Patents

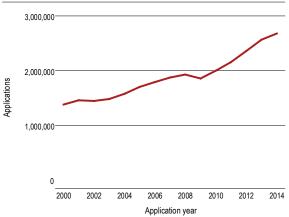
Highlights

Applications approach 2.7 million worldwide in 2014

Around 2.68 million patent applications were filed worldwide in 2014, up 4.5% from 2013 (figure 1). Driving that strong growth were filings in China, which received 103,000 of the 116,100 additional filings and accounted for 89% of total growth, whereas the United States of America (US) contributed 6% of total growth.

The 4.5% growth in filings in 2014 is lower than the growth rate in each of the previous four years, which varied between 7% and 10%.

Figure 1. Patent applications worldwide



Source: Standard figure A1.

China received more applications than Japan and the US combined

The State Intellectual Property Office of the People's Republic of China (SIPO) received the most applications in 2014, followed by the United States Patent and Trademark Office (USPTO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO) and the European Patent Office (EPO). SIPO – with 928,177 filings – received more applications than the combined total of the USPTO and the JPO. If the current trend continues, SIPO is set to become the first office to receive a million applications in a single year. The top five offices accounted for 82% of the world total in 2014, which is considerably higher than their 2000 share (70%). The four BRIC countries – Brazil, China, India and the Russian Federation – rank among the top 10 offices (figure 2).

The top 20 list includes patent offices from 13 highincome economies, 5 upper middle-income countries and 2 lower middle-income countries. As for geographical distribution, nine offices are located in Asia, six in Europe, two each in North America and Latin America & the Caribbean (LAC), and one in Oceania. South Africa, which is ranked 23rd, is the highest-placed office in Africa.

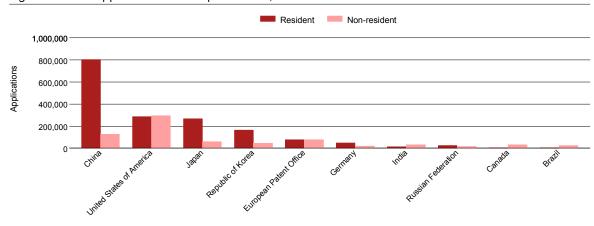


Figure 2. Patent applications at the top 10 offices, 2014

Source: Standard figure A8.

Double-digit growth in China and the Islamic Republic of Iran

Of the top 20 offices, 13 received more applications in 2014 than in 2013. China (+12.5%) and the Islamic Republic of Iran (+18.5%) exhibited double-digit growth, which was driven mainly by growth in resident applications. China's 2014 growth rate of 12.5% is less than half the 2013 growth rate and the lowest since 2009.

Other offices showing notable growth in 2014 were Indonesia (+7.7%), Thailand (+7.1%) and Singapore (+6.1%). At each of these offices, growth in non-resident applications was the main driver of overall growth. Australia recorded a 12.7% decline in 2014, ending the growth it had witnessed over the previous four years, with decreases in both resident and non-resident applications. China Hong Kong (SAR) and the Russian Federation each saw a decline of around 10%. Among the top five offices, the EPO, KIPO, SIPO and the USPTO saw growth in applications in 2014. However, the 2014 growth rates of KIPO, SIPO and the USPTO are considerably lower than those for 2013. The JPO, in third place, has recorded declines since 2005 due to a fall in resident applications; non-resident applications have increased, but not by enough to offset this decline.

Among selected offices of low- and middle-income countries, the African Regional Intellectual Property Organization (ARIPO, +20.7%), Turkey (+9.4%) and Viet Nam (+11.3%) showed the fastest growth in 2014. At most offices of low- and middle-income countries, the bulk of applications are filed by non-residents. As a result, overall growth or decline in applications at these offices is determined mainly by the filing behavior of non-resident applicants. For example, Viet Nam saw 11.3% growth in 2014 due mainly to growth in non-resident applications. Variations in year-on-year growth are considerable, especially at offices that receive low numbers of applications.

A shift toward China

High-income countries received 58.4% of applications filed worldwide in 2014, reflecting their high R&D spending (figure 3). However, the distribution of applications is shifting toward the upper middle-income group as they grow in China and decline in Japan. Applications filed in China rose sevenfold between 2004 and 2014, while those filed in Japan fell by a fifth.

Due to the high numbers of applications filed in China, offices of the upper middle-income countries have seen their share of the world total increase from 12.4% in 2004 to 38.5% in 2014. Without China, the share of the remaining upper middle-income countries increased from 4.5% in 2004 to 6% in 2014 – with the offices of Brazil, the Islamic Republic of Iran and Turkey driving this growth.¹

The lower middle-income group saw a slight increase in its share of the world total – from 2.4% in 2004 to 2.7% in 2014, due primarily to growth in the numbers of applications filed in India, Indonesia and Viet Nam. The low-income group accounted for less than 0.5% of the world total in both 2004 and 2014. However, it should be noted that data for only 14 offices of lowincome countries are available.

Offices located in Asia received 60% of applications filed worldwide in 2014, compared with 49% in 2004 (figure 4). This high share reflects the fact that three of the top five patent offices are in Asia (the JPO, KIPO and SIPO). However, the increase in Asia's share of the world total resulted primarily from the substantial increase in filings in China. In fact, applications in China grew from 130,384 in 2004 to 928,177 in 2014, with resident applications being the main source of growth. Offices in North America accounted for 23% and those in Europe for 13% of the 2014 world total. Over the past 10 years, patenting activity has been gradually shifting away from Europe and North America toward Asia - to be more specific, China - and the pace of this shift has been accelerating since 2010. As for the other world regions, the combined share of Africa, LAC and Oceania was around 4% in 2014.

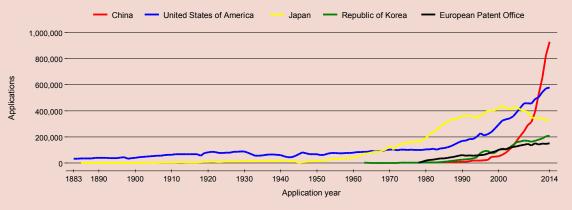
Patent filings since 1883

From 1883 to 1963, the USPTO was the leading office in world filings. Application numbers at the JPO and the USPTO were stable until the early 1970s, when the JPO began to see rapid growth, a pattern also observed for the USPTO from the 1980s onwards.

Among the top five offices, the JPO surpassed the USPTO in 1968 and maintained the top position until 2005. Since 2006,

the number of applications at the JPO has trended downward. Both the EPO and KIPO have seen increases each year since the early 1980s, as has SIPO since 2001. SIPO surpassed the EPO and KIPO in 2005, the JPO in 2010 and the USPTO in 2011 – and it now receives the largest number of applications worldwide. There has been a gradual upward trend in the combined share of the top five offices in the world total – from 70% in 2000 to 82% in 2014.

Trend in patent applications for the top five offices



Source: Standard figure A7.

Note: The IP office of the Soviet Union, not represented in this figure, was the leading office in the world in terms of filings from 1964 to 1969. Like the JPO and the USPTO, the office of the Soviet Union saw stable application numbers until the early 1960s, after which it recorded rapid growth in applications filed.

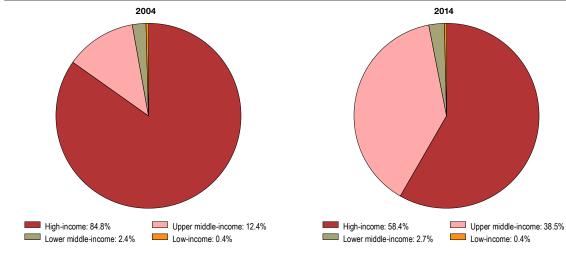


Figure 3. Patent applications by income group

Source: Standard table A5.

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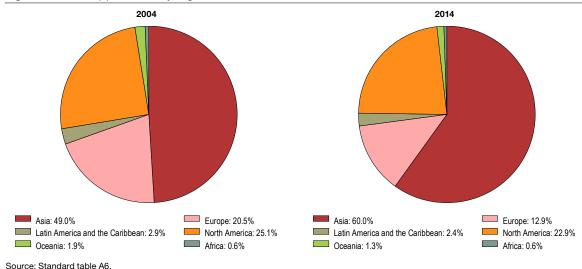


Figure 4. Patent applications by region

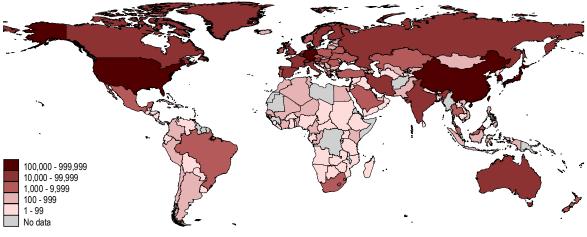
The US and Japan still account for most patents filed abroad

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

Applicants from China (837,817) filed the largest number of equivalent patent applications in 2014, followed by the US (509,521) and Japan (465,971) (map 1). China has been the largest origin of patent applications since 2012 when it overtook Japan. Furthermore, the gap between China and the other origins has increased considerably over the past three years.

Equivalent patent applications

Applications at regional IP offices are equivalent to multiple applications in the countries that are members of the organizations establishing these offices. In particular, to calculate the number of equivalent applications for the Eurasian Patent Organization (EAPO) and the African Intellectual Property Organization (OAPI), 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 and one application abroad if the applicant resides in a member state. The equivalent application concept is used for reporting data by origin.



Map 1. Equivalent patent applications by origin, 2014

Source: Standard map A16.

More than half the top 20 origins are located in Europe, and their combined total is higher than that of the US, which ranks second after China. All top 20 origins except China, India and the Islamic Republic of Iran are high-income countries. Among the top origins, the Islamic Republic of Iran recorded the fastest growth (+21.4%) in 2014, followed by China (+14.1%), the Netherlands (+12.3%) and Finland (+10.7%). Increases in applications abroad drove the growth for Finland and the Netherlands, while it was an increase in resident applications in the case of China and the Islamic Republic of Iran. A number of origins outside the top 20, such as Malaysia (+15.7%), Saudi Arabia (+31.9%) and Turkey (+12.1%), recorded double-digit growth in 2014 due to increases in both applications filed by residents and those filed abroad.

Filing abroad reflects the globalization of intellectual property (IP) protection and the desire to commercialize technology in foreign markets. The costs of filing abroad can be substantial, so the patents are likely to confer higher values. Among the top 20 origins, applications filed abroad made up a large share of Canada's, Israel's and Switzerland's totals. However, in absolute numbers, the US with around 224,400 had the most, followed by Japan (around 200,000) and Germany (around 105,600). Applicants residing in China, while ranking first in terms of resident applications, filed only 36,700 applications abroad, which is similar to the level filed abroad by applicants residing in Switzerland. However, in recent years, China's applications filed abroad have increased markedly – from around 15,300 in 2010 to 36,700 in 2014. The abroad shares of middle-income countries such as Brazil, Turkey and Thailand are lower than the abroad shares of high-income countries.

Among other things, proximity and market size influence cross-border applications. US applicants accounted for 52% of all non-resident applications filed in Canada and 49% of non-resident filings in Mexico. German, Japanese or US applicants accounted for the highest non-resident shares at many offices. For example, German applicants had the highest share of non-resident filings in France, whereas Japanese applicants accounted for highest share in the Republic of Korea.

Chinese applicants accounted for 5% of all non-resident applications received by the patent office of South Africa, and 3.9% at the patent office of Malaysia. Compared to Japan and the US, China accounts for low shares at many offices, but these have increased in recent years. For example, the share of Chinese applicants at the USPTO increased from 3.2% in 2010 to 6.1% in 2014.

How large are patent families?

Inventors traditionally file at their national offices and then subsequently abroad, so some inventions are recorded more than once. To take this into account, WIPO has developed indicators for patent families, and the trend in patent families mirrors that of patent applications. Over the past seven years, the ratio of families to applications has remained more or less stable at around 0.5. This means that about half of all applications are initial filings and the other half are repetitive filings, mostly at foreign offices. France, the Netherlands, Sweden and Switzerland have low family-to-application ratios at more than three-quarters for the period of 2010 to 2012, indicating substantial duplication due to high numbers of cross-border filings. China, Poland and the Russian Federation have high ratios, indicating less duplication due to low numbers of cross-border filings.

