted to 84.4% of the world total design count in 2020. The particularly high resident design share in China (97.7%) mostly explains the correspondingly large proportion of resident designs at world level. Resident design counts also accounted for a majority of filing activity at 15 of the top 20 offices (figure C10). Exceptions were the Russian Federation (45.5%), the U.S. (42.7%), Australia (36.2%), Switzerland (28.7%) and Canada (9.8%).

Design count

Some offices allow industrial design applications to contain more than one design for the same good or in the same class; others allow only one design per application. To capture the differences in application filing systems across offices, the respective application and registration design counts needed to be compared.

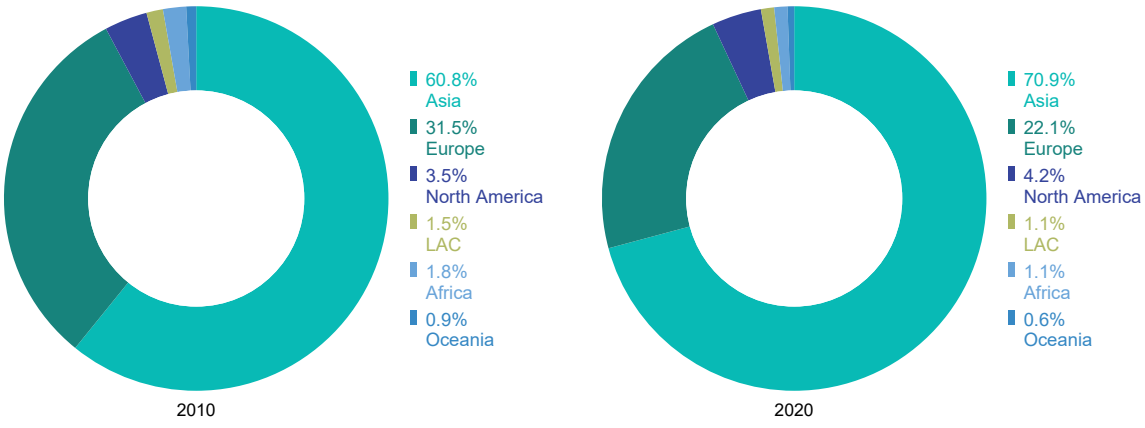
Equivalent design count

Designs in applications filed at regional offices are equivalent to multiple designs in applications filed in the respective member states of those offices. To calculate the number of equivalent designs for the OAPI, which has 17 member states, the Benelux Office for Intellectual Property (BOIP), which has three, and EUIPO (28), each design is multiplied by the corresponding number of member states. However, ARIPO does not register industrial designs with automatic region-wide applicability. Therefore, for this office, each application is counted as one application abroad, if the applicant does not reside in a member state, or as one resident application and one application abroad, if the applicant resides in a member state.

Combined, the offices of upper middle-income countries received the vast majority (62.1%) of all designs contained in applications filed in 2020 (table C7). China accounts for the bulk of this share, with the other upper middle-income countries receiving 6.6% of the world total. The combined share of the high-income countries stood at 33.5%. Offices of lower middle-income countries received 4.2% of the total, and those of low-income countries only 0.2%. Between 2010 and 2020, the average annual growth rate in design counts was 5.6% for upper as well as for lower middle-income countries and 0.7% for high-income economies.

Offices located in Asia accounted for 70.9% of total filing activity

3.4. Application design counts by region, 2010 and 2020



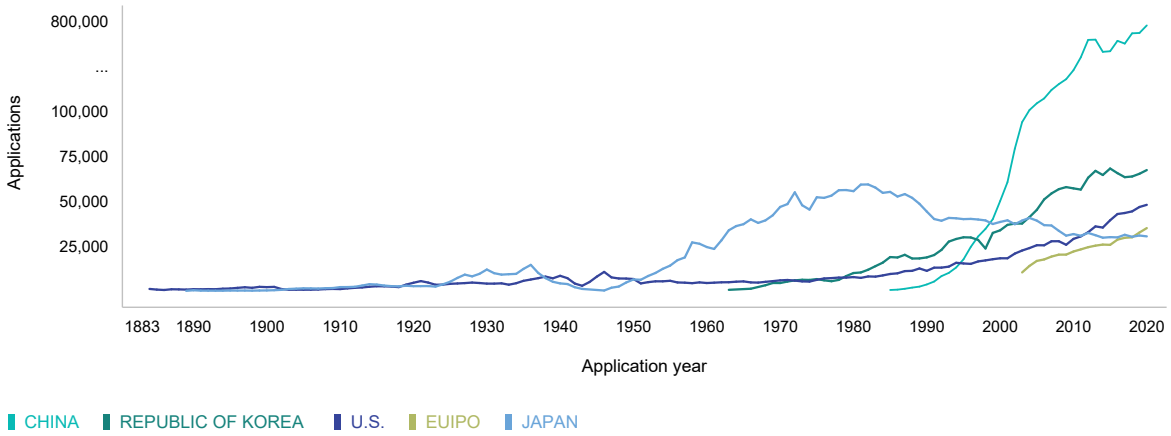
Note: LAC is Latin America and the Caribbean.

Source: Table C8.

Industrial design applications filed since 1883

Between 1883 and the early 1950s, the offices of Japan and the U.S. averaged a similar amount of applications, rarely exceeding 10,000. The office of Japan received the highest number of applications per year from the 1950s to the late 1990s, reaching approximately 50,000 annual filings at its peak. The office of China, which received 640 applications when it began receiving applications in 1985, saw unprecedented growth until 2013, with 660,000 applications filed that year. The office of the Republic of Korea surpassed the office of Japan in 2004 and has remained in second position ever since. In 2012, the office of the U.S. moved ahead of the office of Japan to become the third largest. The EUIPO began receiving applications in 2003 and moved-up to fourth position in 2019. Among these top five offices, the EUIPO is the only one to have a multiple design system. Applications filed at the EUIPO contained 113,196 designs in 2020.

Trend in industrial design applications for the top five offices, 1883–2020



Source: Figure C9.

Asia accounted for 70.9% of all designs in applications filed worldwide in 2020 (figure 3.4). Asia was followed by Europe (22.1%) and North America (4.2%). Between 2010 and 2020, North America (+5.5%) and Asia (+5.3%) saw the largest average increases in applications filed.

Applicants from China had the highest number of equivalent designs in applications filed abroad

Applications received by offices from resident and non-resident applicants are referred to as office data, whereas applications filed by applicants at their home office (resident applications) or at foreign offices (applications abroad) are referred to as origin data. When the equivalent count concept is applied, applications filed by applicants at some regional offices are considered equivalent to multiple applications in the member states of those offices. Here, industrial design statistics based on the origin of residence of the first named applicant are reported in order to complement the picture of industrial design activity worldwide.

Applicants from China had the highest equivalent application design count in 2020, with 1.3 million. They were followed by applicants residing in Germany (581,330), the U.S. (393,719) and Italy (317,528). In 2020, the U.K. (196,183) narrowly overtook France (195,899) to become the fifth largest origin according to equivalent application design count.

Among the top 10 origins, only China (+19.5%), Poland (+3.5%) and the U.K. (+1.3%) recorded increases in equivalent design counts. In contrast, applicants from Italy (–17.4%), the Republic of Korea (–15.9%) and France (–12.1%) saw the sharpest decreases in equivalent design counts compared to 2019 (figure C16).

A total of 14 European countries dominates the top 20 origins, followed by five located in Asia and one in North America. In terms of income categories, 18 of the top 20 origins belong to the high-income group, while China and Turkey are the only two upper middle-income countries that feature.

Equivalent designs in applications filed abroad accounted for at least 79% of the total for applicants

from all of the top 20 origins, except for the Republic of Korea (52.3%), China (43.7%) and Turkey (32.6%).

Applicants from Germany have traditionally had the highest number of equivalent designs in applications filed abroad. In 2020, with 583,894 such applications, applicants from China overtook those from Germany (526,700). Between 2018 and 2020, applicants from China more than doubled the number of equivalent designs in applications filed abroad. The next three origins were the U.S. (372,033), Italy (282,358) and the U.K. (168,811).

Of the top 10 origins of equivalent designs in applications filed abroad, only applicants from China (+36.8%), Poland (+2.9%) and the U.K. (+1.6%) recorded an increase. In contrast, applicants from Italy (–17.5%), the Netherlands (–15.2%) and France (–11.2%) experienced the most pronounced declines in numbers.

The Republic of Korea tops the ranking when adjusting for population

Adjusting resident filing according to gross domestic product (GDP) and population helps when comparing the intensity of industrial design filing by residents across origins.

China (3,270) had the highest resident design count per 100 billion USD of GDP in 2020 (figure 3.5). China was followed by the Republic of Korea (2,926) and Turkey (1,757). In contrast, India (106), the U.S. (109) and the Russian Federation (124) had much lower ratios. The 2020 ratios increased for nine of the top 20 origins compared to a decade earlier in 2010. The biggest increases were seen in the Islamic Republic of Iran (+1,063), France (+954) and the U.K. (+789).

The Republic of Korea (1,236) had by far the highest resident design count per million population in 2020 (figure C26). It was followed by Germany (656) and Italy (591). Compared to the ratios for 2010, those for 2020 increased sharply for France (+401), the U.K. (+327) and China (+231). In contrast, the ratios for Switzerland (–196) and Italy (–112) decreased markedly during this 10-year period.

The top three classes accounted for more than one-quarter of all industrial design applications

The Locarno classification includes 32 classes of industrial designs. In 2020, the classes with the largest shares of the world total were furnishings (11.3%), packages and containers (8%) and recording and communication equipment (6.9%). Combined, these three classes accounted for 26.2% of all recorded classes (figure C22).

Grouping the Locarno classes into 12 industry sectors serves to highlight the most important sectors for designs contained in industrial design applications filed in each country. For all the top 10 offices for which data were available, between 34% and 56% of the total design count was concentrated in just three sectors, although the top three sectors varied between offices (figure 3.6). Furniture and household goods accounted for a large proportion of the total at the offices of Turkey (24.2%), the Islamic Republic of Iran (23.8%), Germany (21%) and China (19.9%). Textiles and accessories was the top sector at the offices of Germany (23.8%), the U.K. (16.9%), the EUIPO (16%) and India (15.4%) (figure C23).

All of the top 10 origins filed more than 43% of designs in applications across their top three sectors, the degree of concentration being highest in Italy (58.2%) (figure C24). Textiles and accessories alongside furniture and household goods were both a top three sector for eight of the top 10 origins. Japan was the only origin to have neither of these two sectors among its top three.

Registered applications reached a landmark 1 million

An estimated 1 million industrial design applications were registered worldwide in 2020. This represents a sharp increase of 19.8% on 2019 (figure C4). Growth was due to a considerable rise in the number of registrations issued by the office of China, with around 175,000 additional applications registered compared to 2019.

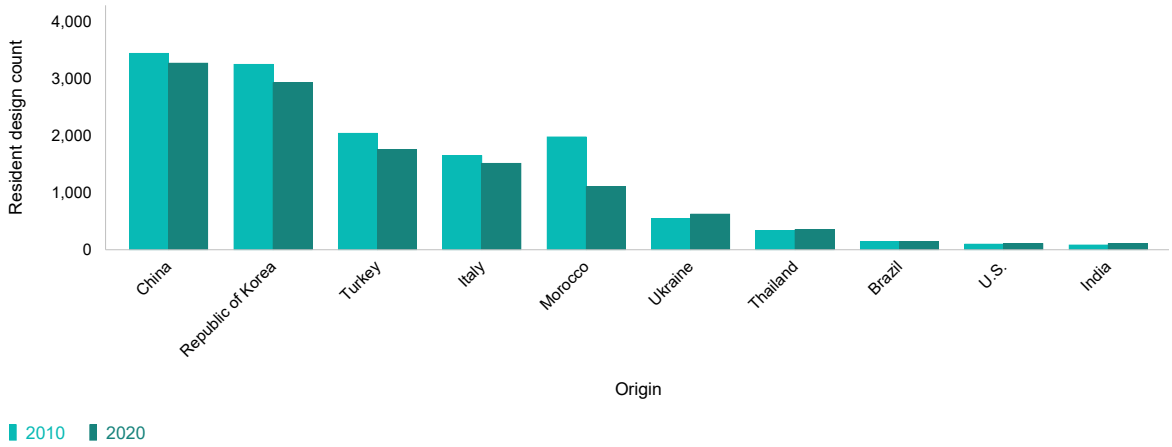
Nearly 1.3 million designs were contained in applications registered in 2020, up 14.3% on the year. This represents 158,300 more designs in applications registered compared to 2019 (figure C5). The office of China accounted for 57.8% of all designs in applications registered worldwide, and the top 20 offices combined accounted for 94.4%. Of these, eight offices recorded an annual growth, including double-digit increases at the offices of China (+31.5%), Turkey (+13.1%), the U.S. (+11.8%) and China, Hong Kong SAR (+10.2%). In contrast, the offices of India (–36.4%), Italy (–28.5%) and Spain (–28.1%) saw the sharpest declines in designs registered among the top 20 offices (figure C14).

The number of registrations in force worldwide increased by 11% in 2020

Industrial design rights generally last for up to 15 years from the date an application is filed. In 2020,

China had the highest number of designs per unit of GDP in 2020

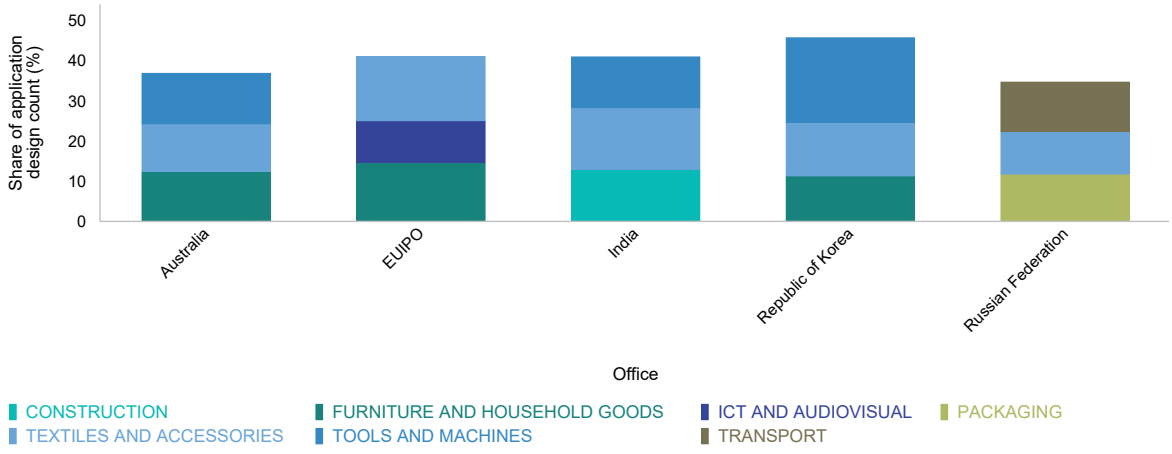
3.5. Resident application design count per USD 100 billion GDP for selected origins, 2010 and 2020



Source: Figure C25.

The top three sectors accounted for nearly a half of designs in applications in the Republic of Korea

3.6. Distribution of application design counts by the top three sectors for selected offices, 2020



Source: Figure C23.

there were an estimated 4.8 million active industrial design registrations at 129 offices worldwide. This represents an increase of 11% on 2019 (figure C27). Registrations in force in China increased by 22.2% to reach 2.2 million, representing 46% of the world total in 2020 (figure C28). China was followed by the U.S. (371,870), the Republic of Korea (369,526), Japan (263,307) and the EUIPO (251,692). Combined, the top 20 offices accounted for 94.1% of active industrial design registrations globally.

About 4.4 million of the active industrial design registrations in force at 90 offices in 2020 can be distributed according to the year in which they were first registered (figure C29). One-quarter of the industrial design applications registered in 2006 remained in force in 2020. Half of those registered in 2011 remained in force in 2020, along with over two-thirds of those registered in 2015.

The average age of active industrial design registrations varied across offices. For example, in 2020, the average age of all the industrial design registrations in force in Israel was 10.4 years, and in China 2.9 years (figure C30).

Designs in Hague applications fell by nearly 15% in 2020

The Hague System offers applicants an advantageous way of seeking industrial design protection internationally as an alternative to using the Paris Convention for the Protection of Industrial Property. For further information and statistics on the System, see WIPO's *Hague Yearly Review 2021*.

Hague international applications dropped by 1.6% in 2020, to 5,799 applications. Moreover, the number of designs contained in applications fell for the first time since 2006, by 14.7% to 18,636 designs (figure C35). A fall in the number of designs originating from Germany, Italy and the Republic of Korea accounts for a large proportion of the overall decrease seen in 2020.

Applicants based in Europe (64.1%) accounted for a large majority of all designs filed in 2020 (figure C36). Following the recent accession by a number of countries outside Europe, such as Japan, the Republic of Korea and the U.S., the proportion of designs originating from Asia and North America has grown, from 3.1% and 7.8%, respectively, in 2010, to 22.9% and 12.7%, respectively, in 2020.

With 703 international applications filed containing 3,666 designs, Germany remained the biggest user of the Hague System in 2020 (figure C37). The U.S. (2,217) moved up from sixth to second position, while Switzerland (1,948) remained in third place. The Republic of Korea and Italy ranked fourth and fifth, with 1,669 and 1,231 designs, respectively. Japan – a recent member – has gradually moved up the ranking. It was the seventh most active user of the Hague System in 2020. China, which is not a member of the Hague System, ranked in ninth position.

Of the top 10 origins, the U.S. (+63.1%), Turkey (+36.2%) and China (+22.7%) were the three that saw growth in 2020. In contrast, the sharpest falls came from applicants residing in the Republic of Korea (–39%), Italy (–38.3%) and France (–28.1%).

Since 2010, the European Union (EU) has remained the most designated Hague member in international applications, with 13,305 designs designated in 2020 (figure C38). It was followed by Switzerland (7,858), the U.K. (6,501) and the U.S. (5,047). Of the top 10 designated Hague members, the U.K. (+49.3%), Canada (+12%) and Japan (+4.4%) saw increases in designs in designations in 2020, whereas Norway (–33.1%) and Singapore (–32%) experienced the two sharpest falls.

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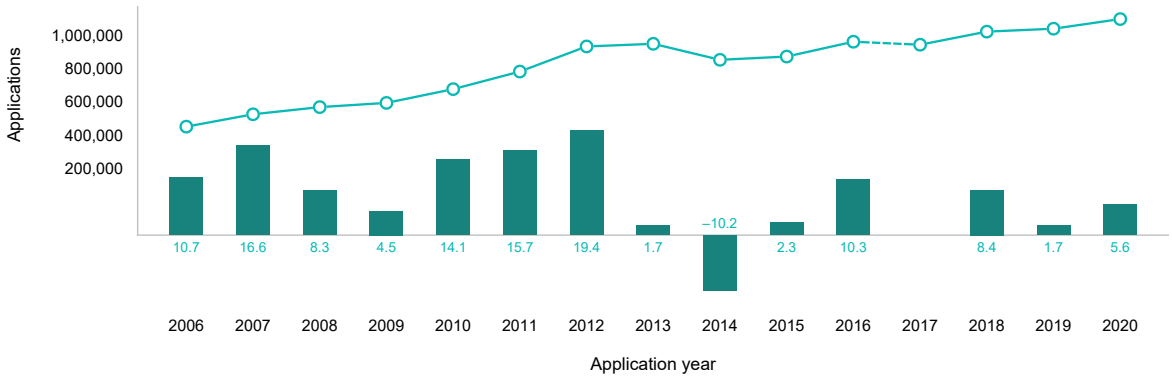
Industrial design applications and registrations worldwide

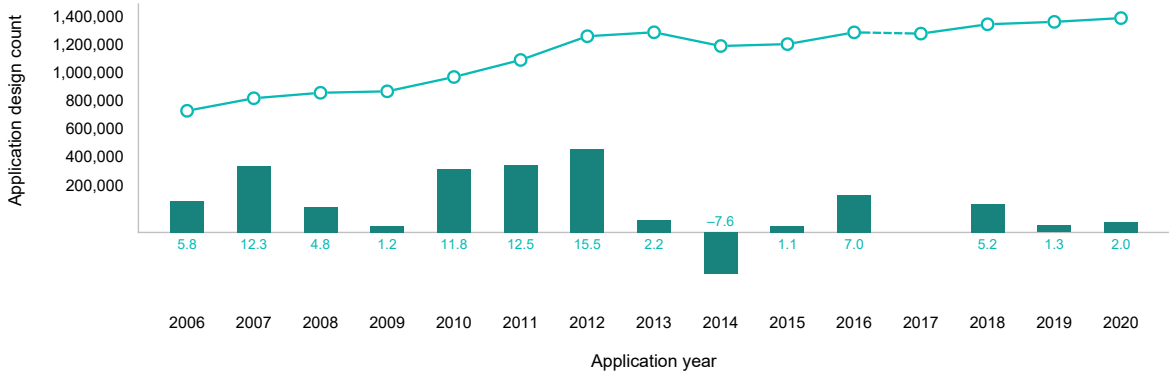
C1. Trend in industrial design applications worldwide, 2006–2020



Note: From 2017 onwards, patent application data provided by the IP office of China include only applications for which the office has received the necessary application fees. As China accounts for the bulk of the global total, it is not therefore possible to report the 2017 worldwide application growth rate. World totals are WIPO estimates using data covering 151 IP offices. These totals include applications filed directly with national and regional offices (known as the Paris route), as well as the designations received via the Hague System (where applicable).

Source: WIPO Statistics Database, September 2021.

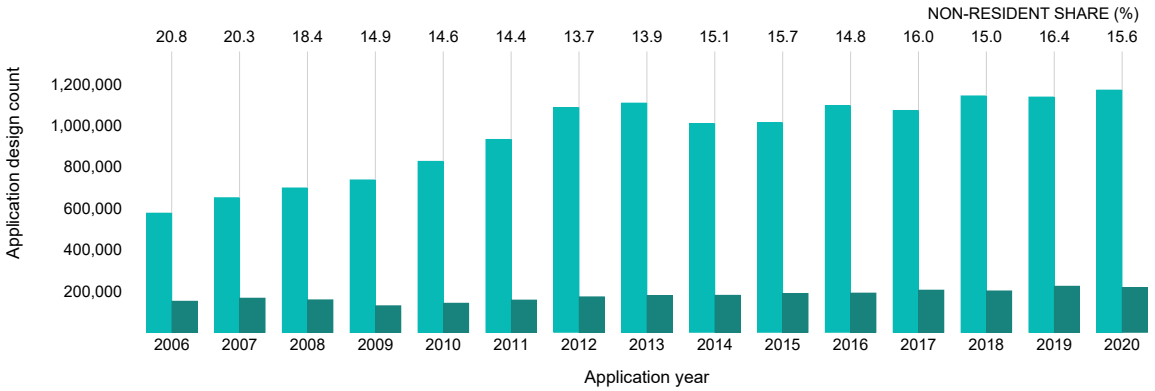
C2. Trend in application design counts worldwide, 2006–2020



Note: From 2017 onwards, patent application data provided by the IP office of China include only applications for which the office has received the necessary application fees. As China accounts for the bulk of the global total, it is therefore not possible to report the 2017 worldwide application growth rate. World totals are WIPO estimates using data covering 151 IP offices. These totals include design counts in applications filed directly with national and regional offices (known as the Paris route), as well as design counts in designations received via the Hague System (where applicable). See the glossary for the definition of design count.

Source: WIPO Statistics Database, September 2021.

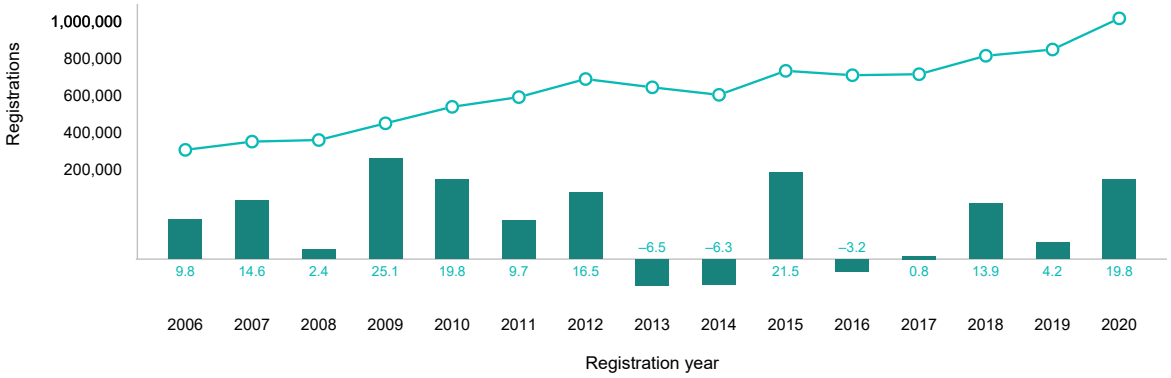
C3. Resident and non-resident application design counts worldwide, 2006–2020



Note: World totals are WIPO estimates using data covering 151 IP offices. These totals include design counts in applications filed directly with national and regional offices (known as the Paris route), as well as design counts in designations received via the Hague System (where applicable). See the glossary for the definition of design count.

Source: WIPO Statistics Database, September 2021.

C4. Trend in industrial design registrations worldwide, 2006–2020



Note: World totals are WIPO estimates using data covering 143 IP offices. These totals include the registrations issued by national and regional offices for applications filed directly with offices (known as the Paris route), as well as for designations received via the Hague System (where applicable).

Source: WIPO Statistics Database, September 2021.

C5. Trend in registration design counts worldwide, 2006–2020

Note: World totals are WIPO estimates using data covering 143 IP offices. These totals include design counts in registrations issued by national and regional offices for applications filed directly with offices (known as the Paris route), as well as for designations received via the Hague System (where applicable). See the glossary for the definition of design count.

Source: WIPO Statistics Database, September 2021.

C6. Resident and non-resident registration design counts worldwide, 2006–2020

Note: World totals are WIPO estimates using data covering 143 IP offices. These totals include design counts in registrations issued by national and regional offices for applications filed directly with offices (known as the Paris route), as well as for designations received via the Hague System (where applicable). See the glossary for the definition of design count.

Source: WIPO Statistics Database, September 2021.

Industrial design applications and registrations by office

C7. Application design counts by income group, 2010 and 2020

	Number of designs in applications		Resident share (%)		Share of world total (%)		Average growth (%)
Income group	2010	2020	2010	2020	2010	2020	2010–2020
High-income	432,500	465,100	62.6	68.2	44.7	33.5	0.7
Upper middle-income	499,400	861,400	92.4	94.6	51.6	62.1	5.6
Upper middle-income without China	*78,127*	*91,038*	*65.1*	*68.9*	*8.1*	*6.6*	*1.5*
Lower middle-income	34,100	58,800	59.0	75.3	3.5	4.2	5.6
Low-income	2,500	2,500	62.5	60.4	0.3	0.2	0.0
World	**968,500**	**1,387,800**	**85.4**	**84.4**	**100.0**	**100.0**	**3.7**

Note: Totals by income group are WIPO estimates using data covering 151 IP offices. Each category includes the following number of offices: high-income economies (54), upper middle-income (44), lower middle-income (39) and low-income (14). Data for the European Union Intellectual Property Office are allocated to the high-income group, because most EU member states are high-income countries. For the same reason, data for the African Regional Intellectual Property Organization and the African Intellectual Property Organization are allocated to the low-income group. For information on income group classification, see the Data description section.

Source: WIPO Statistics Database, September 2021.

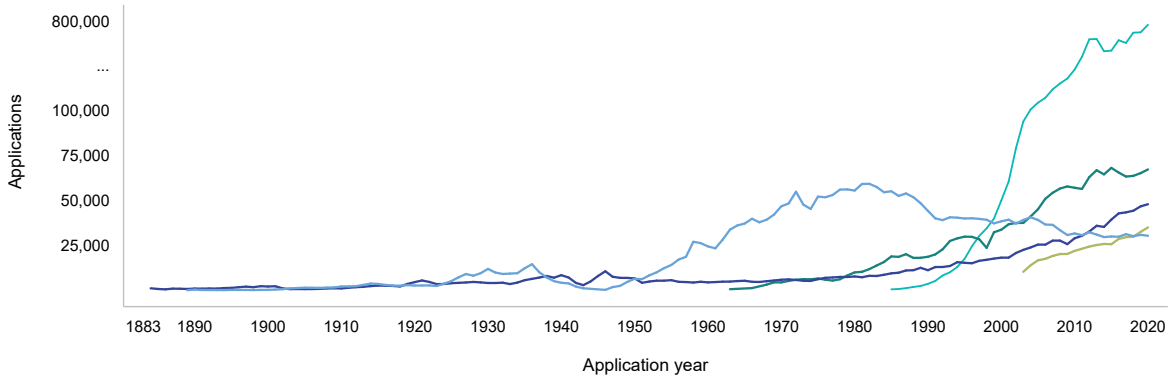
C8. Application design counts by region, 2010 and 2020

	Number of designs in applications		Resident share (%)		Share of world total (%)		Average growth (%)
Region	2010	2020	2010	2020	2010	2020	2010–2020
Africa	17,100	15,500	59.7	71.9	1.8	1.1	–1.0
Asia	588,900	983,800	92.5	93.7	60.8	70.9	5.3
Europe	304,900	306,300	55.2	69.3	31.5	22.1	0.0
Latin America and the Caribbean	14,500	15,100	54.2	50.2	1.5	1.1	0.4
North America	34,200	58,300	51.3	38.5	3.5	4.2	5.5
Oceania	8,900	8,800	48.2	34.5	0.9	0.6	–0.1
Total	**968,500**	**1,387,800**	**85.4**	**84.4**	**100.0**	**100.0**	**3.7**

Note: Totals by geographical region are WIPO estimates using data covering 151 IP offices. Each region includes the following number of offices: Africa (32), Asia (42), Europe (41), Latin America and the Caribbean (29), North America (2) and Oceania (5). For information on geographical region classification, see the Data description section.

Source: WIPO Statistics Database, September 2021.

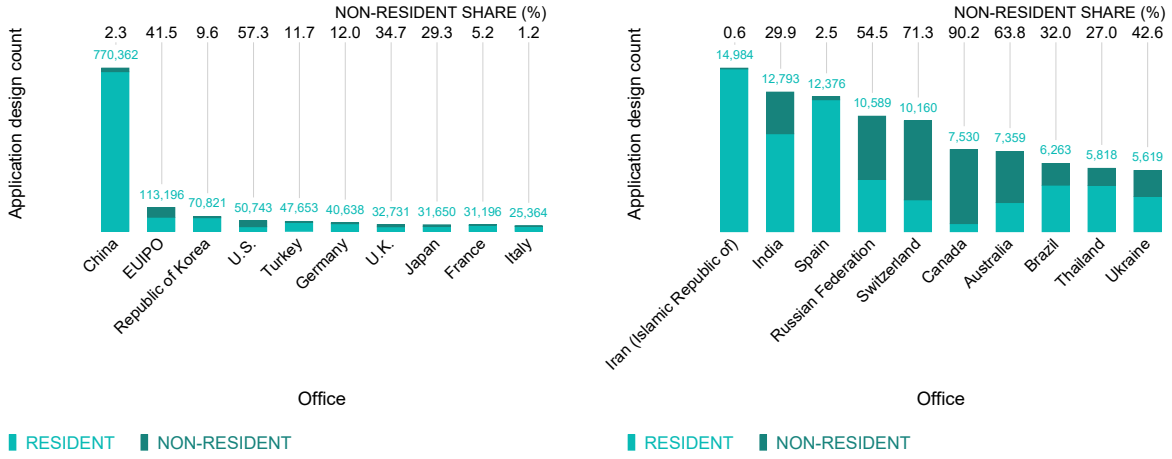
C9. Trend in industrial design applications for the top five offices, 1883–2020



Note: The decrease in applications at the IP office of China in 2017 is most likely explained by the new way in which that office counts its applications data. Starting from 2017, China's application count data include only applications for which the office has received the necessary application fees. EUIPO is the European Union Intellectual Property Office. Data are based on the numbers of applications filed; that is, differences between single-design and multiple-design filing systems across IP offices are not taken into account. The top five offices are selected based on 2020 totals.

Source: WIPO Statistics Database, September 2021.

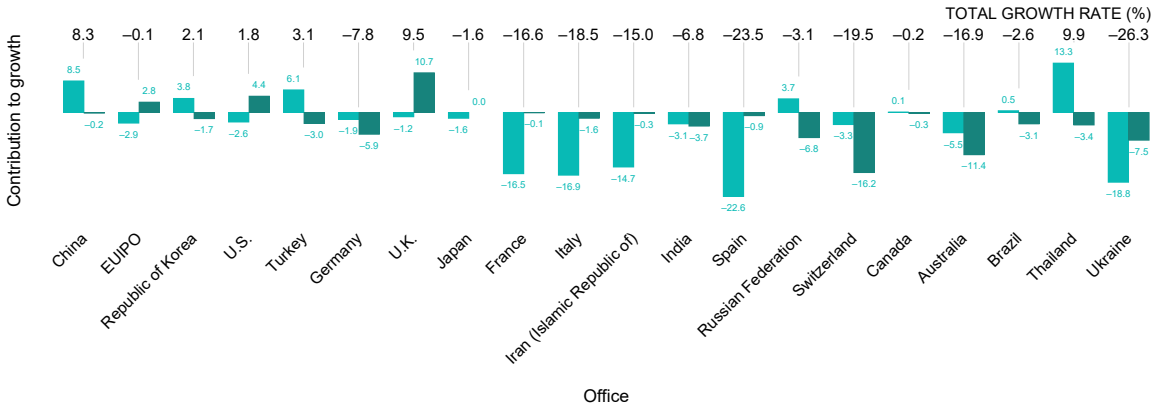
C10. Application design counts for the top 20 offices, 2020



Note: EUIPO is the European Union Intellectual Property Office.

Source: WIPO Statistics Database, September 2021.

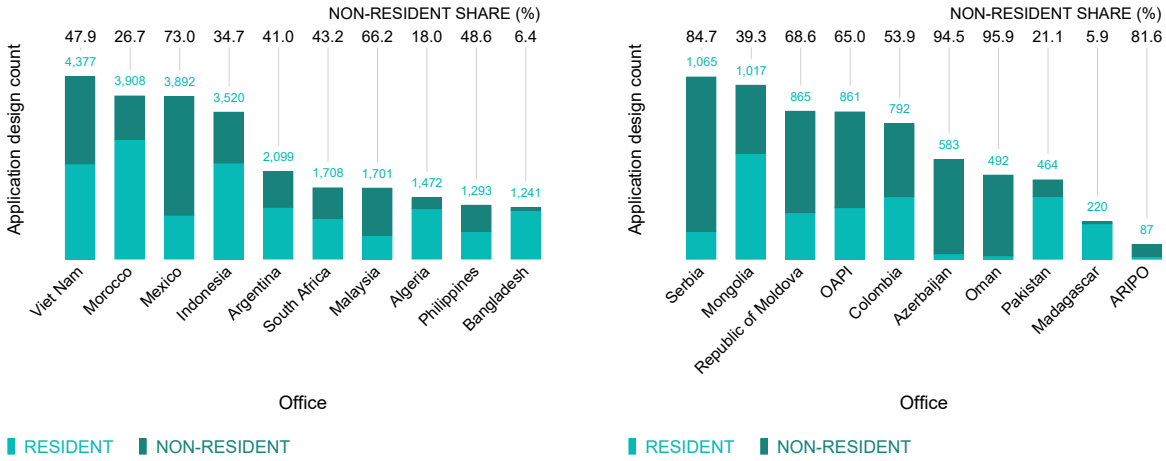
C11. Contribution of resident and non-resident application design counts to total growth for the top 20 offices, 2019–2020



Note: EUIPO is the European Union Intellectual Property Office. This figure shows total growth in application design counts, broken down by the respective contributions of resident and non-resident filings. For example, total design counts in Germany decreased by 7.8%, with resident applicants contributing 1.9 percentage points to the overall decline and non-resident applicants 5.9 percentage points.

Source: WIPO Statistics Database, September 2021.