Patent families

Patent families are defined as patent applications interlinked by one or more of: priority claim, Patent Cooperation Treaty (PCT) national phase entry, continuation, continuation-inpart, internal priority and addition or division. A special subset comprises foreign-oriented patent families, which include only patent families that have at least one filing office different from the office of the applicant's country of origin. Some foreign-related patent families include only one filing office because applicants may choose to file only with a foreign office. For example, if a Canadian applicant files a patent application directly with the USPTO (without having previously filed with the patent office of Canada), that patent family constitutes a foreign-oriented patent family with just one office.

The size of patent families reflects their geographical coverage. Between 2010 and 2012, around 22% of foreign-oriented patent families were single-office families – they were filed in only one foreign office, but not in the applicant's respective domestic office. Around 87% of the families created worldwide between 2010 and 2012 were filed in fewer than three patent offices. However, there is considerable variation among the top origins. For example, applicants from France, Japan and the UK tend to cover three offices when filing abroad, whereas those from Canada cover two on average.

The Republic of Korea filed the highest number of patents per unit of GDP

Differences in patent activity reflect both the size of the economy and the level of development, so it is interesting to express the number of resident patent applications relative to GDP, population, R&D spending or other variables. These are commonly referred to as "patent activity intensity" indicators.

For the world, resident applications per 100 billion United States dollars (USD) of GDP rose from around 1,474 in 2004 to 1,821 in 2014. This estimate is based on data covering 113 offices. The Republic of Korea has had the highest number of patent applications per unit of GDP since 2004. Its ratio of resident applications to GDP is more than twice that of China and six times that of the US. China ranks third when its resident patent applications are adjusted by GDP, after the Republic of Korea and Japan (figure 5). Reflecting strong growth in resident applications, China's resident applications per unit of GDP increased from 990 in 2004 to 4,657 in 2014 – the fastest growth among the leading origins.

The top five ranking has remained unchanged since 2010 when China overtook Germany. The list of the top 20 origins is predominantly comprised of high-income countries. However, three middle-income countries – China, the Islamic Republic of Iran and Ukraine – also feature. Large middle-income countries such as Brazil, India, Mexico, Turkey and South Africa exhibit low numbers of resident applications per unit of GDP. Brazil, with 150 resident applications per unit of GDP, is the highest-ranking origin in the Latin America & the Caribbean region, and Morocco ranks the highest in Africa. Patent activity is much more intensive in North-East Asia than in other parts of the world.

The profile of resident applications per million population is similar to that adjusted by GDP but shows some subtle differences. The top two origins – the Republic of Korea and Japan – are the same in both measures. But China's resident applications-to-population ratio ranks much lower, in ninth position, just after Denmark, whose population is less than 0.5% of China's.

Nordic countries rank high when resident patent applications are adjusted by population or GDP.

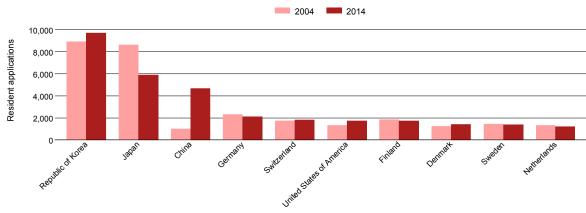


Figure 5. Resident patent applications per 100 billion USD GDP for the top 10 origins

The ICT sector accounts for the largest share of patent applications worldwide

In 2013, the latest year for which complete data are available due to the delay between application and publication, computer technology saw the most published applications worldwide, followed by electrical machinery, measurement, digital communication and medical technology. Each of these technological fields except medical technology had more than 100,000 published applications in 2013. The combined share of the top five went from 18.8% in 1995 to 28.9% in 2013. Among the top 20 technological fields, digital communication and computer technology saw the fastest annual growth between 1995 and 2013. Digital communication rose from around 8,600 published applications in 1995 to around 100,400 in 2013, while computer technology rose from 35,800 to 168,700 over the same period.

Of the top 10 origins in the period 2011-13, Switzerland filed mainly in pharmaceuticals; the Russian Federation in food chemistry; France and Germany in transport; China, Japan and the Republic of Korea in electrical machinery; the Netherlands in medical technology; and the UK and the US in computer technology. The combined share of the top three technologies ranged from 20% for the UK to 27% for Switzerland.

Among the large middle-income countries, applicants residing in India filed mainly in computer technology, organic fine chemistry and pharmaceuticals, while those in Brazil filed primarily in basic materials chemistry and residents of Turkey filed mostly in consumer goods.

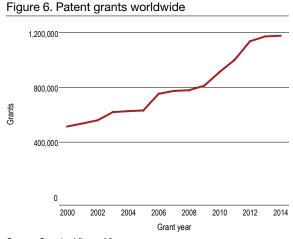
Patent applications in technologies related to fuel cells, geothermal, solar and wind grew continually between 2007 and 2012, but declined by 5% in 2013.

Latest trends in patent grants

Offices carry out a formal or substantive examination to decide whether or not to issue a patent. The procedure for issuing a patent varies across offices, and differences in the numbers of patent grants among offices depend on factors such as examination capacity and procedural delays. For this reason, applications data for a given year should not be compared with grants data from the same year.

Grants have followed a path similar to that of patent applications, growing continually since 2001 and increasing sharply from 2009 to 2012, followed by a slowdown in 2013 and 2014. In 2014, an estimated 1.18 million patents were granted worldwide, up 0.3% on 2013 (figure 6). The 0.3% growth in 2014 is the slowest since 2000. This was due mainly to a decline at the JPO, which granted 50,000 fewer patents in 2014 than in 2013.

Source: Standard figure A29.



Source: Standard figure A3.

Who grants the most patents?

The USPTO issued the most patents in 2014, around 300,700. SIPO granted more than 233,200 and overtook the JPO (227,100) as the second-largest patent issuing office. Grants grew by 12.3% at SIPO, contrasting with an 18% decline at the JPO. The top five offices increased their combined share of the world total from 74% in 2009 to 81% in 2014 thanks to substantial growth in the number of patents issued by KIPO, SIPO and the USPTO over this period.

Among the top 20 offices, India had the fastest growth (+82%) in 2014, with the number of grants increasing from 3,377 in 2013 to 6,153 in 2014. This reflected a substantial increase in the number of non-resident grants. Australia (+12.8%) and China (+12.3%) were the two other top 20 offices to exhibit double-digit growth in 2014. For China, growth in resident grants drove overall growth, while for Australia it was non-resident grants. Beyond the top 20 list, the Islamic Republic of Iran issued around 3,000 patents in 2014, while Brazil, Malaysia and the Philippines issued more than 2,000 each.

How are patents maintained over time?

Patent rights generally last up to 20 years from the date of filing. The estimated number of patents in force worldwide rose from 7.2 million in 2008 to 10.2 million in 2014 (annual growth of 6.1%). The USPTO recorded the most, with 2.53 million patents (24.7% of the world total), followed by the JPO with 1.92 million (18.8%). Patents in force at SIPO more than doubled, from 0.56 million in 2010 to 1.2 million in 2014. The top 20 list includes 16 offices from high-income countries and 4 from upper middle-income countries, namely China, Mexico, South Africa and Turkey. India – ranked 23rd – had close to 50,000 patents in force in its jurisdiction.

Holders must pay maintenance fees to maintain the validity of their patents and may opt to let a patent lapse before the end of its full term. For 71 offices that reported their in-force data, around 42% to 44% of the patents they issued remained in force for at least 6–12 years after the application date, and about one-sixth lasted the full 20 years.

Patent office workloads

Patent offices must assess whether the claims in applications meet the standards of novelty, non-obviousness and industrial applicability defined in national laws. Processing patents therefore consumes time and resources.

The number of applications that were potentially pending fell from 6.1 million in 2008 to 4.9 million in 2014. But this figure would be higher if data from SIPO were available. The decline in pending applications worldwide was driven mainly by Japan, which saw potentially pending applications decline from 2.4 million in 2008 to less than a million in 2014. The USPTO had the most applications potentially pending in 2014, with 1.17 million, slightly fewer than the previous year's 1.2 million. Despite its substantial decline, the JPO still had more than 888,000 in 2014. The EPO and KIPO are the two other offices at which more than half a million applications were potentially pending in 2014. Among the top four offices, the EPO and KIPO had more potentially pending applications in 2014 than in 2013, while the JPO and the USPTO had fewer. Among the middle-income countries, India had the largest number of potentially pending applications, which doubled from around 100,000 in 2010 to 202,000 in 2014. Brazil, Mexico, Thailand and Viet Nam also showed substantial numbers of potentially pending applications in 2014.

A high proportion of potentially pending applications in India, Israel, Japan and Viet Nam did not enter the examination phase in 2014. This contrasts with Australia, Germany, the EPO and the Russian Federation, where the bulk of potentially pending applications were currently being examined. This may reflect a difference across offices in the time limit that applicants have for filing requests for examination.

Potentially pending applications

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

International cooperation

The Patent Cooperation Treaty (PCT) offers applicants an advantageous route for seeking patent protection internationally as an alternative to using the Paris Convention for the Protection of Industrial Property to pursue patent rights in different countries. For further information and statistics, see the *PCT Yearly Review, 2015.*

Together, China and the US accounted for 87% of the total annual growth in PCT filings, which saw some 215,000 applications in total in 2014, a 4.4% increase on the previous year. The US was the primary country of origin for PCT filers in 2014, with 61,476 applications and 7% growth. Japan followed with 42,380 applications, 3.2% down on 2013. Applicants from China filed 25,548 applications – an 18.7% annual increase. India, with 1,428 applications, is the second-largest user of the PCT system among the BRIC countries. China and India are the only two middle-income countries among the top 20 PCT users.

Patent offices are entering more bilateral agreements that enable applicants to request a fast-track examination where examiners can use the work of the other office – so-called patent prosecution highways (PPH). The JPO had 42% of applications for which applicants subsequently filed PPH requests – with SIPO (2,103) and the USPTO (2,894) between them accounting for half the total (9,790). The USPTO had 29% of applications for which applicants subsequently filed PPH requests, with Canada (1,425) receiving the largest number of those requests, followed by China (1,151). The use of the patent prosecution highway is skewed towards the JPO and the USPTO for office of earlier examination, and the JPO, SIPO and the USPTO for office of office of later examination.

For the first time since 1998, utility model applications worldwide fell by 3% in 2014

A utility model protects an invention for a limited period, with different terms and conditions from those for patents. The growth in utility model applications has been strong since 2008, mainly due to filings at SIPO. However, for the first time since 1998, applications worldwide fell by 3% in 2014. This was due to fewer applications being received by the top six offices. An estimated 948,900 applications were filed worldwide in 2014, of which 868,511 were received by SIPO. Germany and the Russian Federation each received around 14,000, while this number was around 9,000 in both the Republic of Korea and Ukraine. Among the top 10 offices, applications received by Brazil, Germany, Japan and the Republic of Korea have declined over the past 10 years, while they have increased in the Russian Federation and Turkey.

Resident applications made up 98% of all applications filed worldwide in 2014, showing that utility model applications are rarely filed abroad.

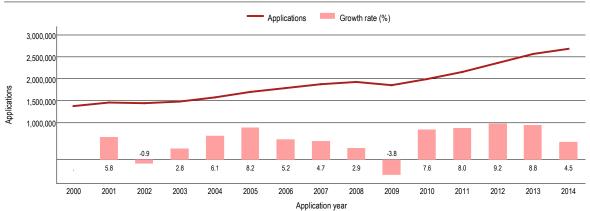
Compared to patents, the Czech Republic, China Hong Kong (SAR), the Philippines, Slovakia and Ukraine are intense users of utility models.

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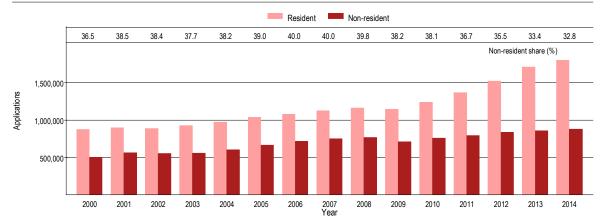
Patent applications and grants worldwide



A1 Trend in patent applications worldwide

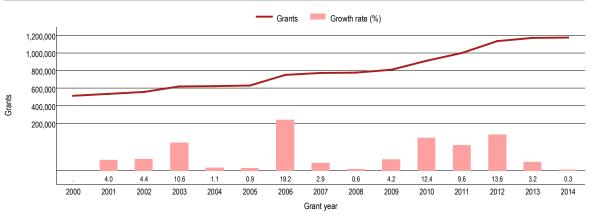
Note: WIPO estimates cover 147 patent offices and include direct applications and Patent Cooperation Treaty national phase entry data (where applicable).

Source: WIPO Statistics Database, October 2015.



A2 Resident and non-resident patent applications worldwide

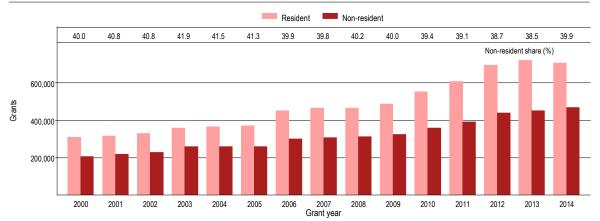
Note: WIPO estimates cover 147 patent offices and include direct applications and Patent Cooperation Treaty national phase entry data (where applicable). See the glossary for definitions of resident and non-resident applications.



A3 Trend in patent grants worldwide

Note: WIPO estimates cover 130 patent offices and include patent grants based on direct applications and on Patent Cooperation Treaty national phase entry data (where applicable).

Source: WIPO Statistics Database, October 2015.



A4 Resident and non-resident patent grants worldwide

Note: WIPO estimates cover 130 patent offices and include patent grants based on direct applications and on Patent Cooperation Treaty national phase entry data. See the glossary for definitions of resident and non-resident.

Source: WIPO Statistics Database, October 2015.

Patent applications and grants by office

A5 Patent applications by income group

	Number o	f applications	Resident	t share (%)	Share of wor	ld total (%)	Average growth (%)
	2004	2014	2004	2014	2004	2014	2004-14
High-income	1,335,200	1,564,800	65.5	59.9	84.8	58.4	1.6
Upper middle-income	194,900	1,033,100	41.9	80.9	12.4	38.5	18.1
Lower middle-income	37,500	72,900	28.8	25.9	2.4	2.7	6.9
Low-income	6,700	10,100	89.6	84.2	0.4	0.4	4.2
World	1,574,300	2,680,900	61.8	67.2	100.0	100.0	5.5

Note: WIPO estimates cover 147 offices and include the following number of offices: high-income countries/economies (57), upper middle-income (40), lower middle-income (36) and low-income (14). 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 are allocated to the low-income group, while those for the Eurosian Patent Organization are allocated to the lower middle-income group. For information on income group classification, see the Data description section.

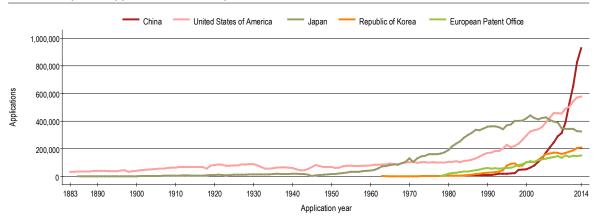
A6 Patent applications by region

	Number of	applications	Resid	ent share (%)	Share of v	vorld total (%)	Average growth (%)
	2004	2014	2004	2014	2004	2014	2004-14
Africa	10,100	14,900	16.8	16.8	0.6	0.6	4.0
Asia	772,100	1,607,500	72.6	79.8	49.0	60.0	7.6
Europe	322,600	346,200	63.6	62.2	20.5	12.9	0.7
Latin America & the Caribbean	45,000	64,100	13.8	11.5	2.9	2.4	3.6
North America	395,100	614,300	49.3	47.1	25.1	22.9	4.5
Oceania	29,400	33,900	14.3	10.9	1.9	1.3	1.4
World Total	1,574,300	2,680,900	61.8	67.2	100.0	100.0	5.5

Note: WIPO estimates cover 147 offices and include the following number of offices: Africa (25), Asia (41), Europe (44), Latin America & the Caribbean (30), North America (2) and Oceania (5).

Source: WIPO Statistics Database, October 2015.

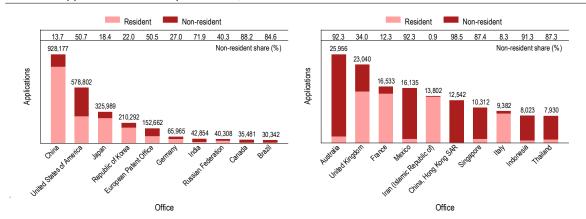
A7 Trend in patent applications for the top five offices



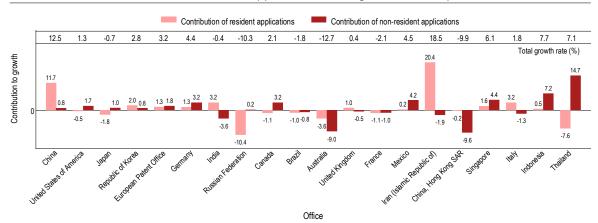
Note: The top five offices were selected based on their 2014 totals.

Source: WIPO Statistics Database, October 2015.

A8 Patent applications for the top 20 offices, 2014



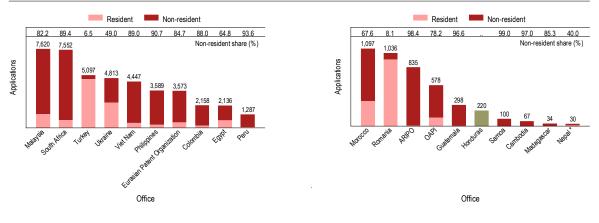
Note: In general, national offices of European Patent Office member states receive lower volumes of applications because applicants may apply via the EPO to seek protection within any EPO member state.



A9 Contribution of resident and non-resident applications to total growth for the top 20 offices, 2013-14

Note: The figure shows total growth or decreases in applications broken down by the respective contributions of resident and non-resident applications. For example, applications filed in China grew 12.5%. Growth in resident applications accounted for 11.7 percentage points of this increase.

Source: WIPO Statistics Database, October 2015.



A10 Patent applications for offices of selected low- and middle-income countries, 2014

. indicates not available. * indicates 2013 data.

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 all offices are in the statistical table at the end of this section.

76.5

-5.9

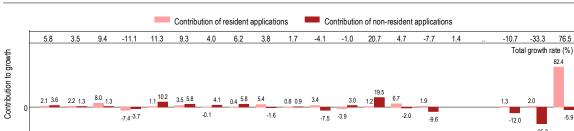
82.

-33.3

2.0

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-35.3



color

A11 Contribution of resident and non-resident applications to total growth for offices of selected low- and middle-income countries, 2013-14

.. indicates not available. * indicates 2013 data.

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). Data for all available offices are in the statistical table at the end of this section. The figure shows total growth or decreases in applications broken down by the respective contributions of resident and non-resident applications. For example, applications filed in Malaysia grew 5.8%. Growth in non-resident applications accounted for 3.6 percentage points of this increase.

Office

Source: WIPO Statistics Database, October 2015.

A12 Patent grants by income group

	Nun	nber of grants	Residen	t share (%)	Share of wor	ld total (%)	Average growth (%)
	2004	2014	2004	2014	2004	2014	2004-14
High-income	531,200	878,300	61.9	59.7	85.0	74.6	5.2
Upper middle-income	74,200	273,900	33.4	63.2	11.9	23.3	14.0
Lower middle-income	15,600	16,900	51.9	19.5	2.5	1.4	0.8
Low-income	4,100	7,500	85.4	89.3	0.7	0.6	6.2
World	625,100	1,176,600	58.5	60.1	100.0	100.0	6.5

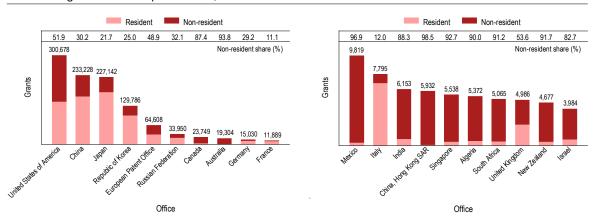
Note: WIPO estimates cover 130 offices and include the following number of offices: high-income countries/economies (53), upper middle-income (37), lower middle-income (28) and low-income (12). European Patent Office data are allocated to the high-income group because most of its member states are high-income 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.

Source: WIPO Statistics Database, October 2015.

A13 Patent grants by region

	Numt	per of grants	Resid	ent share (%)	Share of v	vorld total (%)	Average growth (%)
	2004	2014	2004	2014	2004	2014	2004-14
Africa	4,600	14,000	30.4	10.7	0.7	1.2	11.8
Asia	252,500	634,600	69.5	71.3	40.4	53.9	9.7
Europe	159,700	161,700	63.0	63.6	25.5	13.7	0.1
Latin America & the Caribbean	12,600	17,800	5.6	7.3	2.0	1.5	3.5
North America	177,400	324,400	48.3	45.5	28.4	27.6	6.2
Oceania	18,300	24,100	8.7	6.6	2.9	2.0	2.8
World	625,100	1,176,600	58.5	60.1	100.0	100.0	6.5

Note: WIPO estimates cover 130 offices and include the following number of offices: Africa (21), Asia (37), Europe (43), Latin America & the Caribbean (23), North America (2) and Oceania (4).

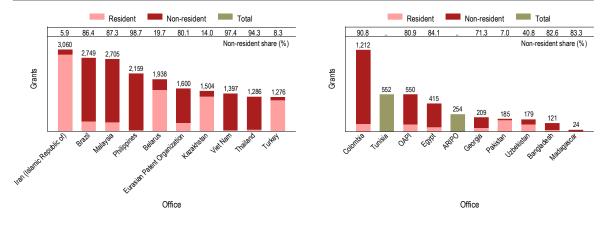


A14 Patent grants for the top 20 offices, 2014

Note: Offices undertake formal and/or substantive examination of applications received to decide whether or not to issue patent rights. The procedure for issuing patents varies across offices, and differences in the numbers of patents granted among offices depend on such factors as examination capacity and procedural delays. The examination process can also be lengthy, so there is a time lag between application and grant dates. For this reason, data on applications for a given year should not be compared with data on grants for the same year.

Source: WIPO Statistics Database, October 2015.

A15 Patent grants for offices of selected low- and middle-income countries, 2014

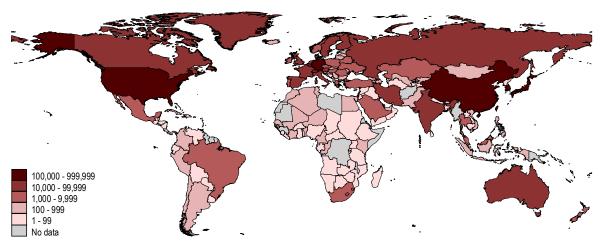


.. indicates not available.

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 all offices are in the statistical table at the end of this section.

Patent applications and grants by origin

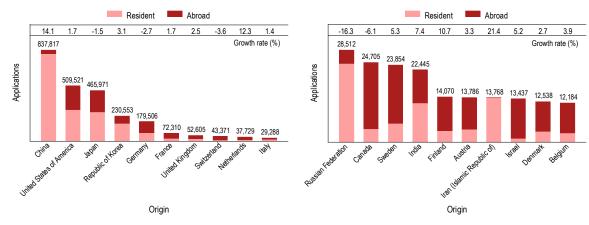
A16 Equivalent patent applications by origin, 2014



Note: Patent 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.