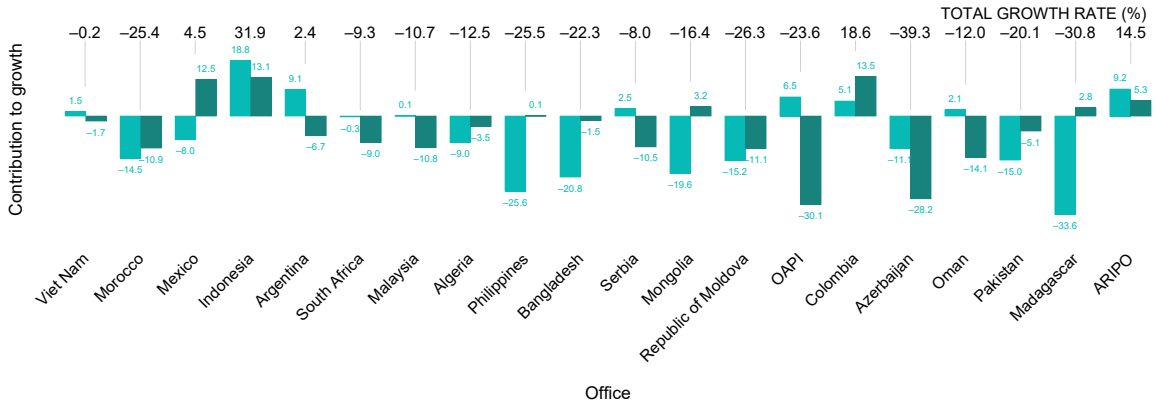
C12. Application design counts for offices of selected low- and middle-income countries, 2020



Note: ARIPO is the African Regional Intellectual Property Organization and OAPI is the African Intellectual Property Organization. The selected offices are from different world regions and income groups (low-income, lower middle-income and upper middle-income). Where available, data for every office is presented in the statistical table at the end of this section.

Source: WIPO Statistics Database, September 2021.

C13. Contribution of resident and non-resident application design counts to total growth for offices of selected low- and middle-income countries, 2019–2020



Note: ARIPO is the African Regional Intellectual Property Organization and OAPI is the African Intellectual Property Organization. The selected offices are from different world regions and income groups (low-income, lower middle-income and upper middle-income). Where available, data for every office is presented in the statistical table at the end of this section. This figure shows total growth in design counts, broken down by the respective contributions made by resident and non-resident filings. For example, the total design count in Indonesia grew by 31.9%, with resident applicants contributing 18.8 percentage points to overall growth and non-resident applicants 13.1 percentage points.

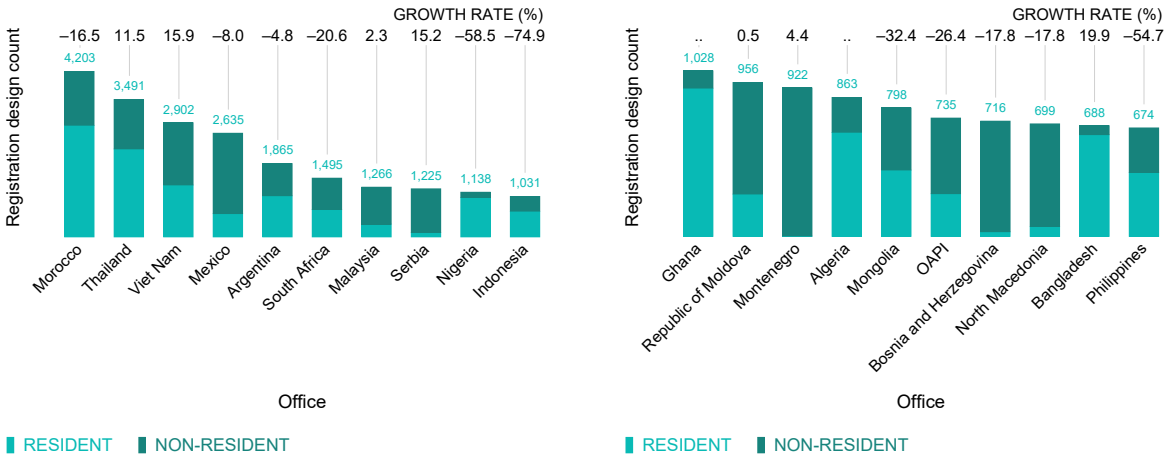
Source: WIPO Statistics Database, September 2021.

C14. Registration design counts for the top 20 offices, 2020

Note: EUIPO is the European Union Intellectual Property Office.

Source: WIPO Statistics Database, September 2021.

C15. Registration design counts for offices of selected low- and middle-income countries, 2020



Note: OAPI is the African Intellectual Property Organization. The selected offices are from different world regions and income groups (low-income, lower middle-income and upper middle-income). Where available, data for every offices is presented in the statistical table at the end of this section.

.. indicates not available.

Source: WIPO Statistics Database, September 2021.

Application design counts by origin

C16. Equivalent application design counts for the top 20 origins, 2020

Note: The origin of an industrial design application is determined by the residence of the first named applicant. An application filed at a regional office is considered to be a resident filing, if the applicant is a resident of one of that office's member states. Applications filed at some regional offices are considered equivalent to multiple applications in the member states of those offices. See the glossary for the definition of equivalent application and design count.

Source: WIPO Statistics Database, September 2021.

C17. Application design counts for the top 20 origins, 2020

Note: Data are based on absolute count, not equivalent count. The origin of an industrial design application is determined by the residence of the first named applicant. An application filed at a regional office is considered to be a resident filing, if the applicant is a resident of one of that office's member states.

Source: WIPO Statistics Database, September 2021.

C18. Equivalent application design counts for selected low- and middle-income origins, 2020

Note: The selected origins are from different world regions and income groups (low-income, lower middle-income and upper middle-income). Where available, data for every origin is presented in the statistical table at the end of this section. The origin of an industrial design application is determined by the residence of the first named applicant. An application filed at a regional office is considered to be a resident filing, if the applicant is a resident of one of that office's member states. Applications filed at some regional offices are considered equivalent to multiple applications in the member states of those offices. See the glossary for the definition of equivalent application and design count.

Source: WIPO Statistics Database, September 2021.

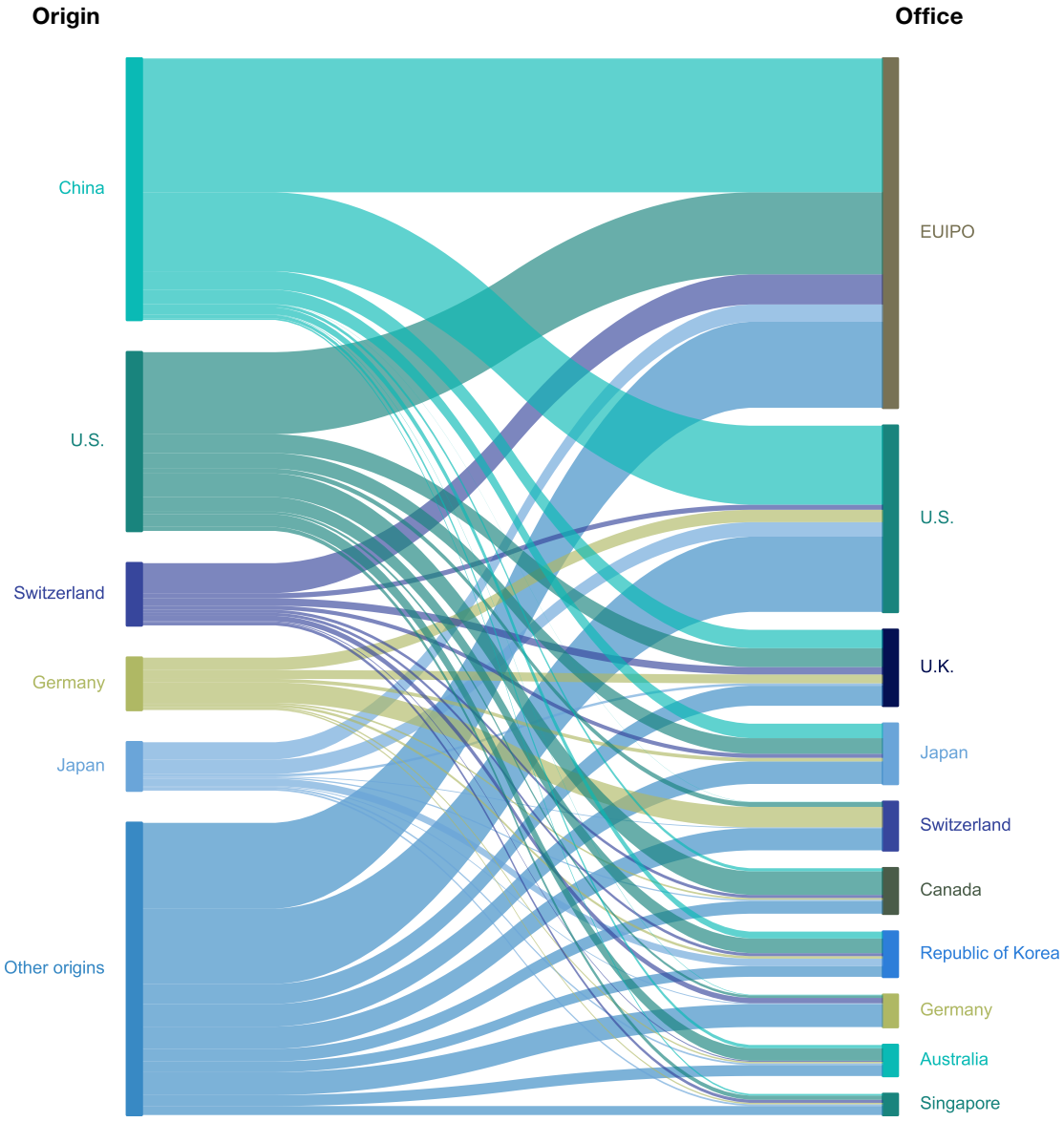
C19. Application design counts for selected low- and middle-income origins, 2020

Note: Data are based on absolute count, not equivalent count. The selected origins are from different world regions and income groups (low-income, lower middle-income and upper middle-income). Where available, data for every origin is presented in the statistical table at the end of this section. The origin of an industrial design application is determined by the residence of the first named applicant.

.. indicates not available.

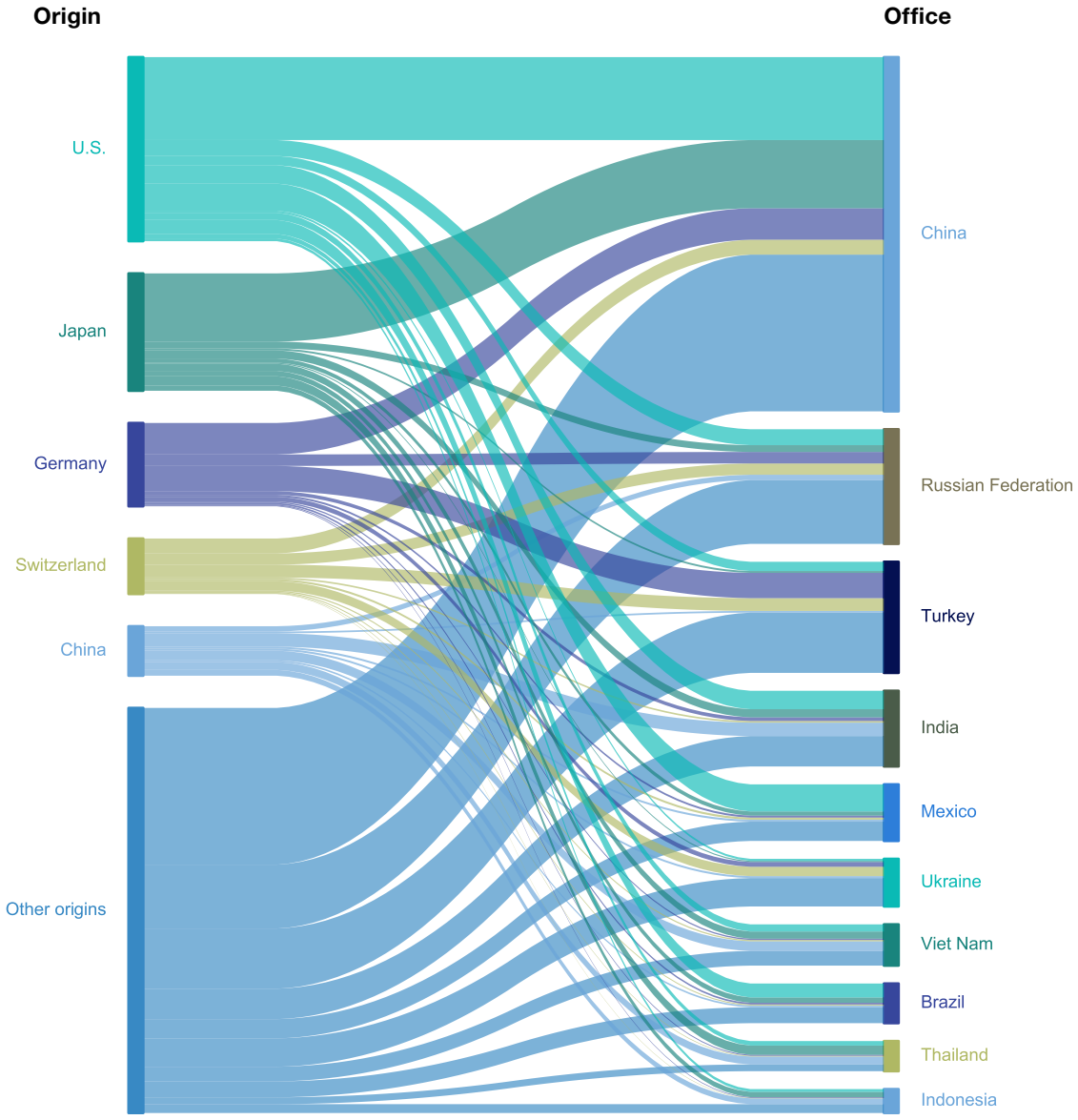
Source: WIPO Statistics Database, September 2021.

C20. Flows of non-resident application design counts for the top five origins and the top 10 offices of high-income economies, 2020



Note: EUIPO is the European Union Intellectual Property Office.
Source: WIPO Statistics Database, September 2021.

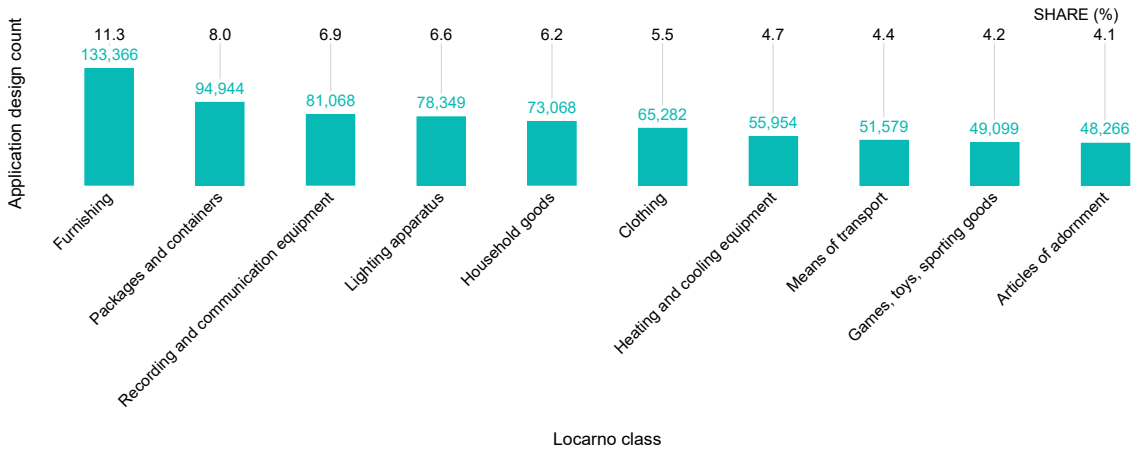
C21. Flows of non-resident application design counts for the top five origins and the top 10 offices of low- and middle-income economies, 2020



Source: WIPO Statistics Database, September 2021.

Application design counts by Locarno class and industry sector

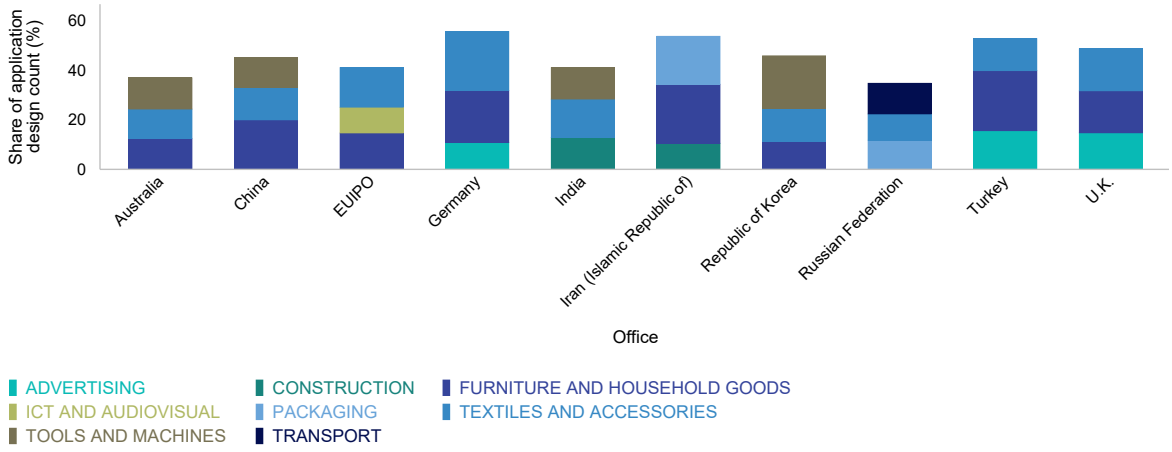
C22. Application design counts by Locarno class, 2020



Note: See annex C for class numbers. These figures are based on data from 118 IP offices. Data for several large offices are either not available or incomplete, including for the offices of Japan and the U.S.

Source: WIPO Statistics Database, September 2021.

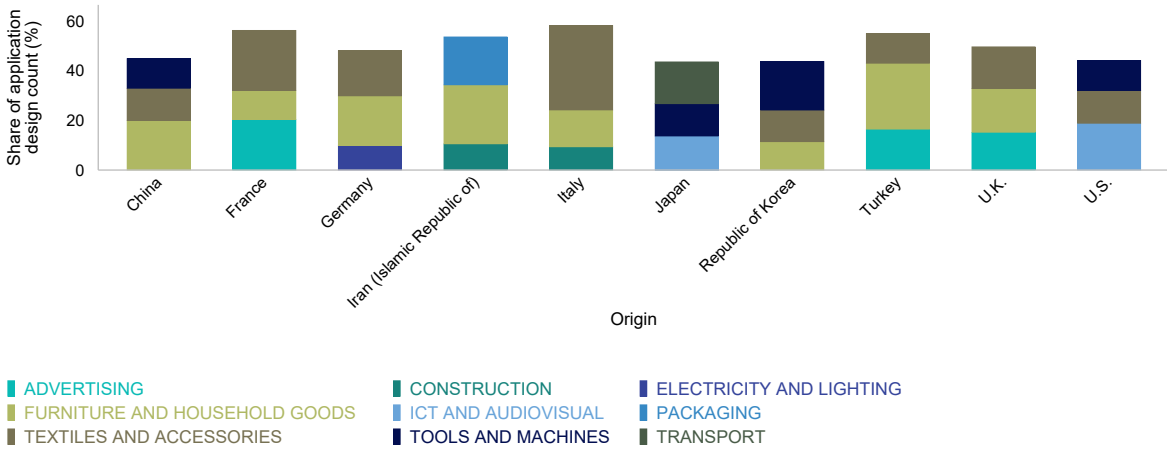
C23. Distribution of application design counts by the top three sectors for the top 10 offices, 2020



Note: EUIPO is the European Union Intellectual Property Office. A concordance table produced by the Organisation for Economic Co-operation and Development (OECD) was used to convert the 32 classes into 12 industry sectors (see annex C for definitions). The top three sectors and top 10 offices were selected based on 2020 totals.

Source: WIPO Statistics Database, September 2021.

C24. Distribution of application design counts by the top three sectors for the top 10 origins, 2020

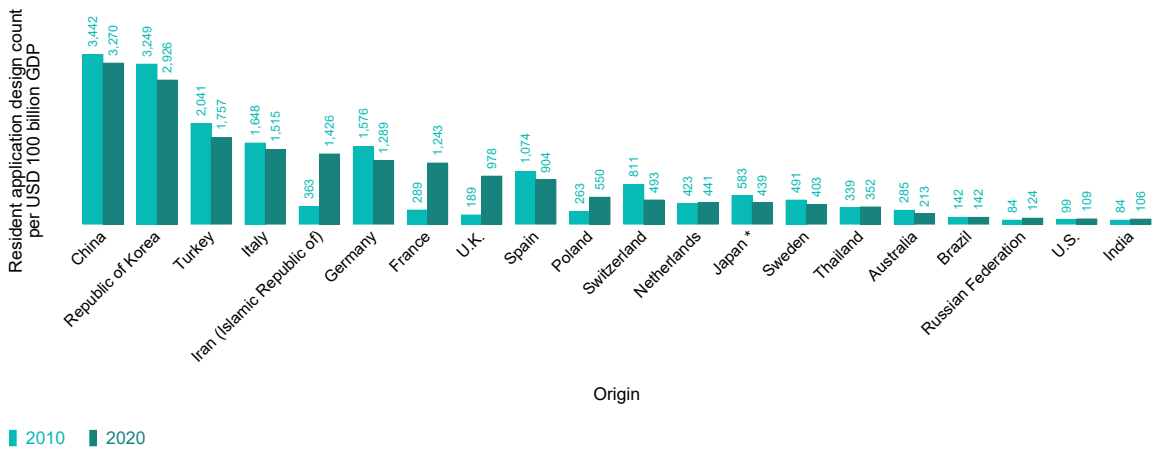


Note: A concordance table produced by the Organisation for Economic Co-operation and Development (OECD) was used to convert the 32 classes into 12 industry sectors (see annex C for definitions). These figures are based on data from 118 IP offices. Data for several large offices are either not available or incomplete, including for the offices of Japan and the U.S.

Source: WIPO Statistics Database, September 2021.

Application design count in relation to GDP and population

C25. Resident application design count per USD 100 billion of GDP for the top 20 origins, 2010 and 2020

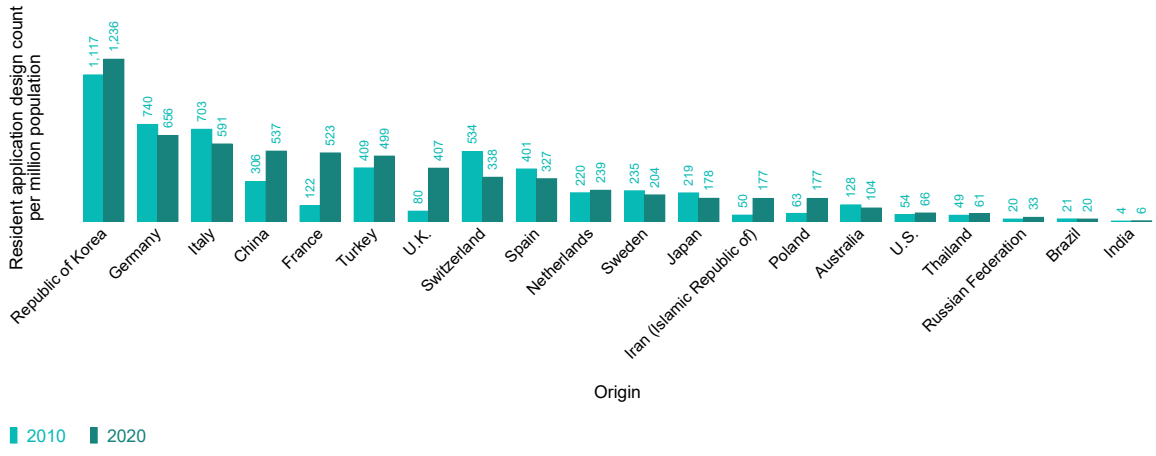


Note: GDP data are in constant 2017 US PPP dollars. Origins were selected based on the top origins list in terms of application design count and on GDP data availability.

* 2019 data.

Sources: WIPO Statistics Database and World Bank, September 2021.

C26. Resident application design count per million population for the top 20 origins, 2010 and 2020

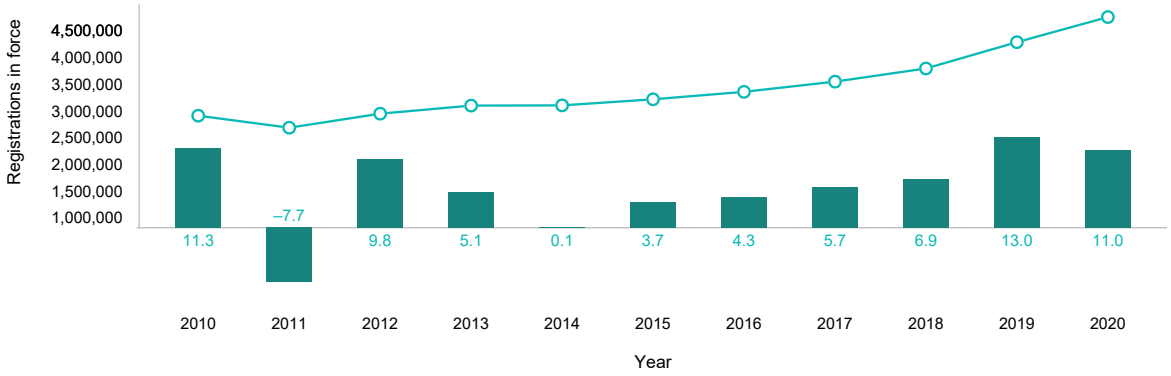


Note: Origins were selected based on the top origins list in terms of application design count and on population data availability.

Sources: WIPO Statistics Database and World Bank, September 2021.

Industrial design registrations in force

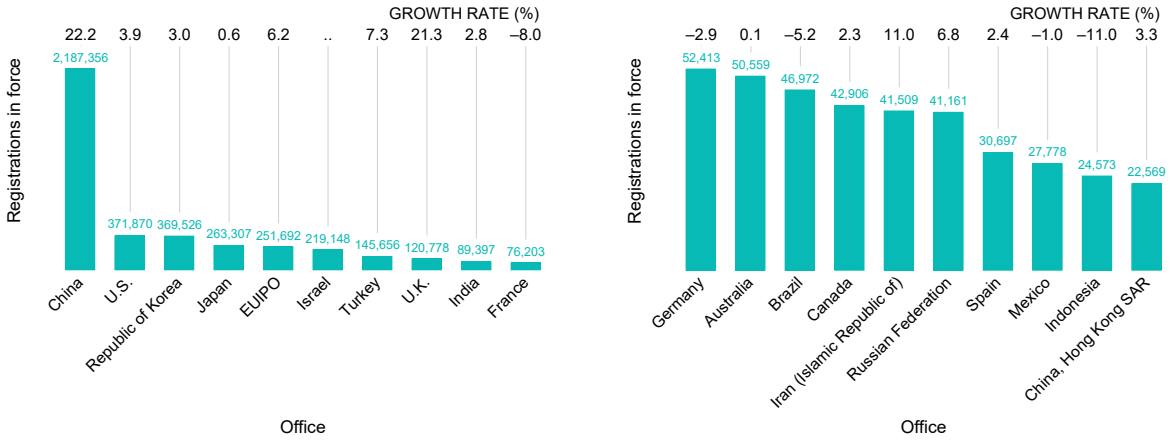
C27. Trend in industrial design registrations in force worldwide, 2010–2020



Note: WIPO estimates cover 129 IP offices and include direct national and regional applications, as well as designations received via the Hague System. Data refer to the number of industrial design registrations in force and not the number of designs contained in registrations in force.

Source: WIPO Statistics Database, September 2021.

C28. Industrial design registrations in force for the top 20 offices, 2020



Note: EUIPO is the European Union Intellectual Property Office. Data refer to the number of industrial design registrations in force and not the number of designs contained in registrations in force.

.. indicates not available.

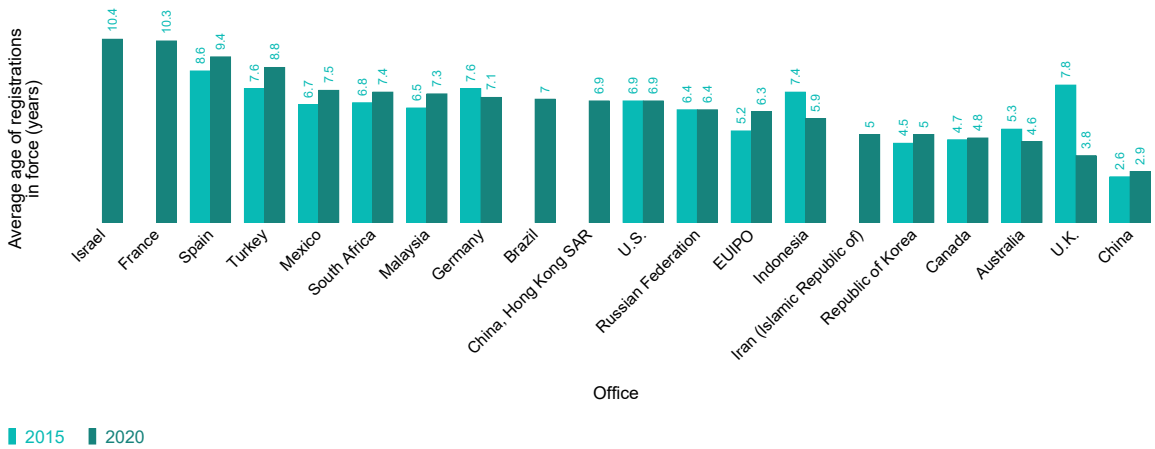
Source: WIPO Statistics Database, September 2021.

C29. Industrial design registrations in force in 2020 as a percentage of total registrations

Note: Percentages are calculated using the number of industrial designs registered in year *t* and in force in 2020 divided by the total number of industrial designs registered in year *t*. The graph is based on data from the 90 offices (including most large offices) for which a breakdown of industrial design registrations in force by year of registration was available.

Source: WIPO Statistics Database, September 2021.

C30. Average age of industrial design registrations in force at selected offices, 2015 and 2020

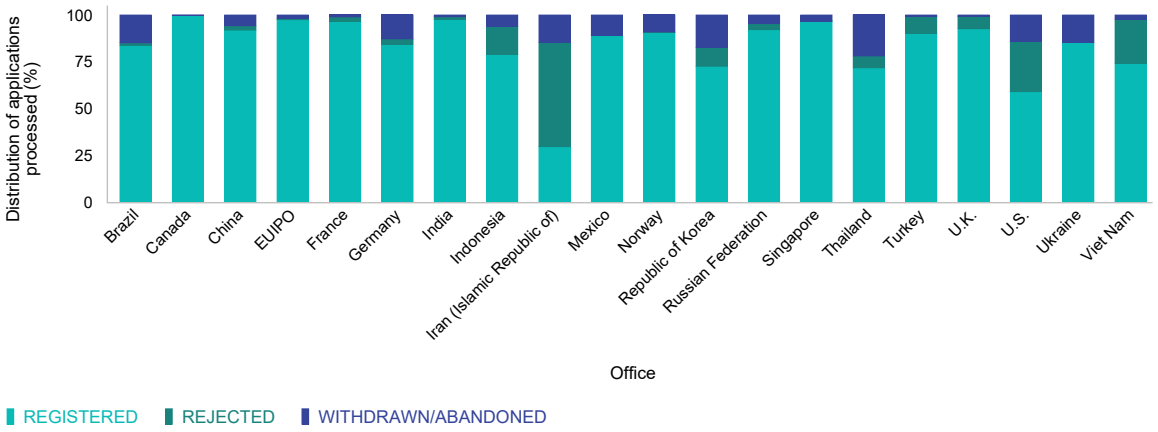


Note: EUIPO is the European Union Intellectual Property Office.

Source: WIPO Statistics Database, September 2021.

Industrial design office procedural data

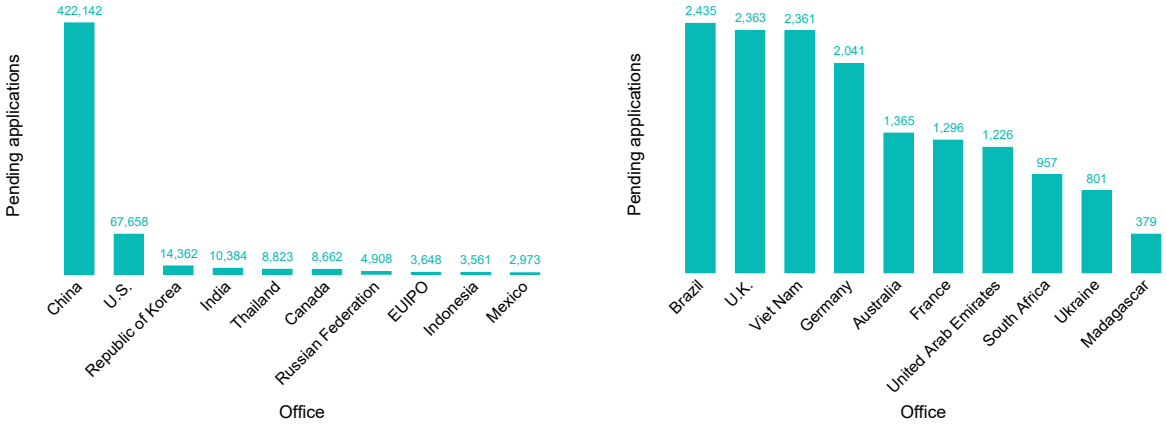
C31. Distribution of industrial design examination outcomes for selected offices, 2020



Note: EUIPO is the European Union Intellectual Property Office. WIPO collects data from IP offices using a common questionnaire and methodology. However, due to differences in industrial design procedures between offices, data cannot be fully harmonized. Therefore, caution should be exercised when making comparisons across offices.

Source: WIPO Statistics Database, September 2021.

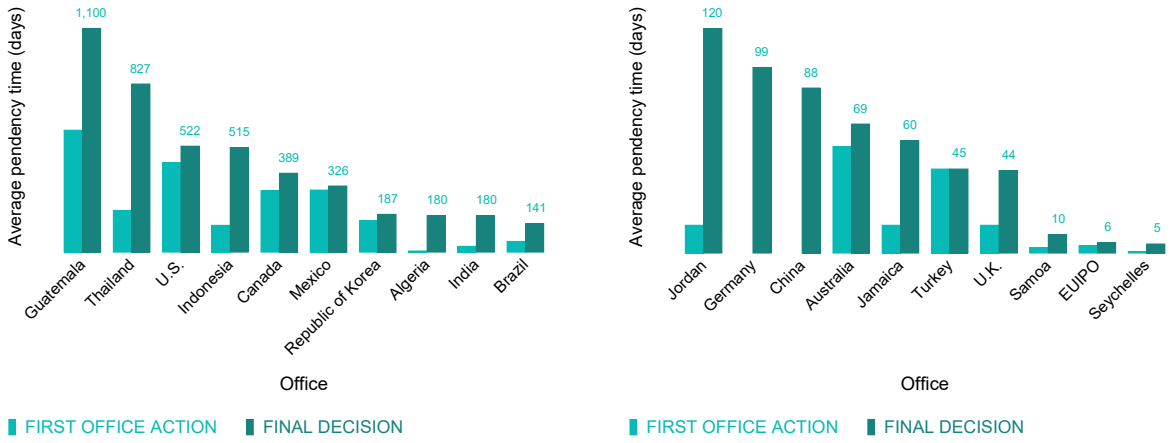
C32. Potentially pending applications for selected offices, 2020



Note: EUIPO is the European Union Intellectual Property Office. WIPO collects data from IP offices using a common questionnaire and methodology. However, due to differences in industrial design procedures between offices, data cannot be fully harmonized. Therefore, caution should be exercised when making comparisons across offices.

Source: WIPO Statistics Database, September 2021.