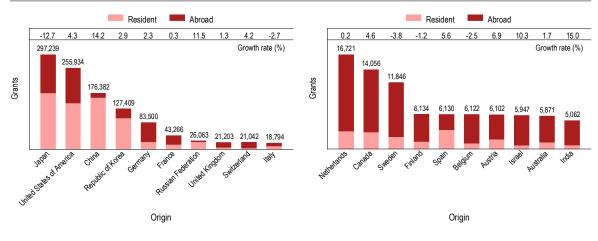
Source: WIPO Statistics Database, October 2015.

A17 Equivalent patent applications for the top 20 origins, 2014



Note: Patent 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. See the glossary for the definition of equivalent application.

Total	Others/Unknown	United States of America	United Kingdom	Turkey	Thailand	Switzerland	Sweden	Spain	Russian Federation	Republic of Korea	Netherlands	Japan	Italy	Israel	Iran (Islamic Republic of)	India	Germany	France	Finland	Denmark	China	Canada	Brazil	Belgium	Austria	Australia	Origin
25,956	1,417	11,551	1,153	12	12	1,083	461	123	29	595	630	1,682	326	328		207	1,457	839	193	253	593	510	48	270	196	1,988	Australia
30,342	1,084	9,617	808	17	J	1,408	617	265	34	430	1,412	2,229	703	222		122	2,780	1,810	225	263	559	290	4,659	312	261	210	Brazil
35,481	1,359	16,361	1,172	10	U	1,380	480	214	52	352	581	1,847	552	380		159	2,362	1,743	323	323	604 8	4,198	74	302	207	441	Canada
928,177	4,304	33,963	2,050	84	22	3,338	2,020	340	130	11,528	2,924	40,460	1,361	656		267	13,597	4,575	1,165	847	801,135	1,009	137	657	944	664	China
12,542 1	1,074	4,930	404	N	4	907	130	76	16	125	146	1,382	199	103		37	898	325	100	92	1,052	219	4	86	63	156	China, Hong Kong SAR
152,662	6,329	36,686	4,726	404	19	6,854	3,868	1,463	208	6,162	6,856	22,111	3,642	1,047	ω	543	25,672	10,616	2,196	1,982	4,657	1,730	208	1,922	1,966	792	European Patent Office
16,533	174	232	42	ъ	N	248	64	80	4	39	37	167	55	4	-	N	528	14,500	13	ъ	170	23	4	102	22	10	France
65,965	1,238	6,056	234	10	N	814	326	28	33	1,384	127	5,338	107	26	_	32	48,154	238	72	20	524	63	13	52	1,044	29	Germany
42,854	1,293	9,824	1,094	19	18	1,549	913	181	81	860	1,286	5,338	619	305	N	12,040	3,174	1,492	295	374	880	354	55	288	244	276	India
8,023	1,139	1,475	200	ъ	17	411	115	39	11	236	369	2,382	110	16	2	67	474	275	83	85	248	64	8	53	41	86	Indonesia
13,802	119														13,683												Iran (Islamic Republic of)
6,273	1,753	2,458	133	ω	-	14	51	24	25	40	32	207	17	1,125		18	52	93	16	17	54	69	σı	ω	8	55	Israel
9,382 32	147	46 2	15	-	-	85	46	#	N	6	9	166 265,959	8,601	-		-	187	28		-	8	4	N	Ω	4	თ	Italy 01
325,989	3,513	25,998	1,731	47	51	2,454	1,038	242	71	5,682	2,239	5,959	757	528		228	6,615	3,452	385	416	2,531	635	88	458	419	452	Japan
7,620 1	1,743	1,823	298	ω	15	423 1	93		6	160	188	1,481	65	8	-	57	375 .	243	40	65	244	49	8	39	61	97	Malaysia
16,135		I								240						84	1,347	600	90	177	264	230	88	126	107	138	Mexico
7,728 210		,600 13	289	N	-	374 1	103	46	8	37 164	123	227 15	66	64												813	New Zealand
210,292 40	2,144 1	I								164,073																210	Republic of Korea
40,308 10	1,959 1			20						472						59	2,120	1,140	212	171	598	160	22	190	207	87	Russian Federation
10,312 7										146														60			Singapore
7,552 7	1,219	,330	395	4	1 6	219	123	112	7	104	210	235	154	82		156	715	390	103	93	336	124	29	88	108	215	South Africa
7,930 5,	89				973	-	N	-	ω	25	-	648	N			10	12	8			37				-	ω	Thailand
097		95 2,		4,766			ω					44									35						Turkey
23,040 578,802	1,751 32,	,778 285,096								101 36,																	
802	32,237	960	13,157	306	155	906	4,928	640	007	36,744	927	691	.764	352	63	,127	193	947	,102	216	040	963	810	513	402	516	United States of America

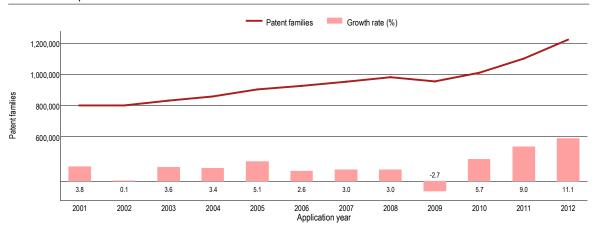


A19 Equivalent patent grants for the top 20 origins, 2014

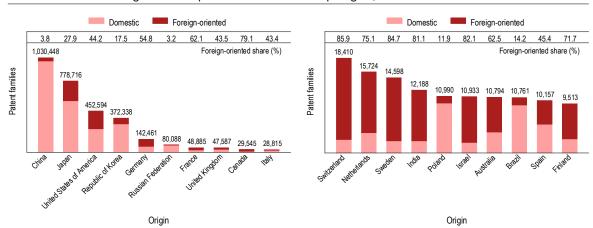
Note: See the glossary for the definition of equivalent grants. Source: WIPO Statistics Database, October 2015.

Patent families

A20 Trend in patent families worldwide



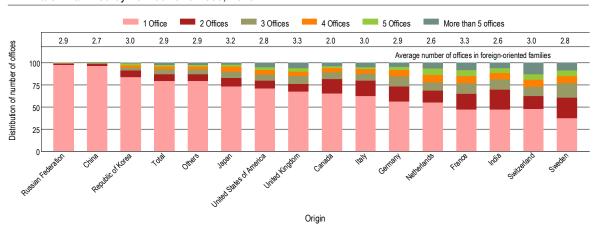
Note: Applicants often file patent applications in multiple jurisdictions, so some inventions are recorded more than once. To take this into account, WIPO has indicators related to patent families, defined as patent applications interlinked by one or more of: priority claim, Patent Cooperation Treaty national phase entry, continuation, continuation-in-part, internal priority and addition or division. Patent families include only those associated with patent applications for inventions and exclude patent families associated with utility model applications. A special subset comprises foreign-oriented patent families include only one 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 USPTO (without previously filing with the patent office of Canada), that applications and applications filed subsequently with the USPTO form a foreign-oriented patent family.



A21 Domestic and foreign-oriented patent families for the top origins, 2010-12

Note: A patent family is 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. A foreign-oriented patent family is defined as a patent family having at least one filing office that is different from the office of the first-named applicant's country of origin. Patent families 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, October 2015.



A22 Patent families by number of offices, 2010-12

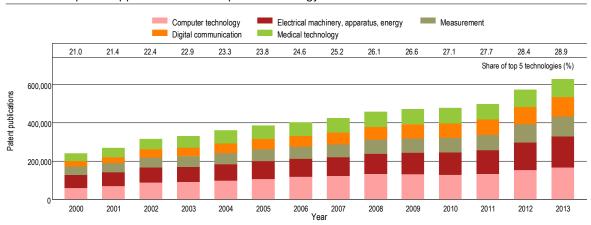
Note: The patent family dataset includes only published patent applications. A patent family is defined as patent applications interlinked by one or more of: priority claim, Patent Cooperation Treaty national phase entry, continuation, continuation-in-part, internal priority and addition or division. This figure shows the distribution of total patent families by the number of offices at which they exist. For example, 97% of families originating from the Russian Federation are single-office families, whereas only 36% of families originating from Sweden are single-office families.

Published patent applications by field of technology

A23 Patent applications worldwide by field of technology

ield of technology			Publication	year		Share (%):	Averag growth (%
	1995	2000	2005	2010	2013	2013	1995-201
lectrical engineering							
Electrical machinery, apparatus, energy	45,911	68,587	91,818	116,569	161,633	7.4	7.
Audio-visual technology	38,639	60,090	89,608	79,392	78,001	3.6	4.
Telecommunications	24,323	45,791	62,057	56,359	50,497	2.3	4
Digital communication	8,575	27,097	53,465	76,031	100,412	4.6	14.
Basic communication processes	10,451	14,150	18,020	16,612	16,420	0.8	2.
Computer technology	35,772	60,418	107,864	129,762	168,722	7.8	9
IT methods for management	1,615	6,101	18,114	23,179	33,659	1.5	18
Semiconductors	25,493	50,143	70,401	77,064	88,344	4.1	7
struments							
Optics	37,278	48,317	70,783	64,176	66,239	3.0	3
Measurement	35,560	43,442	62,183	77,516	103,820	4.8	6
Analysis of biological materials	4,320	7,413	12,529	11,467	12,737	0.6	6
Control	13,405	19,489	26,900	29,023	37,013	1.7	5
Medical technology	27,560	41,100	69,907	78,441	93,357	4.3	7
hemistry							
Organic fine chemistry	28,958	38,505	56,634	54,278	55,425	2.6	3
Biotechnology	13,351	24,472	38,539	39,226	45,485	2.1	7
Pharmaceuticals	21,920	38,470	73,282	71,258	78,473	3.6	7
Macromolecular chemistry, polymers	20,129	23,805	27,610	28,545	37,478	1.7	3
Food chemistry	10,425	14,303	23,054	28,217	42,002	1.9	8
Basic materials chemistry	25,195	30,928	38,703	44,566	60,475	2.8	5
Materials, metallurgy	22,693	24,015	29,329	37,577	52,126	2.4	4
Surface technology, coating	15,475	19,532	27,870	33,122	39,426	1.8	5
Micro-structural and nano-technology	275	490	2,129	3,284	4,059	0.2	16
Chemical engineering	24,525	27,358	33,619	37,229	48,336	2.2	3
Environmental technology	13,794	17,268	21,016	25,865	33,890	1.6	5
lechanical engineering							
Handling	31,633	37,509	43,490	42,922	55,633	2.6	3
Machine tools	26,526	31,633	36,853	43,503	61,249	2.8	4
Engines, pumps, turbines	22,092	29,276	41,537	48,645	62,252	2.9	5
Textile and paper machines	26,173	30,986	38,392	30,852	35,651	1.6	
Other special machines	33,932	39,690	47,116	49,744	65,781	3.0	3
Thermal processes and apparatus	16,281	19,896	24,467	29,607	35,915	1.7	4
Mechanical elements	25,558	34,805	42,989	46,582	59,032	2.7	4
Transport	33,646	46,977	66,392	67,389	88,294	4.1	5
ther fields							
Furniture, games	20,096	29,799	43,120	43,018	52,022	2.4	5
Other consumer goods	17,648	25,050	33,854	32,578	40,906	1.9	4
Civil engineering	36,849	44,372	51,814	56,761	73,092	3.4	3
Unknown	20,817	24,983	21,190	31,734	35,661	1.6	3

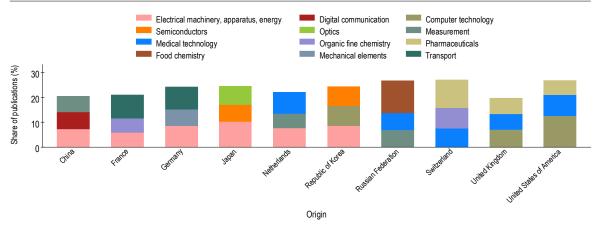
Note: Every patent application is assigned one or more International Patent Classification (IPC) symbols. If a patent application relates to multiple fields of technology, it is divided into equal shares, each representing one field of technology (fractional counting). Applications with no IPC symbol are not considered. Data refer to published patent applications. There is a minimum delay of 18 months between the application date and the publication date. For this reason, 2013 is the latest year with statistics on patents by technology field. The IPC technology concordance table (available at www.wipo.int/ipstats/en) was used to convert IPC symbols into 35 corresponding fields of technology.



A24 Trend in patent applications for the top five technology fields

Note: The IPC technology concordance table (available at www.wipo.int/ipstats/en) was used to convert IPC symbols into 35 corresponding fields of technology. Data refer to published patent applications. The top five fields were selected based on their 2013 totals.

Sources: WIPO Statistics Database and EPO PATSTAT database, October 2015.

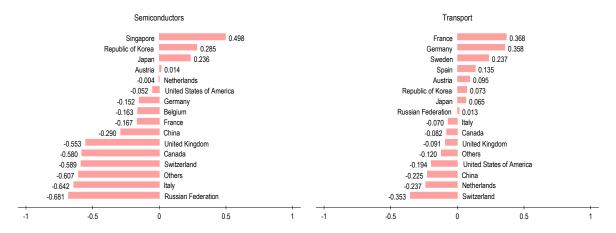


A25 Top three technology fields for the top 10 origins, 2011-13 (% of total)

Note: The IPC technology concordance table (available at www.wipo.int/ipstats/en) was used to convert IPC symbols into 35 corresponding fields of technology. Data refer to published patent applications. The top three technology fields for each origin were selected from the total number of applications covering 2011-13.



A26 Relative specialization index for patent applications for selected fields of technology, 2011-13

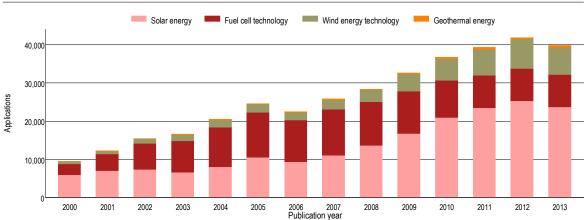


Note: The index corrects for the effects of country size and focuses on the concentration in specific technology fields; it captures whether a country tends to have a lower or a higher propensity to file in certain technology fields. It is calculated using the following formula:

$$RSI = Log(\frac{F_{CT}\sum F_{CT}}{\sum F_{C}\sum F_{T}})$$

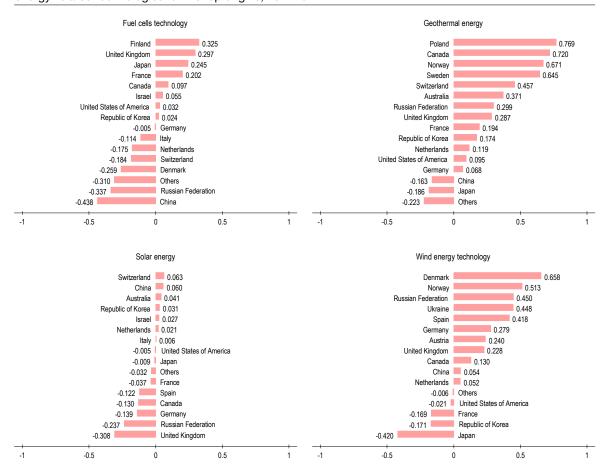
where F_c and F_T denote applications from country *C* and in technological field *T*. A positive value for a technology indicates that a country has a relatively high share of patent filings related to that field of technology. The IPC technology concordance table (available at www.wipo.int/ipstats/en) was used to convert IPC symbols into 35 corresponding fields of technology. Data refer to published patent applications.

Sources: WIPO Statistics Database and EPO PATSTAT database, October 2015.



A27 Trend in patent applications in energy-related technologies

Note: For definitions of the technologies – fuel cells, geothermal, solar and wind energy – see Annex A. The correspondence between IPC symbols and technology fields is not always clear (there is no one-to-one relationship). It is thus 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.

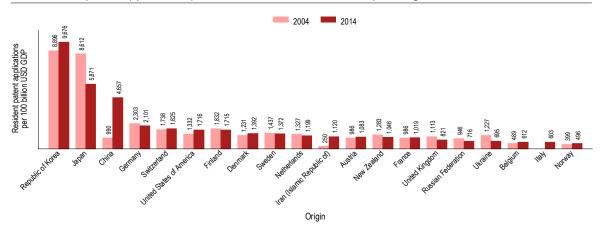


A28 Relative specialization index for patent applications for selected energy-related technologies for the top origins, 2011-13

Note: For definitions of the technologies – fuel cells, geothermal, solar and wind energy – see Annex A. The correspondence between IPC symbols and technology fields is not always clear (there is no one-to-one relationship). It is thus 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. The index corrects for the effects of country size and focuses on the concentration in specific technology fields; it captures whether a given country tends to have a lower or a higher propensity to file in certain technology fields. The index is calculated using the following formula:

$$RSI = Log(\frac{F_{CT}\sum F_{CT}}{\sum F_{C}\sum F_{T}})$$

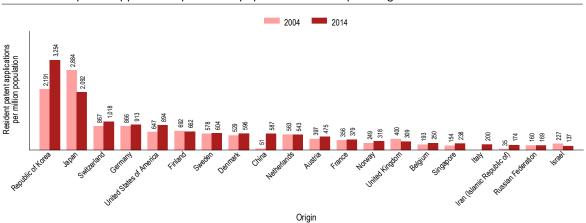
where F_c and F_{τ} denote applications from country C and in technological field T. A positive value for a technology indicates that a country has a relatively high share of patent filings related to that field of technology.



Patent applications in relation to GDP and population

A29 Resident patent applications per 100 billion USD GDP for the top 20 origins

Note: GDP data are in 2011 US PPP dollars. The top 20 origins were included if they had a GDP greater than 20 billion USD PPP and 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, October 2015.

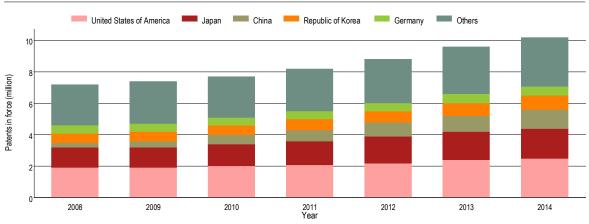


A30 Resident patent applications per million population for the top 20 origins

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, October 2015.

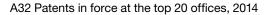
Patents in force

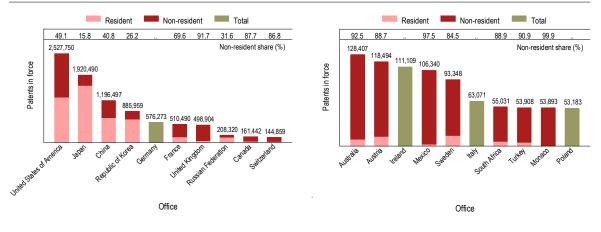


A31 Trend in patents in force worldwide

Note: WIPO estimates cover 109 patent offices.

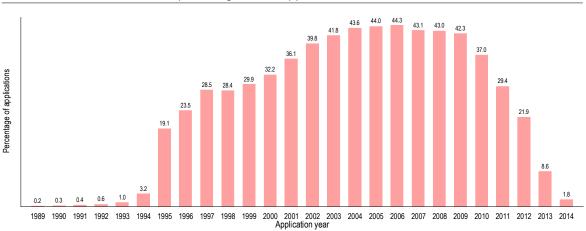
Source: WIPO Statistics Database, October 2015.





.. indicates not available.

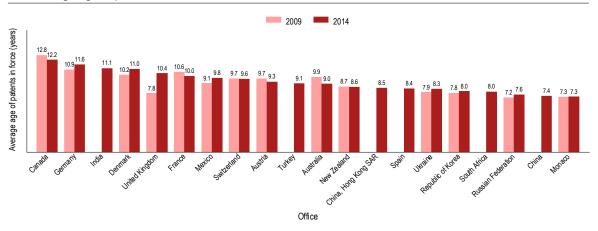
Note: Patent rights last for a limited period – generally 20 years from the date of filing. Patents in force provide information on the volume of patents currently valid, as well as the historical patent life cycle.



A33 Patents in force in 2014 as a percentage of total applications

Note: Percentages are calculated as the number of patent applications filed in year *t* and in force in 2014, divided by the total number of patent applications filed in year *t*. Patent holders must pay maintenance fees 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 2014 as a percentage of total applications in the year of filing. But not all offices provide these data. Data for 71 offices show that around 42% of the applications for which patents were eventually granted remained in force for at least 6 to 12 years after the application date. About 19% of these patents lasted the full 20-year patent term.

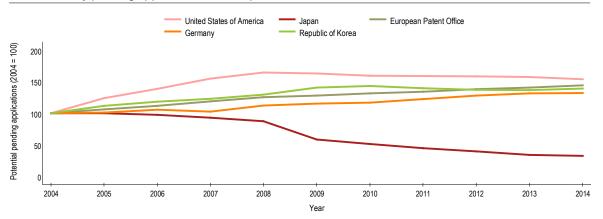
Source: WIPO Statistics Database, October 2015.



A34 Average age of patents in force at selected offices

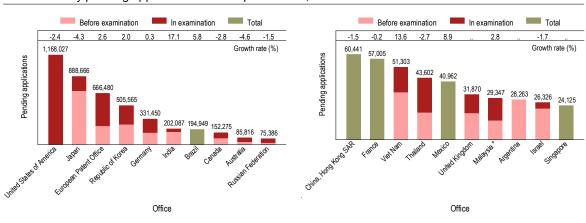
Pending patent applications and pendency time

A35 Potentially pending applications at the top offices



Note: Application processing varies across 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 the examination stage 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). Data for the State Intellectual Property Office of the People's Republic of China, the office that receives the most applications, were unavailable.

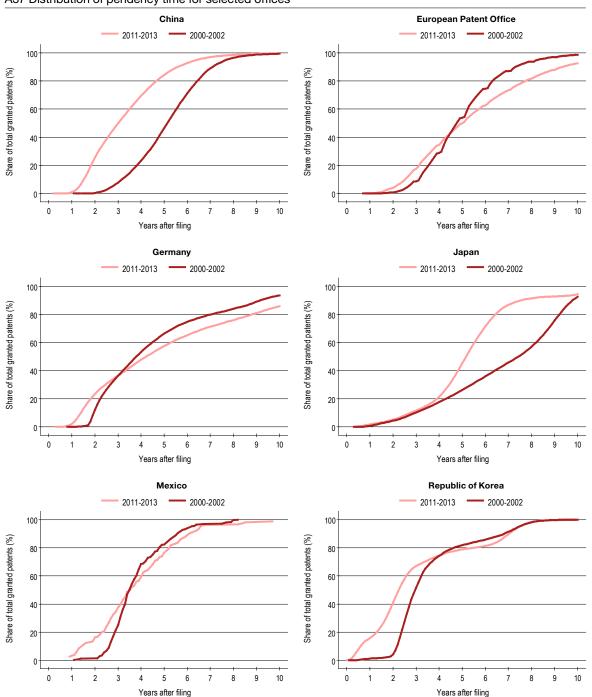
Source: WIPO Statistics Database, October 2015.



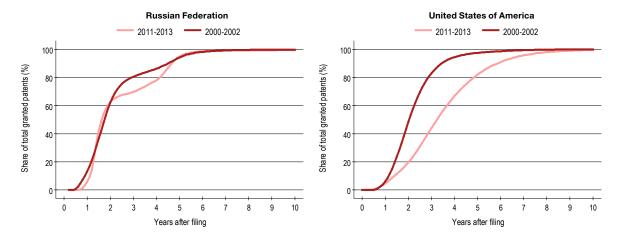
A36 Potentially pending applications at the top 20 offices, 2014

.. indicates not available. * indicates 2013 data.