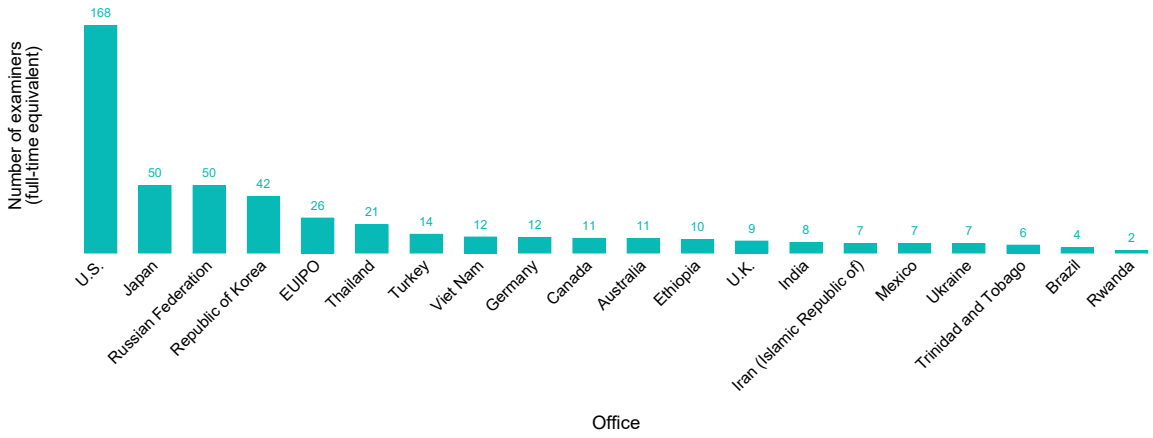
C33. Average pendency times from filing date to first office action and to final decision at selected offices, 2020



Note: EUIPO is the European Union Intellectual Property Office. WIPO collects data from IP offices using a common questionnaire and methodology. However, due to differences in industrial design procedures between offices, data cannot be fully harmonized. Therefore, caution should be exercised when making comparisons across offices.

Source: WIPO Statistics Database, September 2021.

C34. Number of industrial design examiners for selected offices, 2020

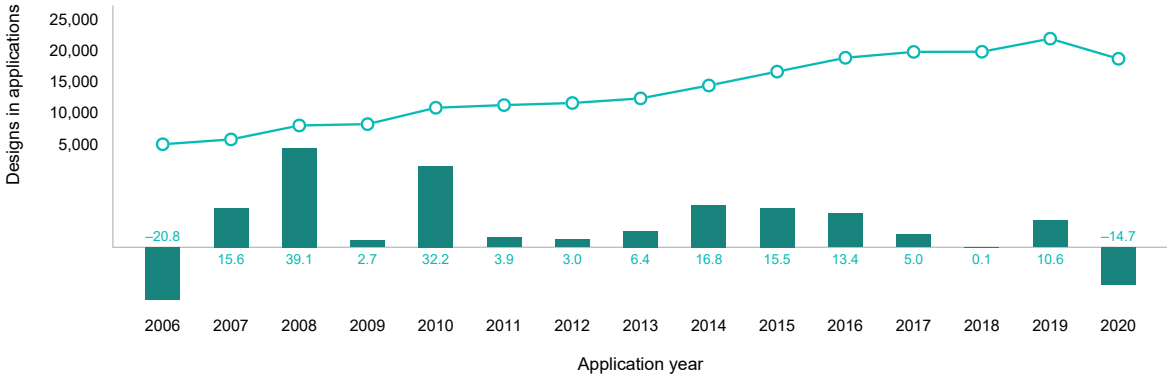


Note: EUIPO is the European Union Intellectual Property Office.

Source: WIPO Statistics Database, September 2021.

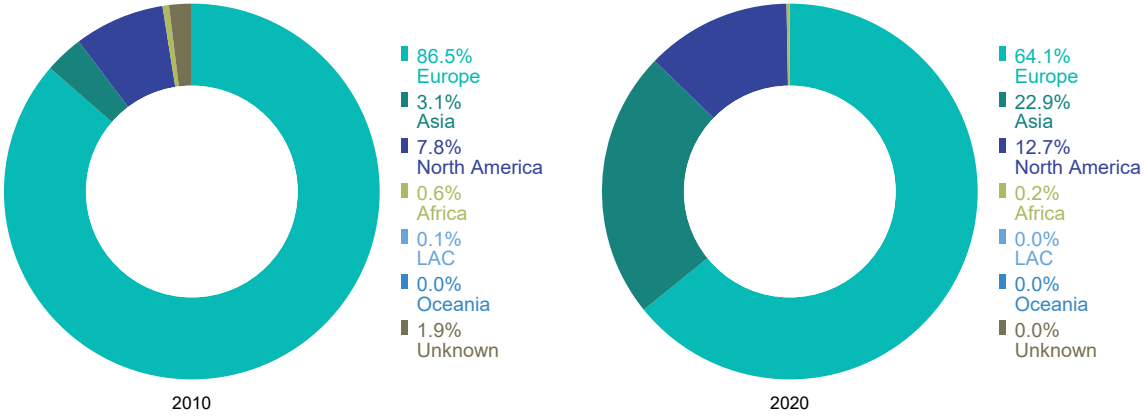
Industrial design applications through the Hague System

C35. Trend in designs contained in Hague international applications, 2006–2020



Source: WIPO Statistics Database, September 2021.

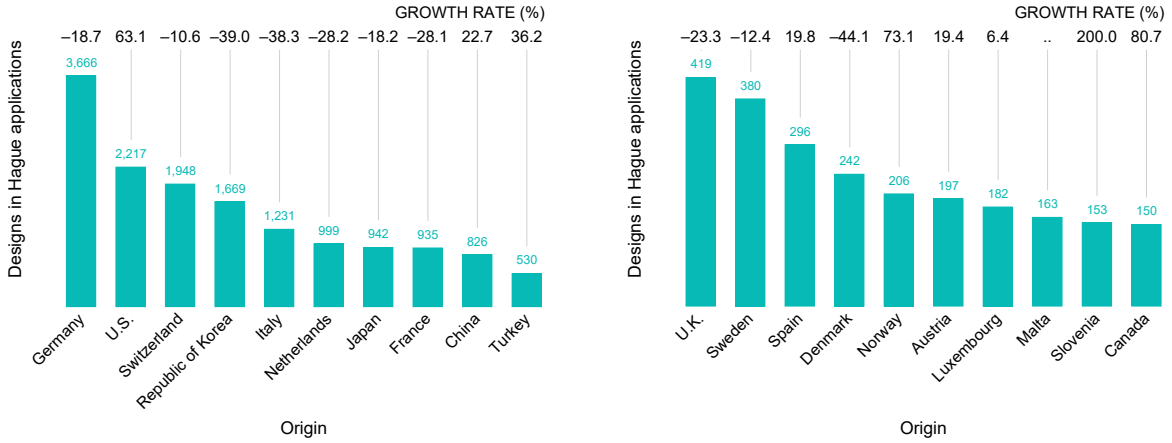
C36. Distribution of designs contained in Hague international applications by region, 2010 and 2020



Note: Each geographical region includes the following number of countries or territories: Africa (5), Asia (18), Europe (41), Latin America and the Caribbean (LAC) (4), North America (2) and Oceania (2).

Source: WIPO Statistics Database, September 2021.

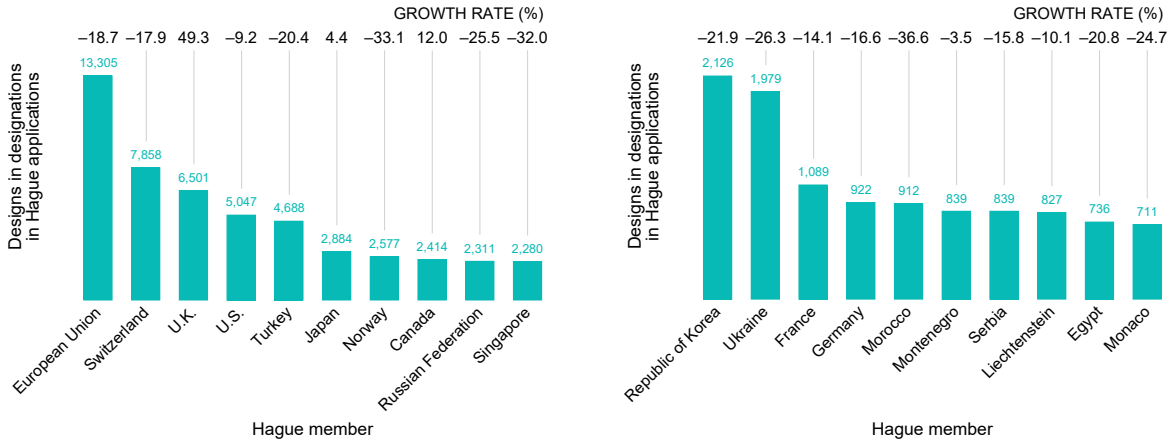
C37. Designs contained in Hague international applications for the top 20 origins, 2020



.. indicates not available.

Source: WIPO Statistics Database, September 2021.

C38. Designs contained in designations in Hague international applications for the top 20 designated Hague members, 2020



Source: WIPO Statistics Database, September 2021.

Statistical tables

C39. Industrial design applications by office and origin, 2020

Name	Application design count by office			Application design count by origin	Equivalent application design count by origin	Hague international application design count	
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [c]	Designated Hague member
Afghanistan (b)	..	..	..	7	7	..	n.a.
African Intellectual Property Organization	861	301	560	n.a.	n.a.	n.a.	506
African Regional Intellectual Property Organization	87	16	71	n.a.	n.a.	n.a.	n.a.
Albania	548	38	510	58	139	3	507
Algeria	1,472	1,207	265	1,207	1,207	..	n.a.
Andorra (b)	..	..	..	25	268	7	n.a.
Angola (b)	..	..	..	1	1	..	n.a.
Argentina	2,099	1,238	861	1,289	1,694	2	n.a.
Armenia	407	30	377	62	251	7	374
Australia	7,359	2,664	4,695	4,889	15,680	8	n.a.
Austria	373	318	55	4,047	69,827	197	n.a.
Azerbaijan	583	32	551	36	36	..	526
Bahamas (b)	..	..	..	20	20	..	n.a.
Bahrain	73	13	60	16	70	..	n.a.
Bangladesh	1,241	1,162	79	1,163	1,163	..	n.a.
Barbados (b)	..	..	..	323	3,860	..	n.a.
Belarus	409	153	256	237	264	..	n.a.
Belgium	n.a.	n.a.	n.a.	2,689	34,785	142	n.a.
Belize	270	5	265	6	6	..	265
Benelux Office for Intellectual Property	1,299	948	351	n.a.	n.a.	n.a.	413
Benin (b,d)	n.a.	n.a.	n.a.	5	85	..	52
Bermuda (b)	..	..	..	2	2	..	n.a.
Bhutan	9	9	0	9	9	..	n.a.
Bolivia (Plurinational State of) (b)	..	..	..	2	2	..	n.a.
Bosnia and Herzegovina	843	149	694	164	299	6	676
Botswana (b)	..	..	..	..	..	..	89
Brazil	6,263	4,258	2,005	4,472	5,417	..	n.a.
Brunei Darussalam	172	0	172	..	..	..	109
Bulgaria	782	534	248	935	10,790	8	242
Burkina Faso (b,d)	n.a.	n.a.	n.a.	15	223	..	n.a.
Cabo Verde	4	4	0	4	4	..	n.a.
Cambodia	288	19	269	19	19	..	198
Cameroon (b,d)	n.a.	n.a.	n.a.	31	479	3	n.a.
Canada	7,530	738	6,792	2,584	15,114	150	2,414
Central African Republic (b,d)	n.a.	n.a.	n.a.	1	17	..	n.a.
Chad (b,d)	n.a.	n.a.	n.a.	39	663	..	n.a.
Chile	459	77	382	121	364	..	n.a.
China	770,362	752,339	18,023	795,504	1,336,233	826	n.a.
China, Hong Kong SAR	3,878	1,088	2,790	2,842	28,238	..	n.a.
China, Macao SAR	207	34	173	78	1,239	..	n.a.
Colombia	792	365	427	405	405	..	n.a.
Congo (b,d)	n.a.	n.a.	n.a.	2	34	..	n.a.
Costa Rica	78	9	69	11	11	..	n.a.
Côte d'Ivoire (b,d)	n.a.	n.a.	n.a.	97	1,649	..	69
Croatia	948	250	698	773	3,392	37	695

Name	Application design count by office			Application design count by origin	Equivalent application design count by origin	Hague international application design count	
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [c]	Designated Hague member
Cuba	23	19	4	20	20	..	n.a.
Cyprus	82	82	0	590	4,488	99	n.a.
Czech Republic	676	612	64	2,187	25,477	77	n.a.
Democratic People's Republic of Korea (b)	..	..	..	31	63	..	152
Denmark	431	142	289	4,157	60,558	242	278
Djibouti (b)	..	..	..	1	1	..	n.a.
Dominican Republic	16	4	12	7	7	..	n.a.
Ecuador	116	53	63	55	55	..	n.a.
Egypt (b)	..	..	..	364	1,012	24	736
El Salvador	34	9	25	9	9	..	n.a.
Estonia	140	40	100	337	5,429	16	100
Eswatini (b)	..	..	..	3	84	3	n.a.
European Union Intellectual Property Office	113,196	66,241	46,955	n.a.	n.a.	n.a.	13,305
Finland	239	141	98	2,090	30,839	45	95
France	31,196	29,572	1,624	42,603	195,899	935	1,089
Gabon (b,d)	n.a.	n.a.	n.a.	7	119	..	29
Gambia	1	0	1	..	..	..	n.a.
Georgia	602	145	457	152	152	..	426
Germany	40,638	35,764	4,874	71,262	581,330	3,666	922
Ghana	1,052	924	128	944	946	6	96
Greece	1,075	801	274	1,323	10,773	143	272
Guatemala	137	6	131	7	7	..	n.a.
Guinea (b,d)	n.a.	n.a.	n.a.	54	918	..	n.a.
Guinea-Bissau (b,d)	n.a.	n.a.	n.a.	3	51	..	n.a.
Guyana (b)	..	..	..	1	17	..	n.a.
Holy See (b)	..	..	..	2	2	..	n.a.
Honduras (b)	..	..	..	1	1	..	n.a.
Hungary	604	515	89	864	7,047	23	79
Iceland	414	8	406	12	12	..	402
India	12,793	8,962	3,831	9,565	11,849	1	n.a.
Indonesia	3,520	2,300	1,220	2,345	2,372	..	n.a.
Iran (Islamic Republic of)	14,984	14,896	88	14,921	14,948	..	n.a.
Iraq (b)	..	..	..	15	15	..	n.a.
Ireland	248	234	14	1,102	17,545	7	n.a.
Israel	1,762	746	1,016	2,345	12,969	101	634
Italy	25,364	25,058	306	44,404	317,528	1,231	191
Jamaica	217	211	6	211	211	..	n.a.
Japan	31,650	22,392	9,258	37,357	107,809	942	2,884
Jordan	89	74	15	167	534	7	n.a.
Kazakhstan (b)	..	..	..	15	15	..	n.a.
Kenya	239	220	19	223	223	..	n.a.
Kuwait (b)	..	..	..	6	6	..	n.a.
Kyrgyzstan	342	18	324	179	881	13	326
Lao People's Democratic Republic	36	0	36	..	..	..	n.a.
Latvia	212	141	71	439	4,030	35	71

Name	Application design count by office			Application design count by origin	Equivalent application design count by origin	Hague international application design count	
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [c]	Designated Hague member
Lebanon (b)	..	..	..	10	174	..	n.a.
Liberia (b)	..	..	..	1	2	..	n.a.
Liechtenstein	871	62	809	427	2,970	24	827
Lithuania	610	106	504	304	4,300	23	503
Luxembourg	n.a.	n.a.	n.a.	2,378	13,251	182	n.a.
Madagascar	220	207	13	208	235	..	n.a.
Malaysia	1,701	575	1,126	804	1,224	1	n.a.
Mali (b,d)	n.a.	n.a.	n.a.	14	206	..	20
Malta	36	35	1	1,638	6,822	163	n.a.
Marshall Islands (b)	..	..	..	1	1	..	n.a.
Mauritius	86	84	2	89	105	..	n.a.
Mexico	3,892	1,050	2,842	1,215	1,944	2	622
Monaco	730	7	723	203	851	9	711
Mongolia	1,017	617	400	621	621	..	390
Montenegro	853	1	852	1	1	..	839
Morocco	3,908	2,863	1,045	2,920	3,061	8	912
Mozambique (b)	..	..	..	1	2	..	n.a.
Myanmar (b)	..	..	..	1	1	..	n.a.
Namibia	125	33	92	90	134	..	92
Nepal (b)	..	..	..	1	1	..	n.a.
Netherlands	n.a.	n.a.	n.a.	9,539	107,954	999	n.a.
New Zealand	1,367	352	1,015	1,197	6,262	1	n.a.
Niger (b,d)	n.a.	n.a.	n.a.	1	17	..	21
Nigeria	1,216	1,016	200	1,027	1,124	..	n.a.
North Macedonia	665	40	625	90	314	11	613
Norway	3,314	480	2,834	1,433	9,182	206	2,577
Oman	492	20	472	21	21	1	473
Pakistan	464	366	98	373	373	..	n.a.
Panama	42	0	42	8	116	..	n.a.
Papua New Guinea	5	3	2	3	3	..	n.a.
Paraguay	113	30	83	31	31	..	n.a.
Peru	276	93	183	95	95	..	n.a.
Philippines	1,293	665	628	694	775	..	n.a.
Poland	2,080	1,939	141	7,100	136,327	54	119
Portugal	1,764	1,720	44	2,591	22,361	18	n.a.
Qatar (b)	..	..	..	24	429	..	n.a.
Republic of Korea	70,821	64,005	6,816	75,194	134,112	1,669	2,126
Republic of Moldova	865	272	593	302	426	11	588
Romania	912	543	369	951	10,644	10	354
Russian Federation	10,589	4,816	5,773	6,077	12,379	113	2,311
Rwanda	87	6	81	6	6	..	81
Samoa	80	19	61	20	20	..	61
San Marino	139	3	136	47	587	4	118
Sao Tome and Principe (b)	..	..	..	..	..	..	76
Saudi Arabia	948	537	411	567	648	..	n.a.
Senegal (b,d)	n.a.	n.a.	n.a.	33	561	..	51

Name	Application design count by office			Application design count by origin	Equivalent application design count by origin	Hague international application design count	
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [c]	Designated Hague member
Serbia	1,065	163	902	300	1,060	28	839
Seychelles	8	0	8	10	64	..	n.a.
Singapore	3,566	394	3,172	1,312	8,224	53	2,280
Slovakia	368	280	88	498	5,833	4	n.a.
Slovenia (b)	..	..	..	597	7,750	153	582
South Africa	1,708	970	738	1,195	2,779	..	n.a.
Spain	12,376	12,071	305	17,383	110,103	296	152
Sri Lanka	281	249	32	297	459	..	n.a.
Sudan	250	243	7	244	244	..	n.a.
Suriname (b)	..	..	..	..	..	..	70
Sweden	297	287	10	5,482	55,089	380	n.a.
Switzerland	10,160	2,915	7,245	20,381	143,055	1,948	7,858
Syrian Arab Republic	574	447	127	449	449	..	80
Tajikistan (b)	..	..	..	..	..	..	167
Thailand	5,818	4,245	1,573	4,683	5,304	..	n.a.
Togo (b,d)	n.a.	n.a.	n.a.	6	102	..	n.a.
Trinidad and Tobago	19	15	4	16	16	..	n.a.
Tunisia (b)	..	..	..	106	133	..	707
Turkey	47,653	42,073	5,580	44,326	62,469	530	4,688
Turkmenistan (b)	..	..	..	..	..	..	136
Uganda	45	44	1	46	48	..	n.a.
Ukraine	5,619	3,228	2,391	3,545	5,597	80	1,979
United Arab Emirates	686	52	634	144	624	2	n.a.
United Kingdom	32,731	21,361	11,370	32,874	196,183	419	6,501
United States of America	50,743	21,686	29,057	61,874	393,719	2,217	5,047
Uruguay (b)	..	..	..	4	4	..	n.a.
Uzbekistan	180	149	31	152	152	..	n.a.
Venezuela (Bolivarian Republic of)	26	26	0	27	27	..	n.a.
Viet Nam	4,377	2,279	2,098	2,482	2,590	4	525
Yemen	64	58	6	59	59	..	n.a.
Zambia	124	124	0	124	124	..	n.a.
Zimbabwe (b)	..	..	..	9	18	..	n.a.
Others/Unknown	..	..	..	3,556	24,616	1	n.a.
Total (2020 estimates)	**1,387,800**	**1,170,800**	**217,000**	**1,387,800**	**n.a.**	**18,636**	**75,318**

(a) Design count by origin data are incomplete, because some offices do not report the origin of applications.

(b) Only Hague designation data are available and/or the office has not reported the origin of applications therefore design count by office and origin data may be incomplete.

(c) Origin is defined as the country/territory of the stated residence of the applicant in an international application.

(d) The African Intellectual Property Organization (OAPI) is the competent office for processing applications.

n.a. indicates not applicable.

.. indicates not available.

Source: WIPO Statistics Database, September 2021.

C40. Industrial design registrations by office and origin, and registrations in force, 2020

Name	Registration design count by office			Registration design count by origin	Equivalent registration design count by origin	Hague international registration design count	In force by office
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [c]	Total
Afghanistan (b)	..	..	..	3	3	..	..
African Intellectual Property Organization	735	265	470	n.a.	n.a.	n.a.	..
African Regional Intellectual Property Organization	71	10	61	n.a.	n.a.	n.a.	571
Albania	527	19	508	35	62	1	53
Algeria	863	646	217	655	671	..	1,659
Andorra (b)	..	..	..	27	351	7	..
Angola (b)	..	..	..	2	2	..	..
Argentina	1,865	1,045	820	1,088	1,574	2	..
Armenia	445	31	414	69	312	9	185
Australia	6,405	2,090	4,315	4,111	15,118	8	50,559
Austria	468	305	163	4,138	69,430	243	7,959
Azerbaijan	555	22	533	22	22	..	1,604
Bahamas (b)	..	..	..	13	13	..	..
Bahrain	71	14	57	16	70	..	699
Bangladesh	688	631	57	632	632	..	6,937
Barbados (b)	..	..	..	298	3,943	..	12
Belarus	506	219	287	286	313	..	1,494
Belgium	n.a.	n.a.	n.a.	2,610	34,349	158	n.a.
Belize	259	2	257	3	3	..	5
Benelux Office for Intellectual Property	1,190	716	474	n.a.	n.a.	n.a.	3,284
Benin (b,d)	n.a.	n.a.	n.a.	2	34	..	..
Bermuda (b)	..	..	..	1	1	..	..
Bhutan (b)	..	..	..	..	..	..	32
Bolivia (Plurinational State of) (b)	..	..	..	1	1	..	..
Bosnia and Herzegovina	716	29	687	125	1,286	43	483
Botswana (b)	..	..	..	..	..	..	426
Brazil	5,391	3,501	1,890	3,707	4,841	..	46,972
Brunei Darussalam	177	0	177	..	..	..	347
Bulgaria	669	477	192	954	10,593	19	1,926
Burkina Faso (b,d)	n.a.	n.a.	n.a.	10	170	..	..
Cabo Verde (b)	..	..	..	..	..	..	3
Cambodia	283	12	271	12	12	..	..
Cameroon (b,d)	n.a.	n.a.	n.a.	28	444	2	..
Canada	6,558	471	6,087	2,334	15,667	172	42,906
Chad (b,d)	n.a.	n.a.	n.a.	42	714	..	..
Chile	495	16	479	58	247	..	3,103
China	731,918	711,559	20,359	745,990	1,264,597	989	2,187,356
China, Hong Kong SAR	5,045	1,354	3,691	3,065	32,025	..	22,569
China, Macao SAR	285	27	258	118	1,414	..	1,390
Colombia	642	281	361	367	367	..	4,915
Congo (b,d)	n.a.	n.a.	n.a.	1	17	..	..
Costa Rica	40	3	37	5	5	..	629
Côte d'Ivoire (b,d)	n.a.	n.a.	n.a.	85	1,445	..	..
Croatia	1,098	185	913	779	3,911	58	3,572
Cuba	8	5	3	5	5	..	63

Name	Registration design count by office			Registration design count by origin	Equivalent registration design count by origin	Hague international registration design count	In force by office
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [c]	Total
Cyprus	82	82	0	1,556	9,612	268	42
Czech Republic	578	538	40	2,463	26,212	132	2,437
Democratic People's Republic of Korea (b)	..	..	..	5	5	..	..
Denmark	366	98	268	4,426	66,713	431	1,793
Dominican Republic	81	20	61	21	21	..	..
Ecuador	204	103	101	106	106	..	844
Egypt (b)	..	..	..	361	1,009	24	..
El Salvador	30	3	27	3	3	..	..
Estonia	86	15	71	313	5,270	16	1,499
Eswatini (b)	..	..	..	1	1	..	..
Ethiopia	44	41	3	41	41	..	313
European Union Intellectual Property Office	114,401	66,176	48,225	n.a.	n.a.	n.a.	251,692
Finland	268	104	164	1,963	30,604	58	1,796
France	12,385	11,182	1,203	27,206	182,615	1,272	76,203
Gabon (b,d)	n.a.	n.a.	n.a.	6	70	..	..
Gambia	1	1	0	1	1	..	1
Georgia	544	98	446	114	141	1	2,728
Germany	38,179	33,592	4,587	74,545	599,100	5,279	52,413
Ghana	1,028	920	108	931	933	3	937
Greece	1,135	748	387	1,105	7,315	77	1,175
Guatemala	93	6	87	10	10	..	354
Guinea (b,d)	n.a.	n.a.	n.a.	48	816	..	..
Guinea-Bissau (b,d)	n.a.	n.a.	n.a.	1	17	..	..
Hungary	389	325	64	768	7,842	69	3,098
Iceland	517	5	512	21	64	1	1,136
India	8,721	5,872	2,849	6,417	9,138	..	89,397
Indonesia	1,031	654	377	685	712	..	24,573
Iran (Islamic Republic of)	4,454	4,426	28	4,444	4,471	..	41,509
Iraq (b)	..	..	..	3	3	..	..
Ireland	234	205	29	989	17,351	13	1,641
Israel	1,662	514	1,148	1,920	12,373	81	219,148
Italy	28,216	27,719	497	48,091	321,441	1,437	9,130
Jamaica	38	38	0	38	38	..	1,297
Japan	27,839	18,852	8,987	34,971	113,565	1,216	263,307
Jordan	97	55	42	126	493	7	1,015
Kazakhstan	177	65	112	74	101	1	1,257
Kenya	188	179	9	181	183	..	..
Kuwait (b)	..	..	..	8	8	..	..
Kyrgyzstan	346	3	343	19	397	..	71
Lao People's Democratic Republic (b)	..	..	..	..	..	..	391
Latvia	153	111	42	392	3,875	33	388
Lebanon (b)	..	..	..	14	151	..	..
Lesotho (b)	..	..	..	..	..	..	10
Liechtenstein (b)	..	..	..	616	5,184	67	..
Lithuania	688	74	614	303	4,380	24	311

Name	Registration design count by office			Registration design count by origin	Equivalent registration design count by origin	Hague international registration design count	In force by office
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [c]	Total
Luxembourg	n.a.	n.a.	n.a.	1,485	10,706	153	n.a.
Madagascar	220	215	5	216	243	..	1,140
Malaysia	1,266	327	939	523	943	1	18,554
Mali (b,d)	n.a.	n.a.	n.a.	16	256	..	..
Malta	29	29	0	1,293	5,964	141	132
Marshall Islands (b)	..	..	..	5	5	..	..
Mauritius	102	98	4	105	121	..	165
Mexico	2,635	591	2,044	735	1,383	1	27,778
Monaco	781	19	762	123	825	1	232
Mongolia	798	412	386	415	415	..	764
Montenegro	922	3	919	3	3	..	87
Morocco	4,203	2,834	1,369	2,936	3,089	21	..
Mozambique	75	35	40	35	35	..	1,480
Myanmar (b)	..	..	..	1	1	..	..
Namibia	138	31	107	35	62	..	..
Netherlands	n.a.	n.a.	n.a.	9,375	108,920	1,265	n.a.
New Zealand	1,353	277	1,076	1,073	6,878	1	11,808
Niger (b,d)	n.a.	n.a.	n.a.	..	..	..	..
Nigeria	1,138	1,000	138	1,012	1,028	..	..
North Macedonia	699	63	636	116	313	11	2,467
Norway	4,085	379	3,706	1,363	10,570	245	11,306
Oman	492	19	473	19	19	..	58
Pakistan	301	213	88	221	275	..	7,590
Panama	18	0	18	13	121	..	767
Papua New Guinea	17	2	15	2	2	..	..
Paraguay	31	2	29	2	2	..	..
Peru	228	75	153	85	85	..	2,993
Philippines	674	396	278	412	493	..	..
Poland	1,918	1,725	193	6,391	118,581	82	8,500
Portugal	2,235	2,054	181	2,962	23,110	29	3,681
Qatar (b)	..	..	..	17	179	..	..
Republic of Korea	52,055	45,194	6,861	56,950	131,306	2,274	369,526
Republic of Moldova	956	263	693	305	537	15	2,931
Romania	670	206	464	612	9,592	18	3,278
Russian Federation	9,253	3,250	6,003	4,137	9,714	84	41,161
Rwanda	80	6	74	6	6	..	..
Saint Vincent and the Grenadines (b)	..	..	..	..	..	..	2
Samoa	53	19	34	22	22	..	102
San Marino	130	3	127	223	1,654	..	..
Sao Tome and Principe (b)	..	..	..	..	..	..	..
Saudi Arabia	778	362	416	395	395	..	4,357
Senegal (b,d)	n.a.	n.a.	n.a.	25	425	..	..
Serbia	1,225	117	1,108	292	1,077	34	4,518
Seychelles	8	0	8	20	74	..	15
Singapore	4,318	370	3,948	1,279	6,310	56	13,556
Slovakia	383	201	182	421	5,270	3	948

Name	Registration design count by office			Registration design count by origin	Equivalent registration design count by origin	Hague international registration design count	In force by office
	Total	Resident	Non-resident	Total [a]	Total [a]	Origin [c]	Total
Slovenia (b)	..	..	..	589	6,796	130	..
South Africa	1,495	694	801	910	2,518	12	19,898
Spain	11,456	11,172	284	16,677	105,785	327	30,697
Sri Lanka	151	122	29	156	264	..	2,124
Sudan	196	185	11	189	189	..	..
Suriname (b)	..	..	..	..	..	..	..
Sweden	430	349	81	6,965	60,109	559	3,596
Switzerland	12,150	3,147	9,003	21,896	148,174	2,303	9,212
Syrian Arab Republic	317	209	108	220	220	..	555
Tajikistan	158	0	158	..	..	..	..
Thailand	3,491	2,234	1,257	2,395	3,097	..	17,144
Togo (b,d)	n.a.	n.a.	n.a.	6	102	..	..
Trinidad and Tobago	26	25	1	25	25	..	..
Tunisia (b)	..	..	..	48	102	1	..
Turkey	44,903	38,206	6,697	40,382	59,089	570	145,656
Turkmenistan (b)	..	..	..	..	..	..	..
Uganda	39	36	3	36	36	..	..
Ukraine	6,241	3,511	2,730	3,868	5,731	75	14,623
United Arab Emirates	1,210	65	1,145	165	516	9	4,237
United Kingdom	28,688	18,079	10,609	28,483	184,520	456	120,778
United States of America	41,488	17,871	23,617	55,109	408,053	2,569	371,870
Uruguay (b)	..	..	..	3	3	..	..
Uzbekistan	125	118	7	121	121	..	577
Viet Nam	2,902	1,319	1,583	1,392	1,500	2	13,580
Yemen	18	15	3	15	15	..	89
Zambia	68	68	0	69	69	..	539
Zimbabwe (b)	..	..	..	7	13	..	..
Others/Unknown	..	..	..	3,360	23,637	2	..
Total (2020 estimates)	**1,267,200**	**1,050,700**	**216,500**	**1,267,200**	**n.a.**	**23,671**	**4,756,300**

(a) Design count by origin data are incomplete, because some offices do not report the origin of registrations.

(b) Only Hague designation data are available and/or the office has not reported the origin of registrations therefore design count by office and origin data may be incomplete.

(c) Origin is defined as the country/territory of the stated residence of the holder of an international registration.

(d) The African Intellectual Property Organization (OAPI) is the competent office for registering applications.

n.a. indicates not applicable.

.. indicates not available.

Source: WIPO Statistics Database, September 2021.

C41. Industrial design office procedural data, 2020

Office	Total applications processed	Registered	Rejected	Withdrawn or abandoned	Applications pending	Number of examiners (FTE)	First office action from filing date (days)	Final office decision from filing date (days)
Albania	25	22	3	..	6	1.0	30.0	180.0
Algeria	489	252	237	..	..	2.0	7.0	180.0
Armenia	37	29	8	..	2	1.0	5.0	60.0
Australia (a)	7,911	7,672	..	239	1,365	10.9	57.0	69.0
Belarus	245	222	17	6	..	1.0	55.0	75.0
Bhutan	..	..	..	..	2	2.0	1.0	180.0
Bosnia and Herzegovina	27	23	4	..	..	1.0	1.0	120.0
Botswana	..	..	..	..	..	4.0	..	..
Brazil	6,440	5,391	87	962	2,435	4.0	53.9	140.8
Brunei Darussalam	..	..	..	..	5	1.0	..	..
Cabo Verde	..	..	..	..	15	4.0	..	..
Cambodia	..	..	..	..	..	3.0	..	..
Canada	3,621	3,610	..	11	8,662	11.0	302.7	388.7
China	796,921	731,918	18,706	46,297	422,142	..	..	88.2
China, Hong Kong SAR	5,242	5,045	1	196	345	2.0	120.0	158.0
China, Macao SAR	319	285	29	5	141	1.0	64.2	64.2
Colombia	721	641	38	42	364	1.0	3.0	155.0
Croatia	157	108	..	49	38	2.0	11.0	120.0
Cyprus	13	13	..	..	..	1.0	20.0	30.0
Czech Republic	205	164	8	33	299	3.0	..	..
Denmark	142	108	18	16	25	3.0	16.1	58.4
Estonia	21	15	..	6	19	1.0	7.0	232.0
Ethiopia	44	44	..	..	..	10.0	..	..
European Union Intellectual Property Office	99,554	97,032	774	1,748	3,648	26.0	4.2	5.6
Finland	110	88	1	21	24	0.2	57.5	92.0
France	4,785	4,627	107	51	1,296	7.0	..	..
Gambia	..	..	..	..	..	3.0	..	..
Georgia	55	42	1	12	7	2.0	14.0	225.0
Germany	6,059	5,119	162	778	2,041	11.7	..	99.2
Ghana	..	..	..	..	5	3.0	..	..
Guatemala	35	33	..	2	259	1.0	600.0	1,100.0
Hungary	139	68	3	68	76	2.0	5.0	254.0
Iceland	10	9	..	1	2	0.2	4.0	25.0
India	8,942	8,721	128	93	10,384	8.0	30.0	180.0
Indonesia	2,458	1,941	368	149	3,561	..	133.0	515.0
Iran (Islamic Republic of)	14,896	4,437	8,282	2,177	..	7.0	22.0	32.0
Israel	2,657	1,222	1,435	..	166	5.0	197.0	269.0
Jamaica	249	211	35	3	..	2.0	15.0	60.0
Japan	26,417	26,417	..	..	..	50.0	..	..
Jordan	107	97	10	..	31	1.0	15.0	120.0
Kenya	..	..	..	..	..	4.0	..	..
Lao People's Democratic Republic	41	36	5	..	98	2.0	15.0	180.0
Latvia	70	60	..	10	..	1.0	2.0	60.0
Lesotho	..	..	..	..	10	7.0	..	..
Lithuania	33	26	..	7	..	2.0	3.0	5.0
Madagascar	225	220	5	..	379	2.0	210.0	210.0

Office	Total applications processed	Registered	Rejected	Withdrawn or abandoned	Applications pending	Number of examiners (FTE)	First office action from filing date (days)	Final office decision from filing date (days)
Mexico	3,629	3,229	5	395	2,973	7.0	306.0	326.0
Monaco	19	17	2	..	..	2.0	68.0	74.0
Mongolia	133	102	28	3	47	1.0	144.0	216.0
Montenegro	5	5	..	..	4	1.0	30.0	90.0
Mozambique	..	..	..	..	..	4.0	..	..
Namibia	..	..	..	..	..	1.0	..	..
New Zealand	1,355	1,246	..	109	666	..	..	..
Nigeria	..	..	..	..	77	5.0	..	..
North Macedonia	39	31	6	2	21	1.0	2.0	160.0
Norway	352	319	1	32	280	1.5	60.0	120.0
Oman	..	..	..	..	..	..	..	..
Panama	17	17	..	..	114	2.0	60.0	60.0
Papua New Guinea	..	..	..	..	26	2.0	..	..
Paraguay	..	..	..	..	..	2.0	..	..
Peru	241	228	13	..	247	7.0	265.0	265.0
Poland	993	880	32	81	137	4.0	..	87.3
Portugal	373	349	14	10	15	4.0	15.0	120.0
Republic of Korea	70,810	51,407	7,095	12,308	14,362	42.0	156.0	187.0
Republic of Moldova	98	73	10	15	128	3.0	4.0	240.0
Romania	210	164	41	5	105	5.0	2.9	170.0
Russian Federation	5,843	5,385	185	273	4,908	50.0	..	130.0
Rwanda	..	..	..	..	..	2.0	..	..
Saint Vincent and the Grenadines	..	..	..	..	..	2.0	..	..
Samoa	19	19	..	..	..	2.0	3.0	10.0
Saudi Arabia	2,165	778	191	1,196	496	2.0	..	..
Serbia	131	102	4	25	32	1.0	30.0	150.0
Seychelles	8	8	..	..	..	3.0	1.0	5.0
Sierra Leone	..	..	..	..	..	3.0	..	..
Singapore	1,282	1,239	1	42	8	..	..	..
Slovakia	138	126	2	10	36	2.0	1.0	140.0
South Africa	..	..	..	..	957	..	..	..
Spain	2,375	2,155	75	145	6,368	5.0	16.0	24.0
Sri Lanka	919	151	77	691	405	2.0	7.0	60.0
Sudan	249	114	5	130	..	8.0	..	30.0
Sweden	270	217	1	52	59	2.0	49.0	144.0
Thailand	4,859	3,491	304	1,064	8,823	21.0	206.0	827.0
Trinidad and Tobago	..	..	..	..	..	6.0	..	..
Tunisia	..	..	..	..	..	1.0	..	..
Turkey	9,692	8,736	892	64	..	14.0	45.0	45.0
Ukraine	2,662	2,272	..	390	801	7.0	..	180.0
United Arab Emirates	1,214	1,210	2	2	1,226	6.0	240.5	240.5
United Kingdom	23,922	22,165	1,548	209	2,363	9.0	15.0	44.0
United States of America	56,537	33,433	15,182	7,922	67,658	168.0	440.0	521.7
Uzbekistan	203	93	9	101	82	1.0	70.0	190.0

Office	Total applications processed	Registered	Rejected	Withdrawn or abandoned	Applications pending	Number of examiners (FTE)	First office action from filing date (days)	Final office decision from filing date (days)
Venezuela (Bolivarian Republic of)	..	..	..	..	..	1.0	..	..
Viet Nam	2,788	2,067	658	63	2,361	12.0	426.0	465.0
Zambia	..	..	..	..	..	2.0	..	..
Zimbabwe	..	..	..	..	4	1.0	..	..

Note: FTE is full time equivalent. WIPO collects data from IP offices using a common questionnaire and methodology. Every effort has been made to compile procedural data based on common definitions and concepts, but procedural differences make it extremely difficult to fully harmonize such data. Therefore caution should be exercised when making comparisons across offices. The total number of applications processed for a given office may be incomplete due to the omission of one or several elements by the office.

(a) data are for formalities examination only.

.. indicates not available.

Source: WIPO Statistics Database, September 2021.

Plant varieties

Highlights

Plant variety applications sustain strong growth

Around 22,520 plant variety applications were filed worldwide in 2020, up +5.1% on 2019 – a fifth consecutive year of growth (figure 4.1). China contributed the majority of global growth, followed by Argentina, Viet Nam and Turkey.

China received 39.8% of all plant variety applications filed worldwide

China remained the top destination in 2020, receiving 8,960 applications. China accounts for over one-third of the plant varieties filed worldwide. The Community Plant Variety Office of the European Union (CPVO) received 3,427 applications, accounting for 15.2% of global filings. Following the CPVO are the United States of America (U.S.) (1,432), Ukraine (1,260) and the Netherlands (837) (figure 4.2). Filings in China represent a 14.4% year-on-year growth, driven almost entirely by resident filings. Among the other top five destinations, only Ukraine (+1.8%) and the Netherlands (+9.1%) experienced growth, while the CPVO (–2.8%) and the U.S. (–9.9%) saw a decline in applications. Similar to China, resident filings drove growth in Ukraine, despite it experiencing negative growth in non-resident filings (figure D6). Conversely, non-resident filings primarily drove the Netherland's large growth. The CPVO experienced moderate declines in both resident and non-resident filings, whereas the U.S. decline was driven by a sharp reduction in resident filings.

The combined share of applications received at the top five jurisdictions worldwide in 2020 remained roughly the same as in 2019, increasing only 0.7 percentage points to 70.7%.

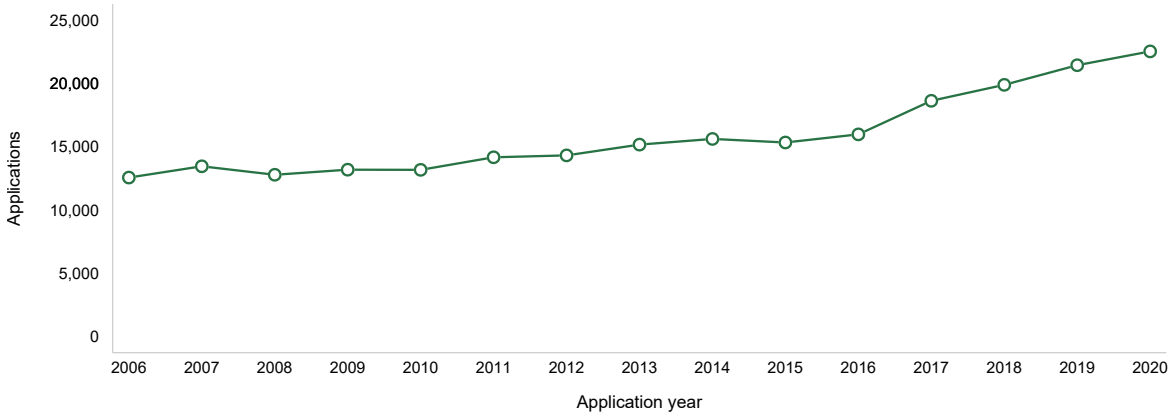
Eight of the top 10 jurisdictions received more applications from residents than they did from non-residents. China's resident share (93.0%) was the highest among the top 10. In contrast, Canada and Ukraine received a majority of filings from non-resident applicants.

For a second year, upper middle-income economies accounted for the largest proportion (52.9%) of plant variety applications received in 2020. This figure is up markedly from 25.1% a decade earlier in 2010 (figure 4.3) and represents an average annual growth rate of 13.7% for the period. High-income economies accounted for the second largest share of plant variety applications (38.9%). This is in contrast to 10 years earlier, when the high-income group was the largest cohort and accounted for 65.8% of total filings and is the result of high-income economies having had in effect a flat average annual growth rate during the period. Filings in lower middle-income economies grew by an annualized rate of 4.5% from 2010 until 2020; however, their share of global filings decreased slightly over the same period down to 8.2%.

Asia received the most filings, representing 49.8% of all plant variety applications in 2020. Filings in Asia have more than doubled as compared to 2010, when its share was 23.6% (figure 4.4). Europe represented

Applications grew by 5.1%

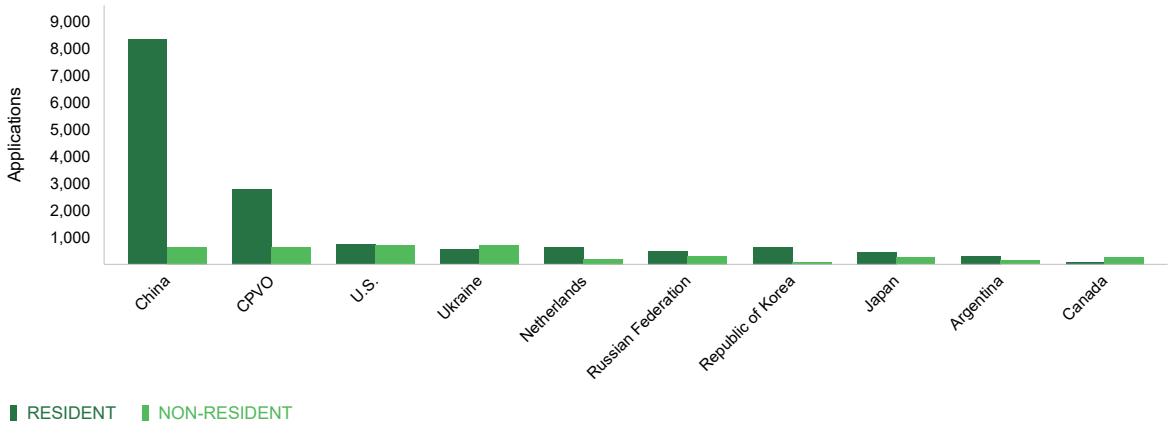
4.1. Plant variety applications worldwide, 2006–2020



Source: Figure D1.

China is the top destination for plant variety applications

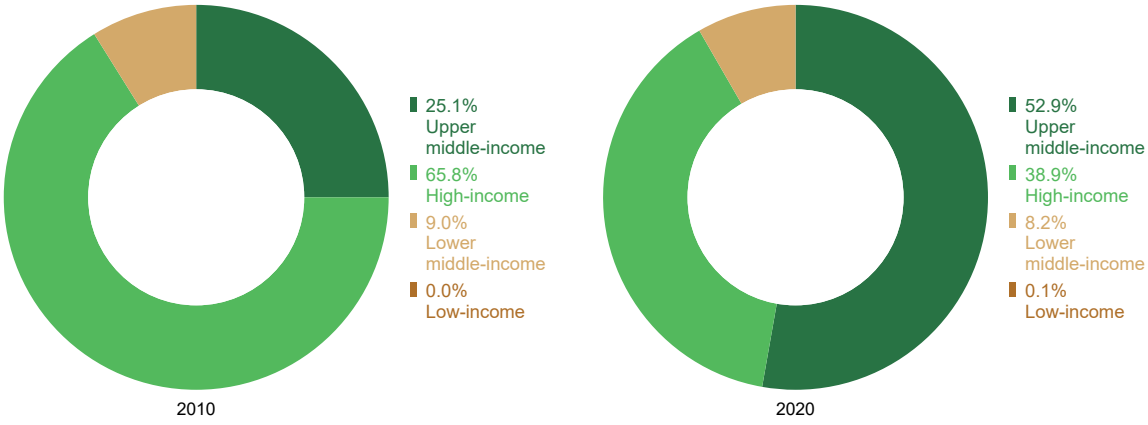
4.2. Plant variety applications for the top 10 offices, 2020



Source: Figure D5.

For the first time, offices of upper middle-income economies received over a half (52.9%) of applications filed worldwide in 2020

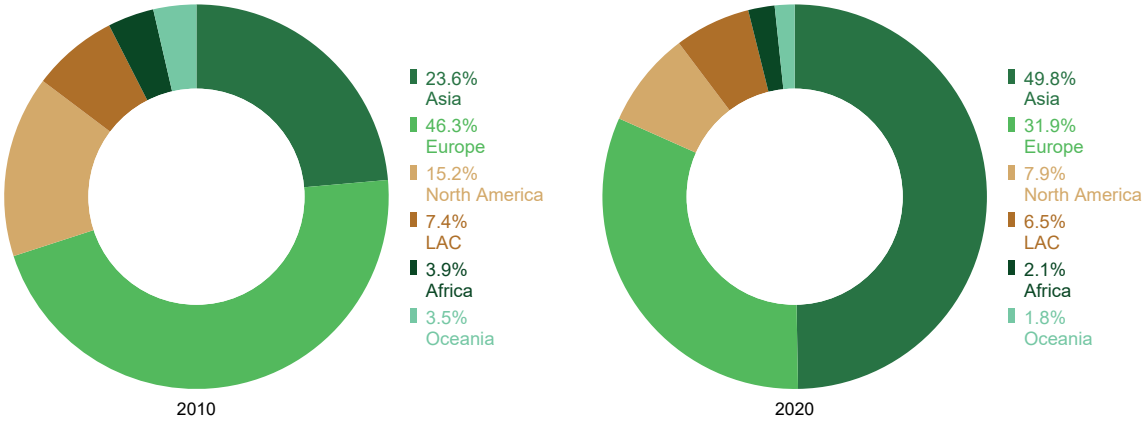
4.3. Plant variety applications by income group, 2010 and 2020



Source: Figure D3.

Asia is the top region, with 49.8% of all applications

4.4. Plant variety applications by region 2010 and 2020



Source: Figure D4.

the second largest region according to total plant filings, accounting for roughly 31.9% of the world total in 2020. However, due to the large growth of filings in Asia, Europe's overall share was down from 46.3% of total filings in 2010. In addition to Asia (+13.7%), Latin America and the Caribbean (LAC) (+4.2%) and Europe (+1.6%) also experienced positive average annual growth over the 10 years from 2010 to 2020. Unlike 2019 when only one region experienced a decline, three regions had filings lower in 2020 than in 2010, namely, Africa (–0.9%), North America (–1.2%) and Oceania (–1.3%) saw average annual declines between 2010 and 2020.

Applicants from China were the most active filers worldwide

Applications received by offices from resident and non-resident applicants are referred to as office data, whereas applications filed by applicants at a national or regional office (resident applications) or at a foreign office (applications abroad) are referred to as origin data. Here, plant variety statistics based on the origin of residence are reported in order to complement the global picture. Note that for applicants domiciled in European Union (EU) member states, filing at the CPVO regional office is regarded as a resident filing.

Applicants from China were the most active applicants in the world in 2020, filing 8,362 plant variety applications (figure 4.5). This represents a +13.6% growth on the previous year driven primarily by resident filings. China-based applicants were followed by applicants from the Netherlands, who filed 3,438 applications, a +7.2% increase from 2019. The U.S. (2,190), France (970) and Germany (939) were the next three largest origins, respectively. Unlike China and the Netherlands, France (–6.3%), the U.S. (–5.4%) and Germany (–4.8%) experienced declines in the number of plant applications filed. A large drop in non-resident filings caused an overall decline of applications in France, although resident filings did increase slightly. Conversely, U.S. and German applicants made significantly fewer resident filings causing an overall decline, but maintained a steady growth in filings abroad. Combined, the top five origins represent 70.6% of total filings globally, of which China (37.1% of the total) and the Netherlands (15.3%) constituted the majority.

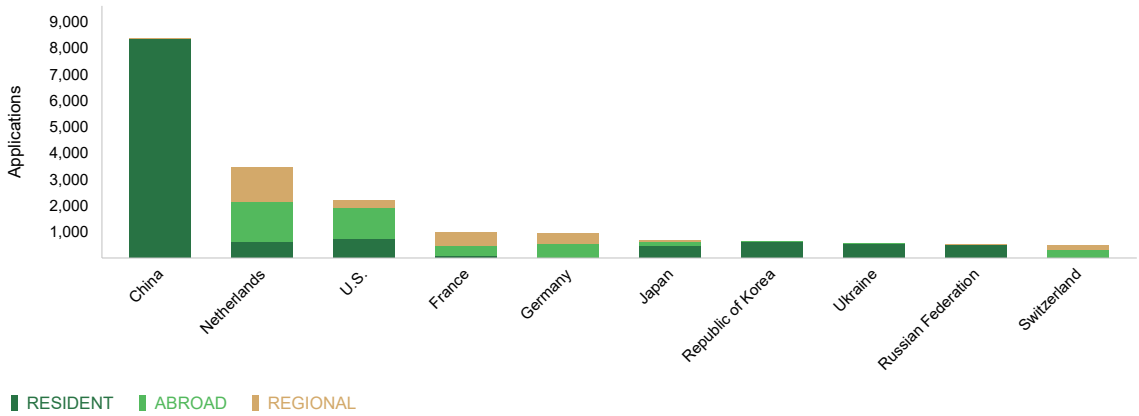
Whereas applicants from four of the top five origins filed most of their applications either abroad or at the regional office, applicants from China filed almost exclusively at home. Like with China, applicants from Japan, the Republic of Korea, the Russian Federation and Ukraine also filed predominantly at home.

Equivalent count

Origin data are compiled using two different counting methods – absolute counts and equivalent counts. The difference between the two lies in the treatment of regional office data (the CPVO and the African Intellectual Property Organization (OAPI)). For absolute counts, an application received by a regional office is counted only once. For the equivalent count, a single application filed at a regional office is equivalent to multiple applications. To calculate the number of equivalent applications at a regional office in 2020, each application has been multiplied by the corresponding number of member states for the regional office. For CPVO applications, if the applicant resided

Applicants from China file primarily at their home office

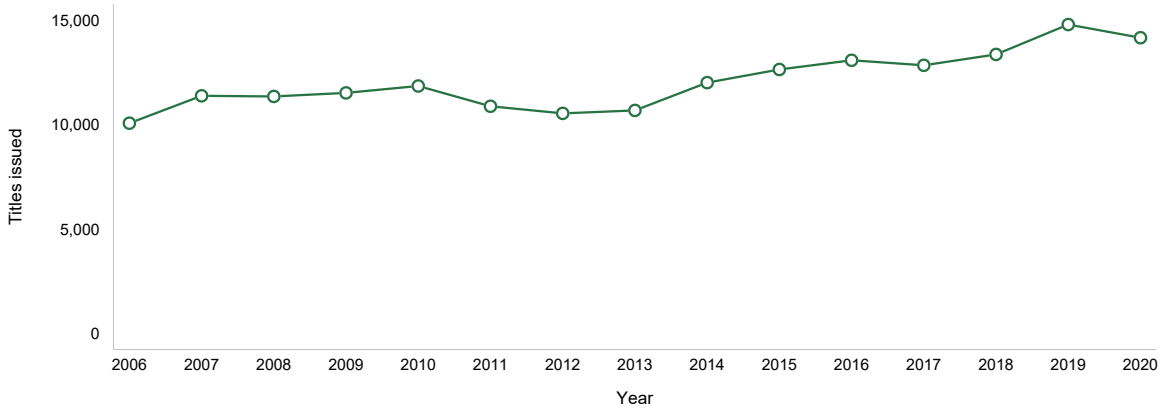
4.5. Plant variety applications for the top 10 origins, 2020



Source: Figure D9.

Plant variety titles issued decreased by 4.3%

4.6. Plant variety titles issued worldwide, 2006–2020



Source: Figure D2.

in one of the 28 EU member states, the application was counted as one resident filing and 27 filings abroad. If the applicant did not reside in an EU member state, the application was counted as 28 filings abroad. The same methodology was applied to OAPI member states.

Equivalent counts take multiple members of the regional office into account. One would expect to see those country origins whose applicants filed intensively at the CPVO move up the ranking when this counting method is applied (figure D10). Not surprisingly therefore European countries and the U.S. topped the list of origins based on equivalent counts. Applicants from the Netherlands once again ranked first, with 38,700 equivalent applications filed worldwide. They were followed by applicants from France (14,605), Germany (12,225) and the U.S. (10,226). Rounding out the top five origins by equivalent count was China, with 8,446 applications.

China was the only non-European country to be found among the top five origins by equivalent count, despite only 1.4% of its applicants' filings being equivalent filings abroad. This is in marked contrast to the Netherlands, for which the abroad share was 95%.

The number of titles decreased for first time since 2017

The total number of plant variety titles issued decreased by –4.3% in 2020. This is the largest decrease in plant variety titles since 2011 and marks only the second time in eight years they have experienced a yearly decline. The 14,160 plant variety titles issued in 2020 is below the peak achieved in 2019, but is still higher than the 13,360 titles issued in 2018 (figure 4.6). China issued the most titles with 2,990, up 9.6% on the previous year. China was followed by the CPVO (2,978), the U.S. (1,941), Ukraine (819) and the Netherlands (641). Similarly to China, the U.S. (+8.7%) and the Netherlands (+3.2%) both experienced growth in the number of titles issued. The overall global drop in titles issued was driven by the year-on-year declines at the offices of the Russian Federation (–30.2%), Ukraine (–31.1%) and the CPVO (–6.6%).

The grant or registration process takes time, so fluctuations in the volumes of plant variety titles granted may reflect changes in processing capacities or procedural delays.

Steady growth in plant varieties in force continues

Around 146,910 plant variety titles were in force at the end of 2020, up 5.8% on 2019. The CPVO (29,010) and the U.S. (28,008) were the two offices with the highest number of active titles (figure D15). Other offices maintaining at least 5,000 active titles included China (14,969), Ukraine (10,971), the Netherlands (9,260), Japan (8,299) and the Republic of Korea (5,833).

Plant variety statistics

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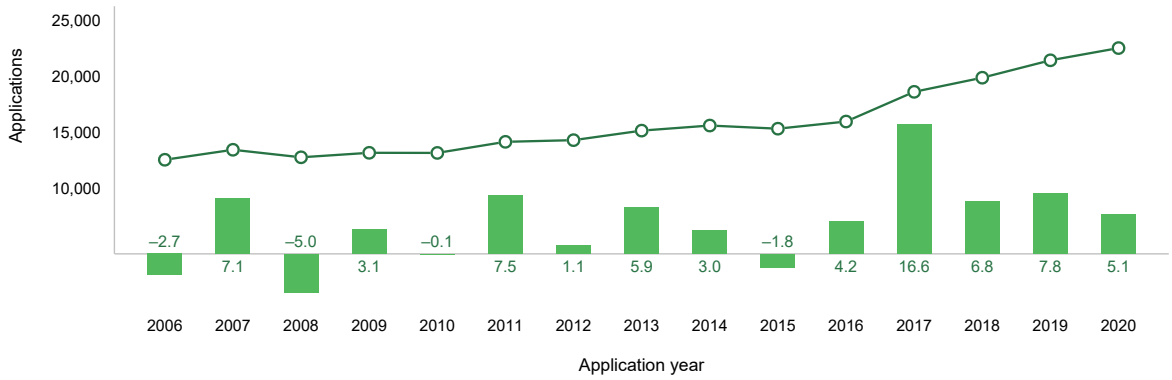
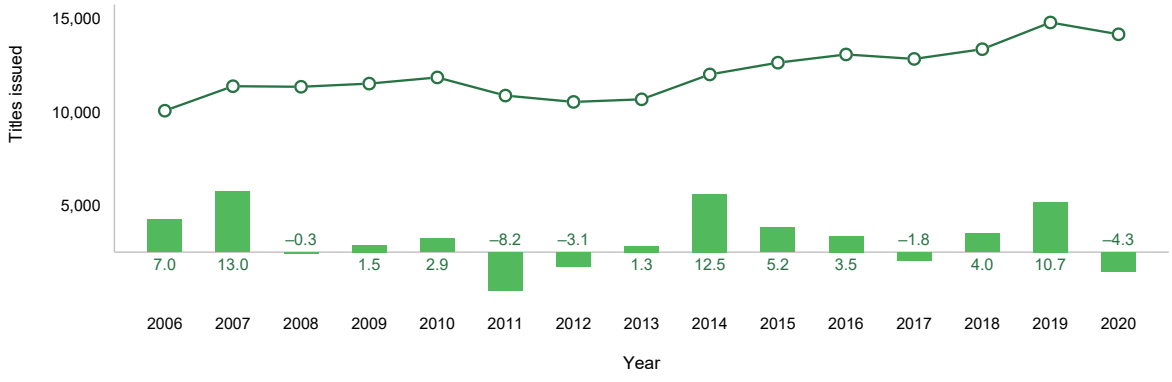
Plant variety applications and titles issued worldwide

D1. Trend in plant variety applications worldwide, 2006–2020



Note: World totals are WIPO estimates using data covering 71 offices.
Source: WIPO Statistics Database, September 2021.

D2. Trend in plant variety titles issued worldwide, 2006–2020



Note: World totals are WIPO estimates using data covering 71 offices.
Source: WIPO Statistics Database, September 2021.

Plant variety applications and titles issued by office

D3. Plant variety applications by income group, 2010 and 2020

	Number of applications		Resident share (%)		Share of world total (%)		Average growth (%)
Income group	2010	2020	2010	2020	2010	2020	2010–2020
High-income	8,671	8,755	69.2	67.8	65.8	38.9	0.1
Upper middle-income	3,311	11,914	72.3	82.7	25.1	52.9	13.7
Lower middle-income	1,184	1,839	49.4	49.3	9.0	8.2	4.5
Low-income	4	12	0.0	8.3	0.0	0.1	11.6
World	**13,170**	**22,520**	**68.2**	**74.2**	**100.0**	**100.0**	**5.5**

Note: Totals by income group are WIPO estimates using data covering 71 offices. Each category includes the following number of offices: high-income countries/economies (36), upper middle-income (23), lower middle-income (11) and low-income (1). The Community Plant Variety Office of the European Union (CPVO) data are allocated to the high-income group, because the majority of EU member states are high-income countries. For information on income group classification, see the data description section.

Source: WIPO Statistics Database, September 2021.

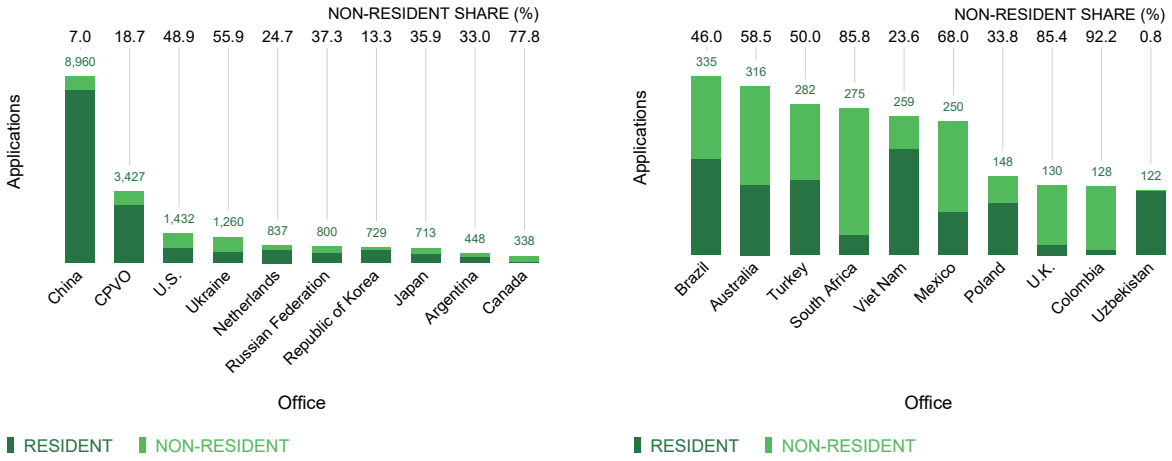
D4. Plant variety applications by region, 2010 and 2020

	Number of applications		Resident share (%)		Share of world total (%)		Average growth (%)
Region	2010	2020	2010	2020	2010	2020	2010–2020
Africa	515	471	34.6	12.5	3.9	2.1	–0.9
Asia	3,103	11,219	80.1	88.7	23.6	49.8	13.7
Europe	6,104	7,181	75.9	70.6	46.3	31.9	1.6
Latin America and the Caribbean	974	1,469	42.6	43.9	7.4	6.5	4.2
North America	2,007	1,770	52.0	45.6	15.2	7.9	–1.2
Oceania	467	410	48.0	39.8	3.5	1.8	–1.3
World	**13,170**	**22,520**	**68.2**	**74.2**	**100.0**	**100.0**	**5.5**

Note: Totals by geographic region are WIPO estimates using data covering 71 offices. Each region includes the following number of offices: Africa (7), Asia (12), Europe (33), Latin America and the Caribbean (14), North America (3) and Oceania (2).

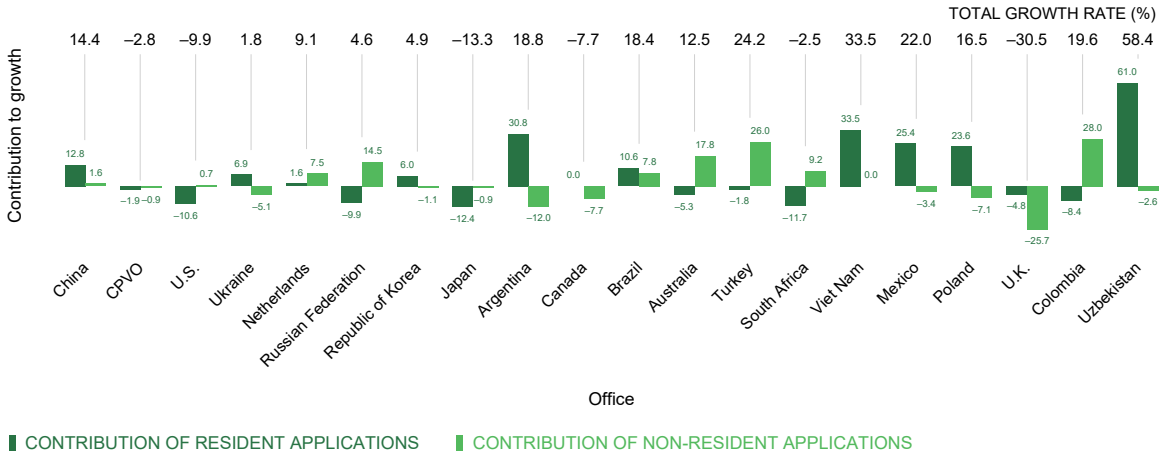
Source: WIPO Statistics Database, September 2021.

D5. Plant variety applications for the top 20 offices, 2020



Note: CPVO is the Community Plant Variety Office of the European Union. In general, national offices of CPVO member states receive lower volumes of applications, because applicants may apply via the CPVO to seek protection within the jurisdiction of any CPVO member state. A jurisdiction can be covered by more than one office. When applicable and for simplicity, we combine offices under a single jurisdiction.

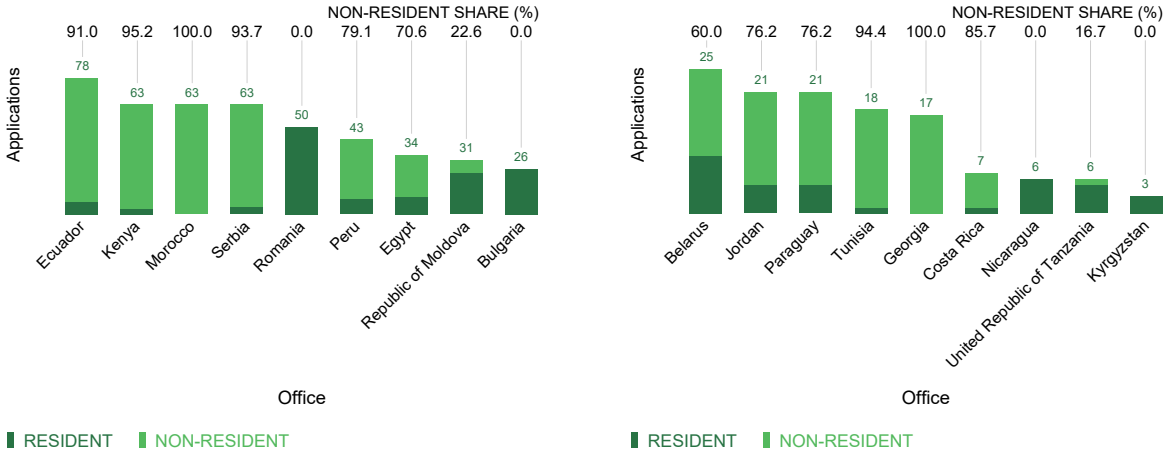
D6. Contribution of resident and non-resident applications to total growth for the top 20 offices, 2019–2020



Note: CPVO is the Community Plant Variety Office of the European Union. This figure shows total growth in plant variety applications broken down by the respective contributions of resident and non-resident filings. For example, applications in Brazil grew by 18.4%, with resident applications contributing 10.6 percentage points to the total, while non-resident applications accounted for the other 7.8 percentage points. A jurisdiction can be covered by more than one office. When applicable and for simplicity, we combine offices under a single jurisdiction.

Source: WIPO Statistics Database, September 2021.

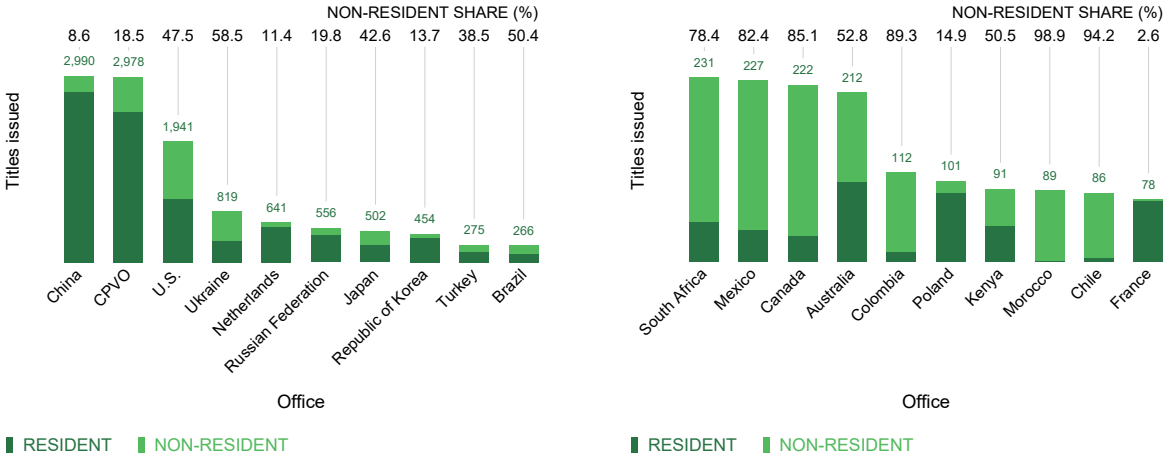
D7. Plant variety applications for offices of selected low- and middle-income countries, 2020



Note: The selected offices are from different world regions and income groups. Where available, data for every office can be found in the statistical table at the end of this section. A jurisdiction can be covered by more than one office. When applicable and for simplicity, we combine offices under a single jurisdiction.

Source: WIPO Statistics Database, September 2021.

D8. Plant variety titles issued by the top 20 offices, 2020

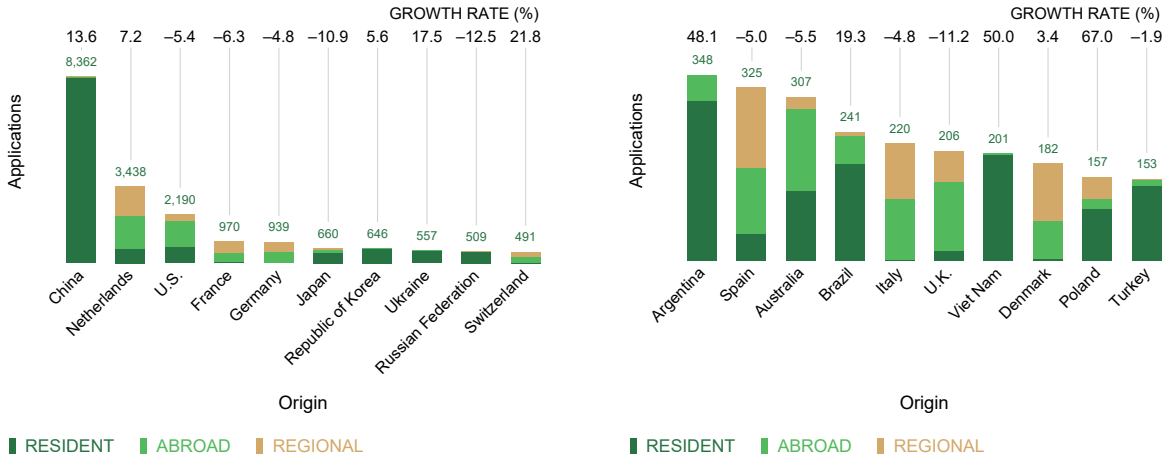


Note: CPVO is the Community Plant Variety Office of the European Union. The procedure for issuing titles varies across offices, and factors such as examination capacity and procedural delays, mean there are differences in the time lag between application and title issue dates. For this reason, data on applications for a given year should not be compared with data on titles issued for the same year. A jurisdiction can be covered by more than one office. When applicable and for simplicity, we combine offices under a single jurisdiction.