Note: Potentially pending applications include all patent applications, at any stage in the process, awaiting a final decision by a patent office, including those for which applicants have not filed a request for examination (where applicable). Data for Brazil include both pending patent and utility model applications, and so are not comparable with other offices.



A37 Distribution of pendency time for selected offices



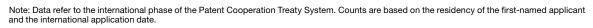
Note: Few offices report pendency time indicators, and there is no standard methodology to calculate such indicators. Here, a proxy for pendency time is constructed using patent application and grant dates from the EPO PATSTAT database. One limitation of this approach is that the pendency time for patents withdrawn, abandoned or refused is not included due to data unavailability. Pendency time can vary among offices for several reasons; for example, an applicant may file an application and then decide to delay the request for examination. So comparing pendency times across offices can be misleading. For a more meaningful comparison, pendency times reported here should be compared across time for individual offices.

Sources: WIPO Statistics Database and EPO PATSTAT database, October 2015.

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



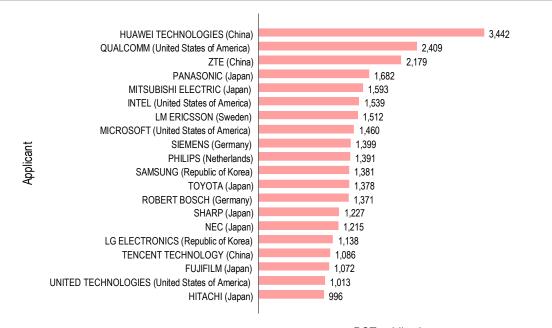
A38 PCT international applications by origin, 2014



Source: WIPO Statistics Database, October 2015.

10,000 - 69,999 1,000 - 9,999 100 - 999 10 - 99 1 - 9 No data

A39 Top PCT applicants, 2014

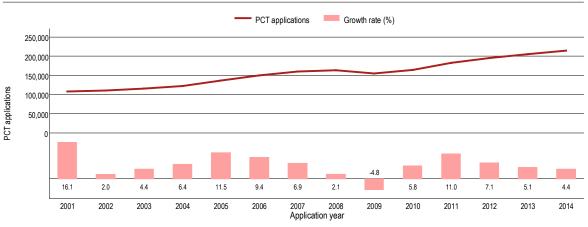


PCT publications

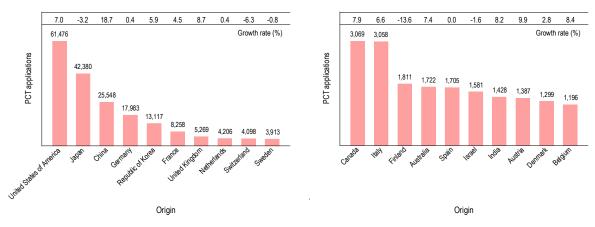
Note: Data refer to the international phase of the Patent Cooperation Treaty System. Due to confidentiality requirements, counts are based on publication date.

Source: WIPO Statistics Database, October 2015.

A40 Trend in PCT applications



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, October 2015.

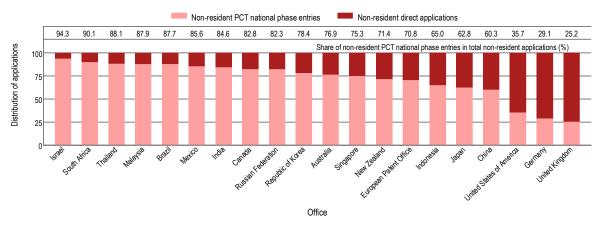


A41 PCT applications for the top 20 origins, 2014

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, October 2015.





Note: A patent office may receive patent applications filed either directly with the office (the "Paris route") or through the Patent Cooperation Treaty System (Patent Cooperation Treaty national phase entries).

Patent Prosecution Highway (PPH)

Note: To avoid unnecessary duplication of work and to improve the efficiency of the examination process, patent offices increasingly seek to use the search and examination results of other offices. Patent prosecution highways have institutionalized such cooperation between offices. A patent prosecution highway is a bilateral agreement between two offices that enables applicants to request a fast-track examination whereby patent examiners can use the work of the other office. Offices that have a patent prosecution highway agreement but did not receive any first or subsequent filings are not reported in the table. For example, Romania is party to a patent prosecution highway requests. A definition of patent prosecution highway statistics is available at www.jpo.go.jp/ppph-portal/statistics.htm. 15.

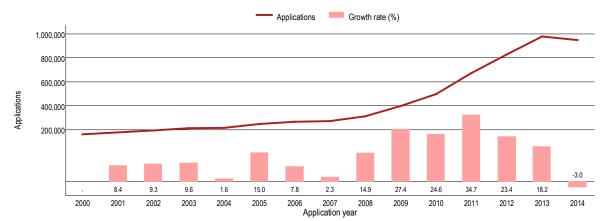
Source: WIPO,
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e JPO, O
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A43
Number
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H requ
ests, 2
014

Total	Others	Iceland	Denmark	Finland	Spain	Sweden	Norway	O Malaysia	ffic Singapore	e Colombia	f La Philippines	ter United Kingdom	E Israel	mir Thailand	Mexico	n Russian Federation	Australia	Germany	European Patent Office	Canada	Republic of Korea	Japan	China	United States of America	
9,790	515	_	_			N		15	6	<u>_</u>	25	16	4	108	50	62	68	459	858	132	1,237	1,212	2,103	2,894	Japan
6,858	321			-	сл	N	13		12	<u>3</u>	14	62	77		128	117	422	157	680	1,425	859	1,088	1,151	293	United States of America
2,432													N								252	362	279	1,537	European Patent Office
2,147												-	4			≓	37	ω	63	37	86	134	285	1,486	Republic of Korea
862									2			N			2	8		9	137	17	72	74		539	China
304				-								N	N			13	ವ	-		92	17	23	4	136	Canada
251							-									ω	13	8		26	Ħ	27	33	129	United Kingdom
234												-	σı							38	12	24		154	Australia
110																N	-			N	13	27	37	28	Denmark
94												N								4	6	15	26	41	Germany
89						ω						-	2				4			8	ω	ъ	œ	55	Russian Federation
87				-													N				7	8	ω	66	Russian Federation Crice Sweden Finland Israel
80				-												4	ω	ω		6	13	7	≓	31	Finland m
40													σ			4	ω			ω		ω		22	Israel a
29																					N	-	თ	21	Austria
16																					4		6	6	Singapore
14	-									-					7	-	-							ω	Spain
4																				-				ω	Mexico
4																								4	Norway
N																								N	Colombia
N			-																					-	Nordic Patent Institute
-																						-			Indonesia
-																				-					Portugal
14 23,																			_	_	2	ы 3	ω	11 7	Others
23,465	837	_	N	4	σı	7	15	15	20	33	39	87	101	108	187	225	588	640	1,738	1,792	2,594	3,014	3,951	7,462	Total

Office of Later Examination

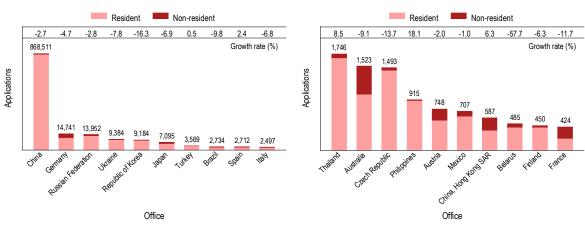
Utility model applications



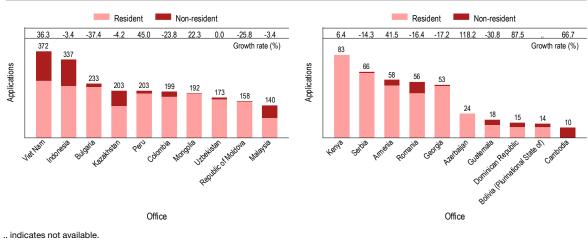
A44 Trend in utility model applications worldwide

Note: WIPO estimates cover 70 patent offices and include direct applications and Patent Cooperation Treaty national phase entries (where applicable).

Source: WIPO Statistics Database, October 2015.

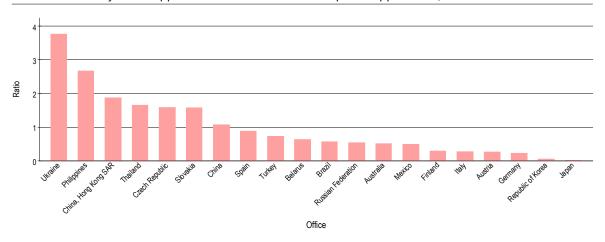


A45 Utility model applications for the top 20 offices, 2014



A46 Utility model applications for offices of selected low- and middle-income countries, 2014

Source: WIPO Statistics Database, October 2015.



A47 Resident utility model applications in relation to resident patent applications, 2014

Note: A ratio greater than one indicates more intensive use of the utility model system than the patent system at an office. Source: WIPO Statistics Database, October 2015.

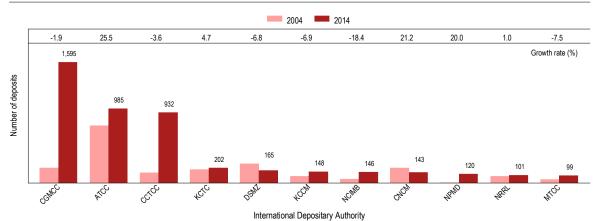
Microorganisms



A48 Trend in microorganism deposits worldwide

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, October 2015.



A49 Deposits at the top international depositary authorities

Note: ATCC is American Type Culture Collection (United States of America), CCTCC is China Center for Type Culture Collection, CGMCC is China General Microbiological Culture Collection Center, CNCM is Collection Nationale de Cultures de Micro-organismes (France), DSMZ is Leibniz-Institut DSMZ (Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH; Germany), KCCM is Korean Culture Center of Microorganismes (Republic of Korea), KCTC is Korean Collection and Gene Bank (India), NCIMB is National Collection of Industrial, Food and Marine Bacteria (United Kingdom), NPMD is National Institute of Technology and Evaluation, Patent Microorganisms Depositary (Japan) and NRRL is Agriculture Research Services Culture Collection (United States of America).

Statistical tables

A50 Patent applications by office and origin, 2014

	Applic	ations by off	a	Equivalent oplications by origin	PCT interna applicati		PCT national phase entry	
Name	Total	Resident	Non- resident	Total (a)	Receiving office	Origin	Office	Origin
African Intellectual Property Organization	578	126	452	n.a.	3	n.a.	149	n.a
African Regional Intellectual Property Organization	835	13	822	n.a.	0	n.a.	788	n.a
Albania	13	10	3	18	1	1	2	4
Algeria	813	94	719	101	7	7	701	3
Andorra				12	n.a.	2		1
Angola (e)				2	n.a.	2		
Antigua and Barbuda	15	0	15		0	0	15	
Argentina	4,682	509	4,173	791	n.a.	33		124
Armenia	123	121	2	156	3	4	2	22
Aruba				2	n.a.	0		1
Australia	25,956	1,988	23,968	11,734	1,622	1,722	19,181	7,104
Austria	2,363	2,092	271	13,786	539	1,387	462	6,508
Azerbaijan	168	168	0	542	0	1	1	78
Bahamas	113	2	111	143	n.a.	20		46
Bahrain	205	6	199	21	0	2	196	3
Bangladesh	293	44	249	59	n.a.	2		8
Barbados (e)	39	1	38	474	n.a.	173	38	364
Belarus	757	652	105	1,781	10	13	81	28
Belgium	1,026	889	137	12,184	71	1,196		6,816
Belize	36	0	36	28	0	4	36	12
Benin (f)				103	0	1		102
Bermuda				188	n.a.	0		77
Bhutan (b,c)	7	3	4	6	n.a.	0		1
Bolivia (Plurinational State of)	303	9	294	14	n.a.	0		· · · ·
Bonaire, Sint Eustatius and Saba				1	n.a.	0		1
Bosnia and Herzegovina	43	41	2	55	5	5	2	6
Botswana	9	4	5	14	0	0	5	1
Brazil	30,342	4,659	25,683	6,712	512	580	22,644	1,338
Brunei Darussalam	117	26	91	39	0	0		2
Bulgaria	234	218	16	467	44	52	6	111
Burkina Faso (f)				85	0	0		85
Cambodia				5	n.a.	0		
Cameroon (f)				435	n.a.	0		426
Canada		4,198		24,705	2,174	3,069	 27,451	9,214
Central African Republic (f)				68	0	0		68
Chad (f)		••		36	0	0	••	34
Chile	3,105	 452	2,653	998	90	141	 2,468	420
China		801,135	127,042	837,817		25,548		
China, Hong Kong SAR	928,177 12,542	192	127,042	1,831	27,088	25,548	79,612	22,893
China, Macao SAR		2	12,350			0		200
Colombia	2,158	260	1,898	56 461	n.a. 15	101	1,819	147
						0		147
Comoros				17 153	n.a. 0	0		153
Congo (f)								
Cook Islands Costa Rica				2 49	n.a. 7	0		1 5
	568	16	552				530	
Côte d'Ivoire (f)				375	n.a.	2		374
Croatia	200	170	30	259	49	54	15	59
Cuba	150	24	126	189	4	4	118	148
Curaçao				17	n.a.	0		11
Cyprus	4	4	0	492	1	46		264
Czech Republic	972	910	62	2,180	166	189	24	531
Democratic People's Republic of Korea				41	4	4		29
Democratic Republic of the Congo					n.a.	1		
Denmark	1,583	1,377	206	12,538	509	1,299	79	7,293