Source: WIPO Statistics Database, September 2021.

Plant variety applications and titles issued by origin

D9. Plant variety applications for the top 20 origins, 2020



Note: Data are based on absolute count, not equivalent count. Applications by origin include resident applications and applications filed abroad. The origin of an application is determined by the residence of the applicant. Regional refers to applications filed at the Community Plant Variety Office of the European Union.

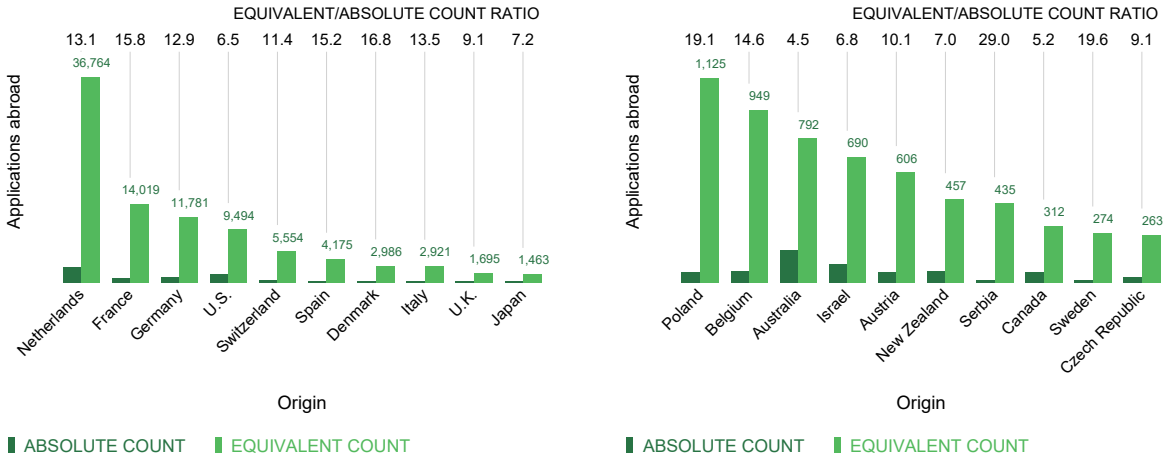
Source: WIPO Statistics Database, September 2021.

D10. Plant variety equivalent applications for the top 20 origins, 2020

Note: The origin of an application is determined by the residence of the applicant. Applications filed at regional offices are considered equivalent to multiple applications in the relevant member states. See the glossary for the definition of equivalent applications.

Source: WIPO Statistics Database, September 2021.

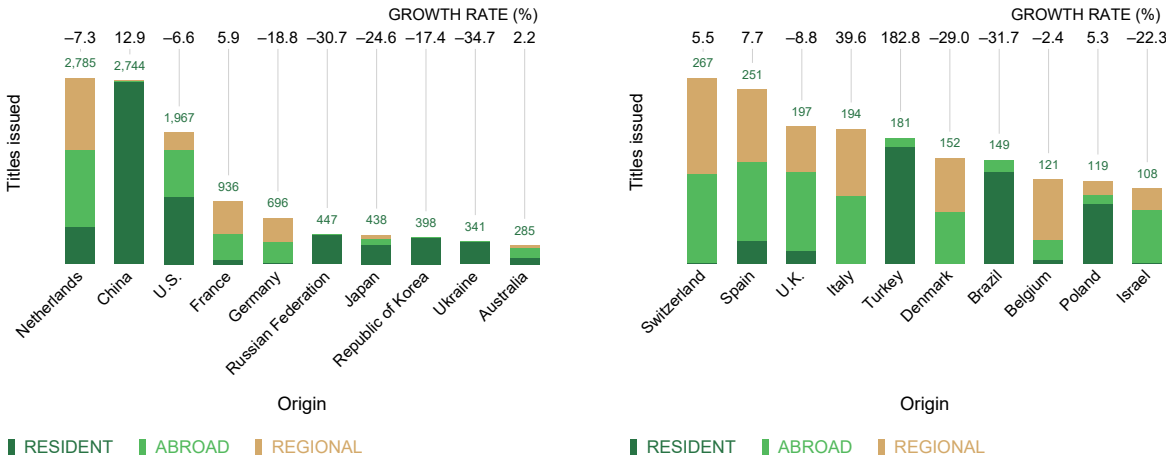
D11. Plant variety applications abroad for the top 20 origins, 2020



Note: The origin of an application is determined by the residence of the applicant. Applications filed at regional offices are considered equivalent to multiple applications in the relevant member states. See the glossary for the definition of equivalent applications.

Source: WIPO Statistics Database, September 2021.

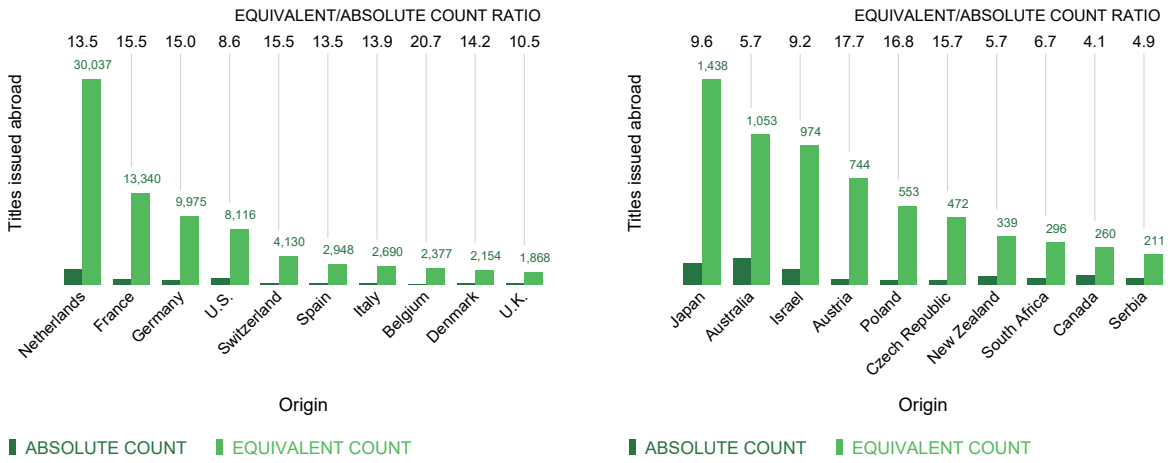
D12. Plant variety titles issued for the top 20 origins, 2020



Note: Data are based on absolute count, not equivalent count. The origin of titles issued is determined by the residence of the applicant. Regional refers to titles issued by the Community Plant Variety Office of the European Union.

Source: WIPO Statistics Database, September 2021.

D13. Plant variety titles issued abroad for the top 20 origins, 2020

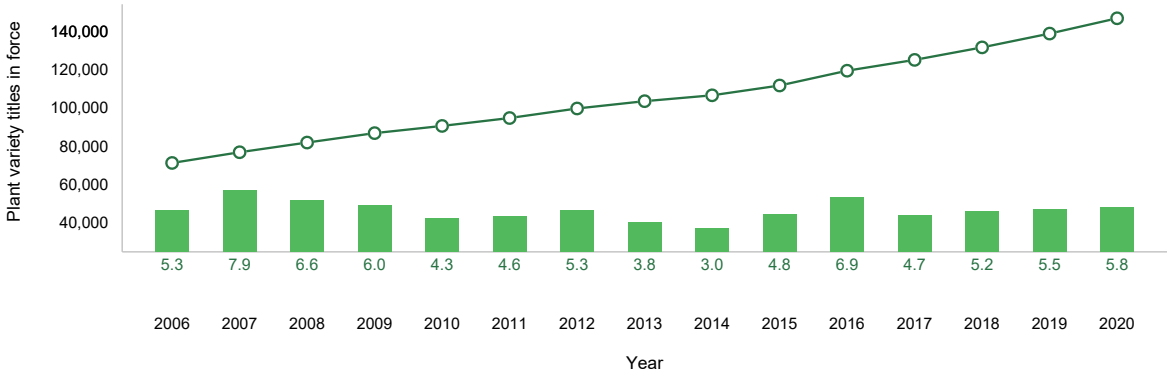


Note: The origin of titles issued is determined by the residence of the applicant. Titles issued by regional offices are considered equivalent to multiple titles in the relevant member states. See the glossary for the definition of equivalent count.

Source: WIPO Statistics Database, September 2021.

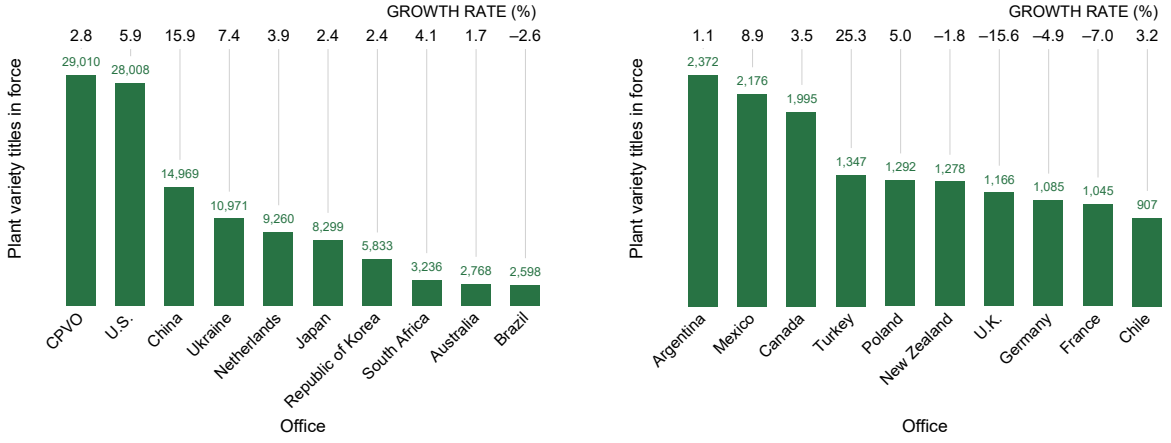
Plant varieties in force

D14. Trend in plant varieties in force worldwide, 2006–2020



Note: World totals are WIPO estimates using data covering 71 offices.
Source: WIPO Statistics Database, September 2021.

D15. Plant varieties in force at selected offices, 2020



Note: CPVO is the Community Plant Variety Office of the European Union. A jurisdiction can be covered by more than one office. When applicable and for simplicity, we combine offices under a single jurisdiction.
Source: WIPO Statistics Database, September 2021.

Statistical table

D16. Plant variety applications and titles issued by office and origin, and plant variety titles in force by office, 2020

	Applications by office			Applications by origin	Equivalent applications by origin	Titles issued by office			Plant varieties in force
Name	Total	Resident	Non-resident	Total	Total	Total	Resident	Non-resident	Office
Argentina	448	300	148	348	348	54	32	22	2,372
Australia	316	131	185	307	923	212	100	112	2,768
Austria (a)	..	..	..	60	627	2	2	0	18
Belarus	25	10	15	11	11	15	9	6	247
Belgium	2	2	0	67	985	6	6	0	48
Brazil	335	181	154	241	437	266	132	134	2,598
Bulgaria	26	26	0	36	36	13	13	0	294
Canada	338	75	263	135	387	222	33	189	1,995
Chile	79	9	70	14	14	86	5	81	907
China	8,960	8,329	631	8,362	8,446	2,990	2,733	257	14,969
Colombia	128	10	118	17	129	112	12	100	706
Community Plant Variety Office of the European Union	3,427	2,785	642	n.a.	..	2,978	2,426	552	29,010
Costa Rica	7	1	6	3	31	5	1	4	19
Croatia	8	8	0	13	13	..	..	..	67
Czech Republic	37	28	9	57	300	64	53	11	790
Democratic People's Republic of Korea (b)	..	..	..	3	87	..	..	..	..
Denmark	10	4	6	182	3,098	..	..	..	45
Ecuador	78	7	71	11	39	48	1	47	379
Egypt	34	10	24	10	10	19	2	17	404
Estonia	10	4	6	4	4	2	0	2	97
Eswatini (b)	..	..	..	67	67	..	..	..	..
Finland	6	1	5	3	30	7	1	6	198
France	93	81	12	970	14,605	78	76	2	1,045
Georgia	17	0	17	..	..	..	..	..	205
Germany	33	26	7	939	12,225	37	29	8	1,085
Greece (b)	..	..	..	2	56	..	..	..	..
Hungary	26	26	0	40	256	34	33	1	194
India (b)	..	..	..	6	6	..	..	..	..
Ireland	6	0	6	7	115	1	1	0	55
Israel	88	47	41	149	737	7	2	5	760
Italy	3	3	0	220	3,028	..	..	..	48
Japan	713	457	256	660	1,920	502	288	214	8,299
Jordan	21	5	16	5	5	14	0	14	52
Kenya	63	3	60	3	3	91	45	46	534
Kyrgyzstan	3	3	0	3	3	1	1	0	6
Latvia	6	5	1	6	6	3	3	0	181
Lithuania	4	4	0	4	4	4	4	0	113
Mauritius (b)	..	..	..	16	16	..	..	..	..
Mexico	250	80	170	95	263	227	40	187	2,176
Morocco	63	0	63	8	120	89	1	88	541
Netherlands	837	630	207	3,438	38,700	641	568	73	9,260
New Zealand	94	32	62	97	489	77	34	43	1,278
Nicaragua	6	6	0	6	6	..	..	..	14
Nigeria (b)	..	..	..	1	1	..	..	..	..

Name	Applications by office			Applications by origin	Equivalent applications by origin	Titles issued by office			Plant varieties in force
	Total	Resident	Non-resident	Total	Total	Total	Resident	Non-resident	Office
Norway	23	5	18	9	9	22	2	20	235
Paraguay	21	5	16	13	13	26	7	19	490
Peru	43	9	34	12	96	16	6	10	290
Poland	148	98	50	157	1,264	101	86	15	1,292
Portugal (a)	..	..	..	..	..	2	1	1	9
Republic of Korea	729	632	97	646	646	454	392	62	5,833
Republic of Moldova	31	24	7	27	55	43	37	6	268
Romania	50	50	0	82	190	40	40	0	443
Russian Federation	800	502	298	509	649	556	446	110	..
Serbia	63	4	59	19	439	45	1	44	406
Singapore	4	0	4	2	2	1	0	1	7
Slovakia	9	9	0	13	67	10	10	0	328
Slovenia (a)	..	..	..	..	..	..	..	..	10
South Africa	275	39	236	81	249	231	50	181	3,236
Spain	66	50	16	325	4,375	38	33	5	371
Sweden	3	3	0	17	287	1	0	1	87
Switzerland	93	5	88	491	5,559	50	1	49	692
Thailand (b)	..	..	..	5	5	..	..	..	..
Tunisia	18	1	17	1	1	32	2	30	215
Turkey	282	141	141	153	181	275	169	106	1,347
Ukraine	1,260	556	704	557	557	819	340	479	10,971
United Kingdom	130	19	111	206	1,772	77	19	58	1,166
United Republic of Tanzania	6	5	1	5	5	..	..	..	115
United States of America (PPA) (c)	988	349	639	n.a.	..	1,398	597	801	19,698
United States of America (PVPA)	444	383	61	2,190	10,226	543	422	121	8,310
Uruguay	45	12	33	15	15	56	14	42	620
Uzbekistan	122	121	1	121	121	62	61	1	190
Viet Nam	259	198	61	201	201	68	65	3	628
Zimbabwe (b)	..	..	..	1	1	..	..	..	..
Others/Unknown	..	..	..	28	112	..	..	..	..
Total (2020 estimates)	**22,520**	**16,600**	**5,920**	**22,520**	**n.a.**	**14,160**	**8,800**	**3,210**	**146,910**

(a) This office did not report data therefore applications by origin data may be incomplete.

(b) Is not a member of the International Union for the Protection of New Varieties of Plants (UPOV).

(c) Applications by origin are reported under United States of America (PVPA).

n.a. indicates not applicable.

.. indicates not available.

Sources: WIPO Statistics Database, September 2021.

Geographical indications

Introduction

A geographical indication (GI) is a sign identifying a good as originating from a specific geographical area and possessing a given quality, reputation or other characteristic that is essentially attributable to that geographical origin. Thus, the main function of a GI is to identify goods whose quality, reputation or other characteristics are strongly connected to the territory of origin.

GIs can be protected through a variety of legal means (e.g., *sui generis* systems, trademark laws, regional system, international agreements, other national legal means, etc.). In addition, the protection of GIs at a national level is often shared among several agencies. WIPO has made a major effort to gather data from all sources, but in many instances it has not been possible to obtain data from every source. For example, many countries are unable to identify GIs protected through the trademark system. Nonetheless, the statistics gathered afford a valuable insight into how this form of IP is being used in different parts of the world.

How many GIs are in force worldwide?

Data received from the 92 national and regional authorities that shared their 2020 data with WIPO show there are an estimated 58,800 protected GIs in existence.[1]

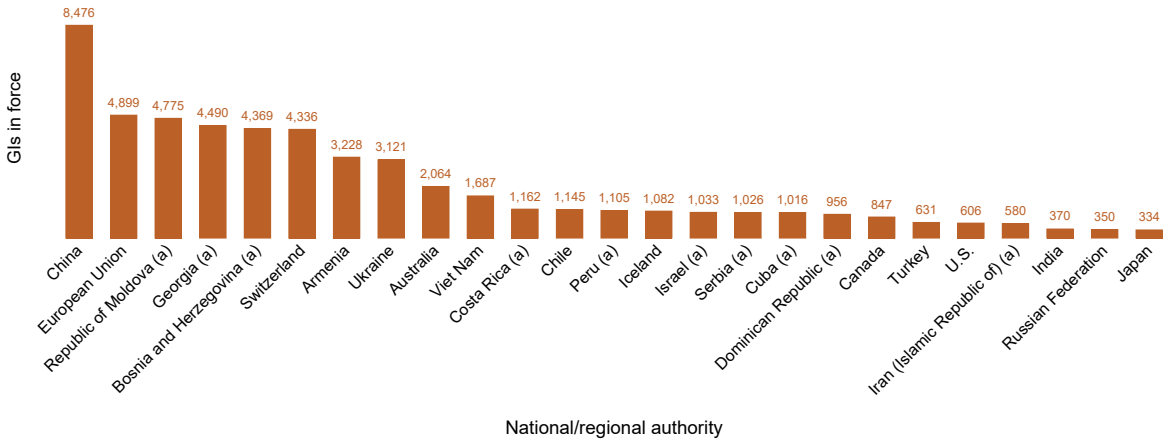
To minimize double counting, GIs in force through the European Union (EU) (4,899 GIs in force) regional system and the Lisbon System (1,016) are counted once only, rather than multiplied by the number of member states of each system. This notwithstanding, the overall total of around 58,800 will inevitably include a degree of double counting, as those GIs in force through bilateral, plurilateral or multilateral agreements could potentially be included multiple times. If GIs in force through various international agreements are excluded, then the total number of GIs in force in 2020 amounts to around 26,800.

The offices of high-income countries accounted for 47.5% of GIs in force in 2020, followed by those of upper middle-income (42.9%) and lower middle-income countries (9.6%). In terms of regional distribution, Europe had the most GIs in force across all regions, amounting to 57.1%, followed by Asia (33.1%), Latin America and the Caribbean (3.7%), Oceania (3.6%) and North America (2.5%).

Figure 5.1 shows the total number of GIs in force for selected national and regional authorities, while figure 5.2 reports data on GIs in force for EU member states. Germany (14,394) had the most GIs in force in 2020, followed by China (8,476), Hungary (7,566), the Czech Republic (6,180), Slovakia (5,924) and Portugal (5,871). The high rankings achieved by EU countries is explained by the fact the 4,899 GIs in force through the

China had over 8,400 GIs in force in 2020

5.1. Geographical indications in force for selected national and regional authorities, 2020



Note: There is no registration requirement for *sui generis* protection of GIs in Switzerland. Only those denominations subject to registration or recognition on the basis of the instruments provided for in the Law on Agriculture and the Law on the Protection of Trademarks and Indications of Source, or of a court decision or special legislation, are counted under the national systems of protection. This year, the U.S. Patent and Trademarks Office amended its search strategy in order to better identify GIs protected through the trademarks system. Identifying GIs protected via the trademark system (certification and collective marks) is extremely time consuming and requires extensive manual intervention. For this reason, a number of authorities like the U.K. were unable report on GIs protected via the trademark system (see table 5.7).

(a) includes Lisbon data.

Source: WIPO Statistics Database, September 2021.

EU regional system are in force in every member state. In addition, some EU member states, such as Italy, are party to the Lisbon System therefore GIs in force via the Lisbon System (1,016 appellations of origin, excluding refusals) are also included in the total. There are several middle-income countries with a high number of GIs in force within their jurisdiction; for example, in 2020, 4,775 GIs were in force in the Republic of Moldova, 4,490 in Georgia and 4,369 in Bosnia and Herzegovina. Again, these countries' high ranking in terms of GIs in force is because they are party to the Lisbon System. In contrast, India (370), the Russian Federation (350) and Japan (334) had considerably fewer GIs in force, which could be explained by them having either no GIs protected through international agreements or only a small number (see table 5.7).

Figure 5.3 shows the total number of GIs in force broken down by legal means of protection for selected national and regional authorities. All GIs in force in Brazil, China, Colombia and India were protected through national systems, whereas the bulk of GIs in force in Australia (90.7%), Iceland (99.8%) and Switzerland (97.6%) were protected through international agreements.

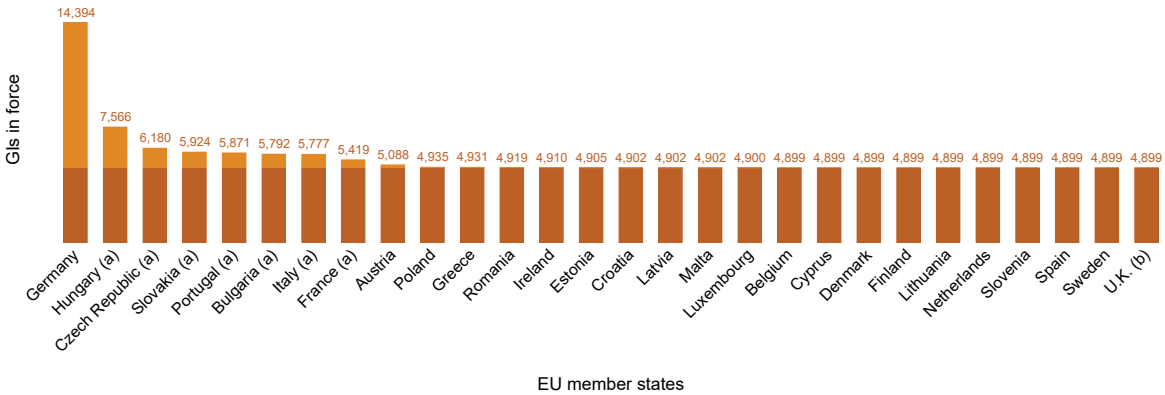
A number of authorities provided GIs data broken down according to source (i.e., national or foreign GIs). Figure 5.4 shows data for selected national and regional authorities. The share of national GIs ranged from as low as 0.6% in Ukraine up to 100% in Argentina. More than 90% of the GIs that were in force in India (95.9%), Norway (91.7%) and Turkey (98.4%) are national GIs, whereas almost all those in force in Cuba (97.5%), Georgia (98.6%), Switzerland (97.6%) and Ukraine (99.4%) were foreign GIs.

GIs in force relating to wines and spirits accounted for 56.1% of the 2020 global total, followed by agricultural products and foodstuffs (38.6%) (figure 5.5). Handicrafts accounted for 3.6% of the total.[2]

In terms of absolute numbers, China (7,417) had the highest number of GIs for agricultural products in force, followed by Germany (2,014) and Portugal (1,898). Within the category of wines and spirits, Germany had the most GIs in force (12,291), followed by Portugal (3,822), Bulgaria (3,790) and Italy (3,748). Switzerland (423), China (346) and India (214) each had a considerable number of GIs in force for handicrafts in 2020. Data for EU member states include GIs in force through the EU regional system.

The EU regional system accounted for the bulk of GIs in force in every member state, with the exception of Germany

5.2. Geographical indications in force for EU member states, 2020



Note: This figure shows the total number of geographical indications (GIs) in force in EU member states, broken down by GIs in force based on EU regional systems/agreements and on national systems/agreements. The EU has regional systems for the protection of GIs covering agricultural and foodstuff products, wines and spirits. Identifying GIs protected via the trademark system (certification and collective marks) is extremely time consuming and requires extensive manual intervention. For this reason, a number of authorities like the U.K. were unable report GIs protected via the trademark system (see table 5.7).

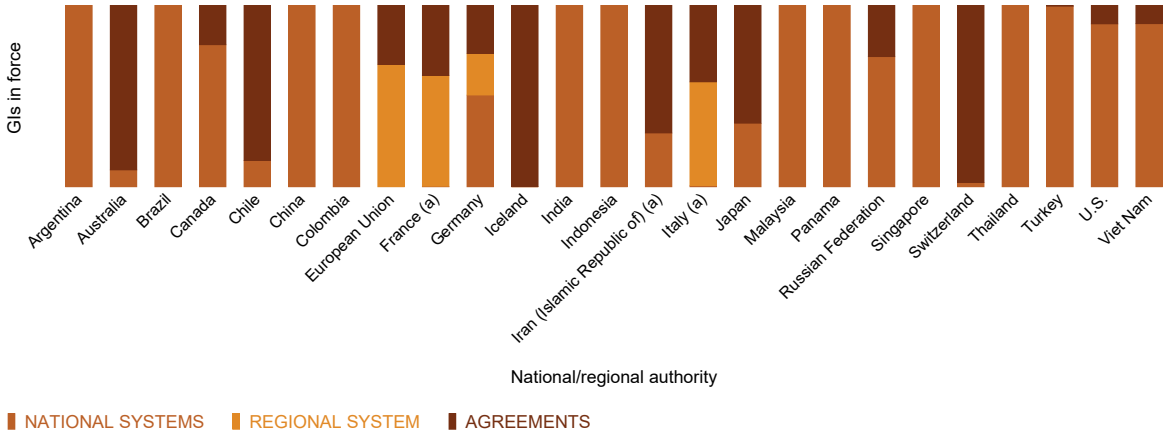
(a) includes Lisbon data.

(b) the U.K. is no longer a member of the EU; however, the EU regional system continued to apply to the U.K. during the term of the Brexit transition period (2020).

Source: WIPO Statistics Database, September 2021.

The bulk of GIs in force in Australia, Chile, Iceland and Switzerland were protected by international agreements

5.3. Distribution of geographical indications in force by legal means of protection for selected national and regional authorities, 2020



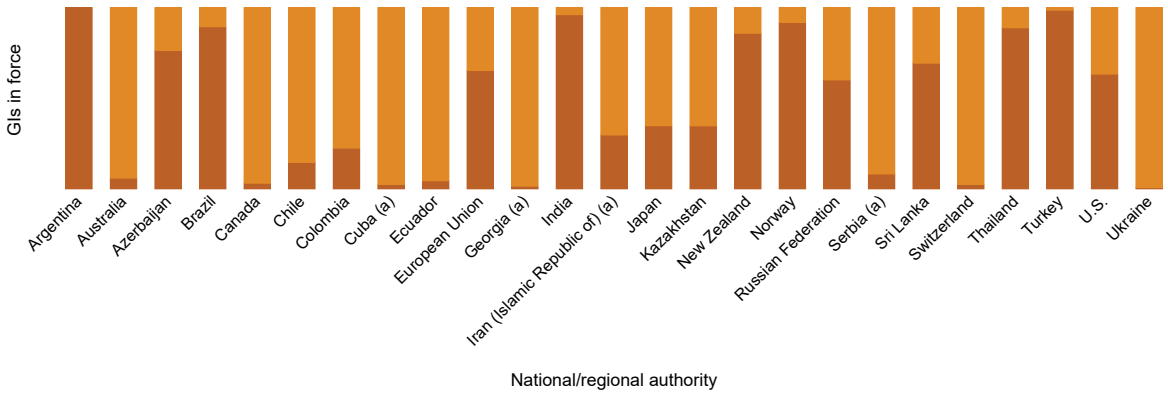
Note: There is no registration requirement for *sui generis* protection of GIs in Switzerland. Only those denominations subject to registration or recognition on the basis of the instruments provided for in the Law on Agriculture and the Law on the Protection of Trademarks and Indications of Source, or of a court decision or special legislation, are counted under the national systems of protection.

(a) includes Lisbon data.

Source: WIPO Statistics Database, September 2021.

The share of national GIs in a selection of national and regional authorities ranged from 0.6% (Ukraine) to 100% (Argentina)

5.4 Distribution of geographical indications in force by source for selected national and regional authorities, 2020



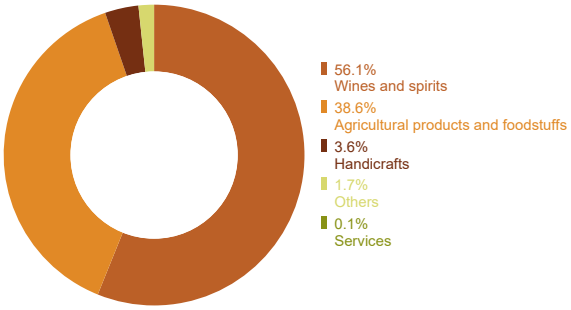
Note: There is no registration requirement for *sui generis* protection of GIs in Switzerland. Only those denominations subject to registration or recognition on the basis of the instruments provided for in the Law on Agriculture and the Law on the Protection of Trademarks and Indications of Source, or of a court decision or special legislation, are counted under the national systems of protection.

(a) includes Lisbon data.

Source: WIPO Statistics Database, September 2021.

Wines and spirits accounted for 56.1% of GIs in force globally

5.5. Geographical indications in force by product category, 2020



Note: The global total by product category is based on data from the 74 jurisdictions for which 2020 data by product category are available. GIs in force through regional systems like the EU were counted once rather than multiple times, as they were in force in all of the respective member states. This is to minimize double counting.

Source: WIPO Statistics Database, September 2021.

The GIs in force data reported here are partial and incomplete and therefore ought to be interpreted with caution. The questionnaire underlying the data collection requested information regarding GIs protected through *sui generis* systems, trademark systems, other national legal means, regional systems and international agreements (including GIs in force under the Lisbon System and the Madrid System). As table 5.7 overleaf indicates, many countries did not provide statistics on the number of GIs protected through trademark systems. This might be because the countries concerned do not use the trademark system to protect GIs or else some countries that do use it have difficulty separating GIs from other trademarks (most commonly, collective and certification trademarks). In addition, several countries could not provide data on how many GIs were protected through international agreements.

Germany (7,276) reported the highest number of GIs protected via the *sui generis* system, followed by China (2,391) and Canada (663). The most GIs protected via the trademarks system were in China (6,085), followed by Viet Nam (1,415) and the U.S. (279), while the Republic of Moldova (4,751), Georgia (4,426) and Bosnia and Herzegovina (4,355) reported high volumes of GIs protected through international agreements.

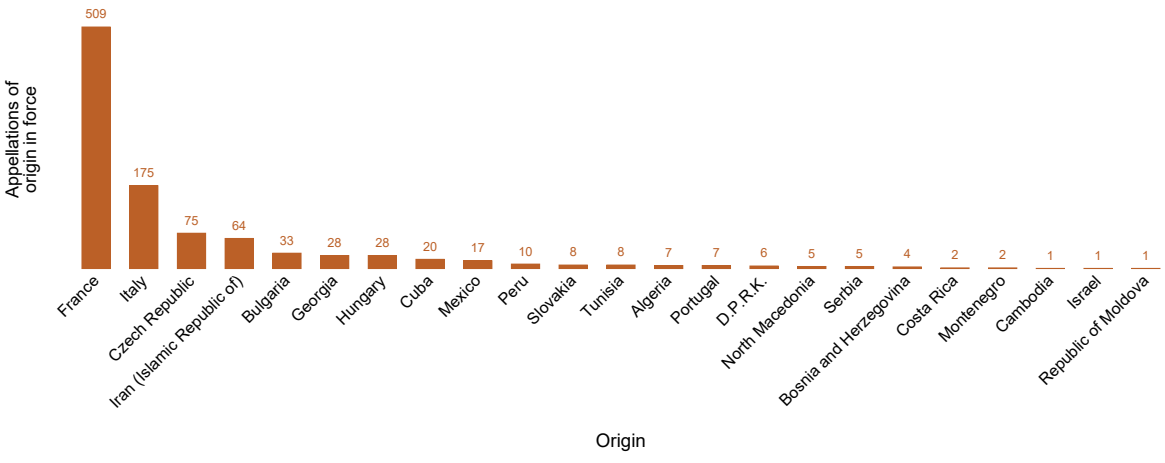
France and Italy are the two biggest users of the Lisbon System

As of 2020, the Lisbon System consists of 33 Contracting Parties. Cambodia, the EU and Samoa acceded to the Lisbon System in February 2020 as a result of the entry into force of the Geneva Act on February 26.

In 2020, there were 1,016 appellations of origin (AO) in force via the Lisbon System (figure 5.6). This is six more than in the previous year. France remains the primary user of the Lisbon System. It accounted for half (50.1%) of the 2020 total, followed by Italy (17.2%), the Czech Republic (7.4%), the Islamic Republic of Iran (6.3%) and Bulgaria (3.2%). The 2020 shares for each of these origins are similar to what they were in 2019.

The number of appellations in force remained largely unchanged from the year before

5.6. Appellations of origin in force by origin, 2020



Note: D.P.R.K. is the Democratic People's Republic of Korea.

Source: WIPO Statistics Database, September 2021.

5.7. Geographical indications in force in 2020

National/regional authority	Total	*Sui generis*	Trademarks	Other national legal means	Regional system	Agreements
Albania	14	..	14	..	..	..
Andorra	7	4	2	..	..	1
Argentina	112	112	..	..	..	..
Armenia	3,228	8	..	..	..	3,220
Australia	2,064	116	76	..	..	1,872
Austria	5,088	..	..	..	3,304	1,784
Azerbaijan	42	..	42	..	..	..
Bangladesh	3	3	..	..	..	..
Belarus	39	39	..	..	..	..
Belgium	4,899	..	..	..	3,304	1,595
Bosnia and Herzegovina (a)	4,369	14	..	..	..	4,355
Botswana	1	..	..	1	..	..
Brazil	84	84	..	..	..	..
Bulgaria (a)	5,792	42	..	..	3,304	2,446
Cabo Verde	2	..	..	2	..	..
Cambodia	7	7	..	..	..	..
Canada	847	663	..	..	..	184
Chile	1,145	43	..	123	..	979
China	8,476	2,391	6,085	..	..	..
China, Hong Kong SAR	50	..	50	..	..	..
China, Macao SAR	21	3	18	..	..	..
Colombia	156	156	..	..	..	..
Costa Rica (a)	1,162	5	..	..	..	1,157
Croatia	4,902	3	..	..	3,304	1,595
Cuba (a)	1,016	25	..	..	..	991
Cyprus	4,899	..	..	..	3,304	1,595
Czech Republic (a)	6,180	62	..	..	3,304	2,814
Denmark	4,899	..	..	..	3,304	1,595
Dominican Republic (a)	956	..	9	..	..	947
Ecuador	135	6	..	..	..	129
El Salvador	29	29	..	..	..	..
Estonia	4,905	6	..	..	3,304	1,595
European Union	4,899	..	..	..	3,304	1,595
Finland	4,899	..	..	..	3,304	1,595
France (a)	5,419	12	..	4	3,304	2,099
Georgia (a)	4,490	53	..	11	..	4,426
Germany	14,394	7,276	1	..	3,304	3,813
Greece	4,931	16	..	16	3,304	1,595
Honduras	45	..	45	..	..	..
Hungary (a)	7,566	10	..	..	3,304	4,252
Iceland	1,082	2	..	..	..	1,080
India	370	370	..	..	..	..
Indonesia	100	100	..	..	..	..
Iran (Islamic Republic of) (a)	580	172	..	..	..	408
Ireland	4,910	11	..	..	3,304	1,595
Israel (a)	1,033	7	..	..	..	1,026
Italy (a)	5,777	36	..	..	3,304	2,437
Jamaica	4	3	1	..	..	..
Japan	334	117	..	..	..	217
Jordan	6	..	6	..	..	..
Kazakhstan	49	49		..	..	..
Lao People's Democratic Republic	5	5	..	..	..	..
Latvia	4,902	3	..	..	3,304	1,595
Lithuania	4,899	..	..	..	3,304	1,595
Luxembourg	4,900	1	..	..	3,304	1,595
Malaysia	97	97	..	..	..	..
Malta	4,902	..	..	3	3,304	1,595
Mongolia	7	7	..	..	..	..
Montenegro (a)	1,025	15	..	..	..	1,010
Mozambique	2	..	..	2	..	..
Netherlands	4,899	..	..	..	3,304	1,595
New Zealand	21	21	..	..	..	..
Norway	36	33	..	..	..	3

National/regional authority	Total	*Sui generis*	Trademarks	Other national legal means	Regional system	Agreements
Pakistan	1	1	..	..	..	..
Panama	122	..	122	..	..	..
Peru (a)	1,105	10	..	..	..	1,095
Poland	4,935	36	..	..	3,304	1,595
Portugal (a)	5,871	23	..	..	3,304	2,544
Republic of Moldova (a)	4,775	24	..	..	..	4,751
Romania	4,919	20	..	..	3,304	1,595
Russian Federation	350	251	..	..	..	99
Serbia (a)	1,026	84	..	..	..	942
Singapore	141	141	..	..	..	..
Slovakia (a)	5,924	22	..	..	3,304	2,598
Slovenia	4,899	..	..	..	3,304	1,595
Spain	4,899	..	..	..	3,304	1,595
Sri Lanka	26	..	26	..	..	..
Sweden	4,899	..	..	..	3,304	1,595
Switzerland	4,336	104	..	2	..	4,230
Thailand	151	151	..	..	..	..
Trinidad and Tobago	1	1	..	..	..	..
Turkey	631	628	..	..	..	3
U.K. (b)	4,899	..	..	..	3,304	1,595
U.S.	606	..	279	265	..	62
Ukraine	3,121	30	..	..	..	3,091
Viet Nam	1,687	101	1,415	..	..	171

Note: There is no registration requirement for *sui generis* protection of GIs in Switzerland. Only those denominations subject to registration or recognition on the basis of the instruments provided for in the Law on Agriculture and the Law on the Protection of Trademarks and Indications of Source, or of a court decision or special legislation, are counted under the national systems of protection. This year, the U.S. Patent and Trademarks Office amended its search strategy in order to better identify GIs protected through the trademarks system. Identifying GIs protected via the trademark system (certification and collective marks) is extremely time consuming and requires extensive manual intervention. For this reason, a number of authorities like the U.K. were unable to report on GIs protected via the trademark system.

(a) includes Lisbon data.

(b) the U.K. is no longer a member of the EU; however, the EU regional system continued to apply to the U.K. during the term of the Brexit transition period (2020).

.. indicates zero/not available.

Source: WIPO Statistics Database, September 2021.

1 Of the 92 responses received from authorities worldwide, six – Bahrain, Bhutan, Curaçao, Rwanda, Saint Vincent and the Grenadines, and South Africa – replied saying they had had no GIs in force within their jurisdiction in 2020.

2 The global total by product category is based on data from the 74 jurisdictions for which 2020 data by product category are available. GIs in force through regional systems like the EU were counted once rather than multiple times, as they were in force in all the respective member states. This is to minimize double counting.

Creative economy

Highlights

Introduction

Publishing industry data are not unified under a single authority. For this reason, data are drawn from three different surveys in order to get an overview of the global publishing industry worldwide. This section first presents data from a publishing industry survey, followed in turn by data from a legal deposits survey and then International Standard Book Number (ISBN) registrations data.[1]

Publishing survey data

This first subsection presents data for the publishing industry provided by the 39 countries that responded to the global publishing industry survey in 2021. In total, 38 national publishers' associations and copyright authorities agreed to share their 2020 data, while Colombia provided its latest available 2019 data. Publishing industry revenue and the number of titles published are presented below.

Sales and licensing revenue generated by the trade and educational sectors

U.S. publishing industry revenue reached over USD 23.6 billion in 2020

The 2020 sales and licensing revenue data covering the trade and the educational sectors are available for 21 countries. An additional two countries provided revenue data for the trade sector only. The combined publishing industry revenue for these 23 countries was USD 64.4 billion in 2020. The United States of America (U.S.) (USD 23.6 billion) reported the largest sales revenue, followed by Japan (USD 10.8 billion), Germany (USD 10.6 billion), the United Kingdom (U.K.) (USD 4.8 billion) and Italy (USD 3.5 billion) (figure 6.1).

Trade sector revenue accounted for 50% or more of total revenue for 15 of the 18 countries for which 2020 data by sector are available – ranging from 53.5% in Italy up to 90.7% in Japan. Educational sector revenue accounted for over half of total revenue in Brazil (63.3%), the Netherlands (62.6%) and Turkey (52.3%) (table F16).

Publishing industry survey

WIPO's survey of the global publishing industry was established in collaboration with the International Publishers Association (IPA) in 2017. In addition, WIPO has strengthened cooperation with Centro Regional para el Fomento del Libro en América Latina y el Caribe (CERLALC) and the Federation of European Publishers (FEP) in order to reduce the burden on respondents and extend the geographical coverage of the survey. This year, the FEP compiled and shared data with WIPO for 15 European countries (FEP members). In addition, CERLALC provided data for several Latin America and the Caribbean (LAC) countries. WIPO is grateful to CERLALC and the FEP for sharing data.

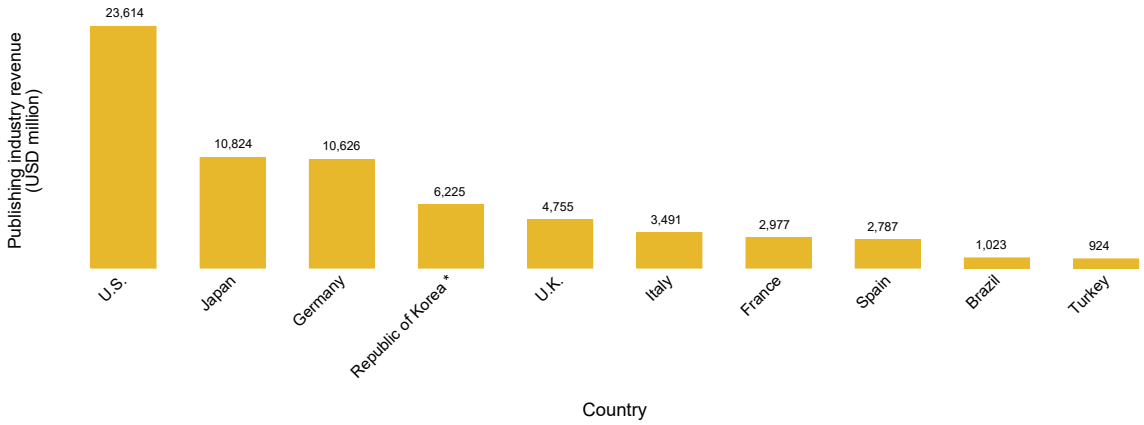
The scope of the publishing industry survey is limited to (a) the trade and educational sectors, and (b) published materials (i.e., books, monographs, and so on) issued with an ISBN, a Digital Object Identifier (DOI) or any other book identifier.

Every effort has been made to compile statistics based on the same definitions so as to facilitate international comparison. However, caution should be exercised when interpreting data, as some of the data points are incomplete and partial. For example, a number of countries provided revenue and/or titles published in print format only therefore any digital components are necessarily missing. Similarly, a few countries reported revenue data at market value calculated from retail prices instead of net revenue. Furthermore, for most countries, the respondents were national publishers' associations (NPAs), with the share of the total publishing industry represented by NPAs varying between countries.

Digital/audio editions generated one-third of total revenue in Japan in 2020

The 2020 revenue data by format – print, digital and audio formats – are available for 15 countries. The share of digital/audio formats ranged from 2% in Brazil to 33.1% in Japan (figure F2). Digital/audio formats generated a high percentage of total revenue in the Nordic countries of Denmark (30.7%), Finland (28.2%), Norway (26.3%) and Sweden (31.1%).

6.1. Publishing industry revenue (USD million), 2020



Note: Data for Germany, Italy and Spain are at market value calculated from retail prices.
* 2019 data.
Source: Figure F1.

Foreign sales accounted for 35.1% of total revenue in the U.K. in 2020

Only 10 countries were able to provide publishing industry revenue by destination (domestic or foreign markets) for 2020. Among them, the U.K. generated 35.1% of total revenue from foreign markets, followed by Spain (11.4%), New Zealand (11.3%) and Portugal (8.9%). Foreign market share for the remainder was below 5% (figure F3). Although the U.S. generated only 4.6% of total revenue from foreign markets, in absolute terms, it generated USD 1.1 billion in 2020.

Online sales generated more than two-thirds of total revenue in the U.K.

Revenue data by sales channel – brick and mortar, online and others – are available for 13 countries for 2020. Online sales generated more than two-thirds of total publishing industry revenue in the U.K. (68.6%) in 2020 (figure F4). Brazil (38.7%), Malta (37.8%), Sweden (38%), Turkey (44.1) and the U.S. (37.3%) also had a large proportion of their total revenue generated by online sales. Brick and mortar, however, continued to generate the bulk of total revenue in Spain (79.2%), Italy (62.9%) and New Zealand (61.2%).

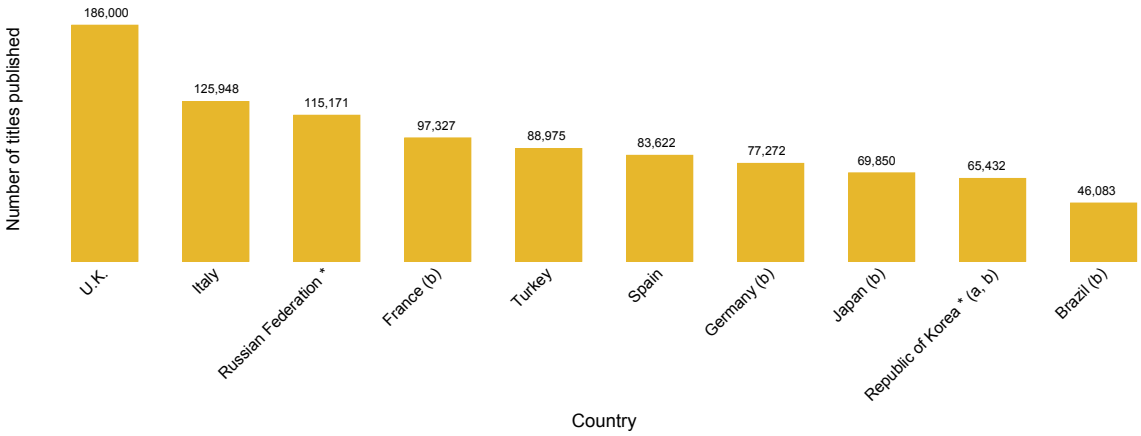
Titles published by the trade and educational sectors

Despite a sharp decline, the U.K. published around 186,000 titles covering the trade and educational sectors in 2020

Data on the total number of titles published in 2020 covering both the trade and educational sectors are available for 31 countries. The U.K. reported a combined total of around 186,000 published titles in 2020. Italy (125,948), France (97,327), Turkey (88,975) and Spain (83,622) round out the top five countries (figure 6.2). Four of the top five countries – Italy being the exception – reported fewer titles published in 2020 compared to the previous year. Spain (–12.8%) recorded the biggest decline, followed by France (–9.2%), the U.K. (–7.9%) and Turkey (–5.8%). In contrast, Italy saw a 25.6% growth.

The trade sector share ranged from 24.8% in New Zealand up to 98.2% in Japan. In all the countries where data is reported by sector, the trade sector accounted for more than half of all titles published, the exceptions being Belarus (47.1%), Mexico (49.2%) and New Zealand (24.8%). Like in Japan, the trade sector accounted for the vast bulk of titles published in Austria (89.5%), Estonia (91.3%) and Latvia (92.3%) (table F17).

6.2. Total number of titles published, 2020



(a) trade sector only.
(b) print format only.
* 2019 data.
Source: Figure F5.

Digital/audio editions accounted for more than half of all titles published in Norway and Sweden

In total, 21 countries reported data on the number of titles published by format (print, digital and audio). The share of digital/audio formatted titles ranged from 5.1% in the Republic of Moldova up to 57.3% in Sweden (figure F6). The largest shares of digital/audio were in Sweden (57.3%), followed by Norway (51.5%) and Iceland (48.8). Less than one in 10 titles published in the Republic of Moldova (5.1%), Thailand (8.2%) and Turkey (7.8%) were in digital/audio format.

Children's books

In the U.S., children's books revenue was around USD 4.7 billion in 2020

The total revenue generated from sales of children's books is available for 18 countries and amounted to USD 8.8 billion in 2020. The U.S. reported revenue of USD 4.7 billion from children's books in 2020, followed by Germany (USD 2 billion), the U.K. (USD 508 million), Spain (USD 427 million) and France (USD 406 million) (figure F7).

Revenue from children's books represented the biggest share of trade sector revenue in Malta (52%), New Zealand (41.5%), Spain (41.4%) and the U.S. (28.2%) (figure F8). Georgia (11%), Ireland (12.4%), Thailand (13.3%) and Turkey (12.3%) all had a similar share around 11–13%.

In New Zealand, more than half of trade sector titles were children's books

Data on children's books published by the trade sector in 2020 is available for 21 countries. France (16,408) reported the highest number of children's books titles published in 2020, followed by Turkey (10,429), Italy (9,348), Germany (7,932) and Norway (2,690) (figure F9). Children's books represented the largest share of trade sector published titles in New Zealand (55%), Malta (40.8%), Greece (28.6%) and Finland (27.7%) (figure F10).

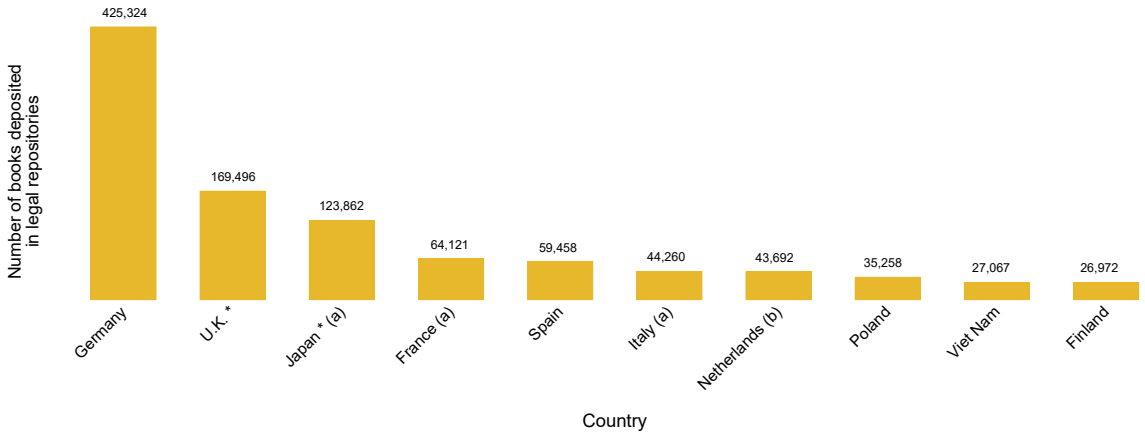
Legal deposits in recognized repositories

This second subsection presents data on legal deposits. In total, 57 national repositories shared their 2020 data with WIPO.[2] WIPO's legal deposits survey covers three categories, namely, (a) books, (b) music sheets and music audio files, and (c) films and videos.[3]

Germany's legal repository received the highest number of books in 2020

The highest number of books published and deposited in a national repository in 2020 was recorded by Germany (425,324), followed by the U.K. (169,496), Japan (123,862), France (64,121) and Spain (59,458) (figure 6.3). It should be noted, however, that several large book markets, notably those of China, the Russian Federation and the U.S. did not participate in the survey this year. Data for all countries where available are presented in table F18.

6.3. Number of books in legal repositories, 2020



(a) print format only.
(b) books are deposited on a voluntary basis.
* 2019–2020 fiscal year.
Source: Table F18.

Germany saw a substantial decrease in deposits, which fell from 693,722 in 2019 down to 425,324 in 2020. This was due to a significant digitalization of old records in 2019, which made the figure artificially high that year and above the normal trend. The U.K. (–41,132) likewise received fewer book deposits in 2020 compared to 2019. Among the 53 countries/territories for which data for 2019 and 2020 are available, only 13 reported an increase in the number of books deposited in 2020, while the remaining 40 saw a decrease.

Data on the books deposited by format – print, digital and other – are available for 36 countries. More than half of all books deposited in Finland (68.9%), Germany (71.7%), the Netherlands (59.9%), New Zealand (68.9%) and the U.K. (53.5%) in 2020 were in a digital format (figure F12). In contrast, print format constituted the bulk of the books deposited in Greece (95.8%), Peru (99.6%) and South Africa (94.7%).

Legal deposits

Legal deposit is a statutory obligation at the national level requiring publishers to deposit a certain number of copies of published documents at a repository, that is, a recognized place of legal deposit. Ordinarily, national legal provisions require at least two copies to be submitted, although this varies across countries.

It should be noted that in some countries legal deposits are required only for printed books, while in others digital publications and other formats are required also. Moreover, a number of countries reported items as having undergone a process of digitization recently, which has resulted in a significant increase in digital publications in recent years (e.g., Germany and New Zealand). In some countries, there is no legal obligation to deposit e-books, although this may be done on a voluntary basis. For this reason, care should be exercised when making cross-country comparisons.

Finland reported the most music item deposits in 2020

Twenty-three countries reported data on music sheets and music audio (from here onward referred to as music items) deposited in 2020. Finland received 46,965 music item deposits in 2020, followed by Germany (29,282), Spain (14,890), Japan (13,411) and France (10,391) (figure F13).[4] Among the top five countries, France (+8.9%) is the only one to have received more music item deposits in 2020 than in 2019, the other four – Finland (–22.8%), Germany (–4%), Japan (–1.7%) and Spain (–15.5%) – receiving fewer deposits over the same period.

Music audio constitutes almost all the music items deposited in Finland (99.2%) and Iceland (99%). Italy, Japan and New Zealand also had a high percentage of music audio within the total of music items (figure F14). In fact, music audio accounted for more than 70% of total music items in 15 of the 19 countries reported in figure F14.

The most films and videos were deposited in Japan in 2020

Data on the number of films and videos deposited are available for 19 countries. It should be noted that some data on the visual or audiovisual items in legal deposits are collected by agencies other than national libraries; this is the case in Finland and Italy, for example. Japan reported the highest number of films and videos deposited in legal repositories, amounting to 9,420 items; an increase of 22.9% on 2019. Japan was followed by France (4,901), Spain (2,058), Italy (1,785) and Poland (1,456) (figure F15). Spain (+3.3%) recorded a small increase. In contrast, France experienced a big (–56.9%) decrease over the period, while the decline in deposits in Italy (–33.3%) and Poland (–33.1%) was of a similar magnitude.

International Standard Book Number (ISBN) data

This third subsection presents data on ISBN registrations. An ISBN is a permanent international standard book identifier assigned to a publication and administered by the International ISBN Agency and national or regional ISBN agencies throughout the world. ISBN data gives a good indication as to the size of the publishing market in different countries and is a means of validating data from other sources. For 2020, the International ISBN Agency shared data for 37 countries provided by national ISBN agencies. In addition, CERLALC shared data for 15 countries covering the LAC region.

Table F19 presents data on (a) the lifetime ISBNs registered and (b) the number of ISBNs registered in 2020. The U.S., with 3.9 million registered ISBNs in 2020, was by far the biggest user of the ISBN identifier in 2020, followed by the Republic of Korea (329,582), Germany (284,000), China (263,066), the U.K. (188,553) and Indonesia (144,793). Both the U.S. (–1.3 million) and the U.K. (–15,462) reported fewer ISBN registrations in 2020 compared to 2019. This could be partly due to the negative impact of the COVID-19-related restrictions imposed in these two countries.

Although ISBN data represents the number of publications, there will be some double counting, as alternative formats for the same publication (e.g., e-book, paperback and hardcover editions) will have been assigned a separate ISBN.

ISBN as an identifier

The ISBN is the most common publication identifier in use. The ISBN system has a three-tier administrative structure – the International ISBN Agency, the national and regional registration agencies, and publishers. The International ISBN Agency is the official registration authority appointed by the International Organization for Standardization (ISO) to supervise the global use of the ISBN Standard. There are around 150 registration agencies assigning unique registrant elements and ISBNs to publishers. Publishers are then responsible for assigning unique ISBNs to individual publications from within the registrant elements they have been allocated.

Publishers do, however, also use other identifiers, such as an Amazon Standard Identification Number (ASIN), a Digital Object Identifier, and so on.

1 The publishing industry survey was conducted by the World Intellectual Property Organization (WIPO), Centro Regional para el Fomento del Libro en América Latina y el Caribe (CERLALC) and the Federation of European Publishers (FEP). The legal deposits survey was conducted by WIPO and the ISBN data compiled by CERLALC and the International ISBN Agency.

2 However, data for 56 repositories are included in this section. Data for Brazil are partial and incomplete – legal deposit has been queued since March 2020, due to the pandemic, which shows up as a big drop from the previous year – hence excluded.

3 A few repositories, such as those of France, Germany and the U.K., have shared data for periodicals (journals, e-series and so on). The legal deposits survey will be expanded in the future to include periodicals.

4 The U.K reported 11,741 music sheets deposited in 2020. However, data on music audio are unavailable therefore not included.

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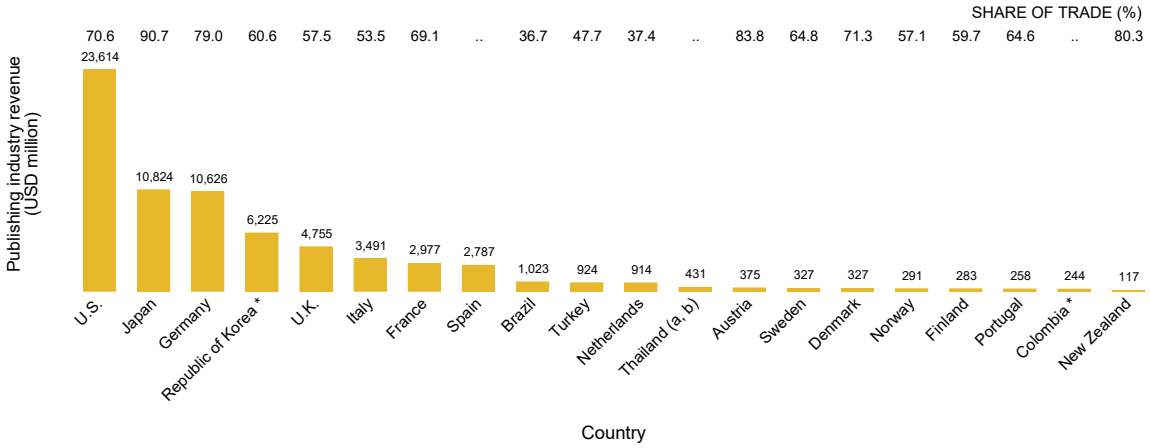
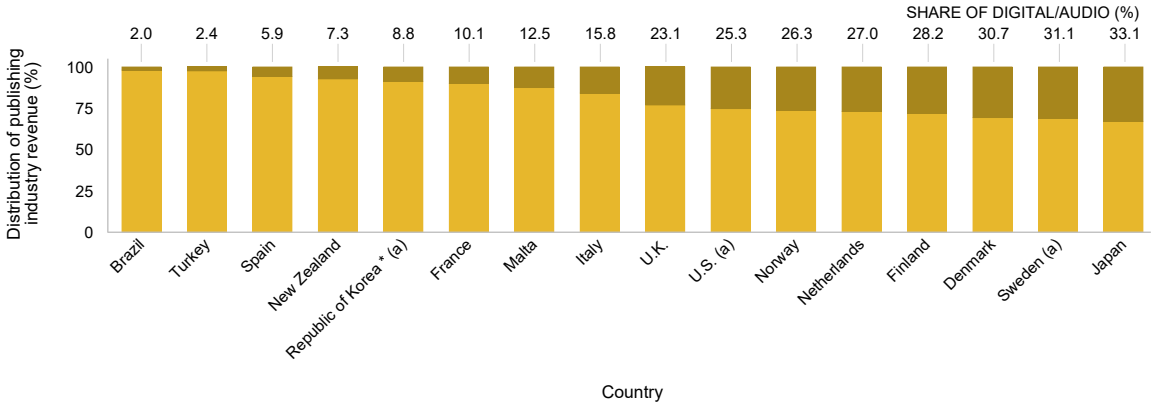
Sales and licensing revenue generated by the trade and educational sectors

F1. Publishing industry revenue (USD million), 2020



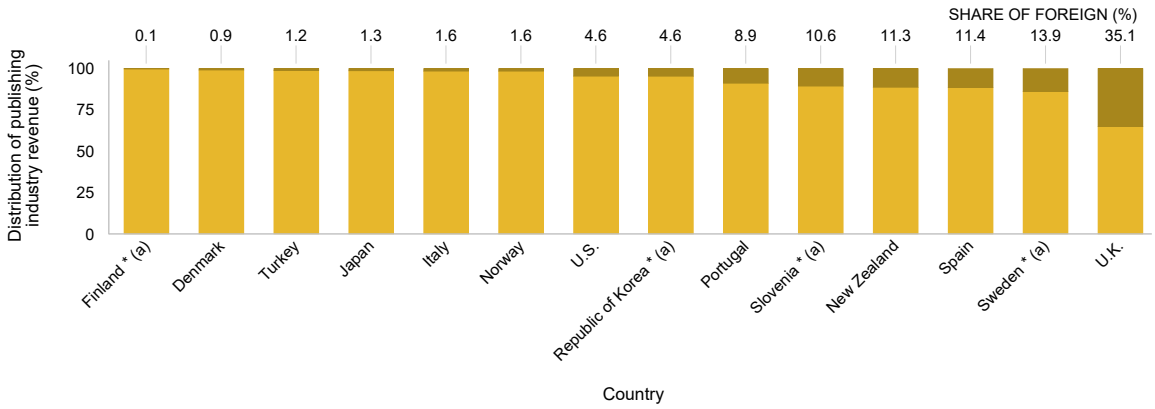
Note: Data for Austria, Germany, Italy, Portugal and Spain are at market value calculated from retail prices.
(a) trade sector only.
(b) print format only.
* 2019 data.
.. indicates not available.
Source: WIPO Statistics Database and Federation of European Publishers (FEP), October 2021.

F2. Distribution of publishing industry revenue by format, 2020



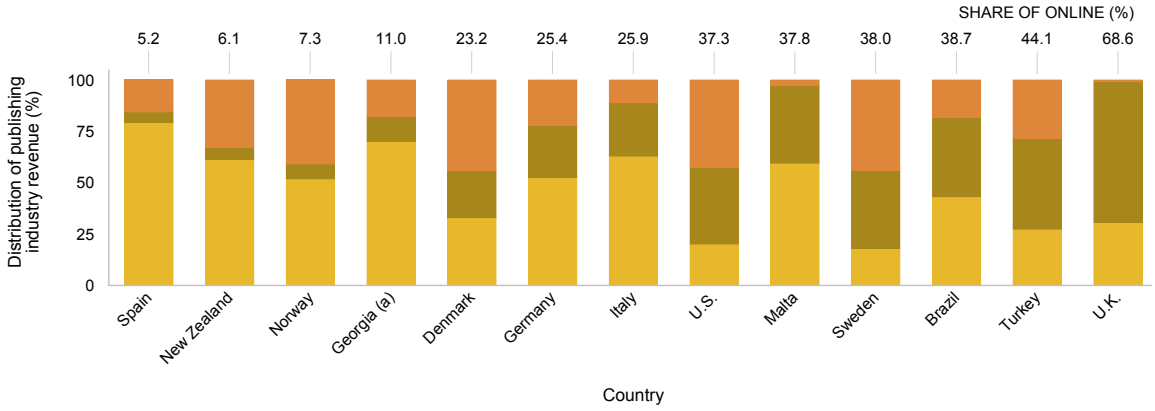
Note: Data for Italy and Spain are at market value calculated from retail prices.
(a) trade sector only.
* 2019 data.
Source: WIPO Statistics Database and Federation of European Publishers (FEP), October 2021.

F3. Distribution of publishing industry revenue by destination, 2020



Note: Data for Italy and Portugal are at market value calculated from retail prices.
(a) trade sector only.
* 2019 data.
Source: WIPO Statistics Database and Federation of European Publishers (FEP), October 2021.

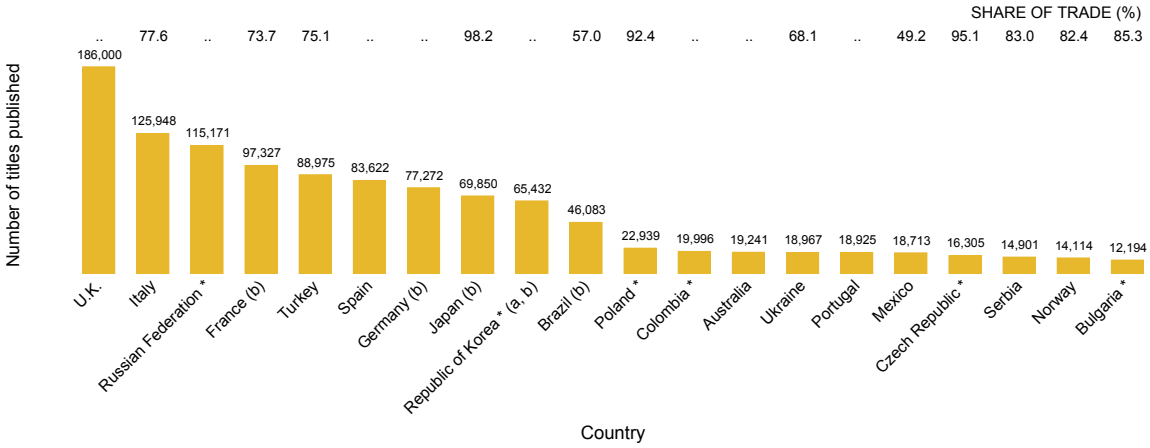
F4. Distribution of publishing industry revenue by sales channel, 2020



Note: Data for Germany, Italy and Spain are at market value calculated from retail prices.
(a) trade sector only.
Source: WIPO Statistics Database and Federation of European Publishers (FEP), October 2021.

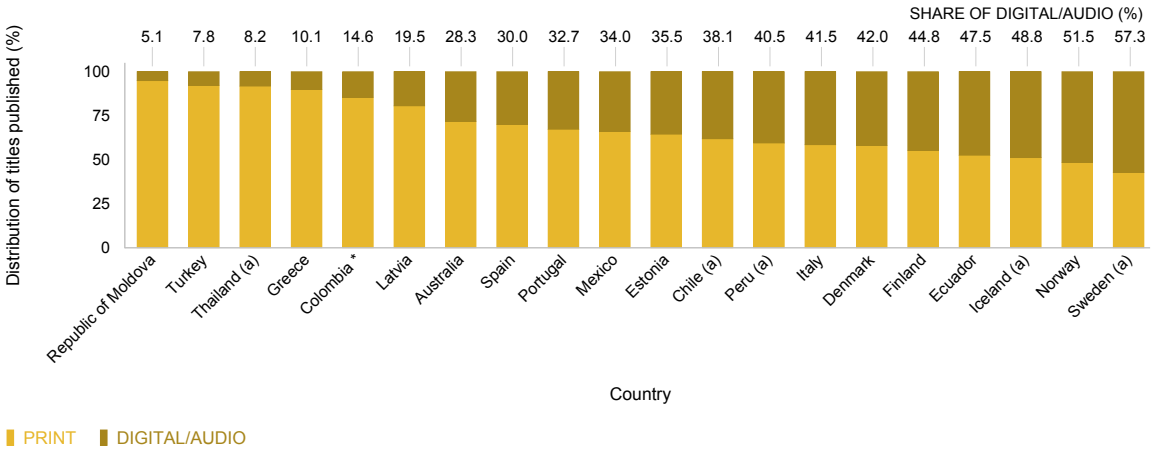
Titles published by the trade and educational sectors

F5. Number of titles published by the trade and educational sectors, 2020



(a) trade sector only.
(b) print format only.
* 2019 data.
.. indicates not available.
Source: WIPO Statistics Database and Federation of European Publishers (FEP), October 2021.

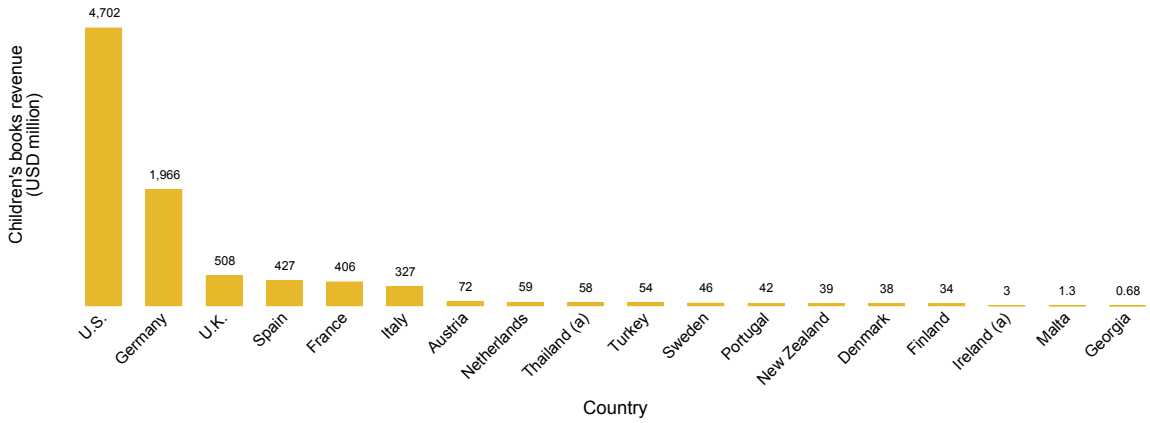
F6. Distribution of titles published by the trade and educational sectors by format, 2020



(a) trade sector only.
* 2019 data.
Source: WIPO Statistics Database and Federation of European Publishers (FEP), October 2021.