	Applic	ations by off	a	Equivalent oplications by origin	plications PCT international			PCT national phase entry		
Name	Total	Resident	Non- resident	Total (a)	Receiving office	Origin	Office	Origin		
Djibouti	4	0	4	6	n.a.	0				
Dominica				2	n.a.	0				
Dominican Republic	258	13	245	20	3	3	227	3		
Ecuador				26	0	7		20		
Egypt	2,136	752	1,384	883	42	47	1,353	32		
El Salvador	187	0	187	1	2	3	182			
Estonia	50	44	6	278	9	33	1	109		
Ethiopia				19	n.a.	0				
Eurasian Patent Organization	3,573	548	3,025	n.a.	22	n.a.	2,894			
European Patent Office	152,662	75,495	77,167	n.a.	32,904	n.a.	92,627			
Finland	1,545	1,419	126	14,070	1,109	1,811	41	8,004		
France	16,533	14,500	2,033	72,310	3,507	8,258		37,012		
Gabon (f)			,	85	0	0,200		85		
Gambia (h)	••			1	n.a.	0				
			 187	131	1.a.	1	 179			
Georgia				179.506		17,983		16 74,428		
Germany	65,965	48,154	17,811	- ,	1,713 0		6,042	,		
Ghana Crasses				1 251		122		1		
Greece	670	651	19	1,251	68	133		297		
Grenada	17	0	17		0	0	1			
Guatemala	298	10	288	15	1	1	279	1		
Guyana	20	0	20			0				
Haiti	21	2	19	2	n.a.	0				
Honduras (c)	220			8	0	0				
Hungary	619	546	73	1,434	127	158	31	613		
Iceland	64	51	13	302	15	43	15	174		
India	42,854	12,040	30,814	22,445	808	1,428	26,340	3,800		
Indonesia	8,023	702	7,321	771	12	17	4,765	27		
International Bureau				n.a.	10,523	n.a.		n.a.		
Iran (Islamic Republic of)	13,802	13,683	119	13,768	0	35		4		
Iraq				8	n.a.	0		2		
Ireland	321	263	58	4,779	19	438		2,217		
Israel	6,273	1,125	5,148	13,437	1,209	1,580	5,215	6,272		
Italy	9,382	8,601	781	29,288	345	3,058		13,077		
Jamaica	155	33	122	47	n.a.	2		1		
Japan	325,989	265,959	60,030	465,971	41,292	42,380	58,337	124,555		
Jordan	379	40	339	83	n.a.	3		6		
Kazakhstan	2,013	1,742	271	2,453	20	21		18		
Kenya	207	132	75	160	8	9	75	6		
Kiribati (b,c)	18	18	0	18	n.a.	0	10	10		
Kuwait				135	n.a.	1		8		
Kyrgyzstan	139	132	7	173	0	1	7	1		
Lao People's Democratic Republic (e)		••		1	n.a.	2		1		
Latvia	107	103	4	193	12	29		39		
Lebanon				60	n.a.	4		12		
Liberia				2	0	1	•			
Liechtenstein (g)				1,102	n.a.	231		543		
Lithuania	165	123	42	254	17	54	13	78		
Luxembourg	218	128	90	3,137	0	390		1,906		
Madagascar (e)	34	5	29	6	n.a.	2	28	1		
Malaysia	7,620	1,353	6,267	2,661	289	313	5,544	682		
Mali (f)				154	0	0		153		
Malta	13	5	8	475	0	58		296		
Marshall Islands				17	n.a.	1		11		
Mauritius (b,c)	20	2	18	129	n.a.	2		14		
Mexico	16,135	1,246	14,889	2,187	216	284	12,801	501		
Monaco	10	6	4	159	0	33		66		
Mongolia	265	139	126	140	0	0		1		
Montenegro (e)										

	Applic	ations by offi	a	Equivalent pplications PCT international by origin applications			PCT national phase entry		
Name	Total	Resident	Non- resident	Total (a)	Receiving office	Origin	Office	Origin	
Morocco	1,097	355	742	368	58	60	714	ç	
Mozambique (h)				5	n.a.	0		3	
Namibia (h)				8	n.a.	3		1	
Nepal (b,c)	30	18		21	n.a.	0		3	
Netherlands	2,582	2,294	288	37,729	970	4,206	••	22,651	
New Zealand	7,728	1,636	6,092	3,429	274	348	4,412	1,356	
	146		145	2	0	0		-	
Nicaragua		1		154	0	0	140	154	
Niger (f)									
Nigeria (b,c,e)	919	50	869	64	n.a.	4		1	
Norway	1,563	1,106	457	5,872	295	687	416	3,272	
Oman (e)				12	n.a.	0	•	3	
Pakistan	922	146	776	202	n.a.	1		14	
Panama	287	13	274	73	4	17	241	43	
Papua New Guinea (b,c)	79	0	79	1	0	0	76		
Paraguay				5	n.a.	0		2	
Patent Office of the Cooperation Council for the Arab States of the Gulf	2,543	326	2,217	n.a.	n.a.	n.a.		n.a	
Peru	1,287	83	1,204	103	15	16	1,089	16	
Philippines	3,589	334	3,255	607	22	35	3,063	121	
Poland	4,096	3,941	155	6,171	244	348	59	1,059	
Portugal	740	722	18	1,332	83	159	13	420	
Qatar	482	5	477	174	0	18	464	87	
Republic of Korea	210,292	164,073	46,219	230,553	13,137	13,117	37,112	21,176	
Republic of Moldova	139	67	72	79	3	3	62	2	
Romania	1,036	952	84	1,252	31	28	17	135	
Russian Federation	40,308	24,072	16,236	28,512	993	949	13,451	2,023	
Rwanda	12	5	7	6	0	0			
Saint Kitts and Nevis				5	n.a.	2			
Saint Vincent and the Grenadines (e)		0		52	n.a.	1		27	
Samoa	100	1	99	12	n.a.	0			
San Marino				28	0	2		8	
Sao Tome and Principe (e)						0			
Saudi Arabia	787	652	135	4,122	n.a. 0	381	·· ·	1,008	
				446	0	301	•	443	
Senegal (f)			 10	289	12	14		27	
Serbia									
Seychelles				108	0	5		44	
Sierra Leone (h)				3	n.a.	0		3	
Singapore	10,312	1,303	9,009	5,927	632	940	7,123	2,597	
Slovakia	234	211	23	454	47	65	9	116	
Slovenia				509	87	156		255	
South Africa	7,552	802	6,750	2,317	77	313	6,523	1,452	
Spain	3,178	2,953	225	10,924	1,225	1,705	147	4,959	
Sri Lanka (b,c,e)	516	328	188	445	n.a.	21		81	
Sudan	8	0	8	8	0	4	8	2	
Swaziland (h)			•	1,070	n.a.	0		905	
Sweden	2,425	1,984	441	23,854	1,729	3,913	64	15,550	
Switzerland	2,048	1,480	568	43,371	181	4,098	76	24,576	
Syrian Arab Republic				9	0	2		1	
T F Y R of Macedonia (b,c)	46	42	4	49	3	4	••	6	
Tajikistan (b,c)	4	2	2	11	0	0	2		
Thailand	7,930	1,006	6,924	1,405	58	68	6,113	206	
Togo (f)				51	0	0		51	
Trinidad and Tobago	186	2	184	9	0	1	180	2	
Tunisia	542	142	400	176	6	8	394	19	
Turkey	5,097	4,766	331	6,495	545	853	296	1,219	
Turkmenistan				1	0	0			
Turkmenistan Uganda (h)				1 7	0 n.a.	0		. 2	

	Applic	Equivaler application Applications by office by origi			PCT intern applicat		PCT national phase entry	
Name	Total	Resident	Non- resident	Total (a)	Receiving office	Origin	Office	Origin
United Arab Emirates (e)	1,471	24	1,447	387	n.a.	98	1,383	77
United Kingdom	23,040	15,196	7,844	52,605	4,240	5,269	2,330	24,138
United Republic of Tanzania (h)				2	n.a.	0		
United States of America	578,802	285,096	293,706	509,521	61,982	61,476	128,946	176,262
Uruguay	676	37	639	61	n.a.	6		11
Uzbekistan	568	345	223	374	4	6	209	22
Vanuatu				1	n.a.	1		
Venezuela (Bolivarian Republic of)				62	n.a.	1		12
Viet Nam	4,447	487	3,960	561	4	7	3,503	43
Yemen	53	29	24	29	n.a.	0		
Zambia	39	14	25	15	0	0	22	
Zimbabwe				2	0	0		1
Others/Unknown				37,374	n.a.	207		7,715
Total (2014 estimates)	2,680,900	1,800,300	880,600	n.a.	214,316	214,316	595,400	n.a.

(a) Equivalent applications by origin data are incomplete because some offices do not report by origin.
(b) 2013 data are reported for applications by office.
(c) 2013 data are reported for equivalent applications by origin.
(d) The office did not report resident applications so the equivalent applications by origin data may be incomplete.
(e) The International Bureau acts as the receiving office for PCT applications.
(f) The African Intellectual Property Organization (OAPI) acts as the receiving office for PCT applications.
(g) The Swiss Federal Institute of Intellectual Property Organization (ARIPO) acts as the receiving office for PCT applications.
(h) The African Regional Intellectual Property Organization (ARIPO) acts as the receiving office for PCT applications.
(a) indicates not available
(b) The Applicable

Name	Gra		Equivalent grants	In forc by offic	
	Total	Resident	Non-resident	Origin (a)	Tota
Afghanistan				1	
African Intellectual Property Organization	550	105	445	n.a.	
African Regional Intellectual Property Organization	254	0	254	n.a.	2,5
Albania (d)	5	3	2	15	4,3
Algeria	5,372	537	4,835	538	4,3
Andorra				17	
Angola				1	
Antigua and Barbuda				3	
Argentina	1,360	265	1,095	407	
Armenia	108	104	4	121	2
Australia	19,304	1,199	18,105	5,871	128,4
Austria	962	827	135	6,102	118,4
Azerbaijan	97	92	5	221	,
Bahamas	120	1	119	155	1,5
Bahrain				3	1,0
Bangladesh	121	21	100	25	1,0
Barbados	3	0	3	266	
Belarus	1,938	1,556	382	1,938	5,
Belgium	373	327	46	6,122	
Belize	28	0	28	12	
Benin				102	
Bermuda				151	
3hutan (d)					
Bolivia (Plurinational State of)	97	4	93	5	(
Bosnia and Herzegovina	5	1	4	2	Ę
Botswana (b,c)	3	0	3	1	8
Brazil	2,749	374	2,375	1,319	
Brunei Darussalam (d)	71			2	
Bulgaria	72	56	16	140	1,0
Burkina Faso				34	1,0
Cameroon	······································			681	
Canada	23,749	2,984		14,056	161,4
				2	101,-
Central African Republic					
Chad				37	
Chile	1,168	156	1,012	372	9,9
China	233,228	162,680	70,548	176,382	1,196,4
China, Hong Kong SAR	5,932	88	5,844	910	40,8
China, Macao SAR	16	0	16	13	4
Colombia	1,212	112	1,100	180	6,
Congo				17	
Costa Rica	114	1	113	15	ę
Côte d'Ivoire				374	
Croatia	90	6	84	84	4,8
Cuba	94	17	77	133	ę
Curaçao				5	
Cyprus (b,c)	1	0	1	184	
Czech Republic	688	471	217	977	7,
Democratic People's Republic of Korea				3	,
Denmark				4,852	51,3
Dominica				4,032	01,0
				2	
Dominican Republic			61		2
Ecuador				7	
Egypt	415	66	349	130	4,0
El Salvador	77	0	77	1	1,6
Estonia	38	26	12	110	1,0
Ethiopia				1	
Eurasian Patent Organization	1,600	319	1,281	n.a.	
European Patent Office	64,608	33,043	31,565	n.a.	