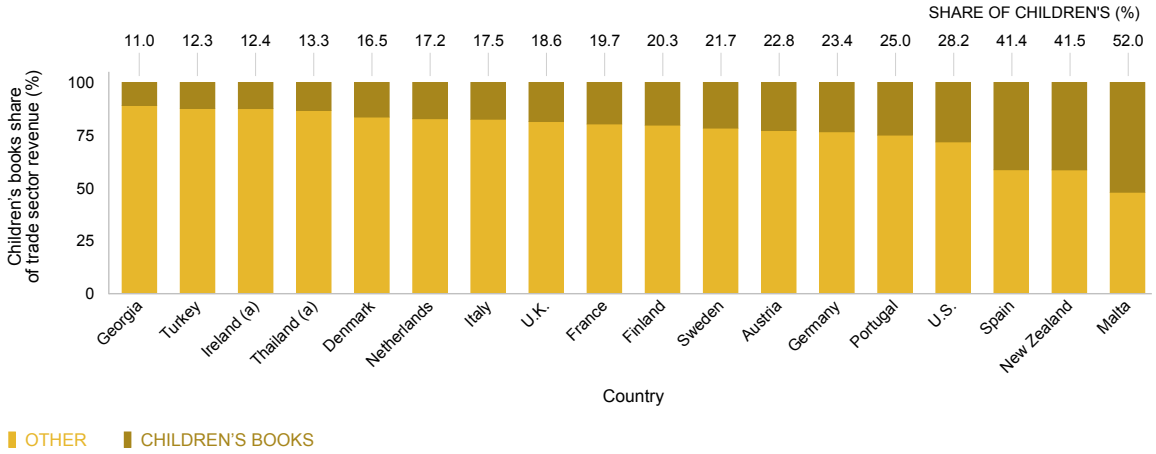
Children's books

F7. Children's books revenue (USD million), 2020



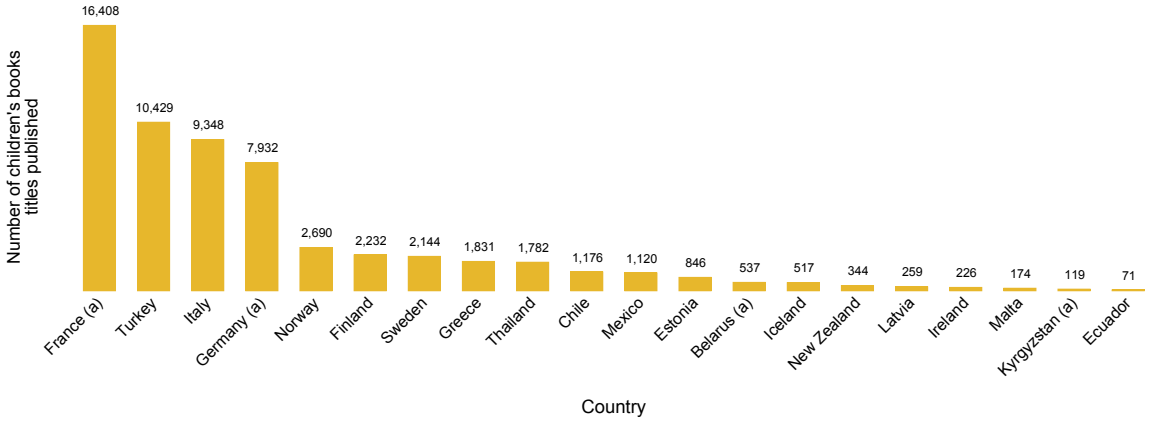
Note: Data for Austria, Germany, Ireland, Italy, Portugal and Spain are at market value calculated from retail prices.
(a) print format only.
Source: WIPO Statistics Database and Federation of European Publishers (FEP), October 2021.

F8. Share of children's books within trade sector revenue, 2020



Note: Data for Austria, Germany, Ireland, Italy, Portugal and Spain are at market value calculated from retail prices.
(a) print format only.
Source: WIPO Statistics Database and Federation of European Publishers (FEP), October 2021.

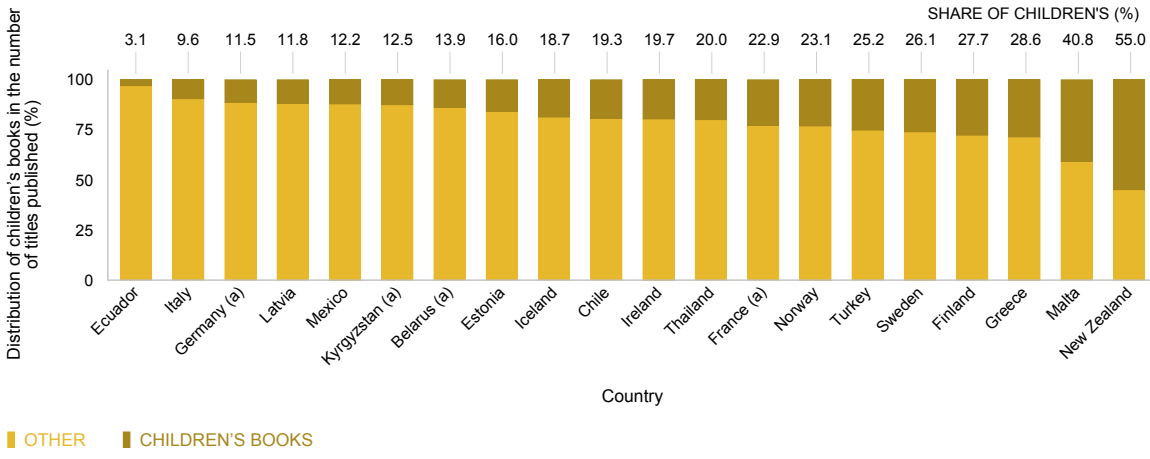
F9. Number of children's books titles published by the trade sector, 2020



(a) print format only.

Source: WIPO Statistics Database and Federation of European Publishers (FEP), October 2021.

F10. Share of children's books in the number of titles published by the trade sector, 2020

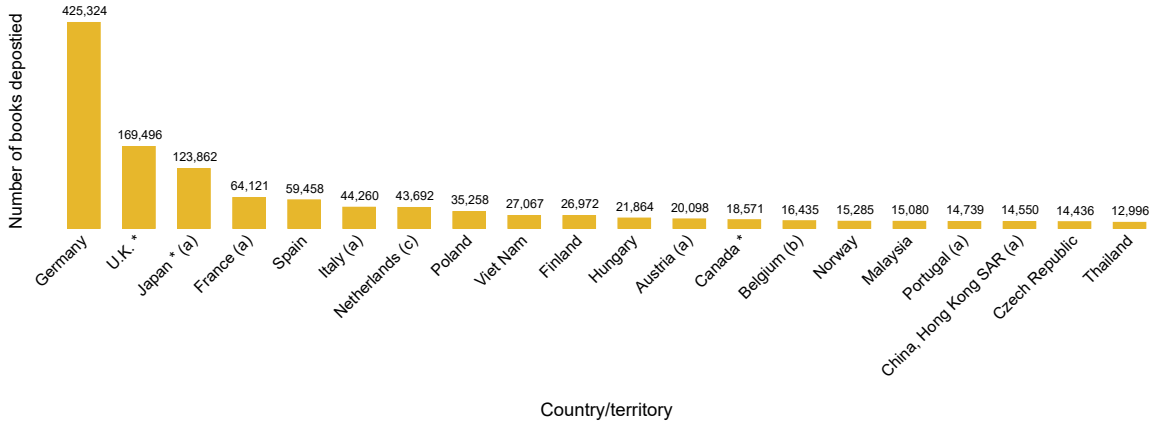


(a) print format only.

Source: WIPO Statistics Database and Federation of European Publishers (FEP), October 2021.

Legal deposits in recognized repositories

F11. Number of books deposited at the top 20 legal repositories, 2020



(a) print only.

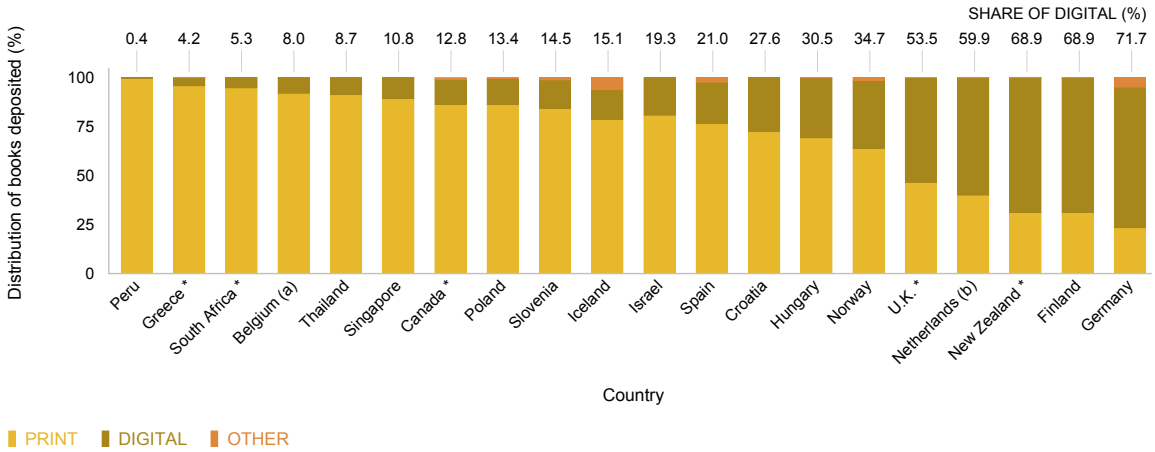
(b) digital deposits are collected on a voluntary basis.

(c) deposits are on voluntary basis as deposits are not covered by legislation in the Netherlands.

* 2019–2020 fiscal year.

Source: WIPO Statistics Database, October 2021.

F12. Distribution of books deposited at selected legal repositories by format, 2020



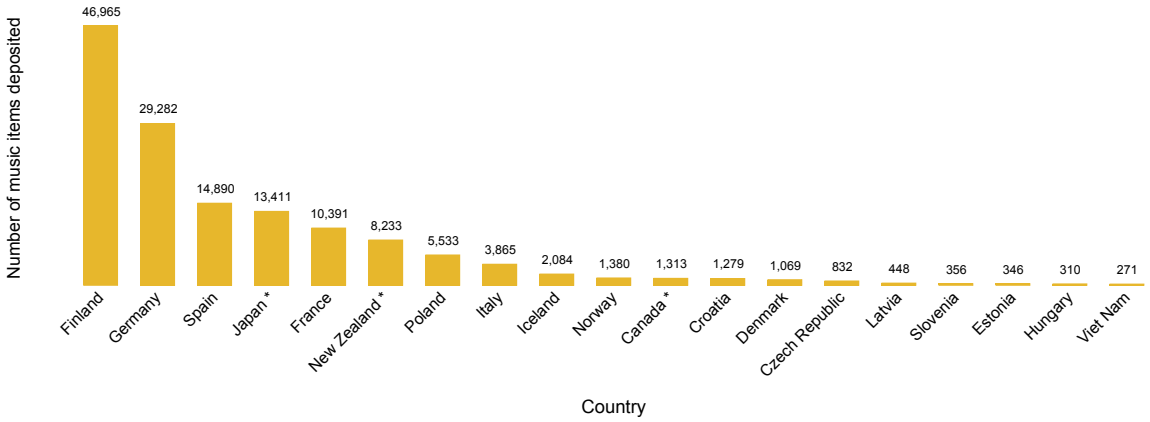
(a) digital deposits are collected on a voluntary basis.

(b) deposits are on voluntary basis as deposits are not covered by legislation in the Netherlands.

* 2019–2020 fiscal year.

Source: WIPO Statistics Database, October 2021.

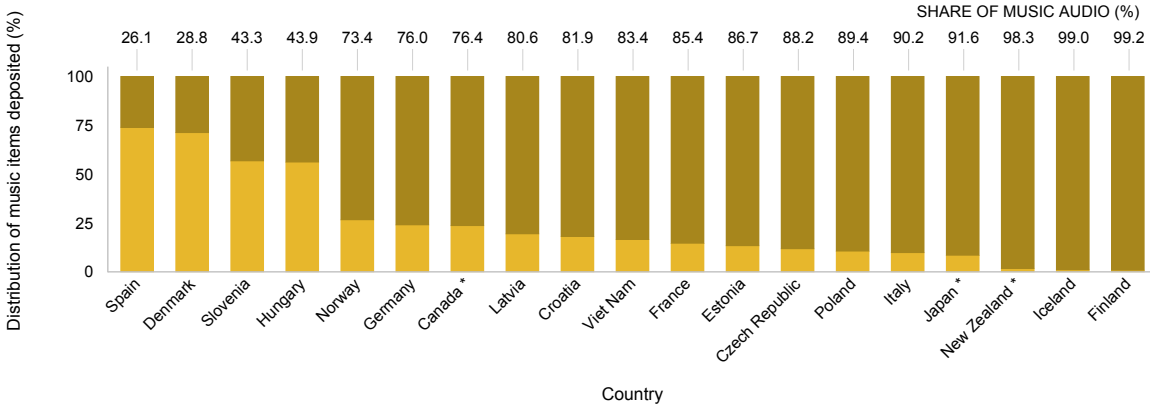
F13. Total number of music sheets and music audio deposited at selected legal repositories, 2020



* 2019–2020 fiscal year.

Source: WIPO Statistics Database, October 2021.

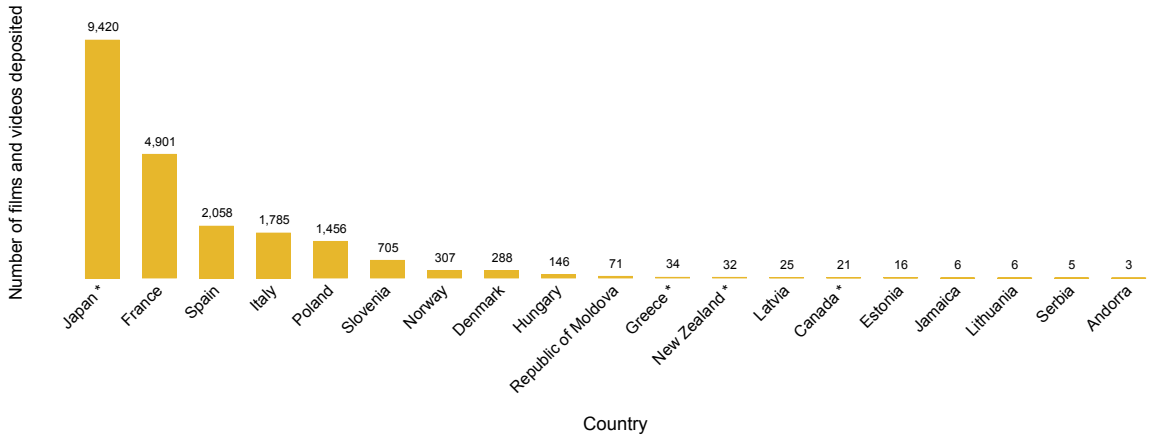
F14. Distribution of music sheets and music audio deposited at selected legal repositories, 2020



* 2019–2020 fiscal year.

Source: WIPO Statistics Database, October 2021.

F15. Total number of films and videos deposited in a recognized repository, 2020



* 2019–2020 fiscal year.

Source: WIPO Statistics Database, October 2021.

Statistical tables

F16. Total publishing industry revenue by sector (USD million), 2020

				Share of total (%)	
Country	Total	Trade	Educational	Trade	Educational
Austria	374.8	314.0	60.8	83.8	16.2
Azerbaijan (a)	25.7	..	..	..	..
Brazil	1,022.7	375.0	647.7	36.7	63.3
Colombia *	243.5	..	..	..	..
Czech Republic *	296.0	280.7	15.3	94.8	5.2
Denmark	326.7	232.8	93.9	71.3	28.7
Estonia * (b)	41.2	33.6	7.6	81.5	18.5
Finland	283.3	169.0	114.2	59.7	40.3
France	2,977.2	2,057.3	919.9	69.1	30.9
Georgia (a)	..	6.2	..	..	..
Germany	10,625.9	..	..	..	..
Hungary *	180.4	167.4	13.0	92.8	7.2
Iceland	28.2	..	..	..	..
Ireland (b)	36.3	23.9	12.4	65.7	34.3
Italy	3,490.6	1,866.9	1,623.6	53.5	46.5
Japan	10,824.5	9,816.9	1,007.5	90.7	9.3
Mali *	1.5	1.0	0.5	66.2	33.8
Malta	3.9	2.6	1.4	65.4	34.6
Mexico * (b)	535.0	138.2	396.8	25.8	74.2
Netherlands	913.7	342.1	571.6	37.4	62.6
New Zealand	116.9	93.8	23.1	80.3	19.7
Norway	291.2	166.4	124.8	57.1	42.9
Poland *	435.7	283.4	152.4	65.0	35.0
Portugal	258.1	166.8	91.4	64.6	35.4
Republic of Korea *	6,225.3	3,773.1	2,452.2	60.6	39.4
Slovenia *	96.3	73.9	22.4	76.7	23.3
Spain	2,786.9	..	..	..	..
Sweden	327.0	211.8	115.2	64.8	35.2
Thailand (a, b)	..	431.4	..	..	..
Turkey	923.5	440.1	483.5	47.7	52.3
U.K.	4,755.1	2,732.1	2,023.1	57.5	42.5
U.S.	23,614.3	16,668.2	6,946.2	70.6	29.4

Note: Data for Austria, Germany, Italy, Portugal and Spain are at market value calculated from retail prices.

(a) trade sector only.

(b) print format only.

* 2019 data.

.. indicates not available.

Source: WIPO Statistics Database and Federation of European Publishers (FEP), October 2021.

F17. Total number of titles published by sector, 2020

Country	Total	Trade	Educational	Share of total (%) Trade	Educational
Argentina *	11,514	9,528	1,986	82.8	17.2
Australia	19,241	..	..	..	..
Austria	8,711	7,800	911	89.5	10.5
Belarus (b)	8,205	3,863	4,342	47.1	52.9
Brazil (b)	46,083	26,276	19,807	57.0	43.0
Bulgaria *	12,194	10,400	1,794	85.3	14.7
Chile	7,058	6,085	973	86.2	13.8
Colombia *	19,996	..	..	..	..
Croatia *	7,415	6,721	694	90.6	9.4
Cuba	728	635	93	87.2	12.8
Czech Republic *	16,305	15,500	805	95.1	4.9
Denmark	10,715	..	..	..	..
Ecuador	4,153	2,318	1,835	55.8	44.2
Estonia	5,809	5,303	506	91.3	8.7
Finland	10,208	8,048	2,160	78.8	21.2
France (b)	97,327	71,730	25,597	73.7	26.3
Georgia (a, b)	..	1,542	..	..	..
Germany (b)	77,272	..	..	..	..
Greece	9,583	6,401	3,182	66.8	33.2
Hungary *	9,589	7,155	2,434	74.6	25.4
Iceland (a)	..	2,764	..	..	..
Ireland	1,773	1,150	623	64.9	35.1
Italy	125,948	97,763	28,185	77.6	22.4
Japan (b)	69,850	68,608	1,242	98.2	1.8
Kazakhstan * (b)	6,365	4,447	1,918	69.9	30.1
Kyrgyzstan (b)	1,206	950	256	78.8	21.2
Latvia	2,375	2,191	184	92.3	7.7
Lebanon	2,000	..	..	..	..
Lithuania *	3,479	3,199	280	92.0	8.0
Mali * (b)	119	89	30	74.8	25.2
Malta	511	426	85	83.4	16.6
Mexico	18,713	9,215	9,498	49.2	50.8
New Zealand	2,526	626	1,900	24.8	75.2
Norway	14,114	11,626	2,488	82.4	17.6
Peru	6,885	5,699	1,186	82.8	17.2
Poland *	22,939	21,201	1,738	92.4	7.6
Portugal	18,925	..	..	..	..
Republic of Korea * (a, b)	..	65,432	..	..	..
Republic of Moldova	4,559	2,635	1,924	57.8	42.2
Russian Federation *	115,171	..	..	..	..
Serbia	14,901	12,362	2,539	83.0	17.0
Slovenia *	5,076	4,324	752	85.2	14.8
Spain	83,622	..	..	..	..
Sweden (a)	..	8,227	..	..	..
Thailand (a)	..	9,710	..	..	..
Togo * (b)	43	34	9	79.1	20.9
Turkey	88,975	66,848	22,127	75.1	24.9
U.K.	186,000	..	..	..	..
Ukraine	18,967	12,914	6,053	68.1	31.9

(a) trade sector only.

(b) print format only.

* 2019 data

.. indicates not available.

Source: WIPO Statistics Database and Federation of European Publishers (FEP), October 2021.

F18. Total number of books deposited in recognized repositories, 2020

Country/territory	Total	Print	Digital	Other formats
Andorra	110	49	61	..
Armenia	3,516	2,958	..	558
Austria (a)	20,098	20,098	..	..
Azerbaijan (a)	2,001	2,001	..	..
Belgium (b)	16,435	15,112	1,323	..
Canada *	18,571	16,022	2,373	176
China, Hong Kong SAR (a)	14,550	14,550	..	..
Costa Rica	910	645	265	..
Croatia	8,780	6,359	2,421	..
Cyprus (a)	27	27	..	..
Czech Republic	14,436	14,117	..	319
Denmark (a)	9,278	9,278	..	..
Estonia	4,807	3,154	1,645	8
Finland	26,972	8,391	18,581	18
France (a)	64,121	64,121	..	..
Germany	425,324	99,493	305,107	20,724
Ghana	1,147	1,097	50	..
Greece *	10,510	10,069	439	2
Hungary	21,864	15,146	6,673	45
Iceland	5,757	4,529	872	356
Ireland (a)	982	982	..	..
Israel	10954	8845	2109	..
Italy (a)	44,260	44,260	..	..
Jamaica	713	680	33	..
Japan * (a)	123,862	123,862	..	..
Latvia	3,265	2,433	832	..
Lithuania	4,678	4,462	216	..
Luxembourg	1,447	994	453	..
Malaysia	15,080	13,579	..	1,501
Maldives (a)	30	30	..	..
Malta (a)	459	459	..	..
Mauritius * (a)	1,340	1,340	..	..
Mexico (a)	1,616	1,616	..	..
Monaco (a)	109	109	..	..
Mozambique	142	132	10	..
Myanmar (a)	2,213	2,213	..	..
Namibia * (a)	578	578	..	..
Netherlands (c)	43,692	17,466	26,186	40
New Zealand *	11,554	3,595	7,957	2
Norway	15,285	9,743	5,305	237
Peru	5,721	5,698	23	..
Philippines	450	137	8	305
Poland	35,258	30,391	4,712	155
Portugal (a)	14,739	14,739	..	..
Republic of Moldova	2,635	2,503	102	30
Serbia	11,062	11,059	..	3
Seychelles (a)	73	73	..	..
Singapore	10,153	9,060	1,093	..
Slovenia	8,050	6,785	1,166	99
South Africa *	5,758	5,455	303	..
Spain	59,458	45,558	12,497	1,403
Sri Lanka (a)	1,791	1,791	..	..
Thailand	12,996	11,860	1,136	..

Country/territory	Total	Print	Digital	Other formats
Trinidad and Tobago (a)	47	47	..	..
U.K. *	169,496	78,777	90,719	..
Viet Nam	27,067	26,473	..	594

(a) print only.

(b) digital deposits are collected on a voluntary basis.

(c) deposits are on voluntary basis as deposits are not covered by legislation in the Netherlands.

* 2019–2020 fiscal year.

.. indicates not available.

Source: WIPO Statistics Database, October 2021.

F19. Total number of ISBN registrations, 2020

Country	Lifetime ISBNs registered	ISBNs registered in 2020
Argentina (b)	598,836	27,694
Australia	672,904	32,114
Bolivia (Plurinational State of)	..	1,103
Brazil	..	114,114
Bulgaria	250,122	11,698
Canada (French) (a)	498,397	16,548
Chile	..	8,353
China	..	263,066
Colombia	335,697	20,344
Costa Rica	..	1,724
Croatia (b)	171,554	6,785
Cuba	..	2,950
Czech Republic	654,210	26,367
Denmark	722,807	39,479
Dominican Republic	..	1,765
Ecuador	..	4,264
El Salvador	..	675
Estonia (a)	126,640	11,221
Germany (b)	5,564,800	284,000
Ghana (a)	100,000	2,500
Guatemala	..	1,073
Indonesia (b)	657,314	144,793
Iran (Islamic Republic of)	1,400,000	90,000
Italy	2,241,223	135,133
Japan (b)	2,524,148	114,272
Latvia (a)	90,679	3,391
Lithuania	140,003	4,810
Malawi	15,203	412
Malta	14,469	1,134
Mexico	..	20,925
Mongolia	..	3,331
Netherlands	1,869,672	40,105
Nigeria	475,028	13,900
Norway	440,624	8,599
Panama	..	884
Paraguay	..	823
Peru	..	5,698
Philippines (b)	181,028	6,510
Portugal (a)	421,632	18,925
Republic of Korea	3,809,109	329,582
Russian Federation	2,084,160	124,454
Slovakia	277,788	12,586
Spain	2,583,325	80,704
Sweden (b)	783,842	34,016
Syrian Arab Republic	27,600	1,600
Thailand	240,243	17,952
Turkey	922,859	78,500
U.K. (b)	7,900,000	188,553
U.S.	39,876,731	3,931,270
Ukraine	451,497	23,640
Uruguay	..	2,220
Venezuela (Bolivarian Republic of)	..	2,186

(a) figures are estimates provided by the relevant ISBN Agency.

(b) statistics are believed by the relevant ISBN Agency to be possibly underestimated, especially in terms of the lifetime figures, owing to either absent or insufficient data.

.. indicates not available.

Source: International ISBN Agency and Centro Regional para el Fomento del Libro en América Latina y el Caribe (CERLALC), October 2021.

Additional information

Data description

Data sources

Intellectual property (IP) data are taken from the WIPO Statistics Database and based primarily on WIPO's annual IP statistics surveys (see below) and on data compiled by WIPO in processing international applications/registrations through the Patent Cooperation Treaty (PCT) and the Madrid and Hague Systems. Data are available from WIPO's Statistics Data Center at *www.wipo.int/ipstats*.

Patent family and technology data are extracted from the WIPO Statistics Database and from the 2021 spring edition of the European Patent Office's PATSTAT database.

Gross domestic product and population data are from the World Bank's World Development Indicators database.

This report uses the World Bank's income classifications. Economies are classified according to 2020 gross national income per capita, calculated using the World Bank Atlas method. These classifications are low-income (USD 1,045 or less), lower middle-income (USD 1,046 to USD 4,095), upper middle-income (USD 4,096 to USD 12,695) and high-income (over USD 12,696).[1]

This report uses United Nations (UN) definitions of regions and sub-regions, whereas the geographical terms used may differ slightly from the ones defined by the UN.

WIPO's annual IP statistics surveys

WIPO collects data from national and regional IP offices, other competent authorities and publishers' associations from around the world through annual surveys consisting of multiple questionnaires. These data are then entered into the WIPO Statistics Database. Continuous efforts are being made to improve the quality and availability of IP statistics and to gather data from as many IP offices and countries as possible.

WIPO's long-established and regular IP survey covers patents, utility models, trademarks, industrial designs and plant varieties. It consists of 27 questionnaires, all of which are available in English, French and Spanish at *www.wipo.int/ipstats/en/data_collection/questionnaire*.

In 2017, WIPO started to collect data on geographical indications (GIs) through an annual survey. This simple questionnaire seeks to collect data on GIs in force broken down by legal means of protection (e.g., *sui generis* systems, trademarks, international agreements, and so on) and products types (e.g., wines and spirits, agricultural products, and so on). This 2021 edition reports data for 92 authorities – a considerable improvement upon the 54 responses that WIPO received in 2017.

Global publishing industry survey

WIPO's survey of the global publishing industry was established in collaboration with the International Publishers Association (IPA) in 2017. In addition, WIPO has strengthened its cooperation with Centro Regional para el Fomento del Libro en América Latina y el Caribe (CERLALC) and the Federation of European Publishers (FEP) in order to reduce the burden on respondents and extend the geographical coverage of the survey. This year, the FEP compiled and shared data with WIPO for 15 European countries (FEP members). In addition, CERLALC provided data for several Latin America and the Caribbean (LAC) countries. WIPO is grateful to CERLALC and the FEP for sharing data. The scope of the publishing industry survey is limited to (a) the trade and educational sectors, and (b) published materials (i.e., books, monographs, and so on) issued with an International Standard Book Number (ISBN), a Digital Object Identifier (DOI) or any other book identifier (e.g., ASIN, and so on). This edition includes publishing industry data for the 39 associations and authorities who shared their latest data with WIPO.

To validate the data collected through the global publishing survey, WIPO has begun to collect data on legal deposit. Legal deposit is a statutory obligation at the national level requiring publishers to deposit a certain number of copies of published documents at a repository, that is, a recognized place of legal deposit. In 2019, WIPO conducted a pilot survey among national legal repositories, to which 51 countries responded. This 2021 edition reports data for 57 authorities.

IP office survey coverage

IP offices are requested to report data by the origin (country or territory) of applications, grants or registrations. Offices unable to provide such a detailed breakdown instead report either an aggregate total or a simple breakdown by total resident and total non-resident counts. For this reason, the totals for each

IP applications data coverage by IP type

IP type	Number of offices on which 2020 world totals are based	Number of offices for which 2020 data are available	Data coverage (%)
Patents	161	137	99.9
Utility models	82	68	99.9
Trademarks (a)	168	138	99.2
Industrial designs (b)	151	132	99.8
Plant varieties	71	65	99.5

(a) Refers to the number of trademark applications based on class count (that is, the number of classes specified in applications).

(b) Refers to the number of industrial design applications based on design count (that is, the number of designs contained in applications).

origin are underreported. However, shares of the 2020 totals where the origin is unknown are low – only 1.7% for patent applications, 0.3% for trademark application class counts and 0.4% for application design counts.

Estimating world totals

World totals of applications for and grants/registrations of patents, utility models, trademarks, industrial designs and plant varieties are WIPO estimates. Data are not available for every IP office for each year. Missing data are estimated using methods such as linear extrapolation and averaging adjacent data points. The estimation method chosen depends on the year and the office in question. When an office provides data that is not broken down by origin, WIPO estimates the resident and non-resident counts using the historical shares recorded at that office. Data are available for most larger offices; only small shares of world totals are estimated. For example, the estimated total number of patent applications worldwide covers 161 offices; data are available for 137 of these, which together account for 99.9% of the estimated world total.

National and international data

Application and grant/registration data include data on both direct filings and filings made through WIPO-administered international systems (where applicable). For patents and utility models, data comprise direct filings at national patent offices, as well as PCT national phase entries. For trademarks, data comprise filings at national and regional offices and designations received by relevant offices through the Madrid System. For industrial designs, data comprise national and regional applications combined with designations received by relevant offices through the Hague System.

International comparability of indicators

Every effort has been made to compile IP statistics based on the same definitions in order to facilitate international comparison. Although data are collected from offices using questionnaires from WIPO's harmonized annual IP survey, national laws and regulations for filing IP applications or for issuing IP rights, as well as statistical reporting practices, may vary between jurisdictions. Due to the continual updating of data and the revision of historical statistics, data in this report may differ from data in previous editions and from data available on WIPO's website.

Change in method of counting IP applications by CNIPA in 2017

Due to a change in the method by which the National Intellectual Property Administration of the People's Republic of China (CNIPA) calculates how many patent, utility model and industrial design applications are filed, data on the number of such applications filed in China in 2017 and 2018 are not comparable with data for previous years. Prior to 2017, these data included all applications received; from 2017 onwards they include only those applications for which the office received the necessary application fees. As a result, it is not meaningful to report growth rates in the number of patent, utility model and industrial design applications filed in China in 2017 compared to 2016. Moreover, since China accounts for such a large proportion of IP applications globally, it is not meaningful to report growth rates in the numbers of such applications filed worldwide in 2017 compared to 2016. For the reason of this break in the data series, figures A1 (page 25), A53 (page 58), C1 (page 139) and C2 (page 139) do not report 2017 growth.

IP systems at a glance

The patent system

A patent is a set of exclusive rights granted by law to applicants for an invention that meets the standards of novelty, non-obviousness and industrial applicability. It is valid for a limited period (generally 20 years), during which time the patent holder can commercially exploit the invention on an exclusive basis. In return, applicants are obliged to disclose their inventions to the public, so that they may be replicated others skilled in the art. The patent system is designed to encourage innovation by providing innovators with time-limited exclusive legal rights, thus enabling them to appropriate the returns from their innovative activity.

The procedures for acquiring patent rights are governed by the rules and regulations of national and regional patent offices. These offices are responsible for issuing patents and rights are limited to the jurisdiction of the issuing authority. To obtain patent rights, applicants must file an application describing the invention with a national or regional office.

Applicants can also file an international application through the Patent Cooperation Treaty (PCT) System, an international treaty administered by WIPO that facilitates the acquisition of patent rights in multiple jurisdictions. The PCT System simplifies the process of multiple national patent filings by delaying the requirement to file a separate application in each jurisdiction in which protection is sought. However, the decision on whether to grant a patent remains the prerogative of national or regional patent offices and patent rights are limited to the jurisdiction of each patent-granting authority.

The PCT application process begins with the international phase, during which an international search and optional preliminary examination and supplementary international search are performed. It concludes with the national phase, during which national (or regional) patent offices decide on the patentability of an invention according to national law. Further information about the PCT System is available at *www.wipo.int/pct*.

The utility model system

Like a patent, a utility model (UM) confers a set of rights to an invention for a limited period, during which time the UM rights holder can commercially exploit their invention on an exclusive basis. The terms and conditions for granting a UM differ from those for granting a traditional patent. For example, UMs are issued for a shorter period (6–10 years) and at most offices protection is granted without substantive examination. As with patents, procedures for granting UM rights are governed by the rules and regulations of national IP offices and rights are limited to the jurisdiction of the issuing authority. In this report, the term "utility model" refers to UMs and other types of protection similar to UMs, such as innovation patents in Australia and short-term patents in Ireland.

Microorganisms under the Budapest Treaty

The Budapest Treaty on the International Recognition of the Deposit of Microorganisms for the Purposes of Patent Procedure plays an important role in relation to biotechnological inventions. Disclosing an invention is a generally recognized requirement for receiving a patent. When an invention involves microorganisms, national laws in most countries require the applicant to deposit a sample at a designated International Depositary Authority (IDA).

To eliminate the need to deposit a microorganism in every country where patent protection is sought, under the Budapest Treaty the deposit of a microorganism with any IDA is sufficient for the purposes of patent procedures at the national patent offices of all contracting states and at any regional patent office that recognizes the Treaty. An IDA is a scientific institution – typically a "culture collection" – capable of storing microorganisms. As of July 2020, there were 48 IDAs around the world. Further information about the Budapest Treaty is available at *www.wipo.int/treaties/en/registration/budapest*.

The trademark system

A trademark is a sign used to distinguish the goods or services of one enterprise from those of another and is protected as an intellectual property (IP) right. Trademarks can be registered for both goods and services. In the latter case, the term "service mark" is sometimes used. For simplicity, this report uses "trademark," regardless of whether the registration concerns goods or services. The holder of a registered trademark has the exclusive right to use the mark in relation to the goods or services for which it is registered and can block unauthorized use of the trademark, or a confusingly similar mark, to prevent consumers from being misled. Unlike patents, trademark registrations can be maintained indefinitely, provided that the trademark holder pays the required renewal fees.

The procedures for registering trademarks are governed by the legislation and procedures of national and regional IP offices. Therefore, trademark rights are limited to the jurisdiction of the authority in which a trademark is registered. Trademark applicants can file an application with the relevant national or regional IP office or an international application through the Madrid System. However, when an applicant files internationally via the Madrid System, the decision to issue a trademark registration remains the prerogative of the national or regional IP office concerned and trademark rights remain limited to the jurisdiction of the authority issuing that registration.

Between December 1995 and October 2016, two treaties administered by the World Intellectual Property Organization (WIPO) governed the Madrid System for the International Registration of Marks – the Madrid Agreement Concerning the International Registration of Marks, adopted in 1891, and the Protocol Relating to the Madrid Agreement, adopted in 1989. As of October 11, 2016, following a decision by the Madrid Union Assembly that no country could accede only to the Agreement, the Protocol is now the sole governing treaty of the Madrid System. The Madrid System offers many advantages to trademark holders and IP offices compared with the alternative method of obtaining international protection for marks called the Paris route or the direct route. The Paris route involves filing separate applications directly at the IP office in the countries or regions where protection is sought (under the Paris Convention for the Protection of Industrial Property). In contrast, by paying a single set of fees in a single currency (Swiss francs), the Madrid System allows trademark holders to submit a single application in one language (English, French or Spanish) indicating the Madrid members where protection is sought (designations).

The Madrid System also simplifies managing the mark after registration by making it possible to request centrally the recording of further changes or to renew the registration through a single procedural step. A registration recorded in the International Register has the same effect as a registration made directly with each designated Contracting Party (Madrid member), if the competent authority of that jurisdiction has not issued a refusal within a specified time period. Further information about the Madrid System is available at *www.wipo.int/madrid*.

The industrial design system

Industrial designs are applied to a wide variety of industrial products and handicrafts.[2] They refer to the ornamental or aesthetic aspects of a useful article, including compositions of lines or colors or three-dimensional forms that give a special appearance to a product or handicraft. The holder of a registered industrial design has exclusive rights over the design and can prevent unauthorized copying or imitation of the design by others.

The procedures for registering industrial designs are governed by national or regional laws. An industrial design can be protected, if it is new or original and rights are limited to the jurisdiction of the issuing authority. Registrations can be obtained by filing an application with a relevant national or regional IP office or by filing an international application through the Hague System. Once a design is registered, the term of protection is generally five years and may be renewed for additional five-year periods up to a total of 15 years, in most cases. In some countries, industrial designs are protected through the delivery of a design patent rather than design registration.

The Hague System comprises two international treaties – the Hague Act and the Geneva Act. The System makes it possible for an applicant to register industrial designs in multiple territories by filing a single application with the International Bureau of WIPO, thus simplifying the multinational registration process. Moreover, by allowing the filing of up to 100 different designs per application, the System offers considerable opportunities for efficiency gains. It also streamlines the subsequent management of industrial design registration, since it is possible to record changes or renew a registration through a single procedure for all territories. Further information about the Hague System is available at *www.wipo.int/hague*.

Plant variety protection

To obtain protection, a plant breeder must file an individual application with each authority entrusted with granting breeders' rights. A breeder's right is granted only when a variety is new, distinct, uniform and stable, and has a suitable denomination.

In the United States of America (U.S.), two legal frameworks protect new plant varieties: the Plant Patent Act (PPA) and the Plant Variety Protection Act (PVPA). Under the PPA, whoever invents or discovers and asexually reproduces any distinct and new variety of plant – including cultivated sports, mutants, hybrids and newly-found seedlings, other than a tuber-propagated plant (in practice, Irish potato and Jerusalem artichoke) or a plant found in an uncultivated state – may obtain a patent. Under the PVPA, the U.S. protects all sexually reproduced plant varieties and tuber-propagated plant varieties, excluding fungi and bacteria.

The geographical indication system

A geographical indication (GI) is a sign identifying a good as originating in a specific geographical area and possessing a given quality, reputation or other characteristic essentially attributable to that geographical origin. Thus, the main function of a GI is to indicate a connection between the quality, characteristic or reputation of the good and its territory of origin.

World-renowned examples of GIs include Café de Colombia (Colombia), Bordeaux (France), Kampot Pepper (Cambodia), Penja Pepper (Cameroon) and Scotch Whisky (U.K.).

GIs are mainly used for agricultural and food products, which typically tend to have a close natural link with their place of origin. There are, however, also many GIs for other kinds of products, whose specific characteristics may derive from traditional manufacturing skills or from a combination of local know-how and natural resources. Examples of GIs for handicraft and manufactured goods include Bohemia Crystal (Czech Republic), Solingen Cutlery (Germany), Isfahan Handmade Carpet (Islamic Republic of Iran), Swiss Watches (Switzerland) and Yangzhou Lacquerware (China).

Although GIs are commonly names of places, they may also consist of non-geographical terms with a traditional geographical connotation (traditional denominations); for example, Reblochon (France) and Argane (Morocco) serve as GIs, although neither are geographical names.

GIs can only be used on goods that conform to the applicable requirements concerning the area of origin, processing method and typicity of the product. Goods from production sites located outside the area of origin and goods that do not meet the applicable requirements are prevented from using the protected indication.

Appellations of origin

An appellation of origin is a special kind of geographical indication. It generally consists of a geographical name or a traditional denomination which serves to designate a product as originating in a defined geographical area, where the quality or characteristics of the product are due exclusively or essentially to that geographical environment, including natural and human factors, and which have given the good its reputation. The most important difference between appellations of origin and other GIs is that the link with the geographical area should be stronger in the case of an appellation of origin; in other words, appellations of origin are a more restrictive sub-category of GIs.

Protection of GIs

At the national and regional levels, GIs are protected through a variety of legal means. These include *sui generis* systems – laws specifically designed to protect geographical indications,[3] often based on a registration procedure. *Sui generis* systems generally provide protection against any direct and indirect commercial use of the GI, as well as against its imitation. *Sui generis* systems for GI protection are used in many countries and also by two regional intergovernmental organizations: the African Intellectual Property Organization (OAPI) and the European Union (EU).

GIs can also be protected on the basis of trademark law, commonly through the use of collective and certification marks. Because trademarks incorporating geographical terms are typically not recorded by IP offices as a separate category of trademarks, and because not all trademarks incorporating geographical terms can be considered to be GIs, it may be difficult to determine the exact number of registered GIs within jurisdictions. It is also worth noting that GI protection via *sui generis* or trademark systems are not mutually exclusive, but often coexist under many legal frameworks and are available to the benefit of GI holders.

Finally, GIs are typically also protected under unfair competition regulations, consumer protection laws and administrative and judicial decisions, as well as under specific laws or decrees recognizing individual GIs.

As for other IP rights, the effects of a GI right obtained in a particular jurisdiction are limited to the territory of that jurisdiction. Thus, where a right over a GI is obtained in one jurisdiction, it is protected there but not abroad. In order to obtain protection in a foreign jurisdiction, GI holders must, in principle, seek protection under the relevant national or regional laws prevailing in the jurisdiction in question. However, international agreements can facilitate the acquisition of GI rights abroad. In particular, bilateral and regional agreements – (often trade agreements) – have incorporated lists of the GIs that are to be protected in the relevant parties to the agreement. The listed GIs may relate to existing or subsequent GI rights, but protection may also emanate from the trade agreements themselves.

Another way of obtaining protection for GIs abroad is through two international registration systems administered by WIPO: the Lisbon System and the Madrid System.

The Lisbon System

The Lisbon System was established in 1958 to facilitate the international protection of appellations of origin through a single registration procedure.[4] Registration with the WIPO International Bureau ensures protection in all Lisbon contracting parties, without the need for renewal and for as long as the appellation of origin remains protected in its contracting party of origin. However, the decision as to whether to protect a newly registered appellation of origin at the national or regional level remains the prerogative of each contracting party and each Lisbon member can refuse protection based on any ground foreseen at national or regional level within one year of being notified of a new appellation of origin by the WIPO International Bureau.

Globally-renowned examples of appellations of origin protected under the Lisbon System include Tequila for spirits (Mexico), Chianti for wines (Italy), Habanos for cigars (Cuba) and handicrafts such as Chulucanas for ceramics (Peru), Herend for porcelain (Hungary) and Kraslice for musical instruments (Czech Republic). The scope of the System extends to non-geographical traditional names, such as Reblochon for cheese (France) and Vinho Verde for wines (Portugal).

In 2015, with the adoption of the Geneva Act of the Lisbon Agreement on Appellations of Origin and Geographical Indications, which entered into force on February 26, 2020, Lisbon contracting parties modernized the System to attract a wider membership, while preserving its principles and objectives. The Geneva Act formally extends the scope of the Lisbon System to the general category of GIs in addition to appellations of origin. The new Act also opened the Lisbon System to accession by intergovernmental organizations, such as the EU and OAPI. It also made the Lisbon System more flexible in order to secure a wider recognition for and inclusion of the various means by which countries may protect appellations of origin and GIs at a national or regional level (e.g., *sui generis* systems, trademark laws or specific ad hoc decrees, as well as judicial and administrative decisions).

Protection of GIs abroad through the Madrid System

GIs can be protected in several countries as trademarks (most commonly collective and certification marks) through the Madrid System, an international registration system legally governed by the Madrid Agreement (1891) and the Madrid Protocol (1989) and administered by WIPO.[5] A famous example of a collective/certification mark registered under the Madrid System is Napa Valley for wines from the U.S.

1 Venezuela is unclassified pending release of revised national accounts statistics. However, for distribution of IP applications and grants/registrations data by income group, Venezuela's data is allocated to the upper-middle income group as classified by the World Bank in 2020.

2 The products and handicrafts to which industrial designs are applied range from technical and medical instruments to watches, jewelry and other luxury items, and from homeware, electrical appliances, vehicles and construction materials to textile designs and leisure goods.

3 The terminology used at national and regional levels to refer to *sui generis* rights over GIs is not uniform. Different terms, such as appellations of origin, controlled appellations of origin, protected designations of origin, protected geographical indications, (qualified) indications of source, or simply geographical indications are used in different legislations. Despite the different terminology, however, the common denominator remains the link between the specific quality, characteristics or reputation of the product and its territory of origin. For simplicity, the present text generally uses "geographical indication (GI)," regardless of differences in national and regional terminology.

4 The Lisbon System is administered by WIPO and comprises the Lisbon Agreement for the Protection of Appellations of Origin and their International Registration (1958), as revised at Stockholm in 1967 and amended in 1979, and the Geneva Act of the Lisbon Agreement on Appellations of Origin and Geographical Indications (2015), which entered into force on February 26, 2020.

5 For further information about the Madrid System, see the *Madrid Yearly Review 2021*.

Glossary

This glossary provides definitions of key technical terms and concepts. Many are defined generically (for example, "application"), but apply to several or all of the various forms of intellectual property (IP) covered in this report.

Applicant
An individual or other legal entity that files an application for a patent, utility model, trademark or industrial design. There may be more than one applicant in an application. For the statistics in this publication, the name of the first named applicant is used to determine the origin of the application.

Application
The procedure for requesting IP rights at an office, which then examines the application and decides whether to grant protection. Also refers to a set of documents submitted to an office by the applicant.

Application abroad
For statistical purposes, an application filed by a resident of a given state or jurisdiction with the IP office of another state or jurisdiction. For example, an application filed by an applicant domiciled in France with the Japan Patent Office (JPO) is considered an application abroad from the perspective of France. This differs from a "non-resident application," which describes an application filed by a resident of a foreign state or jurisdiction from the perspective of the office receiving the application: the example above would be a non-resident application from the JPO's point of view.

Application date
The date on which an IP office receives an application that meets the minimum requirements. Also referred to as the filing date.

Book
A book represents informational content in the form of many pages of text or images published in print and/or digital format in all their manifestations.

Budapest Treaty
Disclosure of an invention is a requirement for granting a patent. Normally, an invention is disclosed by means of a written description. Where an invention involves a microorganism or the use of a microorganism, disclosure is not always possible in writing and can sometimes only be effected by depositing a sample of the microorganism with a specialized institution. To eliminate the need to deposit a microorganism in each country where patent protection is sought, under the Budapest Treaty the deposit of a microorganism with any International Depositary Authority (IDA) is sufficient for the purposes of patent procedure at the national patent offices of all contracting states and at any regional patent office that recognizes the Treaty.

Certification trademark
Certification marks are usually awarded for compliance with defined standards, but are not confined to any membership. They may instead be used by anyone able to certify that the products involved meet certain established standards. In many countries, the main difference between collective marks and certification marks is that collective marks may only be used by a specific group of enterprises – for example, members of an association – while certification marks may be used by anybody who complies with the standards defined by the owner of the certification mark.

Class
May refer to the classes defined in either the Locarno Classification or the Nice Classification. Classes indicate the categories of goods and services (where applicable) for which industrial design or trademark protection is requested. See "Locarno Classification" and "Nice Classification."

Class count
The number of classes specified in a trademark application or registration. In the international trademark system and at certain national and regional offices, an applicant can file a trademark application specifying one or more of the 45 goods and services classes of the Nice Classification. Offices use either a multi-class or a single filing system. For example, the offices of Japan, the Republic of Korea and the United States of America (U.S.), as well as many European IP offices, have multi-class filing systems. On the other hand, the offices of Brazil, Mexico and South Africa follow a single-class filing system, requiring a separate application for each class in which an applicant seeks trademark protection. To capture the differences in application and registration numbers across offices, it is useful to compare their respective application and registration class counts.

Collective trademark
Collective marks are usually defined as signs that distinguish the geographical origin, material, mode of manufacture or other common characteristics of goods or services of different enterprises using the collective mark. The owner may be either an association of which those enterprises are members or any other entity, including a public institution or a cooperative.

Community Plant Variety Office (CPVO) of the European Union (EU)
An EU agency that manages a system of plant variety rights covering all EU member states.

Design count
The number of designs contained in an industrial design application or registration. Under the Hague System for the International Registration of Industrial Designs, it is possible for an applicant to obtain protection for up to 100 industrial designs for products belonging to one and the same class by filing a single application. Some national or regional IP offices allow applications to contain more than one design for the same product or within the same class, while others allow only one design per application. In order to capture the differences in application and registration numbers across offices, it is useful to compare their respective application and registration design counts.

Designation
A request, made in an international application or registration, by which the applicant/international registration holder specifies the jurisdiction(s) in which they seek to protect their industrial designs (Hague System) or trademarks (Madrid System).

Direct filing
See "National route."

Educational publishing
Educational publishing refers to books intended for teaching in schools and educational institutions. These include the following two sub-sectors: (a) school textbooks (K-12) are books for schools and (b) higher education publishing are books for colleges, universities, and other higher education institutions. Educational books should include books sold to educational institutions, to governments, or through specialist academic vendors and outlets, and so on.

Equivalent application
Applications at regional offices are equivalent to multiple applications, one in each of the member states of those offices. To calculate the number of equivalent applications for the Benelux Office for Intellectual Property (BOIP), the Eurasian Patent Organization (EAPO), the African Intellectual Property Organization (OAPI), the Patent Office of the Cooperation Council for the Arab States of the Gulf (GCC Patent Office) and the European Union Intellectual Property Office (EUIPO), each application is multiplied by the corresponding number of member states. For European Patent Office (EPO) and African Regional Intellectual Property Organization (ARIPO) data, each application is counted as one application abroad, if the applicant does not reside in a member state, or as one resident application and one application abroad, if the applicant resides in a member state. The equivalent application concept is used for reporting data by origin.

Equivalent grant (registration)
Grants (registrations) at regional offices are equivalent to multiple grants (registrations), one in each of the member states of those offices. To calculate the number of equivalent grants (registrations) for BOIP, EAPO, the EUIPO, the GCC Patent Office or OAPI, each grant (registration) is multiplied by the corresponding number of member states. For EPO and ARIPO data, each grant is counted as one grant abroad, if the applicant does not reside in a member state, or as one resident grant and one grant abroad, if the applicant resides in a member state. The equivalent grant (registration) concept is used for reporting data by origin.

European Patent Office (EPO)
The EPO is the regional patent office created under the European Patent Convention (EPC), in charge of granting European patents for EPC member states. Under Patent Cooperation Treaty (PCT) procedures, the EPO acts as a receiving office, an International Searching Authority and an International Preliminary Examining Authority.

European Union Intellectual Property Office (EUIPO)
The EUIPO is the office responsible for managing the EU trademark and the registered community design. The validity of these two IP rights extends across the jurisdictions of EU member states. Although the United Kingdom (U.K.) is no longer an EU member, the U.K.'s 2020 IP data are included in the EU total as it remained a EU member during the term of the Brexit transition period (2020).

Filing
See "Application."

Foreign-oriented patent families
A special subset of patent families that comprises foreign-oriented patent families, this includes only those patent families with at least one filing office that differs from the office of the applicant's country of origin. Some foreign-oriented patent families include only one filing office, because applicants may choose to file directly with a foreign office. For example, if a Canadian applicant files a patent application directly with the United States Patent and Trademark Office (USPTO) without having first filed with the patent office of Canada, that application will form a foreign-oriented patent family.

Geographical indication
A geographical indication (GI) is a sign identifying a good as originating in a specific geographical area and possessing a given quality, reputation or other characteristic essentially attributable to that geographical origin. The main function of a GI is to identify goods while informing about a connection between the quality, characteristic or reputation of the good and its territory of origin.

Grant
A set of exclusive rights legally accorded to the applicant when a patent or utility model is granted or issued.

Gross domestic product (GDP)
The total unduplicated output of economic goods and services produced within a country as measured in monetary terms.

Hague international application
An application for the international registration of an industrial design filed under the WIPO-administered Hague System.

Hague international registration
An international registration issued via the Hague System, which facilitates the acquisition of industrial design rights in multiple jurisdictions. An application for international registration of an industrial design leads to its recording in the International Register and the publication of the registration in the *International Designs Bulletin*. If the registration is not refused by the IP office of a designated Hague member, the international registration will have the same effect as a registration made in that jurisdiction.

Hague member (Contracting Party)
A state or intergovernmental organization that is a member of the Hague System. Includes any state or intergovernmental organization party to the Geneva Act of 1999 and/or the Hague Act of 1960. Entitlement to file an international application under the Hague Agreement is limited to natural persons or legal entities having a real and effective industrial or commercial establishment, or a domicile, in at least one of the Contracting Parties to the Agreement, or being a national of one of those Contracting Parties or of a member state of an intergovernmental organization that is a Contracting Party. In addition – but only under the 1999 Act – an international application may be filed on the basis of habitual residence in the jurisdiction of a Contracting Party.

Hague route
An alternative to the Paris route (i.e., the direct national or regional route), the Hague route enables an application for the international registration of industrial designs to be filed using the Hague System.

Hague System
The abbreviated form of the Hague System for the International Registration of Industrial Designs. The System comprises two international treaties: the Hague Act of 1960 and the Geneva Act of 1999. The Hague System makes it possible for an applicant to register up to 100 industrial designs in multiple jurisdictions by filing a single application with the International Bureau of WIPO. It simplifies multinational registration by reducing the requirement to file separate applications at each IP office. The System also simplifies the subsequent management of the industrial design, since it is possible to record changes or renew a registration through a single procedural step for all designated Hague members.

Industrial design
Industrial designs are applied to a wide variety of industrial products and handicrafts. They refer to the ornamental or aesthetic aspects of a useful article, including compositions of lines or colors or any three-dimensional forms that give a special appearance to a product or handicraft. The holder of a registered industrial design has exclusive rights against unauthorized copying or imitation of the design by third parties. Industrial design registrations are valid for a limited period. The term of protection is usually 15 years in most jurisdictions. However, differences in legislation exist, notably in China (which provides for a 10-year term from the application date).

In force
Refers to IP rights that are currently valid or, in the case of trademarks, active. To remain in force, IP protection must be maintained.

Intellectual property (IP)
Refers to creations of the mind: inventions, literary and artistic works, and symbols, names, images and designs used in commerce. IP is divided into two categories: industrial property – which includes patents, utility models, trademarks, industrial designs and geographical indications of source – and copyright, which includes literary and artistic works (such as novels, poems, plays, films), musical works, artistic works (such as drawings, paintings, photographs and sculptures) and architectural designs. Rights related to copyright include those of performing artists in their performances, those of producers of sound recordings in their recordings and those of broadcasters in their radio and television programs.

International Depositary Authority (IDA)
A scientific institution – typically a culture collection – capable of storing microorganisms that has acquired the status of an International Depositary Authority under the Budapest Treaty and provides for the receipt, acceptance and storage of microorganisms and the

furnishing of samples thereof. As of July 2020, 48 such authorities existed around the world.

International Patent Classification (IPC)
An internationally recognized patent classification system, the IPC has a hierarchical structure of language-independent symbols and is divided into sections, classes, sub-classes and groups. IPC symbols are assigned according to the technical features in patent applications. A patent application that relates to multiple technical features can be assigned several IPC symbols.

International Union for the Protection of New Varieties of Plants (UPOV)
An intergovernmental organization established by the International Convention for the Protection of New Varieties of Plants (the UPOV Convention), which was adopted on December 2, 1961. UPOV provides and promotes an effective system of plant variety protection aimed at encouraging the development of new varieties of plants for the benefit of society.

Invention
A new solution to a technical problem. To qualify for patent protection, the invention must be novel, involve an inventive step and be industrially applicable, as judged by a person skilled in the art.

Lisbon System
The Lisbon System was established in 1958 and revised first in 1967 and then again in 2015 to facilitate the international protection of appellations of origin and geographical indications through a single registration procedure. Registration with the WIPO International Bureau ensures protection in all Lisbon contracting parties, without the need for renewal and for as long as the appellation of origin or the GI remains protected in its contracting party of origin. However, the decision on whether to protect a newly registered appellation of origin or GI at the national or regional level remains the prerogative of each contracting party, and each Lisbon member can refuse protection based on any ground foreseen at national or regional level within one year of being notified of a new appellation of origin or GI by the WIPO International Bureau. The Lisbon System is flexible with regard to the means by which countries may provide protection at national or regional level for their appellations of origin or GIs (e.g., *sui generis* systems, trademark laws or specific ad hoc decrees, as well as judicial and administrative decisions).

Locarno Classification
The abbreviated form of the International Classification for Industrial Designs under the Locarno Agreement used for registering industrial designs. The Locarno Classification consists of 32 classes and their respective subclasses with explanatory notes, plus an alphabetical list of the goods in which industrial designs are incorporated and an indication of the classes and subclasses into which they fall.

Madrid international application
An application for international registration under the Madrid System, which is a request for the protection of a trademark in one or more Madrid members' jurisdictions. An international application must be based on a basic mark, that is, prior application or registration of a mark in a Madrid member jurisdiction.

Madrid international registration
An application for international registration of a mark leads to its recording in the International Register and the publication of the international registration in the WIPO *Gazette of International Marks*. If the international registration is not refused protection by a designated Madrid member, it will have the same effect as a national or regional trademark registration made under the law applicable in that Madrid member's jurisdiction.

Madrid member (Contracting Party)
A state or intergovernmental organization – for example, the African Intellectual Property Organization (OAPI) or the European Union (EU) – that is party to the Madrid Protocol.

Madrid route
The Madrid route (the Madrid System) is an alternative to the direct national or regional route (also called the Paris route).

Madrid System
An abbreviation describing the system for the international registration of trademarks, originally established by the Madrid Agreement Concerning the International Registration of Marks and later also governed by the Protocol Relating to the Madrid Agreement. Following a decision by the Madrid Union Assembly in October 2016, the Protocol is now the sole governing treaty of the Madrid System. The Madrid System is administered by the International Bureau of WIPO.

Maintenance
An act by the applicant to keep an IP grant/registration valid (in force), primarily by paying the required fee to the IP office of the state or jurisdiction providing protection. That fee is also known as a "maintenance fee." A trademark can be maintained indefinitely by paying renewal fees; however, patents, utility models and industrial designs can be maintained for only a limited number of years.

Microorganism deposit
The transmittal of a microorganism to an International Depositary Authority (IDA), which receives and accepts

it, the storage of such a microorganism by the IDA, or both transmittal and storage.

National phase under the PCT
The phase that follows the international phase of the PCT procedure and which consists of the entry and processing of the international application in the individual countries or regions in which the applicant seeks protection for an invention.

National route
Applications for IP protection filed directly with the national office of, or acting for, the relevant state or jurisdiction (see also "Hague route," "Madrid route" and "PCT route"). The national route is also called the direct route or Paris route.

Nice Classification
The abbreviated form of the International Classification of Goods and Services for the Purposes of Registering Marks, an international classification established under the Nice Agreement. The Nice Classification consists of 45 classes, which are divided into 34 classes for goods and 11 for services. (See "Class.")

Non-resident
For statistical purposes, a "non-resident" application refers to an application filed with the IP office of, or acting for, a state or jurisdiction in which the first named applicant in the application is not domiciled. For example, an application filed with the Japan Patent Office (JPO) by an applicant residing in France is considered to be a non-resident application from the perspective of the JPO. Non-resident applications are sometimes referred to as foreign applications. A non-resident grant or registration is an IP right issued on the basis of a non-resident application.

Origin (country or region)
For statistical purposes, the origin of an application means the country or territory of residence of the first named applicant in the application. In some cases (notably in the U.S.), the country of origin is determined by the residence of the assignee rather than that of the applicant.

Paris Convention
The Paris Convention for the Protection of Industrial Property, signed on March 20, 1883, is one of the most important treaties, as it establishes general principles applicable to all IP rights. It establishes the "right of priority" enabling an IP applicant, when filing an application in countries other than the original country of filing, to claim priority of an earlier application filed up to 12 months previously for patents and utility models, and up to six months previously for trademarks and industrial designs.

Paris route
An alternative to the Hague, Madrid or PCT routes, the Paris route (also called the direct route or national route) enables individual IP applications to be filed directly with an IP office of a country/territory that is a signatory to the Paris Convention.

Patent
A set of exclusive rights granted by law to applicants for inventions that are new, non-obvious and commercially applicable. A patent is valid for a limited period (generally 20 years), during which time patent holders can commercially exploit their inventions on an exclusive basis. In return, applicants are obliged to disclose their inventions to the public in a manner that enables others skilled in the art to replicate the invention. The patent system is designed to encourage innovation by providing innovators with time-limited exclusive legal rights, thus enabling them to appropriate the returns from their innovative activity.

Patent Cooperation Treaty (PCT)
An international treaty administered by WIPO, the PCT allows applicants to seek patent protection for an invention simultaneously in a large number of countries (PCT contracting states) by filing a single PCT international application. The granting of patents, which remains under the control of national or regional patent offices, is carried out in what is called the "national phase under the PCT."

Patent family
Applicants often file patent applications in multiple jurisdictions, so some inventions are recorded more than once. To take this into account, WIPO has indicators related to patent families, defined as patent applications interlinked by one or more of: priority claim, Patent Cooperation Treaty national phase entry, continuation, continuation-in-part, internal priority, and addition or division. WIPO's patent family definition includes only those associated with patent applications for inventions and excludes patent families associated with utility model applications.

PCT application
A patent application filed through the WIPO-administered PCT, also known as an international application.

PCT-patent prosecution highway (PCT-PPH) pilots
A number of bilateral agreements signed between patent offices enabling applicants to request an accelerated examination procedure, because of positive patentability findings made by the International Searching and/or International Preliminary Examining Authority, in the written opinion of an International Searching Authority, the written opinion of an International Preliminary

Examining Authority or the international preliminary report on patentability.

PCT route
The procedure outlined in the PCT, as opposed to the Paris route.

PCT System
The PCT, an international treaty administered by WIPO, facilitates the acquisition of patent rights in a large number of jurisdictions. The PCT System simplifies the process of multiple national patent filings by reducing the requirement to file a separate application in each jurisdiction. However, the decision on whether to grant patent rights remains in the hands of national and regional patent offices, and patent rights remain limited to the jurisdiction of the patent granting authority. The PCT application process starts with the international phase, during which an international search and, possibly, a preliminary examination are performed, and concludes with the national phase, during which a national or regional patent office decides on the patentability of an invention according to national law.

Pending patent application
In general, this refers to a patent application filed with a patent office for which no patent has yet been either granted or refused, and for which the application has not been withdrawn. In jurisdictions where a request for examination is required in order to start the examination process, a pending application may refer to an application for which a request for examination has been received or one for which no patent has been granted or refused, and for which the application has not been withdrawn.

Plant Patent Act (PPA) of the U.S.
Under the law commonly known as the "Plant Patent Act," whoever invents or discovers and asexually reproduces any distinct and new variety of plant, including cultivated sports, mutants, hybrids and newly-found seedlings, other than a tuber-propagated plant or a plant found in an uncultivated state, may obtain a patent therefor.

Plant variety
According to the UPOV Convention, plant variety means a plant grouping within a single botanical taxon of the lowest known rank which, irrespective of whether the conditions for the granting of a breeder's right are fully met, can be defined by the expression of the characteristics resulting from a given genotype or combination of genotypes, distinguished from any other plant grouping by the expression of at least one of the said characteristics and considered as a unit with regard to its suitability for being propagated unchanged.

Plant variety grant
Under the UPOV Convention, the breeder's right is granted (title of protection is issued) only when the variety is new, distinct, uniform, stable and has a suitable denomination.

Plant Variety Protection Act (PVPA) of the U.S.
Under the PVPA, the U.S. protects all sexually reproduced plant varieties and tuber-propagated plant varieties, excluding fungi and bacteria.

Prior art
All information disclosed to the public about an invention, in any form, before a given date. Information on prior art can assist in determining whether the claimed invention is new and involves an inventive step (i.e., is non-obvious) for the purposes of international searches and international preliminary examination.

Priority date
The filing date of the application on the basis of which priority is claimed. (See "Paris Convention.")

Publication date
The date on which an IP application is disclosed to the public. On that date, the subject matter of the application becomes prior art.

Publishing industry revenue
Total revenue refers to net revenue generated by sales and licenses excluding value-added and/or local sales tax. The net revenue calculation should exclude discounts offered to retailers and distributors. Whereas, revenue at market value calculated from retail prices, including deductions for discounts, value-added tax, and so on.

Regional application/grant (registration)
An application filed with or granted (registered) by an IP office having regional jurisdiction over more than one country. There are currently seven regional offices: the African Intellectual Property Organization (OAPI), the African Regional Intellectual Property Organization (ARIPO), the Benelux Office for Intellectual Property (BOIP), the Eurasian Patent Organization (EAPO), the European Patent Office (EPO), the European Union Intellectual Property Office (EUIPO) and the Patent Office of the Cooperation Council for the Arab States of the Gulf (GCC Patent Office).

Registered Community Design
A registration issued by the EUIPO based on a single application filed directly with the office by an applicant seeking protection within the EU as a whole.

Registration
An exclusive set of rights legally accorded to the applicant when an industrial design or trademark is regis-

tered or issued. See "Industrial design" or "Trademark." Registrations are issued to applicants allowing them to make use of and exploit their industrial designs or trademarks for a limited period of time and can, in some cases (particularly in the case of trademarks), be renewed indefinitely.

Renewal
The process by which the protection of an IP right is maintained (kept in force). This usually consists of paying renewal fees to an IP office at regular intervals. If renewal fees are not paid, the registration may lapse. See also "Maintenance."

Resident
For statistical purposes, a resident application refers to an application filed with the IP office of, or acting for, the state or jurisdiction in which the first named applicant in the application is resident. For example, an application filed with the Japan Patent Office (JPO) by a resident of Japan is considered a resident application from the perspective of the JPO. Resident applications are sometimes referred to as "domestic applications." A resident grant/registration is an IP right issued on the basis of a resident application.

Trademark
A sign used to distinguish the goods or services of one undertaking from those of another. A trademark may consist of words and combinations of words (for instance, names or slogans), logos, figures and images, letters, numbers, sounds, or, in rare instances, smells or moving images, or a combination thereof. The procedures for registering trademarks are governed by the legislation and procedures of national and regional IP offices and WIPO. Trademark rights are limited to the jurisdiction of the IP office that registers the trademark. Trademarks can be registered by filing an application at the relevant national or regional office(s), or by filing an international application through the Madrid System.

Trade publishing
Trade publishing refers to books intended for the consumer market and distributed through various channels. It includes a wide variety of genres in fiction, non-fiction, children's and young adult books.

Utility model
A special form of patent right granted by a state or jurisdiction to an inventor or the inventor's assignee for a fixed period of time. The terms and conditions for granting a utility model are slightly different from those for normal patents (including a shorter term of protection and less stringent patentability requirements). The term "utility model" can also describe what are known in certain countries as "petty patents," "short-term patents" or "innovation patents."

World Intellectual Property Organization (WIPO)
A United Nations specialized agency dedicated to the promotion of innovation and creativity for the economic, social and cultural development of all countries through a balanced and effective international IP system. WIPO was established in 1967 with a mandate to promote the protection of IP throughout the world through cooperation between states and in collaboration with other international organizations.

Abbreviations

ARIPO	African Regional Intellectual Property Organization
BOIP	Benelux Office for Intellectual Property
CNIPA	National Intellectual Property Administration of the People's Republic of China
CPVO	Community Plant Variety Office of the European Union
EAPO	Eurasian Patent Organization
EPO	European Patent Office
EU	European Union
EUIPO	European Union Intellectual Property Office
GCC Patent Office	Patent Office of the Cooperation Council for the Arab States of the Gulf
GDP	gross domestic product
GI	geographical indication
IDA	International Depositary Authority
IP	intellectual property
IPA	International Publishers Association
IPC	International Patent Classification
JPO	Japan Patent Office
KIPO	Korean Intellectual Property Office
LAC	Latin America and the Caribbean
NPA	national publishers' association
OAPI	African Intellectual Property Organization
PCT	Patent Cooperation Treaty
PPA	Plant Patent Act of the United States of America
PRO	public research organization
PVPA	Plant Variety Protection Act of the United States of America
U.K.	United Kingdom
UM	utility model
UN	United Nations
UPOV	International Union for the Protection of New Varieties of Plants
U.S.	United States of America
USPTO	United States Patent and Trademark Office
WIPO	World Intellectual Property Organization

Annexes

Annex A. Definitions for selected energy-related technology fields

Energy-related technologies	International patent classification (IPC) symbols
Solar energy technology	E04D 1/30, E04D 13/18, F24J 2/00, F24J 2/02, F24J 2/04, F24J 2/05, F24J 2/06, F24J 2/07, F24J 2/08, F24J 2/10, F24J 2/12, F24J 2/13, F24J 2/14, F24J 2/15, F24J 2/16, F24J 2/18, F24J 2/23, F24J 2/24, F24J 2/36, F24J 2/38, F24J 2/42, F24J 2/46, F03G 6/06, G02B 5/10, H01L 31/052, H01L 31/04, H01L 31/042, H01L 31/18, G02F 1/136, G05F 1/67, H01L 25/00, H01L 31/00, H01L 31/048, H01L 33/00, H02J 7/35, H02N 6/00
Fuel cell technology	H01M 4/00, H01M 4/86, H01M 4/88, H01M 4/90, H01M 8/00, H01M 8/02, H01M 8/04, H01M 8/06, H01M 8/08, H01M 8/10, H01M 8/12, H01M 8/14, H01M 8/16, H01M 8/18, H01M 8/20, H01M 8/22, H01M 8/24
Wind energy	F03D 1/00, F03D 3/00, F03D 5/00, F03D 7/00, F03D 9/00, F03D 11/00, 60L 8/00
Geothermal energy	F24J 3/08, F03G 4/00, F03G 7/05

Note: For definitions of IPC symbols, see *www.wipo.int/classifications/ipc*. The correspondence between IPC symbols and technology fields is not always clear-cut, therefore it is difficult to capture all patents in a specific technology field. Nonetheless, the IPC-based definitions of the four technologies presented above are likely to capture the vast majority of related patents.

Source: WIPO.

Annex B. Composition of industry sectors by Nice goods and services classes

Industry sector	Abbreviation (where applicable)	Nice classes
Agricultural products and services	Agriculture	29, 30, 31, 32, 33, 43
Management, communications, real estate and financial services	Business services	35, 36
Chemicals	..	1, 2, 4
Textiles – clothing and accessories	Clothing and accessories	14, 18, 22, 23, 24, 25, 26, 27, 34
Construction, infrastructure	Construction	6, 17, 19, 37, 40
Pharmaceuticals, health, cosmetics	Health	3, 5, 10, 44
Household equipment	..	8, 11, 20, 21
Leisure, education, training	Leisure & Education	13, 15, 16, 28, 41
Scientific research, information and communication technology	Research & Technology	9, 38, 42, 45
Transportation and logistics	Transportation	7, 12, 39

Source: Edital®.

Annex C. Industry sectors by Locarno classes

Sector	Locarno classes
Advertising	20, 32
Agricultural products and food preparation	1, 27, 31
Construction	23, 25, 29
Electricity and lighting	13, 26
Furniture and household goods	6, 7, 30
Health, pharma and cosmetics	24, 28
ICT and audiovisual	14, 16, 18
Leisure and education	17, 19, 21, 22
Packaging	9
Textiles and accessories	2, 3, 5, 11
Tools and machines	4, 8, 10, 15
Transport	12

Source: Organisation for Economic Co-operation and Development (OECD).

The *World Intellectual Property Indicators* is the annual survey of intellectual property (IP) activity around the world from WIPO, the United Nations specialized agency for innovation and IP.

This authoritative report analyzes IP activity around the globe. Drawing on 2020 filing, registration and renewals statistics from national and regional IP offices and WIPO, it covers patents, utility models, trademarks, industrial designs, microorganisms, plant variety protection and geographical indications. The report also draws on survey data and industry sources to give a picture of activity in the publishing industry.

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