A51 Patent grants by office and origin, and patents in force, 2014

	6	rants by office		Equivalent		
Name	Total	Resident	Non-resident	grants Origin (a)	Total	
Finland	787	687	100	6,134	47,344	
France	11,889	10,570	1,319	43,266	510,490	
Gabon				43,200	510,490	
				66	1,486	
Germany	15,030	10,634	4,396	83,500	576,273	
Ghana				1		
Greece				511	3,239	
Grenada				1	3,239	
Guatemala				2		
Guinea				36		
		••			1 4 4 2	
Guyana					1,442	
Honduras (c)						
Hungary	376 54	101	275	631	4,695	
Iceland			51	152	567	
India	6,153	720	5,433	5,062 27	49,272	
Indonesia (d)					22,564	
Iran (Islamic Republic of) (d)	3,060	2,880	180	2,923	3,440	
Iraq				2		
Ireland	148	116	32	2,193	111,109	
Israel (d)	3,984	690	3,294	5,947	25,372	
Italy	7,795	6,863	932	18,794	63,071	
Jamaica	28	1	27	8	324	
Japan	227,142	177,750	49,392	297,239	1,920,490	
Jordan	115	15	100	68	377	
Kazakhstan	1,504	1,294	210	1,485	5,184	
Kenya	53	4	49	30		
Kuwait				100		
Kyrgyzstan	100	99	1	133	375	
Latvia	141	134	7	254	6,763	
Lebanon (b,c)	316	67	249	81		
Liberia				2		
Libya				1		
Liechtenstein				509		
Lithuania	120	97	23	140	520	
Luxembourg	152	79	73	1,800	19,360	
Madagascar	24	4	20	5	390	
Malaysia	2,705	344	2,361	856	21,568	
Mali				19		
Malta	4	1	3	153	490	
Mauritius (b,c)	5	0	5	72		
Mexico	9,819	305	9,514	784	106,340	
Monaco	5	5	0	85	53,893	
Mongolia (d)	216	103	113	112	869	
Montenegro	14	11	3	11	1,933	
Morocco (b,c)	937	145	792	158		
Myanmar				1		
Namibia				8		
Nepal (b,c)	1	1	0	1	72	
Netherlands	1,722	1,452	270	16,721	12,518	
New Zealand	4,677	389	4,288	1,175	28,854	
Nicaragua	62	0	62	1	387	
Niger				85		
Nigeria (b,c)	645	32	613	44		
Norway	1,413	460	953	2,836	21,882	
Oman				2		
Pakistan	185	172	13	184		
Panama	166	5	161	45	1,725	
Papua New Guinea (b,c,d)	57	0	57		42	
Paraguay						

	Gra	ants by office		Equivalent grants	In force by office
Name	Total	Resident	Non-resident	Origin (a)	Total
Patent Office of the Cooperation Council for the Arab States of the Gulf	503	31	472	n.a.	16,586
Peru	332	7	325	16	2,651
Philippines	2,159	27	2,132	94	
Poland	2,852	2,490	362	3,094	53,183
Portugal	97	89	8	294	35,561
Qatar				11	
Republic of Korea	129,786	97,294	32,492	127,409	885,959
Republic of Moldova	54	49	5	100	384
Romania	356	340	16	436	17,268
Russian Federation	33,950	23,065	10,885	26,063	208,320
Rwanda					135
Saint Kitts and Nevis				6	
Saint Vincent and the Grenadines (d)				21	28
Samoa				4	96
San Marino				22	
Saudi Arabia	561	49	512	709	2,338
Senegal				324	
Serbia	105	62	43	108	2,964
Seychelles				45	_,
Singapore	5,538	402	5,136	2,477	47,422
Slovakia	94	58	36	138	2,357
Slovenia				274	2,007
South Africa			4,620	1,334	55,031
Spain	3,235	2,969	266	6,130	37,581
Sri Lanka (b,c)	236	2,505	165	76	57,501
Sudan	8	0	8		
Swaziland (d)					
Sweden				11,846	93,348
Switzerland	677	436	241	21,042	144,859
				21,042	144,639
Syrian Arab Republic				1	
T F Y R of Macedonia (b) Tajikistan (b,c,d)	378			8	256
Thailand	1,286	73	1,213	198	11,623
Togo				51	
Trinidad and Tobago	39	0	39	10	
Tunisia (c,d)	552			116	3,685
Turkey	1,276	1,170	106	1,746	53,908
Uganda	1	1	0	1	26
Ukraine	3,319	1,701	1,618	2,067	26,183
United Arab Emirates	110	0	110	124	561
United Kingdom	4,986	2,315	2,671	21,203	498,904
United States of America	300,678	144,621	156,057	255,934	2,527,750
Uruguay	31	4	27	602	646
Uzbekistan	179	106	73	120	1,141
Venezuela (Bolivarian Republic of)				51	
Viet Nam	1,397	36	1,361	60	14,593
Yemen	20	8	12	8	20
Zambia	23	6	17	7	4,161
Zimbabwe				1	
Others/Unknown				20,484	
Total (2014 estimates)	1,176,600	707,500	469,100	n.a.	10,200,000

(a) Equivalent grants by origin data are incomplete because some offices do not report by origin. (b) 2013 data are reported for grants by office. (c) 2013 data are reported for equivalent grants by origin. (d) 2013 data are reported for patents in force. n.a. is not applicable ... indicates not available

	Ар	plications by	/ office	Equivalent applications by origin	Grants by office			
Name	Total	Resident	Non-resident	Total (a)	Total	Resident	Non-resident	
African Regional Intellectual Property Organization (b)	7	6	1	n.a.				
Albania	1	1	0	1				
Andorra				3			-	
Argentina	172	157	15	164	47	41	6	
Armenia	58	53	5	60	40	39	1	
Australia	1,523	1,011	512	1,110	1,501	949	552	
Austria	748	550	198	989	488	331	157	
Azerbaijan	24	24	0	26	15	10	5	
Bahamas				3				
Bangladesh				1				
Barbados				1				
Belarus	485	418	67	535	558	463	95	
Belgium				51				
Belize (b,c)	6	0	6	7				
Bermuda				3				
Bolivia (Plurinational State of)	14	11	3	11				
Bosnia and Herzegovina				1				
Botswana	1	1	0	1				
Brazil	2,734	2,638	96	2,674	367	352	15	
Brunei Darussalam				2				
Bulgaria	233	220	13	240	180	175	5	
Cambodia	10	0	10					
Canada				85			-	
Chile (b,c,d)	104	88	16	129	30	22	8	
China	868,511	861,053	7,458	862,489	707,883	699,971	7,912	
China, Hong Kong SAR	587	360	227	430	522	284	238	
China, Macao SAR	28	5	23	34	1	0	1	
Colombia	199	178	21	180	99	74	25	
Costa Rica	9	5	4	6	3	1	2	
Croatia	91	81	10	82	72	67	5	
Cuba	5	5	0	5				
Cyprus				103				
Czech Republic	1,493	1,441	52	1,588	1,388	1,332	56	
Democratic People's Republic of Korea				1				
Denmark	185	146	39	235	159	126	33	
Dominica				1				
Dominican Republic	15	11	4	11	3	3	C	
El Salvador	8	7	1	7	7	6	1	
Estonia	82	70	12	74	77	67	10	
Ethiopia				1				
Finland	450	417	33	621	387	356	31	
France	424	209	215	601				
Gambia (b,c,d)	3	3	0	3	3	3	C	
Georgia	53	52	1	54	46	45	1	
Germany	14,741	10,947	3,794	12,118	13,082	9,353	3,729	
Greece	33	27	6		41	36	5	
Guatemala	18	13	5		5	3	2	
Honduras	5				8			
Hungary	275	249	26	274	147	130	17	
India								
Indonesia	337	224	113		54	42	12	
Ireland								
Israel								
Italy (b,c,d)	2,497	2,348	149		2,495	2,322	173	
Japan	7,095	5,429	1,666	8,738	7,017	5,322	1,695	
Kazakhstan	203	139	64		165	92	73	
Kenya	83	83	0		31	31	0	
		8	2		11	11	0	

A52 Utility model applications and grants by office and origin, 2014

		Applications by office			Grants by office			
Name	Total	Resident	Non-resident	Total (a)	Total	Resident	Non-resident	
Liechtenstein				20				
Lithuania				1				
Luxembourg				46				
Malaysia	140	86	54	121	57	37	20	
Malta				4				
Marshall Islands				1				
Mexico	707	612	95	625	178	155	23	
Monaco				1				
Mongolia	192	190	2	190	125	124		
Netherlands				175				
New Zealand				45				
Nicaragua (b,c,d)	2	0	2	1	1	0		
Norway				25				
Panama	13	6	7	7	5	2	3	
Peru	203	192	11	195	45	34	11	
Philippines	915	893	22	902	690	660	30	
Poland (b,c,d)	1,053	986	67	1,033	654	621	33	
Portugal	112	90	22	95	68	50	18	
Republic of Korea	9,184	8,754	430	9,176	4,955	4,682	273	
Republic of Moldova	158	156	2		134	130	4	
Romania	56	45	11	46	30	25	Ę	
Russian Federation	13,952	13,000	952	13,325	13,080	12,267	813	
Rwanda	1	1	0					
Samoa				10				
San Marino				-				
Saudi Arabia								
Senegal								
Serbia							2	
Seychelles								
Singapore				50	<u>.</u>			
Slovakia					 364		8.	
Slovakia								
South Africa								
Spain	2,712	2,611	101	2,849	2,421	2,310	11	
Sweden								
Switzerland								
Syrian Arab Republic								
Tajikistan (b,c,d)	69	66	3		58	55	3	
Thailand	1,746	1,666	80	1,680	828	797	3	
Trinidad and Tobago (b,c,d)	1	1	0	1	2	1		
Turkey	3,569	3,477	92	3,517	2,551	2,475	76	
Uganda					1	1	(
Ukraine	9,384	9,244	140		9,196	9,015	18	
United Arab Emirates	1	0	1	9				
United Kingdom				185				
United States of America				3,129				
Uruguay	31	24	7	29	16	15		
Uzbekistan	173	167	6	167	115	111	4	
Venezuela (Bolivarian Republic of)				3				
Viet Nam	372	246	126	246	86	72	14	
Yemen	2	2	0	2	1	1	(
Zimbabwe				. 1				
Others/Unknown								

(a) Equivalent applications by origin data are incomplete because some offices do not report by origin.
(b) 2013 data are reported for applications by office.
(c) 2013 data are reported for equivalent applications by origin.
(d) 2013 data are reported for grants by office.
n.a. is not applicable
... indicates not available